Locations
Florham Campus (Madison, NJ)
Metropolitan Campus (Teaneck, NJ)
Vancouver Campus (British Columbia, Canada)
Wroxton College (Wroxton, England)

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

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to comply with such rules and regulations is subject to their application being rejected, offer of acceptance being rescinded, enrollment being canceled or other appropriate disciplinary actions.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

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

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

Campus Postal Addresses & Contact Information
Florham Campus
285 Madison Avenue
Madison, NJ 07940-1099
Phone: 973-443-8500

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

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

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

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

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

Undergraduate Admissions & Financial Aid
Office Hours & Locations

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

Financial Aid
Hennessy Hall, Courtyard
Phone: 973-443-8700

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

Financial Aid
Kron Building
Phone: 201-692-2363

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

Interested in applying?
You can apply online at fdu.edu/apply.
To request a paper application, call 1-800-338-8805 or email admissions@fdu.edu.

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

University Website
www.fdu.edu
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- **Classes Begin:** August 27
- **Labor Day Holiday (Mon.):** September 3
- **Midterm Progress Reporting:** September 10
- **Final Drop/Add Changes (Mon.):** September 10

#### Reading/Snow Makeup Days:
- **October 1 (Mon.–Tue.)**
- **October 15–16 (Mon.–Fri.)**

#### Semesters:
- **Semester Ends, 11 p.m. (Wed.):** December 19

### Winter Session 2019
- **Classes Begin:** January 2
- **Classes End:** January 17

### Spring Semester 2019
- **Registration/Academic Counseling and Advising:** January 2–18
- **Martin Luther King Jr. Day Holiday (Mon.):** January 21
- **Classes Begin:** January 22
- **Last Day for New Registrations and Final Drop/Add Changes (Mon.):** February 4
- **Midterm Progress Reporting:** February 25
- **Opens (Mon.):** March 11–16
- **Spring Recess: Online Registration for Summer 2019 Sessions:** March 15
- **Classes Resume, 8 a.m. (Mon.):** March 18
- **Midterm Progress Reporting:** March 23
- **Last Day for Student Withdrawal from Classes (Fri.):** April 5
- **Priority Registration for Fall Semester 2019:** April 8–19
- **Last Day of Classes, Spring Semester (Mon.):** May 6
- **Reading/Snow Makeup Days (Tue.–Wed.):** May 7–8
- **Final Examinations:** May 9–15

#### Dates:
- **Grades due no later than 5 p.m. on the third day after exam is administered:** May 14
- **Semester Ends, 11 p.m. (Wed.):** May 15
- **University Commencement (Tue.):** May 21

### Summer Sessions 2019
- **Summer Session I 2019:**
  - **Classes Begin:** May 20
  - **Memorial Day Holiday (Mon.):** May 27
  - **Memorial Day Holiday Makeup Day (Fri.):** May 31
  - **Classes End, 11 p.m. (Sat.):** June 29

#### Dates:
- **Midterm Progress Reporting:** October 30
- **Final Drop/Add Changes (Mon.):** December 11

### Fall 2019
- **Registration/Academic Counseling and Advising:** August 12–23
- **Classes Begin:** August 26
- **Labor Day Holiday (Mon.):** September 2
- **Last Day for New Registrations and Final Drop/Add Changes (Mon.):** September 9
- **Midterm Progress Reporting:** September 30
- **Opens (Mon.):** October 14–15
- **Fall Recess (Mon.–Tue.):** October 22
- **Midterm Progress Reporting:** November 1
- **Opens (Tues.–Wed.):** November 4–19
- **Classes Resume, 8 a.m. (Mon.):** December 2
- **Last Day of Classes, Fall Semester (Mon.):** December 9
- **Reading/Snow Makeup Days (Tues.–Wed.):** December 10–11
- **Final Examinations (Tues.–Wed.):** December 12–18
- **Grades due no later than 5 p.m. on the third day after exam is administered:** December 18

#### Dates:
- **Semester Ends, 11 p.m. (Wed.):** January 2
- **Classes End, 11 p.m. (Fri.):** January 17

### Winter Session 2020
- **Classes Begin:** January 2
- **Classes End:** January 17

### Spring Semester 2020
- **Registration/Academic Counseling and Advising:** January 2–17
- **Martin Luther King Jr. Day Holiday (Mon.):** January 20
- **Classes Begin:** January 21
- **Last Day for New Registrations and Final Drop/Add Changes (Mon.):** February 3
- **Midterm Progress Reporting:** February 24
- **Opens (Mon.):** March 9–14
- **Spring Recess:** March 15
- **Classes Resume, 8 a.m. (Mon.):** March 16
- **Midterm Progress Reporting:** March 21
- **Opens (Mon.):** April 3
- **Last Day for Student Withdrawal from Classes (Fri.):** April 6–17
- **Midterm Progress Reporting:** May 4
- **Opens (Mon.):** May 5–6
- **Final Examinations:** May 7–13
- **Classes End, 11 p.m. (Sat.):** May 13
- **University Commencement:** TBD

### Summer Sessions 2020
- **Summer Session I 2020:**
  - **Classes Begin:** May 18
  - **Memorial Day Holiday (Mon.):** May 25
  - **Memorial Day Holiday (Fri.):** May 29
  - **Classes End, 11 p.m. (Sat.):** June 27

#### Dates:
- **Midterm Progress Reporting:** June 8
- **Opens (Mon.):** July 4
- **Last Day of Classes, Spring Semester (Mon.):** July 10
- **Classes End, 11 p.m. (Sat.):** July 18

### Summer Session II 2020
- **Classes Begin:** June 29
- **Independence Day Holiday (Sat.):** July 4
- **Independence Day Holiday Makeup Day (Fri.):** July 10
- **Classes End, 11 p.m. (Sat.):** August 8

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

---

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

**Fall 2018**

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

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

**Spring 2019**

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

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

**Summer I 2019**

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
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<tbody>
<tr>
<td>Registration/Academic Counseling and Advising</td>
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<td>April 14</td>
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<td>Priority Registration for Fall Semester 2019</td>
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<td>Last Day for New Registrations and Final Drop/Add Changes</td>
<td>April 24</td>
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<td>University Commencement (Tue.)</td>
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<td>Memorial Day Holiday (Mon.)</td>
<td>May 27</td>
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<td>May 31</td>
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<td>Last Day for Student Withdrawal from Classes (Fri.)</td>
<td>June 14</td>
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<tr>
<td>Independence Day Holiday (Thu.)</td>
<td>July 4</td>
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<tr>
<td>Independence Day Holiday Makeup Day (Fri.)</td>
<td>July 5</td>
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<tr>
<td>Last Day of Classes, Summer I Ends 11 p.m. (Sat.)</td>
<td>August 10</td>
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For fall 2019 through summer 2020 see Academic Calendar page 4.
The University

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

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

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

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

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

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

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

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

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

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

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

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

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

The Silberman College of Business is accredited by AACSB International - The Association to Advance Collegiate Schools of Business. The college offers undergraduate and graduate programs in business education at both the University’s Florham Campus and Metropolitan Campus New Jersey locations and at the Vancouver Campus, British Columbia, Canada.

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

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

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

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

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

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

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

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

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

*3624 Market Street, Philadelphia, Pennsylvania 19104-2680, telephone: (267) 284-5000.
1957 — The Literary Review is founded as an international journal of contemporary writing.

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

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

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

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

1970 — The FDU Press is established and will print more than 1,500 scholarly books.

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

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

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

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

1983 — Walter T. Savage is appointed acting president.

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

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

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

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

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

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

1994 — Dickinson Hall reopens at the Metropolitan Campus.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2013 — Sheldon Drucker is appointed president of the University.

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

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

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

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

2018 — The new School of the Arts is launched.

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

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

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

Campuses

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

Florham Campus

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

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

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

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

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

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

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

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

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

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

Metropolitan Campus

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

Undergraduate studies emphasize practical, career-oriented and hands-on experience (such as cooperative education and internships). Undergraduates have access to the resources of a major graduate center, and nearby New York City is an integral part of the overall learning experience. Accelerated bachelor’s/master’s options are among its many professional programs.

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

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

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

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

Wroxton College

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

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

Originally constructed as an Augustinian priory in 1217, Wroxton Abbey has accommodated several British monarchs and American statespeople such as Theodore Roosevelt. It now houses the College’s classrooms and seminar rooms, the library and the fully modernized student-lodging facilities.
Wroxton College is a unique experience both culturally and academically for students seeking to extend their horizons. Students have come to Wroxton from more than 250 American colleges and universities to participate in an academic program offered by a British faculty and visiting British scholars.

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

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

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

**Vancouver Campus**

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

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

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

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

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

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

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

**Accreditation**

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

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

*3624 Market Street, Philadelphia, Pennsylvania 19104-2680; telephone: (267) 284-5000.
**ABET, http://www.abet.org

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

Graduate Study

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

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

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

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

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

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

Official University Photography

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

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

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

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

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

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

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

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

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

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

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

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

Admission Requirements
1. A candidate must have graduated from an accredited secondary school or have received his or her General Educational Development (GED) Certificate.
2. FDU recommends that a student complete a minimum of 16 academic (college preparatory) units in high school with a distribution as follows:
   - English: 4
   - College Preparatory Mathematics: 3
   - History: 2
   - Laboratory Sciences: 2 (required), 3 (recommended)
   - Foreign Language: 1 (required), 2 (recommended)
   - Electives: 4 (3 should be academic)

In addition to the above requirements, majors in:

Science or Engineering — Applicants for majors in biochemistry, chemistry, engineering, mathematics, computer science or science should have 3 units of college preparatory mathematics (including trigonometry) and 2 units of laboratory science. Applicants for majors in engineering technology should have 3 units of college preparatory mathematics (including algebra and plane geometry) and 2 units of science.
3. Standardized test scores are required in some instances. Contact the Office of Admissions for more information.

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

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

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

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

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

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

A maximum of 64 credits will be transferred from two-year associate degree programs, and a maximum of 90 credits will be transferred from four-year baccalaureate degree programs. No more than 90
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credits may be transferred in total from any previous undergraduate experience. Students with credits earned beyond their associate degree in a four-year baccalaureate degree program may have courses with grades of A through C evaluated for transfer. Grades below C (C- through F) will not be accepted for transfer.

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

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

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

Articulation Agreements

Fairleigh Dickinson University has articulation agreements with a number of New Jersey community colleges. Prospective community college transfer students are encouraged to contact the transfer counselor at their community college for more information or call the FDU Admissions Office at (800) 538-8803.

Grades and Grade Points

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

Residency Requirement/Time Limit on Degree Completion

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

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

Undergraduate Adult Admissions

Adult students are 23 years of age or older, who are interested in obtaining a bachelor’s or associate degree, a credit-based certificate or who wish to take courses for personal enrichment or professional development.

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

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

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

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

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

ies, Certified Financial Planning and Professional Human Resources.

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

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

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

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

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

Office of Undergraduate Adult and Part-time Admissions

Fairleigh Dickinson University

1000 River Road, H-DH5-10

Teaneck, New Jersey 07666

(201) 692-2551

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

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

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

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

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

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

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

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

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

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

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

Students who are 25 years of age or older; or a veteran, who has graduated high school and served in any of the armed forces of the United States military for two years or more prior to their intended term of enrollment, are not required to provide an SAT or ACT score. The University, however, reserves the right to request additional information and supporting documents and to require further assessments, including an interview or an internal assessment. Contact the Office of Admissions. A candidate for admission can make a personal appointment with an admissions counselor in order to discuss admission eligibility and choice of educational program. Call the Office of Undergraduate Adult and Part-time Admissions at (201) 692-2551.

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

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

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

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

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

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

Inquiries regarding admission should be sent to:
Office of International Admissions
1000 River Road, T-KB1-01
Teaneck, New Jersey 07666, U.S.A.
Telephone: +1-201-692-2205
Fax: +1-201-692-2560
Email: global@fdu.edu

Applicants may apply online at www.fdu.edu/apply.

Admission

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

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

When to File an Application

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

Admission Requirements

International students must submit:
1. To be considered for freshman admission, students must submit a completed Application for Undergraduate Admission, a $50.00 nonrefundable application fee and an official high school transcript. Standardized test scores, either Scholastic Aptitude Test (SAT) or American College Testing (ACT), are required in some instances (contact the Admissions Office for more information). While recommendation letters and a personal essay are not required as part of the admission process, the University reserves the right to request either before making a final decision on an applicant.
2. Applications for admission may be submitted for the fall semester starting in August, and the spring semester starting in September. Applications are processed on a rolling basis until the class is filled. Fairleigh Dickinson University also offers an early decision option with an application filing deadline of November 15.
3. Proof of English proficiency:
   • Students whose native language is not English are required to submit at least one official test report with a minimum score of:
     — TOEFL (Test of English as a Foreign Language): IBT-79, CBT-213 or PBT-550
     or
     — IELTS (International English Language Testing System): overall band 6.0
     or
     — SAT Evidence-based Reading and Writing: 480 or higher
     or
     — Pearsons: PTE 53.
   • Undergraduate applicants who meet the University’s academic requirements for the major of their choice and who have an intermediate level of English proficiency may be considered for admission to the Pre-University Program (PUP). The English level required for PUP admission is determined by the following:
     — TOEFL IBT score from 60–78
     — IELTS overall band score of 5.5
     — An ELS Language Center Certificate of Completion of Level 110 of the English for Academic Purposes

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

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

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

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

5. All enrolling students are required to provide a course-by-course evaluation of
all academic course work completed outside the United States issued by an evaluation service accredited by NACES, The National Association of Credential Evaluation Services (see www.naces.org).

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

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

Students admitted under this status generally fall into the following categories:
1. Students who need additional courses to satisfy admissions requirements to professional and graduate schools.
2. Students who wish to take courses for professional development and/or personal enrichment.

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

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

Credit for Prior Learning
In addition to previous college credit accepted in transfer, the University provides three distinct options that allow qualified students to receive academic credit for “experiential learning”:
- Credit by examination;
- Credit for professional study and certification; and
- Credit for experiential learning through portfolio assessment.

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

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

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

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

Acceptance of all proficiency tests is contingent upon the following provisions:
1. Up to 35 credits may be awarded toward some baccalaureate degrees;
2. All proficiency examinations must be taken before completion of the student’s first 64 credits and applied toward those 64 credits only. Exceptions can be made for students transferring in with 32 credits or more;
3. If the proficiency examination duplicates previous course work, credits will not be awarded. Credits earned through the proficiency examinations are not included in the cumulative grade point ratio.
4. Transfer students may apply proficiency credits earned at institutions other than FDU to an FDU degree program. Official documentation is requested at the time of admission.
5. Failed courses taken at FDU cannot be replaced through proficiency examinations.

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

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

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

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

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

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

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

1. Approval by an academic adviser for placement of credits to be reviewed via portfolio assessment (Application for Approval). For further information, students should contact their major adviser or the Academic Advisement Center at the Metropolitan Campus at (201) 692-2339 or the Florham Campus at (973) 443-8753.

2. Participation in a Portfolio Workshop.

3. Submission of a completed portfolio based on current policies and procedures.

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

Readmission

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

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

Readmitted students will be governed by the Undergraduate Studies Bulletin issued for the year of readmission and will be subject to the current admission requirements. Readmission is determined by the department, school or college of the major area of study based on last attendance.

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

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

Summer Sessions

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

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

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

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

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

Policy on Basic Skills Testing and Placement

Florham Campus

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

Metropolitan Campus

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

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

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

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

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

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

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

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

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

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

University Funded Programs

University Scholarships
Fairleigh Dickinson University funds an academic-based scholarship program. The University offers a variety of academic scholarships, and all undergraduate applicants are automatically reviewed for scholarship along with their application for admission.

Merit Scholarships
Merit scholarships range from $10,000.00 to $32,000.00 and are awarded for a maximum of four years. Students must maintain the appropriate grade point ratio in order to retain their merit scholarship.

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

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

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

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

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

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

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

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

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

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

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

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

Federally Funded Programs

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

Federal Supplemental Education Opportunity Grant (FSEOG)
Undergraduate students must be “Pell eligible” to receive an FSEOG award. In addition, a student must be registered full time.

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

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

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

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

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

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

This program will provide the following benefits for eligible individuals:

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

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

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

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

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

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

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

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

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

For more information on the MGIB-SR program see www.benefits.va.gov/gibill/docs/pamphlets/ch1606_pamphlet.pdf.

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

The VA Vocational Rehabilitation Bill, under Chapter 31, pays the cost of tuition, fees, books, equipment and supplies. The veteran also receives a monthly subsistence allowance. Eligible veterans must apply online at the Vocational Rehabilitation and Employment Programs website www.benefits.va.gov/vorehab/. Veterans may be entitled to receive up to 36 months of educational benefits.

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

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

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

Federal Loan Programs

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

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

The Federal Direct Unsubsidized Loan does not require that a student demonstrate financial need. Interest on the loan begins to accrue upon disbursement. Borrowers may choose not to pay interest while in school and during grace periods, periods of deferment or forbearance, but interest will accrue and be added to the principal amount of the loan.
Both the Direct Subsidized and Direct Unsubsidized Loan programs offer a six-month grace period after a student graduates or drops below half-time enrollment. For new Direct Subsidized Loans made from July 1, 2012, to June 30, 2014, interest will accrue during the grace period and will be capitalized if unpaid by the borrower.

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

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

**First Year Undergraduate Annual Loan**
Dependent Students — $5,500; no more than $3,500 in Direct Subsidized Loans
Independent Students and Dependent Students whose parents are unable to obtain PLUS loans — $9,500; no more than $3,500 in Direct Subsidized Loans

**Second Year Undergraduate Annual Loan**
Dependent Students — $7,500; no more than $4,500 in Direct Subsidized Loans
Independent Students and Dependent Students whose parents are unable to obtain PLUS loans — $10,500; no more than $4,500 in Direct Subsidized Loans

**Third Year and Beyond Undergraduate Annual Loan**
Dependent Students — $7,500; no more than $3,500 in Direct Subsidized Loans
Independent Students and Dependent Students whose parents are unable to obtain PLUS loans — $12,500; no more than $3,500 in Direct Subsidized Loans

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

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

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

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

**New Jersey State (NJS) Scholarship Programs**

**Governor’s Urban Scholarship Program**
The Governor’s Urban Scholarship Program provides a merit award to high-achieving students who reside in New Jersey’s 14 designated high-need communities. Annual awards of up to $1,000 are available for qualified students. Students must rank within the top five percent of their class and have a minimum 3.0 grade point average at the end of their junior year of high school and meet other basic eligibility and renewal criteria.

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

Need-based New Jersey State (NJS) Grant Programs

**NJS TAG Award**

To establish eligibility for a Tuition Aid Grant (TAG), a student must be a resident of New Jersey for a minimum of 12 months prior to receipt of the TAG grant. In addition, he/she must be enrolled full-time at a four-year New Jersey college or university. The TAG award is determined upon the need of the student as supplied by the information on the FAFSA. The TAG award is valued up to $12,958.00 for the 2018–2019 award year per academic year (traditional fall and spring terms only).

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

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

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

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

**NJCLASS Loan Program**

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

Privately Funded Scholarship

**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 in the QUEST 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.

Additional Pertinent Aid Information

**Terms and Conditions of Financial Aid Awards**

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

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

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

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

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

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

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

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

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

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

Renewal of Financial Aid

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

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

1. File the FAFSA application no later than February 15 (including the correct Federal School Code: 002607 for the Metropolitan Campus (Teaneck, New Jersey) and 004738 for the Florham Campus (Madison, New Jersey);
2. Complete the verification process (if selected by the U.S. Department of Education — students will be notified by the Office of Financial Aid of the required documents);
3. Maintain Satisfactory Academic Progress as mandated by the U.S. Department of Education.

Satisfactory Academic Progress

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

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

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

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

Repeated Courses

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

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

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

Tuition Payment Options

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

Installment Plan

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

Refunds and Return of Title IV Calculations

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

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

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

Registration: Fall, Spring, Summer and Winter

New students are notified concerning registration by the Admissions Office.

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

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

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

Tuition and Fees

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

Full-time Students

Application fee..........................$50.00

— Continuing Undergraduate Students
   per credit (Full-time only; for programs not billed at the flat rate)..........................$1,272.00
— Graduate Students master's rates based on Academic Program
   Maxwell Becton College of Arts and Sciences — all programs per credit..........................1,334.00
   Silberman College of Business — all programs per credit..........................1,334.00
   Anthony J. Petreccell College of Continuing Studies — all programs per credit..........................1,272.00
— University College: Arts • Sciences • Professional Studies
   Computer Sciences and Engineering per credit..........................1,334.00
   Education per credit..........................1,272.00
   History, Political Science and International Affairs per credit..........................1,272.00
   Natural Sciences per credit..........................1,272.00
   Nursing and Allied Health per credit..........................1,334.00
   Psychology per credit..........................1,272.00
   Systems Science per credit..........................1,334.00
— Doctoral Programs
   Clinical Psychology per credit..........................1,391.00
   School Psychology per credit..........................1,391.00
   Nursing per credit..........................1,391.00
— Residence halls*
   — Rutherford Hall and Park Avenue
     Residence Hall, Florham Campus
     Single Occupancy........16,716.00
     Double Occupancy........11,250.00
     Triple Occupancy........9,392.00
   — Twomblly Halls, Florham Campus
     Single Occupancy........15,054.00
     Double Occupancy........8,810.00
     Triple Occupancy........7,378.00
— Village 1–8, Florham Campus
   Single Occupancy........13,054.00
   Double Occupancy........8,810.00
   Triple and Four-Person Suite..........................7,378.00
     Conversion Suite..........................8,810.00
— Village 9 Danforth, Florham Campus*
   Single Occupancy........15,670.00
   Double Occupancy........10,904.00
— Northpointe, Metropolitan Campus
   Single Occupancy........15,842.00
   Double Occupancy........10,614.00
   Triple Occupancy........8,872.00
— University Court, Metropolitan Campus with Kitchenettes**
   Single Occupancy........14,066.00
   Double Occupancy........9,438.00
   Triple Occupancy........7,890.00
   Double: Honors and Global Scholars — Year-round Housing..........................9,912.00
— University Court, without Kitchenette
   Single Occupancy........13,322.00
   Double Occupancy........9,834.00
   Triple Occupancy........7,478.00
— Linden Halls and International House
   Single Occupancy........14,040.00
   Double Occupancy........8,764.00
   Triple Occupancy........7,336.00
   Linden Six — Year-round Housing**..........................9,962.00
   Linden — Year-round Housing Single..........................15,976.00

Food service for the academic year:
— A) Unlimited meals + $100.00
   flex plan..............................4,606.00
— B) Unlimited meals + $200
   flex plan..............................4,806.00
— C) Unlimited meals + $200
   flex plan + $100 Fairleigh1 Card..........................5,006.00

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

**Year-round, 12 months.

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

- D) 8 meals + $200.00
  - flex plan*..............................$3,518.00

  Technology fee..........................906.00
  Wellness Education fee...................140.00
  Returned check charge
    (NSF, no sufficient funds)..............25.00
  Transcript fee per copy....................3.00
  New student fee (includes orientation fee)
  nonrefundable (international students, new freshmen and transfers).....815.00
  Graduation fee (associate and bachelor degrees)............................240.00
  Health and major medical insurance
    - per year**
      - International students.....1,581.00
      - U.S. citizens................1,581.00

  Experiential learning credits
    - CLEP per 6-credit posting.........260.00
    - Peace Corps per 6-credit
      posting..................................260.00
    - VISTA per 6-credit posting......260.00
    - Special Challenge Examinations,
      Experiential Learning and other
      University-evaluated credit
      per 6-credit posting..................260.00

  Auditing fee
    - Regular (per course)***.............1,272.00

**Part-time Students**

Application Fee..........................50.00

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

Tuition for undergraduate courses
   - per credit...............................997.00
   - Per-credit rate for full-time
     students not subject to flat-rate
     tuition...................................1,272.00
   - Graduate Students master's rates
     based on Academic Program
     Maxwell Becton College of
     Arts and Sciences — all programs
     per credit..............................1,272.00
     Silberman College of Business —
     all programs per credit..............1,354.00

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**Anthony J. Petrocelli College of Continuing Studies** — all programs
   - per credit..................................$1,272.00

**University College: Arts • Sciences • Professional Studies**

  - Computer Sciences and Engineering
    per credit..............................1,334.00
  - Education per credit.....................1,272.00
  - History, Political Science
    and International Affairs
    per credit..............................1,272.00
  - Natural Sciences per credit..............1,272.00
  - Nursing and Allied Health
    per credit..............................1,334.00
  - Psychology per credit.....................1,272.00
  - Systems Science per credit..............1,334.00

**Doctoral Programs**

  - Clinical Psychology per credit.........1,391.00
  - School Psychology per credit..........1,391.00
  - Transcript fee per copy..................5.00
  - Returned check charge
    (NSF, no sufficient funds)..............25.00
  - Graduation fee (associate and
    bachelor degrees)........................240.00
  - Technology fee..................................422.00
  - Wellness Education fee (per credit)....4.00

**Experiential learning credits**

  - CLEP per 6-credit posting..............260.00
  - Peace Corps per
    6-credit posting..........................260.00
  - VISTA per 6-credit posting..............260.00
  - Special Challenge Examinations,
    Experiential Learning and other
    University-evaluated credit
    per 6-credit posting.....................260.00

  Auditing fee
    - Regular (per course)*.................$997.00
    - Senior citizens, Metropolitan
      Campus (per course).................265.00
    - Florham Institute for Lifelong
      Learning, Florham Campus
      (per course)*...........................265.00
    - Retired Persons Institute,
      Florham Campus**..................265.00
    - Alumni plan (per course)*............574.00

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

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

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

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**Other Expenses**

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

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

**Tuition Reimbursed from Employers**

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

**Corporate Reimbursement Deferred Payment Plan**

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

**Credit Card Payments**

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

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

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

Students may also pay by ACH (electronic check) with no fee assessed. Students may access their account balance using the University’s WebAdvisor system or if students need assistance with determining their student account balance, they may contact the Office of Enrollment Services by calling:
• 201-692-2213 for the Metropolitan Campus or
• 973-443-8600 for the Florham Campus.

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

Terms of Payment: Fall, Spring, Summer, Winter

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

Withdrawals/Refunds

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

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

Paym ent Deadline

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.

After the second day of session* 30% credit of tuition only.

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.

Refund Schedule: Modular Courses

Three-, Four- and Five-week Modules

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

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

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

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

Prior to first day of session* 100% cancellation of tuition and course-associated fees.
During first week of session* 75% credit of tuition only.
During second week of session* 50% credit of tuition only.

Refund Schedule: Winter Three-week Sessions

Prior to and during the first and second days of session* 100% cancellation of tuition and course-associated fees.

Refund Schedule: Winter Three-week Sessions

Prior to and during the first and second days of session* 100% cancellation of tuition and course-associated fees.

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

Refund Schedule: Summer Sessions

Prior to first day of session* 100% cancellation of tuition and course-associated fees.
During first week of session* 75% credit of tuition only.
During second week of session* 50% credit of tuition only.

Refund Schedule: Summer Sessions

Prior to first day of session* 100% cancellation of tuition and course-associated fees.

Refund Schedule: Summer Sessions

Prior to first day of session* 100% cancellation of tuition and course-associated fees.

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

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

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

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

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

Winter Session
Week 1–Week 3 of Session
Students who pay their winter session charge after the third week of the term will be assessed a 6% late fee in the payment made.

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

Residence Hall Payments
The residence hall deposit of $550.00* (nonrefundable) is deducted from residence hall charges that are payable once a year, prior to the beginning of the fall semester. No reduction is made for room or board during absences. In the case of withdrawals, residence refunds are made on a prorated basis, but there will be no refund after the fifth week of a semester. A damage deposit in escrow (for first-time residence hall students) of $150.00* is required and must be maintained. Upon leaving the residence halls, the student is refunded the deposit less any residence hall charges incurred during the final semester.

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

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

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

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

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

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

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

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

Dean of Students

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

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

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

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

To contact the Dean of Students Office please call

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

Florham Campus

Office of Campus Life

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

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

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

Metropolitan Campus

Office of Student Life

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

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

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

Student Organizations and Engagement

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

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

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

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

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

Professional associations with student chapters represented on campus include
the American Chemical Society, Institute of Electrical and Electronic Engineers, Student National Education Association and National Society of Black Engineers.

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

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

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

- At the Metropolitan Campus — at least a 2.00 cumulative grade point ratio (CGPR) is required for organization membership and a CGPR of 2.50 for executive board membership. To join a Greek organization, a CGPR of 2.50 is required, as well as enrollment on a full-time status (12 credits or more).
- At the Florham Campus — a CGPR of 2.00 to participate in any organization and a CGPR of 2.30 to hold a major office. Greek life members must have a 2.50 grade point ratio (GPR) and 12 FDU credits to join a Greek organization: a GPR of 2.15 to maintain general membership and a GPR of 2.50 to hold a major office. All members of the SGA must maintain a CGPR of 2.50.

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

**Career Development**

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

**Career Advising**

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

**Internships**

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

**Employer Connections**

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

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

**Job Search**

The Career Development Center team works with students individually and through classroom interactions to provide job-search assistance and tools. Some tools are online so that students may access them at any time even when they’re not on campus. Online resources include a jobs database (students and alumni can upload their résumés and apply for positions) networking resources and much more.

**Community Service**

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

**Counseling and Psychological Services**

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

**Student Counseling and Psychological Services**

Student counseling and psychological services complements the academic experience of the student body by facilitating healthy personal, social and intellectual development. Life circumstances, skills deficits and/or mental health problems may at times interfere with a student’s ability to successfully achieve important academic and life goals. The office’s unique environment and role allows it to help students identify their problems, manage their emotions, learn new problem-solving skills and successfully meet the academic and social challenges of University life. This is accomplished by offering counseling, diagnostic evaluation, psychotherapy, advocacy and mental health referrals; developmental, preventative and remedial counseling to University students; consultation, educational and training services to the University community; and experiential workshops on essential life skills (i.e., assertiveness, stress management, sleep hygiene).
A particular effort in outreach education focuses on substance use and abuse. Alcohol- and drug-use assessments, initial treatment and referrals for higher levels of care are provided by substance-abuse professionals. The student counseling and psychological services staff offers Professional Development Workshops to the campus community on a variety of interest areas such as stress management, study skills, time management, drug abuse, test anxiety, loss and grief relationships, public speaking, etc. Student counseling and psychological services on the Metropolitan Campus also offers Meditation and Mindfulness Training Groups and Workshops.

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

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

Center for Psychological Services

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

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

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

Student Health Services

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

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

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

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

Dining Services

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

Dining hall hours of operation* are:
- 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.

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

**Breakfast**
- Full Breakfast Menu: Monday–Friday, 7:30–10 a.m.
- Modified Breakfast Menu: Monday–Friday, 10–11:30 a.m.

**Brunch**
- Saturday–Sunday, 11:30 a.m.–2 p.m.
- Modified Brunch Menu during changeover: 2:30–4:30 p.m.

**Lunch**
- Full Lunch Menu: Monday–Friday, 11:30 a.m.–2:30 p.m.
- Modified Lunch Menu: Monday–Friday, 2:30–4:30 p.m.

**Dinner**
- Monday–Thursday, 4:30–9:30 p.m.
- Friday–Sunday, 4:30–7:30 p.m.

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

Campus Ministry

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

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

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

*Hours subject to change at discretion of University.
Living on Campus

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

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

Park Avenue Residence Hall: The Park Avenue Residence Hall contains 75 four-person apartments. Each apartment has a kitchen with an apartment-size stove and refrigerator, along with a furnished living room and two furnished bedrooms. Each bedroom has its own bathroom. All bedrooms are double occupancy. Apartments are climate controlled. Laundry and trash facilities are located on each floor near the elevators. The building has been designated for upperclassmen only.

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

Twombly Halls: Florence and Hamilton Twombly Halls are traditional residence halls that provide double- and triple-room occupancy and a common hall bathroom facility. Both buildings are used to house first-year residents.

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

Metropolitan Campus

Housing and Residence Life

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

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

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

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

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

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

For more information about the programs and services offered by housing and residence life, visit www.fdu.edu/reslife.

Athletics

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

The varsity athletics program offers opportunities for all students to enhance and refine their physical skills at the highest competitive level and to improve personal attributes such as discipline, leadership, teamwork and sportsmanship. In recognition of geographic factors, the varsity programs are divided between the Metropolitan Campus (Division I) and the Florham Campus (Division III). The athletics program also offers intramural and recreational opportunities to meet the needs and interests of the diverse campus population by providing a variety of activities in a relaxed environment.
Metropolitan Campus
The Metropolitan Campus offers competition on the prestigious and highly competitive National Collegiate Athletic Association (NCAA) Division I level. The Knights sponsor the following eight men’s teams: baseball, basketball, cross country, golf, soccer, tennis as well as indoor and outdoor track and field. The following 11 varsity sports are sponsored for women: basketball, bowling, cross country, fencing, golf, soccer, softball, tennis, indoor and outdoor track and field and volleyball. The University’s commitment to women’s athletics is reflected in the addition of women’s soccer and softball teams in the 2000–2001 academic year, women’s bowling in 2002–2003 and women’s golf in 2006–2007 academic year. The addition of these new teams brings the Metropolitan Campus’ total sports sponsorship to 19. Athletic scholarship assistance is offered in all sports to deserving student-athletes. Prospective student-athletes are encouraged to contact the athletics department for further information.

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

FDU’s Metropolitan Campus also holds membership in the Eastern Collegiate Athletic Conference, the National Intercollegiate Women’s Fencing Association and the Intercollegiate Amateur Athletic Association of America. An important facet of the University’s commitment to athletics is the George and Phyllis Rothman Center on the banks of the Hackensack River. The Rothman Center features facilities for the varsity teams as well as cultural and social events. The center has the versatility to accommodate many different activities. Four basketball courts, three volleyball courts and two tennis courts, along with three racquetball courts, a weight room and a six-lane, 200-meter track, allow the University a wide variety of recreational activities.

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

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

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

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

An important facet of the University’s commitment to athletics is the Roberta Chiaviello Ferguson and Thomas G. Ferguson Recreation Center, an 82,000-square-foot complex which contains three full-size basketball courts; a performance court which seats 5,000; a suspended three-lane jogging track; weight-training, aerobic and dance facilities; a 25-yard competition swimming pool; two racquetball courts; and offices and locker rooms for student and intercollegiate use.

The Devils have added a new synthetic turf field to the outdoor facilities in 2003. The FieldTurf surface is on the cutting edge of playing-field technology and is used by several professional teams and major colleges. The field is able to accommodate football, field hockey, men’s and women’s soccer, as well as men’s and women’s lacrosse. It is the primary home field for football, men’s lacrosse, field hockey and women’s lacrosse. New aluminum bleachers and a press box were included in the construction.

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

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

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

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

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

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

Policy on Prohibited Discrimination, Harassment and Related Misconduct

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

Nondiscrimination and Equal Opportunity

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

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

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

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

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

Clery Act

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

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

Libraries
The University maintains libraries at both its New Jersey campuses, the Florham Campus in Madison and the Metropolitan Campus in Teaneck. The University also maintains a library at its 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 154,000 volumes. It also subscribes to approximately 430 periodical titles. The Giovatto Library also offers a collection (1,970) of both educational and popular DVDs and audiobooks on CD. Special collections include the Gehl collection of psychoanalytic materials, the Columbia film archives and selected presidential papers on microfilmd.

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

The Special Collections Suite, located on the ground floor of the Giovatto Library, includes the Sammartino Room, the J. Michael Adams Room, the Faculty Display Case and the Magister Room. The Sammartino Room showcases a portion of the heritage of the University. The collection includes monographs by the founder and first president Peter Sammartino. It also contains monographs published by FDU Press, FDU’s The Literary Review, doctoral dissertations, yearbooks, faculty publications and FDU memorabilia. The J. Michael Adams Room, located adjacent to the Sammartino Room, is intended to house books from the collection of J. Michael Adams, along with photos and memorabilia of his years as president of Fairleigh Dickinson University and of the International Association of University Presidents (IAUP). This room also houses the IAUP Archive. While dedicated to the memory of J. Michael Adams, the space is open and available to students and other library users, as are all the rooms in the Special Collections Suite, Monday–Friday, 9 a.m.–5 p.m., and by appointment. The books from the J. Michael Adams collection may also be borrowed by members of the FDU community. The room may also be reserved for small group meetings. The space has wireless connectivity, along with a desktop computer, for student convenience.

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

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

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

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

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

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

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

The FDU Online Library provides access to more than 200 subscription databases containing more than 250,000 full-text journals, more than 160,000 e-books.
and three streaming video collections. Most resources within the FDU Online Library are available 24/7, both on campus and remotely.

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

For further information call:
Monninger Center (Florham Campus) at (973) 443-8516
Giovatto Library (Metropolitan Campus) at (201) 692-2278
Business Research Library (Hackensack) at (201) 692-2608 or on the web at http://library.fdu.edu

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

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

Research, creative activity and educational development are found across all the colleges of the University. At the Maxwell Becton College of Arts and Sciences, faculty research is designed to involve students, who can earn credit in research course work for their academic achievements. In the department of psychology and counseling, students have worked alongside faculty to publish and present collaborative research in experimental, personnel and industrial psychology; organizational behavior; and counseling. In chemistry and biology, joint faculty/student research projects are frequent. In addition, many students majoring in chemistry and biochemistry are able to work one-on-one with chemistry faculty on their research projects, which include topics such as childhood autism, molecular modeling, natural products synthesis, materials chemistry and nanoscience. Students engaging in research partnerships are given the opportunity to network with other chemists while presenting their research findings at local, regional and national chemistry meetings.

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

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

University College: Arts • Sciences • Professional Studies prides itself on its increased emphasis on research. The Metropolitan Campus houses its clinical psychology doctoral program, where students and faculty study seasonal affective depression, eating disorders, personality development and psychological testing. Faculty in the School of the Humanities focus on modern and 19th-century English and American writers. Noteworthy was a widely praised biography of Nancy Cunard. The Peter Sammartino School of Education, also part of University College, is funded by local and state agencies and the Office of Education for a variety of innovative programs. Research is concentrated in the areas of learning disabilities and technology.

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

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

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

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

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

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

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

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

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

Fairleigh Dickinson University Press and The Literary Review

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

*The Literary Review* (TLR) is an international quarterly journal of contemporary writing founded in 1957. As one of the country’s longest continually running university-affiliated quarterly, *TLR* is established in the international literary community, demonstrating FDU’s commitment to the arts. Four times a year it publishes a new issue of the highest-quality poetry and prose and is recognized for its style, bold approach, loyalty to its contributors — whether they are emerging or award-winning marquee writers, and a dedication to publishing new literature from around the world. Recent issues include *Chemistry: All Poetry in 2018; Current Events: 60th Anniversary, Physics: All Fiction, Uncle: The Battle Isn’t Over, I Live Here: Stand Your Ground, and Heaven: Is Some Place in 2017*. The journal has won recognition for its work and reinforces the FDU profile through inclusion in best-of anthologies and online aggregators, by being invited to speak on panels at conferences and festivals, such as the Brooklyn Book Festival in September and Association of Writers and Writing Programs Annual Conference Marketplace every spring. *TLR* also maintains relationships with high-profile literary organizations such as PEN American Center, the American Literary Translators Association and Council for Literary Magazines and Small Marketplaces (CLMP). Members train and mentor more than 25 undergraduate and graduate students a year through internships in literary publishing and collaborate extensively with the creative writing department and M.F.A. program of FDU.

Computer Facilities

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

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

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

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

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

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

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

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

**UTAC**

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

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

**Acceptable Use Policies for Computer Usage**

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

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

**Academic Advisement**

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

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

To speak to an adviser at the Metropolitan Campus call (201) 692-2539. At the Florham Campus, students must speak to the College adviser appropriate to their major. For the Silberman College of Business Center for Business Students, see the paragraph on the next page. For the Maxwell Becton College of Arts and Sciences, see the paragraphs below.

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

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

Students in their sophomore through senior years with declared majors are advised by faculty advisers in the major department.
The Becton College Academic Advising Center offers assistance to all Becton College students with changing or declaring majors, minors, off-campus authorization and interpretation of University academic policies and procedures. Support is available to upperclassmen in all majors within Becton College when faculty advisers are not available.

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

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

To speak to an adviser at the Metropolitan Campus, call the Academic Advising Center at (201) 692-2339. Silberman College of Business (SCB) students on the Metropolitan Campus may also call the Office of Undergraduate Student Services at (201) 692-2153 for more specific advisement associated with courses within the business curriculum.

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

At the Florham Campus, students must speak to the college adviser appropriate to their major. Those within the Silberman College of Business (SCB) should contact the Center for Business Students at (973) 445-8800. The Center is staffed with professional advisers who work with the students in developing a program of study that leverages the various curricular opportunities offered by the college and fits the career interests of the students. A variety of academic intervention programs are also offered at the Florham Campus to SCB students placed on academic probation. The Center for Business Students also works closely with the Career Development Office to enable students to take advantage of a variety of internship opportunities as well as help them identify suitable career opportunities.

To find additional information about both campuses’ academic advisement, visit the websites at www.fdu.edu/cass for all colleges at the Metropolitan Campus; or http://view2.fdu.edu/academics/silberman-college/undergraduate/center-for-business-students-advising-office/ for the Silberman College of Business at the Florham Campus; and at www.fdu.edu/studentsvcs/fmaac.html for the Maxwell Becton College of Arts and Sciences and Anthony J. Petrocelli College of Continuing Studies at the Florham Campus.

Academic Support and Resource Centers

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

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

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

To make tutoring appointments at the Florham Campus, call (973) 443-8353 or schedule online at http://fdu.mywconline.com. For the Metropolitan Campus, go to Robison Hall, Room 502, to fill out an application. For further information, contact the Metropolitan Campus center at (201) 692-2076 or to www.fdu.edu/cass.

Metro Writing Studio

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

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

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

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

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

Students with Disabilities

Fairleigh Dickinson University makes support services available to students with documented disabilities. Students with documented physical, learning or psychological disabilities may request reasonable modifications, accommodations, auxiliary aids or services which will allow them to participate fully in programs and activities. Students with documented disabilities may request support services by contacting the campus ADA/504 coordinator. The ADA/504 coordinator for the Florham Campus is Darshan Shah, (973) 445-8079. The ADA/504 coordinator for the Metropolitan Campus is the deputy campus executive, S. Craig Morton, (201) 692-2477.

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

Academic Integrity Policy

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

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

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

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

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

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

5. **Complicity** — Facilitating any of the above actions or performing work that another student then presents as his or her assignments.

6. **Interference** — Interfering with the ability of a fellow student to perform his or her assignments.

*Plagiarism Described*

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

Plagiarism can occur in the following ways:

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

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

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

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

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

*Sanctions*

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

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

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

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

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

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

*Procedure*

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

**Appeals Process**

A student who is charged with violating the Academic Integrity Policy by an instructor may appeal in writing to the chair of the department or the director of the school in which the alleged incident took place. The letter must state the specific grounds for the appeal. The student must submit a written appeal to the department chair/school director within 14 days of the receipt of the notification of the imposed sanctions. Failure to make an appeal within this 14-day period shall constitute a waiver of the appeal right. Within 10 working days of receipt of the student’s appeal, the chair/director will review the circumstances of the alleged violation with the student and the instructor and recommend upholding, modifying or dismissing the sanctions imposed by the instructor. The chair/director, within five working days, shall notify the student in writing via certified mail of the outcome, with copies to the instructor, the chair/director of the student’s major, the academic dean of the college in which the course is taught and the campus director of enrollment services. If it is determined that a violation of academic integrity did not occur, the student’s final grade in the course cannot be based on the assumption of such violation. If the differences between the instructor and the student are not resolved by this review, the student may appeal the outcome to the dean of the college in which the course is offered.

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

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

### Attendance

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

### Student Status

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

### Class Standing

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

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

### Residence Requirement

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

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

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

Semester Credits and Normal Load

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

Credit Hour Definition

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

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

Maintenance of Satisfactory Achievement

It is the responsibility of students to be sure that they meet academic standards and that they remove any academic deficiency as quickly as possible. Students who encounter difficulty must confer with the course instructor and with their adviser without delay.

Grades and Grade Points

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

<table>
<thead>
<tr>
<th>Letter</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
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<tr>
<td>C</td>
<td>2.00</td>
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<tr>
<td>C-</td>
<td>1.67</td>
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<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
</tbody>
</table>

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

The value of other letter grades is as follows:

- P: Pass — to be counted toward baccalaureate requirements but not averaged into student's cumulative grade point ratio (CGPR).
- NC: No credit — not to be credited toward the baccalaureate requirements nor averaged into the CGPR.
- W: Withdrawal — not to be credited toward the baccalaureate requirements nor averaged into the CGPR. A student may withdraw from a course through the third week of a semester (through the fourth week of a six-week summer session). After the third week (fourth week in a six-week summer session), withdrawal may be permitted for serious, documented, medical reasons or other unusual extenuating circumstances. Students requesting late withdrawal should present evidence of unusual circumstances and/or medical documentation to the dean of the College.
- I: Incomplete — this designation is not a substitute for a letter grade. It merely describes a student's temporary status in a course. It is to be given only in exceptional or emergency circumstances at the discretion of, and after consultation with, the instructor. Students have a responsibility for completing all work in a course on time. They have the added responsibility of notifying the instructor of circumstances preventing them from completing the requirements on time. Students will have up to the third week of the next full semester (excluding summer sessions) to complete the requirements. If the requirements have not been met within the prescribed period, the I automatically will become an F. The F is a letter grade and will count in the student's CGPR.

Pass/No Credit

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

Repeated Courses

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

*See “Cumulative Grade Point Ratio” on next page.

*See “Grades and Grade Points” on this page.
Academic Regulations

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

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

Also see Financial Aid, Repeated Courses, page 22.

Cumulative Grade Point Ratio

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

Evaluation Procedures

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

Grade Appeal Procedure

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

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

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

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

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

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

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

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

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

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

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

Grade Reports

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

Academic Standards

The University expects its students to make normal progress toward a degree. For most students, this means the attainment of at least a 2.00 grade point ratio for each semester. Students whose grade point ratio falls below 2.00 should immediately check with their advisers regarding their status. Maxwell Becton College of Arts and Sciences requires a 3.3 cumulative grade point ratio in major courses for graduation. The Henry P. Becton School of Nursing and Allied Health requires that students earn a grade point ratio of 2.50 for progression in the nursing courses.

Scholastic Eligibility for Student Activities

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

Review of Student Records

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

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

*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.
may indicate that a student is not making satisfactory progress toward the completion of undergraduate degree requirements.

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

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

A student on probation who does not fulfill the above requirements may:
1. Be continued in a full-time program with a reduced load of 12 credits for one semester. In such a case, it shall be the responsibility of the appropriate department chairperson, school director or College dean to assign a faculty adviser to that student to prescribe a remedial program of directed guidance suited to the student’s need.
2. Be reduced to a part-time credit load with a probation credit load of no more than 9 credits per semester. The student must maintain a semester average of 2.20 or higher. Such a student may appeal to the appropriate office for transfer back to a full-time program for full credit only when the semester average is 2.20 or higher and his or her CGPR is 2.00 or higher.
3. Be suspended from the University. Students who are suspended from the University may apply for readmission under special conditions as described in “Readmission” (see page 16).
4. Be dismissed from the University. A student who is dismissed may not apply for readmission. The student is dropped from the University, both full-time and part-time programs.

**Credits Taken at Other Academic Institutions**
A Fairleigh Dickinson University degree should represent course work done under the academic standards of this University. Any authorization for courses at another regionally accredited academic institution should be held to a minimum and limited to winter and summer sessions only. Once a student is matriculated at the University, only 16 such credits may be counted toward graduation. The maximum of 16 credits is reduced by 5 credits for every 16 credits earned at another institution and transferred at the time of matriculation. This limit shall not apply to formally approved programs of study in association with other institutions of higher learning. Students cannot repeat an FDU course at another institution.

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

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

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

Students enrolled for course work at Fairleigh Dickinson University in any one semester and/or summer session may not enroll simultaneously for course work at another institution. Exceptions to the above policy would include only approved programs, such as the Honors Program, with established guidelines.

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

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

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

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

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

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

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

Graduation Honors
A student whose cumulative grade point ratio (CGPR) for four years is 3.85 will receive his or her degree summa cum laude; if the CGPR is 3.67, magna cum laude; if the CGPR is 3.33, cum laude.

Only weighted grades will be included in computing honors. Credits taken at Fairleigh Dickinson University and approved credits taken at other academic institutions after a student matriculates, with a minimum of 54 credits, will be used in this evaluation.

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

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

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

Freshman Year
- Honors Composition I: Rhetoric and Inquiry ENWR1001 (Metropolitan Campus only)
- Honors Composition II: Research and Argument ENWR1002 (Metropolitan Campus only)
- Honors College Writing ENGW1000 College Writing Workshop (Florham Campus only)
- Honors Core 1001 UNIV1001 Transitioning to University Life; UNIV1002 Preparing for Professional Life
- Honors Research Writing ENGW1002 (Florham Campus only)

Sophomore Year
- UNIV2001/Honors Core 2003 Cross-cultural Perspectives
- English 2201 Masterpieces of World Literature I (Metropolitan Campus only)
- English 2202 Masterpieces of World Literature II (Metropolitan Campus only)
- Theater 1104 History and Development of Theater II (Florham Campus only)

Junior Year
- HON3301 Junior Honors Seminar

Senior Year
- HON4402 Senior Honors Research
- HON4401 Senior Honors Thesis

The FDU Honors Program scholar is a student interested in sharing in the community of scholarship and collegiality of the University. Each member of the program is an individual who has demonstrated a high degree of academic competency, intellectual curiosity and personal maturity. The honors student is an individual who has shown promise of benefiting from a program with specially focused curricular requirements, individual guidance and independent study. Entering freshmen with a 3.53 (B+) grade point ratio in high school and combined SAT scores of 1,150 (or equivalent ACT score of 25 or higher) are eligible for consideration to participate in the Honors Program. Any qualified transfer student or currently enrolled student may apply for membership in the University Honors Program at any time prior to the second semester of the junior year.

To qualify for University Honors Program recognition upon graduation, however, students must apply for admission into the program prior to the first semester of their junior year.

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

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

Placement in these courses may be determined by formal testing.

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

2. The New York College Proficiency Examination Program. Information on the examinations offered and applications to take the examinations must be obtained from the New York College Proficiency Examination Program, the University of the State of New York, Education Department, Albany, New York 12210.
3. Other proficiency examinations approved in advance by the University. Forms to be used in requesting approval for credit by examination are available for matriculated students in the campus Office of Enrollment Services and for newly accepted students in the Admissions Office. Forms must be completed and submitted prior to examination registration.

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

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

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

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

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

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

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

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

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

The penalties for withdrawing on the first day of the semester, and after, are published on page 25 of this bulletin, on the reverse side of the registration and program change forms, and in the fall, spring and summer Course Booklets on WebAdvisor (http://webadvisor.fdu.edu).

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

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

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

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

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

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

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

Honor Societies
Students admitted to Fairleigh Dickinson University with advanced standing may be eligible for admission to the University’s Honor Societies, namely Phi Zeta Kappa and Phi Omega Epsilon, when they qualify according to the standards set by the societies. The credits taken at Fairleigh Dickinson University may include credits taken...
off campus with prior University approval as outlined under “Credits Taken at Other Academic Institutions” on page 43.

Honor societies include:

Alpha Eta Society (Florham Campus only): Allied Health Professions National Honor Society. Eligibility for membership:
I. Associate — those undergraduate allied health students working toward an associate degree who have complied with the following conditions:
1. They shall be enrolled in an allied health curriculum leading to an associate degree and shall be in their last semester of enrollment.
2. They shall have maintained an overall scholarship average of 3.50 or better (out of 4.00) while enrolled in the allied health program.
3. Not more than 10 percent of the graduating class of a specified program shall be invited to membership in those programs with fewer than 10 students, no more than one student will be invited to membership.
4. They shall have shown capacity for leadership and achievement in their chosen allied health field.
5. They shall have been recommended by members and approved by the deans of the allied health unit or their equivalents.
II. Baccalaureate — Those undergraduate students working toward a baccalaureate degree who have complied with the following conditions:
1. They shall be enrolled in an allied health program leading to a baccalaureate degree and will be enrolled in their last semester.
2. They shall have maintained an overall scholarship average of 3.50 or better (out of 4.00) while enrolled in the allied health program.
3. Not more than 10 percent of the graduating class of a specified program shall be invited to membership or, in those programs with fewer than 10 students, no more than one student will be invited to membership.
4. They shall have shown capacity for leadership and achievement in their chosen allied health field.
5. They shall have been recommended by members and approved by the deans of the allied health unit or their equivalents.

Alpha Epsilon Rho (Florham Campus only): National broadcasting society. The National Broadcasting Society — Alpha Epsilon Rho, is a student and professional society of more than 85 chapters on college, university, community college and high school campuses. Through the years, the society has had as its purpose the goal of encouraging and rewarding scholarship and accomplishment among students of film and broadcasting, to establish meaningful communication between student and professionals and to foster integrity in the use of the powerful instruments of radio, television, film, cable and its many associated businesses and industries.

Alpha Kappa Delta: National honor society for sociology students. The society was founded in 1920 for the purposes of stimulating scholarship and promoting the scientific study of society. The organization was established to provide a forum for student and faculty interchange and paved the way for what has become an international organization dedicated to promoting, facilitating and recognizing academic scholarship. To date, more than 80,000 scholars have been initiated into the society, including those in the United States, Canada, China, Finland, the Philippines, Taiwan and Singapore.

Beta Beta Beta, Chapter of Omega Iota: National biological honor society. The society seeks to encourage scholarly achievement for undergraduate students who achieve superior academic records and who have an interest in the life sciences. The society emphasizes the stimulation of scholarship, dissemination of scientific knowledge and promotion of biological research. To be eligible for regular membership, students must major in biological science, complete at least one term of the second year of a four-year curriculum, complete at least three courses in biological science and have a grade point ratio of 3.20 or higher in those biology courses. In addition, the student must be in good academic standing with the University.

Beta Gamma Sigma (BGS): The only business honor society recognized by AACSB International - The Association to Advance Collegiate Schools of Business. BGS was founded as a national organization in 1913. The mission of BGS is to encourage and honor academic achievement and personal excellence in the study and practice of business. Membership in BGS is the highest recognition a student can receive in an undergraduate or master's business program accredited by AACSB International. To be eligible for membership, a student must rank in the upper 10 percent of the junior class, upper 10 percent of the senior class or upper 20 percent of the graduating master's class.

Epsilon Rho, Chapter of Sigma Theta Tau: International honor society in nursing. Baccalaureate nursing students 1) who have completed one-half of the required curriculum, 2) who have demonstrated ability in nursing, 3) who have at least a 3.00 CGPR and 4) whose numbers do not exceed one-third of the total number expected to graduate in that class are eligible for membership.

Eta Kappa Nu (Metropolitan Campus only): The only electrical engineering honor society. The society speaks for electrical engineering scholars throughout the world. There are 152 college chapters in major institutions, including several in Europe and in South America. The top quarter of the junior class and top third of the senior class are invited each year to become members of the Theta Gamma Chapter at Fairleigh Dickinson University. To qualify, students must have a CGPR no lower than 3.20 and must have earned at least 45 credits at this University. Graduate students may join on recommendation of the electrical engineering school director and the faculty adviser.

Eta Sigma Delta: International hospitality management honor society. Eta Sigma Delta was originated in 1978 at the University of New Hampshire and currently has more than 90 active chapters worldwide. The Fairleigh Dickinson University, International School of Hospitality and Tourism Management Chapter was founded in 1981. Eta Sigma Delta (ESD) Honor Society has developed an important role within the Council on Hotel, Restaurant and Institutional Education (CHRIE) organization, which is the ESD parent organization.

To be eligible for membership, FDU chapter students are required to have a grade point ratio of at least 3.00 and to take an active leadership role in the school and hospitality-related community service. Members are inducted in a ceremony held annually in November. At that time, they commit to performing acts of community service and outreach, as they demonstrate proactive leadership.

For honorary members to be eligible, they must be hospitality/tourism professionals, faculty, administrators or other distinguished individuals who have made significant contributions to the field.
**Omicron Delta Epsilon:** International economics honor society. Eligibility for membership is based on a 3.00 grade point ratio or better with at least 12 credits in economics and a grade point ratio better than 3.00. Omicron Delta Epsilon is one of the largest international honor societies. Each New Jersey campus of Fairleigh Dickinson University has a chapter.

**Omicron Lambda, Chapter of Lambda Pi Eta:** Communication studies honor society. The goals of Lambda Pi Eta are to recognize, foster and reward outstanding scholastic achievement; to stimulate interest in the field of communication; to promote and encourage professional development among communication majors; to provide an opportunity to discuss and exchange ideas about the field; to establish and maintain close relationships and understanding between faculty and students; and to explore options for further graduate studies.

To be eligible for membership, students must have completed 60 undergraduate credits, have a cumulative grade point ratio of at least 3.00, have completed the equivalent of four communication courses, have a grade point ratio of at least 3.25 in these courses and currently be enrolled as a full-time student in good standing with the department, the college and the University.

**Phi Alpha Theta:** International honor society in history. Phi Alpha Theta is the highest-rated departmental honor society. Students with an average of 3.10 or better in history courses and an average of 3.00 in two-thirds of the remainder of their work are eligible for membership. Eligibility for honor societies for transfer students will be based on all work done at other accredited institutions and a grade point ratio at Fairleigh Dickinson University that meets the grade point ratio requirement for membership in the honor society.

**Phi Omega Epsilon:** Eligibility for membership in the University’s senior honor society is established by completing at least 90 earned credits toward an undergraduate degree with a CGPR of 3.50. Of these 90 credits, the last 58 must have been taken at the University, and a CGPR of 3.20 must have been maintained for all of them. All the preceding requirements must have been fulfilled prior to the accumulation of 112 credits. Transfer students who are unable to fulfill the prerequisite 58-credit requirement will be able to establish eligibility if they have taken at least 32 credits prior to the accumulation of 112 credits and if they have maintained a CGPR of 3.50 during their entire career at Fairleigh Dickinson.

**Phi Zeta Kappa:** Eligibility for membership in the University’s junior honor society is established by completing at least the first 60 credits toward an undergraduate degree. Of these, 44 must have been earned at Fairleigh Dickinson and a CGPR of 3.20 must have been maintained for all of them. All the preceding requirements must have been fulfilled prior to the accumulation of 80 credits toward the undergraduate degree.

**Pi Mu Epsilon:** National honor society in mathematics. Students with an average of 3.20 or better in mathematics and an overall average of at least 3.00 are eligible for membership.

**Pi Sigma Alpha:** The Kappa Omicron Chapter of Pi Sigma Alpha. It receives into membership students of government, political science, public administration and international relations, when such students attain high standards of scholarship and academic distinction both in political science and in the sum of their academic work. Its chapters are established in colleges and universities of accredited and recognized standing that offer at least the prescribed minimum of work in political science.

**Psi Chi:** National honor society in psychology. Psychology majors who have attained a CGPR equivalent to or greater than 3.20 and a grade point ratio of 3.50 in psychology courses, and who have demonstrated high standards of personal behavior, are eligible for induction. Each psychology department also requires completion of a minimum number of psychology credits to be eligible. Information on the minimum credits for each department is available through the department chairperson or school director on each campus.

**Sigma Tau Delta:** International English honor society. The goals of Sigma Tau Delta are to confer distinction for high achievement in the study of literature in undergraduate, graduate and professional studies; provide, through its local chapters cultural stimulation on college campuses and promote interest in literature and the English language in surrounding communities; foster all aspects of the discipline of English, including literature, language and writing; promote exemplary character and good fellowship among its members; exhibit high standards of academic excellence; and serve society by fostering literacy. Candidates for undergraduate membership must have a minimum of two college courses in literature. The candidate must have a minimum of a B or equivalent average in literature and in general scholarship, must rank at least in the highest 35 percent of his/her class and must have completed at least three semesters or five quarters of college course work.

**Sigma Xi:** The Scientific Research Society is an international scientific honor society, the aim of which is to encourage scientific research. Graduate and undergraduate students who have completed research projects are eligible for associate membership in the Fairleigh Dickinson University Club of the society. The club is authorized to elect associate members, which is by invitation and restricted to those who are actively engaged in research. The activities of the club include the sponsorship of lectures, discussions of scientific topics and the sponsorship of competition for the best student science papers. All activities of the society are free and open to the public. The society publishes the American Scientist, a magazine that is sent to all members.

**University Core Curriculum**

Fairleigh Dickinson University requires a common University Core curriculum consisting of four integrated courses. See page 49 for further information.

**ROTC (Reserve Officers’ Training Corps)**

Some students may wish to enroll in an ROTC program as part of their college experience. Full details on this program may be found on pages 276–280.

**Major Religious Holy Days**

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

A list of the degrees awarded upon the completion of these curricula is given in the chart on the inside front cover of this bulletin.

The minimum requirements for the baccalaureate degrees are as follows:

1. A minimum of 120 credits is required for a bachelor's degree. Many programs require more than 120 credits. Contact the program director for information about specific program requirements.
2. Cumulative grade point ratio of 2.00 or better.
3. Satisfactory standards in the major field (a minimum grade of “C” in all major courses and designated business courses in the discipline in the Silberman College of Business, 2.33 in the Maxwell Becton College of Arts and Sciences and specific requirements listed for individual majors in University College: Arts • Sciences • Professional Studies).
4. Attendance at the University for at least 25 percent of the credits required for the degree including at least 50 percent of the credits required for a major to be taken in the student’s major department. At the Silberman College of Business, a majority of required core courses and a majority of the major courses in the discipline must be completed within the Silberman College of Business. (See Residence Requirement, pages 40–41, for details.)
5. The time limit for completing a degree shall be 10 years from the first college enrollment, including work for which credit is transferred from another college to the final date of completion.

The minimum requirements for the associate degrees are as follows:

1. Completion of a four-semester curriculum, with a minimum of 60 credits. (72 credits for allied health majors.)
2. Cumulative grade point ratio of 2.00 or better.
3. Attendance at the University for at least 32 credits (30 credits for Anthony J. Petrocelli College of Continuing Studies A.A. degree) of academic work including at least 50 percent of the credits required for a major to be taken in the student’s major department or school. (See Residence Requirement, pages 40–41, for details.)
4. The time limit for completing a degree shall be 10 years from the first college enrollment, including work for which credit is transferred from another college to the final date of completion.

Application for a degree must be made through the campus Office of Enrollment Services at least four months before the expected date of graduation.

Preprofessional Degree Options
See “Preprofessional Degree Options,” page 281.
University Core Curriculum

Core Curriculum

Fairleigh Dickinson University requires all students to complete a common University Core curriculum. The four courses making up the University Core program serve to fulfill the promise of the University’s global learning mission: to prepare students for responsible citizenship in the global community and for professional success in the global economy. In most cases, students will complete the University Core sequence during their first and second years at FDU, providing a foundation for more advanced studies.

In addition to promoting essential academic and professional skills such as critical thinking, information literacy, self-awareness and self-development, the University Core program is designed 1) to foster international and intercultural perspectives that will give students a way of looking at the world as well as at their own countries and communities; 2) to promote understanding of individual, societal and global perspectives; and 3) to inculcate an appreciation for the interrelationships among bodies of knowledge generated in individual disciplines.

The four University Core courses are:

- UNIV 1001 Transitioning to University Life (1 credit)
- UNIV 1002 Preparing for Professional Life (1 credit)
- UNIV 2001 Cross-cultural Perspectives (3 credits)
- UNIV 2002 Global Issues (3 credits)

Complete course descriptions are available at Course Descriptions, University Core on page 286.

Academic Regulations

No more than one Core course may be taken in any one semester unless studying abroad at Wroxton College, England; Vancouver Campus, Canada; or Chengdu American Center, China.

For entering freshmen, the order in which University Core courses are to be taken is as follows:

- **First Semester** — UNIV1001 Transitioning to University Life
- **Second Semester** — UNIV1002 Preparing for Professional Life
- **Third or Fourth Semester** — UNIV2001 Cross-cultural Perspectives
- **Fourth or Fifth Semester** — UNIV2002 Global Issues

All students should consult with an academic adviser before preparing their schedules in order to make certain that they are scheduled for the appropriate University Core course and that they have satisfied all prerequisites.

Students must complete UNIV1001 Transitioning to University Life before taking UNIV1002 Preparing for Professional Life. Students must take UNIV1001 Transitioning to University Life and UNIV1002 Preparing for Professional Life as well as either ENGW1101 College Writing Workshop or ENWR1001 Composition I: Rhetoric and Inquiry or ENGL1101 English Composition I or ENGL1111 Literature and Composition I before taking either UNIV2001 Cross-cultural Perspectives or UNIV2002 Global Issues. Students must complete UNIV2001 Cross-cultural Perspectives before taking UNIV2002 Global Issues unless studying abroad at Wroxton College, England; Vancouver Campus, Canada; or Chengdu American Center, China.

Each campus has a University Core director who administers the program for that campus. Online and off-campus programs are also administered by a University Core director. These directors are responsible for enforcing academic regulations for the University Core program.

Transfer Students and Adult Learners

Students entering the University with 30 or more credits will be exempted from taking UNIV1001 Transitioning to University Life. Students entering the University with 45 or more credits will be exempted from taking UNIV1002 Preparing for Professional Life. Transfer students may request a waiver from the campus Core director based on their academic record and experience.

Adult learners also will be exempted from taking UNIV1001 Transitioning to University Life and UNIV1002 Preparing for Professional Life.

All students must take UNIV2001 Cross-cultural Perspectives and UNIV2002 Global Issues regardless of the number of transfer credits.

Substitutions

There are no substitutions for University Core courses.
Honors Programs

There is a University Honors Program on each campus. In addition, for students who are particularly interested in global issues, there is the Global Scholars Program on the Metropolitan Campus (see this page) and Living Learning communities are being developed with various disciplines at the Florham Campus (see page 56). Students may participate in the University Honors Program and the campus-specific programs at the same time.

University Honors Program

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

The curriculum of the University Honors Program features advanced honors sections of the University Core curriculum as well as a variety of other honors-level studies.

Freshman Year

Honors College Writing ENGW1001 (Metropolitan Campus only)
Honors Composition I: Rhetoric and Inquiry ENWR1001 (Metropolitan Campus only)
Honors Core 1001 UNIV1001 Transitioning to University Life; UNIV1002 Preparing for Professional Life
Honors Composition II: Research and Argument ENWR1002 (Metropolitan Campus only)
Honors College Writing ENGW1101 (Florham Campus only)
Honors Research Writing ENGW1102 (Florham Campus only)
Honors Contemporary Math 1126 (Florham Campus only)
Honors General Psychology 1101 (Florham Campus only)
Honors Development of Theater 1202 (Florham Campus only)

Sophomore Year

UNIV2001/Honors Core 3004 Global Issues
English 2201 Masterpieces of World Literature I (Metropolitan Campus only)
English 2202 Masterpieces of World Literature II (Metropolitan Campus only)

Junior Year

HON5301 Junior Honors Seminar

Senior Year

HON4402 Senior Honors Research
HON4403 Senior Honors Thesis (Metropolitan Campus only)

The FDU Honors Program scholar is a student interested in sharing in the community of scholarship and collegiality of the University. Each member of the program is an individual who has demonstrated a high degree of academic competency, intellectual curiosity and personal maturity. The honors student is an individual who has shown promise of benefiting from a program with specially focused curricular requirements, individual guidance and independent study. Honors students are eligible for Honors housing. They participate in special extracurricular activities and present at regional and national Honors conferences. Entering freshmen with a 3.25 grade point average in high school, minimum SAT score of 1220 (combined Math plus Evidence-based Reading and Writing) or an ACT score of 25 or higher are eligible for consideration to participate in the Honors Program.

Any qualified transfer student or currently enrolled student may apply for membership in the University Honors Program prior to the second semester of the junior year.

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

Global Scholars Program

The Global Scholars Program at the Metropolitan Campus is a four-year selective program for entering full-time freshman resident students of any major. The program is a logical outcome of Fairleigh Dickinson University's mission as an institution developing a global perspective for tomorrow's leaders. It offers an organized and integrated course of study that combines intensive academic multidisciplinary learning environments with a cross spectrum of cultural living experiences on and off campus.

Global Scholars attend a minimum of seven experiential learning programs per semester on and off campus. These include visits to the United Nations with opportunities for private briefings and internships, lectures by and receptions with ambassadors and international scholars, participation in a variety of cultural and artistic events and visits to museums. Scholars are required to participate in winter session co-curricular field experiences abroad in both their freshman and senior years. A study-abroad semester is also required. These cultural immersion experiences are intended to enrich the academic quality of a global education of all participants in this distinctive program.

A two-year residency in the Global Scholars hall is required. As a microcosm of the University’s cultural and global richness, this living-and-learning experience provides a supportive, culturally diverse environment that encourages dialogue and the exchange of ideas and fosters personal contacts. Facilities include a kitchen area, online accessibility in every room and computer availability.

The Global Scholars Program at the Metropolitan Campus consists of 18 credits distributed among the campus’s three academic colleges. All Global Scholars take designated sections of UNIV1001 Transitioning to University Life, Global Scholars Seminar in Political Studies (cultural experience abroad) and a capstone Winter Session (cultural experience abroad). Because this selective program accepts a limited number of applicants, entering or transfer freshmen are encouraged to apply as early as possible. Students should use the following formula to determine their eligibility: Cumulative Grade Point Average (GPA) x 200 + Combined SAT score = 1900 or greater (Combined SAT score uses only Evidence-based Reading and Writing and Math sections.). A letter of recommendation from a teacher, school counselor or administrator is required.

Qualified Metropolitan Campus students may enroll concurrently in the Global Scholars Program and the University Honors Program.
## Majors, Concentrations, Minors

Majors, concentrations and minors are listed below with pages. (Concentrations and minors are in lower case and italic type, minors are with an asterisk *).  

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## Majors, Concentrations, Minors

Majors, concentrations and minors are listed by pages (Concentrations and minors are in lowercase and italic type, minors are with asterisk*).
Maxwell Becton
College of Arts and Sciences

Majors

Allied Health Technologies (B.S.A.H.T.)
Concentration: radiologic technology

Biochemistry (B.S.)
Concentration: prepharmacy

Biology (B.S.)
Concentrations: anatomy and physiology, cell and molecular biology, ecology and environmental biology, prepharmacy
Minor: biology

Chemistry (B.S.)
Minor: chemistry

Clinical Laboratory Sciences (B.S.C.L.S.)
Concentration: medical laboratory science (medical technology)

Communication Studies (B.A.)
Concentrations: human communication, multimedia journalism, public relations
Minors: advertising, broadcasting, communication, journalism, political communication, public relations

Computer Science (B.S.)
Concentrations: cybersecurity, data mining, game development
Minor: computer science

Creative Writing (B.A.)
Minor: creative writing

Criminology (B.A.)
Minor: criminology

English Language and Literature (B.A.)
Concentrations: English and American literature, world literature
Minor: English language and literature

Film and Animation (B.A.)
Concentrations: 2D animation, 3D animation, cinematography, directing, editing, film production, video game animation
Minors: animation, cinema studies, film production, screenwriting/dramatic writing, 3D video game animation

Fine Arts (B.A.)
Concentration: studio arts
Minors: art history, studio arts

Government and Law (B.A.)
Concentrations: global politics, legal studies
Minor: government and law

Graphic Design (B.A.)
Concentrations: illustration, print design, web design
Minors: graphic design, web design

History (B.A.)
Concentrations: elementary education, elementary education and special education, secondary education
Minor: history

Humanities (B.A.)
Minor: humanities

Mathematics (B.A.)
Concentrations: actuarial science, computer science, financial mathematics
Minors: mathematical statistics, mathematics, mathematics for cybersecurity, mathematics for the business world

Medical Imaging Sciences (B.S.M.I.S.)
Concentrations: diagnostic medical sonography, vascular technology

Philosophy (B.A.)
Minor: philosophy

Psychology (B.A.)
Concentration: behavioral neuroscience
Minor: psychology

Sociology (B.A.)
Minors: anthropology, sociology

Theater Arts (B.A.)
Concentrations: acting, design and technical theater, directing, musical theater, playwriting, theater studies
Minors: dance studies, music, musical theater, theater arts

 Discipline Minors
French language, geography, German language, Italian language, physics, Spanish language

 Interdisciplinary Minors
Advertising, African-American studies, British studies, children’s studies, dramatic literature and performance, economics, entertainment and business management, forensics, gender studies, globalization and society, government and law, Italian studies, Japanese studies, Latin-American studies, personalized, prelaw, screenwriting/dramatic writing

Teacher Certification
The mission of the Maxwell Becton College of Arts and Sciences is to develop the intellectual, creative and career potential of our diverse student body by offering a demanding curriculum in a caring and supportive environment. The College is committed to being a superior teaching institution.

Through its curriculum, Becton College aims to develop in students the skills, intellectual orientation and knowledge to achieve their educational, professional and personal goals.

The flexibility of the Becton College General Education curriculum allows each student to develop an individualized program that combines major and minor fields with clusters of related electives. The curricular distribution requirement assures an understanding of the methods used by disciplines in the humanities, social and behavioral sciences, creative arts and laboratory sciences. Students may select courses suited to their level of preparation and, when applicable, apply them to majors, major corequisites, minors or elective clusters. Because the opportunities are so varied, students should work closely with their advisers as they plan their choices.

Total University Core/Becton College general education requirements range between 46 to 48 credits, depending upon the student’s program and assuming no waivers. The minimum number assumes that students will select courses that fulfill dual requirements. The maximum assumes that the student will not select any courses that satisfy more than one requirement.

The curriculum culminates in the student’s academic major, which is designed to give deeper and more specialized knowledge and abilities in a specific discipline. The major calls for advanced application of the fundamental skills, intellectual orientation and multidisciplinary perspectives acquired in the College general education requirements program.

Many of the majors listed on pages 51–52 also offer special areas of concentration, described in the appropriate section by major. Several accelerated programs are offered as well. They are: Bachelor of Arts in communication studies/Master of Arts in communication (page 214), Bachelor of Arts in psychology/Master of Arts in industrial/organizational psychology (page 223), Bachelor of Arts/Master of Public Administration (page 207), Bachelor of Arts or Science/Master of Arts in Teaching (page 208), Bachelor of Science in biology, chemistry or biochemistry/Doctor of Pharmacy (pages 244, 257, 266), Bachelor of Science in biochemistry, biology or chemistry/Doctor of Osteopathic Medicine (page 255), Bachelor of Science in biology/Doctor of Dental Medicine (page 251), Bachelor of Science in biology/Doctor of Chiropractic (page 249) Bachelor of Science in biology/Doctor of Podiatric Medicine (page 263), Bachelor of Science in biology/Doctor of Veterinary Medicine (page 264) and Bachelor of Science in biology/Doctor of Veterinary Medicine (pages 253–255).

Seven- and Eight-year Combined Degree Programs: Students with a strong SAT score and high school grade point average (GPA), with an interest in attending a health professional school, may be eligible to participate in one of the University’s combined degree programs. Qualified students initially receive a conditional acceptance into one of the programs and then apply for final acceptance to move on to the professional school in the third year at FDU, once certain GPA, standardized test and course requirements are met. Typically, students in the combined degree programs complete three years at FDU in an accelerated biology or chemistry major, depending on the advanced-degree requirement, and then begin their studies at the partner institution in the fourth year. The first year of professional school counts towards the FDU degree. Consult with a prehealth adviser for a list of current combined degree programs. Past programs have included a combined B.S./D.M.D. with Rutgers School of Dental Medicine, combined degree programs with Ross University Schools of Medicine and Veterinary Medicine, New York College of Podiatric Medicine and various chiropractic colleges including Logan College of Chiropractic.

Preprofessional Studies in the Health Sciences at FDU: Students preparing for careers in medicine, dentistry or veterinary medicine can major in any area, but should complete certain courses required for entry into professional school in the health sciences. A list of required courses can be obtained from the Advising Center. The required courses include taking biology and chemistry with lab in the freshman year. Students should attend an information session held once a semester by the preprofessional adviser on other ways to prepare for professional school including volunteering, summer programs and standardized-test preparation.

In the junior year, students have the option of preparing a portfolio for the Health Preprofessional Committee, consisting of faculty from biology, chemistry and psychology. The committee evaluates the student’s academic performance and overall preparedness for professional school, and then composes a letter of recommendation on the student’s behalf. The contents of the letter remain confidential, and the student has the option of having the letter sent or not sent on to the professional school to be included in the application. Most students applying for professional school during their time at FDU apply nine to 12 months before graduation, depending on school deadlines.

Students with questions on applying to professional schools in the health sciences can contact Dr. James Salierno at salierno@fdu.edu or (973) 443-8776. Qualified students have the opportunity to join the University Honors Program, see page 50.

General Curricular Requirements
Candidates for the degrees of Bachelor of Arts or Bachelor of Science must complete a minimum of 120 credits of course work, including completion of the College’s general education requirements, which require from 46 to 48 credits, depending on exemptions, distributed as outlined on the next page. Programs leading to the Bachelor of Arts degree require from 30 to 45 credits in an area of concentration. The programs for the Bachelor of Science degree require a greater number of credits. Minors usually consist of 15 credits and are available in most disciplines in the College. The College also offers interdisciplinary minors. In addition to completing the requirements for the College general education requirements and for their majors, students shall complete such additional credits in free electives to meet the minimum requirement of 120 credits.

College General Education Requirements
Below is the core curriculum (general educations requirements) for those stu-
dents entering Becton College in the fall semester of 2017 and thereafter.

A comprehensive General Education requirement is indispensable to a liberal arts experience.

**College Writing (6 credits)**
The basic writing skills for all Becton College students are ENGW1001 Composition I: Rhetoric and Inquiry and ENGW1002 Composition II: Research and Argument. ENGW1001 is a prerequisite for ENGW1002. The second course should be completed within the student’s first 64 credits.

Based on placement scores, some students may be required to complete ENGW1000 Introduction to Composition to achieve the prerequisite skills needed for enrolling in ENGW1001 Composition I: Rhetoric and Inquiry.

**Quantitative Analysis (6-7 credits)**
Students must complete 6 to 7 credits of quantitative analysis with one course from the following: MATH1107 Precalculus, MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods, along with an additional course selected in consultation with an academic adviser in the student’s major.

Students majoring in biology, chemistry, computer science or mathematics should register for either MATH1107 Precalculus or MATH1205 Calculus I, as determined by placement examination scores.

Those with placement scores below the standards for the above four courses (MATH1107, MATH1126, MATH1128, MATH1205) must complete courses in prerequisite skills. Students who achieve a satisfactory score on the SAT or placement test may waive 3 credits of the Quantitative Analysis requirement.

**Public Speaking (3 credits)**
This requirement may be fulfilled through successful completion of COMM2099 Professional Communications or SPC1107 Fundamentals of Speech.

**Ethical and Moral Analysis (3 credits)**
Specific courses in ethics meet this requirement.

**Modern Language (3-4 credits)**
All Becton students must demonstrate proficiency in a foreign language at the 2000 level either by completing that course in their selected language or by demonstrating proficiency at that level on a placement test. The department of literature, language, writing and philosophy currently offers instruction at the introductory 1002 level for Arabic, Spanish, French, Italian, German, Chinese and Japanese.

**Humanities (6 credits)**
Courses in disciplines such as art history, cinema, history, literature, music-humanities, philosophy and theater-humanities meet this requirement. One course must be at the 2000-level or above.

**Social and Behavioral Sciences (6 credits)**
Courses in disciplines such as African-American studies, anthropology, criminology, communication studies, economics, geography, government and law, psychology and sociology meet this requirement. One course must be at the 2000-level or above.

**Natural Sciences (7 credits)**
Courses from multiple disciplines including biology, chemistry, computer science and physics meet this requirement.

**Creative and Expressive Arts (3 credits)**
Students select from courses in animation, art, dance, graphic design, film, music and theater to meet this requirement.

**Global and Comparative Studies (3 credits)**
Students select from a wide range of courses drawn from such disciplines as anthropology, art history, criminology, film, geography, history, literature, languages and theater.

**University Requirements (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV1001</td>
<td>1</td>
</tr>
<tr>
<td>Transitioning to University Life</td>
<td></td>
</tr>
<tr>
<td>UNIV1002</td>
<td>1</td>
</tr>
<tr>
<td>Preparing for Professional Life</td>
<td></td>
</tr>
<tr>
<td>UNIV2001</td>
<td>3</td>
</tr>
<tr>
<td>Cross-cultural Perspectives</td>
<td></td>
</tr>
<tr>
<td>UNIV2002</td>
<td>3</td>
</tr>
<tr>
<td>Global Issues</td>
<td></td>
</tr>
</tbody>
</table>

**The Major**
Each student must select a major, consisting of group-related courses in an area of specialization, before entering the fifth or sixth semester. The courses in a major must total at least 30 credits including introductory-level courses, but may not total more than 45 in a single discipline for programs leading to the Bachelor of Arts degree. A greater degree of specialization is allowed in programs leading to the Bachelor of Science degree. Details and explanations of the various major programs are set out in the following pages. A 2.33 cumulative grade point ratio in the major and, if applicable, in the second major is required in the Maxwell Becton College of Arts and Sciences in order to graduate.

**Electives**
Students may wish to take introductory courses in their major field of interest before the fifth or sixth semester. Other electives may be chosen from courses offered in any of the undergraduate colleges if prerequisites can be met. Qualified students may request permission to elect graduate courses in their seventh and eighth semesters.

**ROTC (Reserve Officers’ Training Corps)**
The College of Arts and Sciences will accept 17 credits in military science as electives counting toward the 120-credit minimum required for the bachelor’s degree.

**Becton College Learning Communities**
The Maxwell Becton College of Arts and Sciences offers several opportunities for incoming students to participate in designated Learning Communities (LC) as part of their first-year experience. LCs make use of a cohort system whereby students will take introductory classes in the major (and, in some cases, General Education courses) with other incoming students who either share the major or the area of interest. Students are also placed into an LC-specific section of UNIV1001 Transitioning to University Life. UNIV1001 is the first course in the University Core program, which provides support for the transition to University life.

In addition to completing course work with a group of like-minded students, LCs also engage in activities as a group outside of the classroom. These activities may include field trips or visits from invited guests with expertise in their respective fields, hands-on and project-based research with faculty, as well as engaging with the local community through service projects and events.
Honors Programs • Double Majors and Minors

Maxwell Becton College of Arts and Sciences
Florham Campus

Overall, Learning Communities offer a unique opportunity to work — both inside and outside the classroom — with both full-time faculty and fellow students in their major during their first year of study at the Florham Campus. Interested students will have the opportunity to join a Learning Community (topics and disciplines of the Learning Communities rotate from year to year) when preparing their first-year schedule.

Independent Study
Juniors and seniors may take from 1 to 3 credits each semester in individual intensive study under the direction of a specific faculty member, according to the criteria set forth for such independent study by the department concerned. Consent of the instructor, department chairperson and dean is required.

Students may count no more than 12 credits of independent study toward the completion of the minimum requirements of their majors or the minimum requirements for their degrees. Students may elect independent study in any of the discipline offerings of the College.

Honors Programs

Discipline-oriented Becton Honors Program
The honors program at FDU’s Maxwell Becton College of Arts and Sciences is the right choice for the student whose goal is excellence. The enhanced honors curriculum provides in-depth study for those striving for proficiency in their major fields of study. In FDU’s tradition of excellence, students develop a strong foundation of skills that will benefit them in many future endeavors.

A student may select the Becton Honors Program in most of the College’s majors, including:
• Biology
• Chemistry
• Computer Science
• Creative Writing
• English Language and Literature
• Film and Animation
• Fine Arts
• Government and Law
• History
• Mathematics
• Psychology
• Sociology

Students in the Becton College Honors Program enjoy a supportive and challenging academic atmosphere. The demanding and rigorous curriculum is complemented by extensive personalized attention that helps tailor students’ studies to their needs. Students work closely with faculty members in honors seminars, in classes and on a special honors project.

Students in the honors program:
• Engage in self-directed scholarly inquiry and research;
• Acquire sophisticated knowledge of and skills in their chosen field;
• Prepare for high levels of achievement in advanced study and professional life;
• Learn to explore new ideas and take intellectual risks;
• Develop an enhanced awareness of their discipline’s standards and ethics;
• Cultivate habits of independent thought and creativity; and
• Strive for objectivity in scholarly discourse and analysis.

Honors students also are encouraged to take advantage of a unique cultural, academic and social experience by spending a semester at the University’s Wroxton College in England. Housed in a 17th-century Jacobean mansion, Wroxton offers a diverse range of studies, a highly qualified, all-British faculty and the enlightenment of studying abroad. While there, students can venture on exciting cultural and recreational excursions to places such as Oxford, Stratford-upon-Avon, London and mainland Europe.

Other Honors Programs
Students interested in a more broadly based honors experience rather than honors in a major can choose the University Honors Program. It has an interdisciplinary focus building on honors courses in the University Core and has a separate application process. (See page 50.)

The living-learning communities for residential freshman students focus on developing students’ interest and knowledge in special studies areas.

Double Majors and Minors
The College of Arts and Sciences offers students the opportunity to increase the flexibility and marketability of their undergraduate curriculum by combining their majors with other disciplines to form double majors and minors. In addition to the traditional single-major program, the College offers opportunities for:
• double majors, see this page
• discipline minors, see this page
• interdisciplinary minors, see page 58 and
• personalized minors, see page 63.

As recent literature on developments in the workplace suggest, students who have a “portfolio of marketable skills” will be more employable in the future. Combining, for example, a major in government and law with a second major in psychology or with minors in computer science or philosophy positions a student well for employment in fields that require analytical or technical skills and knowledge of human motivation and social structure. Combining a major in the School of the Arts with a minor in communication could position a student for a career in arts management.

The College faculty suggests that students, in consultation with their advisers, give careful thought to strategic combinations of courses and disciplines.

Double Majors
Double majors involve meeting the requirements of two different disciplines. This is often possible if most free-elective credits are used for the second major. Courses used to satisfy the College core requirements may in some cases satisfy second major requirements. Completing a double major is accomplished more easily in the humanities and the social and behavioral sciences in which major credits usually number between 30 and 42.

Discipline Minors
Discipline minors exist in most disciplines and in most departments. Discipline minors usually consist of 15 credits in a specific discipline. Becton College offers minors in the following disciplines: animation, anthropology, art history, biology, chemistry, communication, computer science, creative writing, economics, film, French, geography, German, government and law, graphic design, history, Italian, mathematics, music, philosophy, physics, psychology, sociology, Spanish and theater arts. The description of each minor is usually provided in the section of the major or a concentration. Consult the Index for specific page numbers.
French Language Minor
The 15-credit French language minor is comprised of the sequence of language courses indicated below. This ensures that the student who has completed this minor will be reasonably fluent in the language and capable of reading and appreciating written and oral communication in French while also having a fair grasp of French literature and culture.

Students who are assessed as sufficiently advanced in the language so as to opt out of one or more of the required language courses may choose from the array of French (FREN) courses, with work done in the target language. The student who takes all four language courses is left with one additional course needed to complete the minor; this course can also be selected from the available FREN courses that are offered regularly, with work done in the target language. At most, one course may be taken in English.

Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN1001</td>
<td>Beginning French I</td>
<td>3</td>
</tr>
<tr>
<td>FREN1002</td>
<td>Beginning French II</td>
<td>3</td>
</tr>
<tr>
<td>FREN1008</td>
<td>French Practicum I*</td>
<td>1</td>
</tr>
<tr>
<td>FREN2003</td>
<td>French Conversation I</td>
<td>3</td>
</tr>
<tr>
<td>FREN2004</td>
<td>French Conversation II</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Course (3 credits)

Choose one from the following:
- FREN2005  French Film                                             3
- FREN2008  Writing in French                                      3
- FREN2203  Contemporary France                                    3
- FREN3010  Advanced French Grammar                                3
- FREN3051  Sex and Politics in French Literature                 3
- FREN3551  Topics in French Literature I                         3
- FREN3552  Topics in French Literature II                        3

Geography Minor
The geography minor is designed to offer Becton College students 15 credits of relevant geography classes from 1000-, 2000- and 3000-level course offerings.

Required Course (3 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG1102</td>
<td>Geography and World Issues</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives* (12 credits)

Choose four from the following:
- GEOG1111  Economic Geography                       3
- GEOG2500  Global Development: Geographies of Wealth and Poverty | 3
- GEOG2600  Urban Geography                          3
- GEOG3030  Surveillance and Security                3
- GEOG3040  Capture and Control Geographies of Detention and Incarceration | 3

German Language Minor
Students must complete 15 credits in German courses. Select courses may be taken at partner institutions to complete the minor. Please contact the department of literature, language, writing and philosophy for details and approval.

Italian Language Minor
The 15-credit Italian language minor is comprised of the sequence of language courses indicated below. This ensures that the student who has completed this minor will be reasonably fluent in the language and capable of reading and appreciating written and oral communication in Italian while also having a fair grasp of Italian literature and culture.

Students who are assessed as sufficiently advanced in the language so as to opt out of one or more of the required language courses may choose from the array of Italian courses, with work done in the target language. The student who takes all four language courses is left with one additional course needed to complete the minor; this course can also be selected from the available Italian courses that are offered regularly, with work done in the target language. At most, one course may be taken in English.

Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL1001</td>
<td>Beginning Italian I</td>
<td>3</td>
</tr>
<tr>
<td>ITAL1002</td>
<td>Beginning Italian II</td>
<td>3</td>
</tr>
<tr>
<td>ITAL1008</td>
<td>Italian Practicum II*</td>
<td>1</td>
</tr>
<tr>
<td>ITAL2003</td>
<td>Italian Conversation I</td>
<td>3</td>
</tr>
<tr>
<td>ITAL2004</td>
<td>Italian Conversation II</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective (3 credits)

Choose one from the following:
- ITAL2005  Italian Cinema                                         3
- ITAL3053  Creating a Nation                                       3
- ITAL3055  The Italian-American Experience                      3
- ITAL3056  Italy: Land of Migrations                            3

Physics Minor
The 18- to 20-credit physics minor is designed for students who enjoy physics and are interested in gaining a broader exposure to physics concepts, experimental techniques and computational paradigms, while at the same time gaining transferable skills and ways of thinking applicable to jobs within their primary field of interest.

Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS2003</td>
<td>General Physics with Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2004</td>
<td>General Physics with Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS3206</td>
<td>Modern Physics (Lecture and Laboratory)</td>
<td>4</td>
</tr>
</tbody>
</table>

Electives (6-8 credits)

Select from the following:
- PHYS2800  Sophomore Independent Study                1-6
- PHYS3210  Advanced Mechanics                         3

*Practica, although required for language classes, do not count toward the minor.

*Additional courses will be added to this list as more course offerings become available.
Double Majors and Minors
Maxwell Becton College of Arts and Sciences
Florham Campus

Spanish Language Minor
The 15-credit Spanish language minor is comprised of the sequence of language courses indicated below. This ensures that the student who has completed this minor will be reasonably fluent in the language and capable of reading and appreciating written and oral communication in Spanish while also having a fair grasp of Spanish literature and culture.

Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS3220</td>
<td>3</td>
</tr>
<tr>
<td>Mathematical Methods for Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS3240, PHYS3241</td>
<td>4</td>
</tr>
<tr>
<td>Optics (Lecture and Laboratory)</td>
<td></td>
</tr>
<tr>
<td>PHYS3250</td>
<td>3</td>
</tr>
<tr>
<td>Thermodynamics</td>
<td></td>
</tr>
<tr>
<td>PHYS3277</td>
<td>3</td>
</tr>
<tr>
<td>Solid State Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS3530</td>
<td>3</td>
</tr>
<tr>
<td>Electricity and Magnetism I</td>
<td></td>
</tr>
<tr>
<td>PHYS3800</td>
<td>1–6</td>
</tr>
<tr>
<td>Junior Independent Study</td>
<td></td>
</tr>
<tr>
<td>PHYS4250</td>
<td>3</td>
</tr>
<tr>
<td>Quantum Mechanics I</td>
<td></td>
</tr>
<tr>
<td>PHYS4401</td>
<td>2</td>
</tr>
<tr>
<td>Physics Seminar</td>
<td></td>
</tr>
<tr>
<td>PHYS4450</td>
<td>1–3</td>
</tr>
<tr>
<td>Selected Studies in Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS4800</td>
<td>1–6</td>
</tr>
<tr>
<td>Senior Independent Study in Physics</td>
<td></td>
</tr>
</tbody>
</table>

Elective (3 credits)
Choose one from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN1002</td>
<td>3</td>
</tr>
<tr>
<td>Beginning Spanish II</td>
<td></td>
</tr>
<tr>
<td>SPAN1008</td>
<td>1</td>
</tr>
<tr>
<td>Spanish Practicum II*</td>
<td></td>
</tr>
<tr>
<td>SPAN2003</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Conversation I</td>
<td></td>
</tr>
<tr>
<td>SPAN2004</td>
<td>3</td>
</tr>
<tr>
<td>Spanish Conversation II</td>
<td></td>
</tr>
</tbody>
</table>

*Practica, although required for language classes, do not count toward the minor.

Interdisciplinary Minors
Interdisciplinary minors incorporate courses and faculty from various disciplines within the college. Becton College currently offers a wide array of interdisciplinary minors listed on this page to page 63, but others are in various stages of proposal and development.

Advertising Interdisciplinary Minor
The advertising minor is designed for students interested in studying the theoretical, practical and creative elements that go into the creation of compelling and successful advertisements and advertising campaigns. The philosophy behind the minor builds on the recognition that the professional domain of advertising draws from many varied disciplines.

First, students must develop a foundational understanding of the concepts and theories included in the areas of advertising and marketing.

Then they must develop and polish their theoretical understanding and professional skills in the areas of computer graphics, desktop publishing and basic video making — they need to understand all the theoretical and creative elements that go into the creation of both print ads and commercials.

Finally, students should be given the opportunity to develop their skills with courses that will enhance their knowledge regarding account management, campaign planning, implementation and evaluation. For information contact the department of communication studies or the School of the Arts.

Required Courses (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CGD1515</td>
<td>3</td>
</tr>
<tr>
<td>Creative Imagery with Photoshop</td>
<td></td>
</tr>
<tr>
<td>CGD1514</td>
<td>3</td>
</tr>
<tr>
<td>Illustrator Graphics and Design</td>
<td></td>
</tr>
<tr>
<td>COMM2221</td>
<td>3</td>
</tr>
<tr>
<td>Advertising Principles</td>
<td></td>
</tr>
</tbody>
</table>

Elective Courses (6 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGD2370</td>
<td>3</td>
</tr>
<tr>
<td>Print Layout</td>
<td></td>
</tr>
<tr>
<td>CGD3563</td>
<td>3</td>
</tr>
<tr>
<td>Interactive Publishing</td>
<td></td>
</tr>
<tr>
<td>COMM3245</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Advertising and Promotions</td>
<td></td>
</tr>
<tr>
<td>COMM4001</td>
<td>3</td>
</tr>
<tr>
<td>Communication Internship I</td>
<td></td>
</tr>
<tr>
<td>ANIM1750</td>
<td>3</td>
</tr>
<tr>
<td>Motion Graphics with After Effects®</td>
<td></td>
</tr>
<tr>
<td>FILM1005</td>
<td>3</td>
</tr>
<tr>
<td>Filmmaking I: Basic Production</td>
<td></td>
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</tbody>
</table>

Marketing

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MKTG2120</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>MKTG4272</td>
<td>3</td>
</tr>
<tr>
<td>Consumer Behavior</td>
<td></td>
</tr>
<tr>
<td>MKTG4365</td>
<td>3</td>
</tr>
<tr>
<td>Marketing Communications</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: The identification and inclusion of additional suitable elective courses will continue on an ongoing basis.

African-American Studies Interdisciplinary Minor
The minor in African-American studies exposes students to a program of study concerning African-American culture, life and history in the United States. By expos-
ing students to an interdisciplinary study of African Americans (encompassing history, government and law, sociology, literature, music and anthropology), the minor is intended to educate students on how African Americans helped shape American history and culture and continue to transform it today. The minor also emphasizes the relevance of Africa in understanding the attitudes, circumstances and experiences of African Americans. The core course, AFAM2001 Introduction to African-American Studies, will ground students in the fundamentals of interdisciplinary study. In the electives, the students will learn that the African-American experience is not only an integral part of the United States experience but also integral to understanding the world at large. For information contact the department of literature, language, writing and philosophy.

Required Course (3 credits)
AFAM2001 Introduction to African-American Studies

Select Elective Courses (12 credits)
Choose four of the 3-credit courses below to include at least one each from history, literature and sociology.

African-American Studies
AFAM3557 Sociology of the African-American Family
AFAM3558 Sociology of the Black Church
AFAM3559 Sociology of Race, Rap and Religion

History
HIST2350 Colonial and Revolutionary America
HIST2351 The United States in the Early Republic
HIST2352 Civil War and Reconstruction

Literature
LITS3013 African-American Literature
LITS3202 American Writers: Race in Black and White

Music History
MUSHI1021 Popular Music and Jazz

Related Elective Courses (3 credits)
Choose any one of the 3-credit courses below:
ANTH2335 African Peoples and Cultures
COMM2866 Women and Minorities in Media
HIST2202 Introduction to African History
HIST2402 Atlantic Worlds
HIST4205 Seminar: Race and Empire
LITS3071 Contemporary African Literature and Culture

British Studies Interdisciplinary Minor
The 13-credit British studies minor is designed to offer Becton College students who study for the fall/spring semester at Wroxton College the opportunity to earn a minor that recognizes Wroxton.

Wroxton College Courses
Choose any 12 to 15 credits taken during a fall or spring semester to qualify for the minor, but excluding UNIV2001 Cross-cultural Perspectives.

Becton College/Wroxton College Courses
Choose either 3 or 6 of the following credits, a program offered jointly every odd year with course sessions at Becton College followed by two weeks at Wroxton with site tours in England and France. One can also use an authorized substitute course from another Wroxton summer program.

HIST2424 Western Front in World War I
HIST2425 Western Front in World War II

Becton College Courses
Choose any three of the following credits beyond the 12 to 15 relevant credits taken at Wroxton. One can also use an authorized substitute course.

HIST3350 U.S. as a Continental Power, 1607–1898
LITS3020 18th-century British Literature
LITS3021 Victorian Age
LITS3054 Romanticism
LITS3073 Irish Literature
LITS3201 British Writers
LITS3212 Chaucer
LITS3213 Shakespeare I
LITS3214 Shakespeare II
LITS3230 Jane Austen: Fiction and Film
LITS3301 The English Language

Note: Students who previously declared an 18-credit minor in this area must complete a “Declaration of Minor” form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor.

Children’s Studies Interdisciplinary Minor
The children’s studies minor provides students with a multidisciplinary understanding of the idea of childhood in human society. Using the disciplinary perspectives of literature, psychology, sociology and anthropology, the minor grounds students in an understanding of childhood as preparation for employment in childcare services and advocacy or advanced study in the fields of education, literature, psychology, sociology and anthropology. Offered jointly by the department of literature, language, writing and philosophy; the department of communication studies; and the department of social sciences and history, the minor requires 15 credits. Students select five 3-credit courses from the list below, making selections from at least three different disciplines.

Anthropology
ANTH3102 Anthropology of Children and Childhood

Communication
COMM5014 Family Communication

Literature
LITS3305 World Folk Literature
LITS3511 Children’s Literature
LITS3512 Young Adult Literature

Psychology
PSYC3001 Human Development (Child)
PSYC3502 Human Development (Adolescent)

Sociology
SOCI2316 Sociology of the Family
SOCI2317 Children and Society
SOCI3310 Juvenile Delinquency
SOCI3344 Schools and Society

Dramatic Literature and Performance Interdisciplinary Minor
The dramatic literature and performance minor provides grounding in theatrical history, theory and performance practices as a cultural enrichment and as preparation for advanced study or employment in the theater. This minor is offered jointly by the department of literature, language, writing and philosophy and the School of the Arts and consists of 18 credits.

3 credits of Shakespeare
LITS3213 Shakespeare I
or
LITS3214 Shakespeare II

Credits
## Double Majors and Minors

Maxwell Becton College of Arts and Sciences
Florham Campus

### Economics Interdisciplinary Minor

The economics interdisciplinary minor introduces students to the basic concepts, theories, modeling approaches and methods of economics. The 15-credit minor consists of two required field courses, a required methodology course and a modeling course that can be satisfied by taking one of two courses and an elective from economics or finance.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON2001 Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON2102 Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON2250 Economic Methods</td>
<td>3</td>
</tr>
<tr>
<td>ECON4844 Game Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON4845 Agents in the Matrix: Creating and Analyzing Agent-based Models</td>
<td>3</td>
</tr>
<tr>
<td>BUS1000 Foundations of Business</td>
<td>3</td>
</tr>
<tr>
<td>COMM2099 Professional Communications</td>
<td>3</td>
</tr>
<tr>
<td>FILM3427 Distributing Movies and Media</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3360 Digital Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>

*Prerequisite is MKTG2120 Principles of Marketing.*

### Forensics Interdisciplinary Minor

The forensics interdisciplinary minor is a 16-credit minor designed for students who are interested in how physical and psychological evidence resolve issues involving criminal behavior, crime scenes and criminal investigations. This highly popular field spans many disciplines, drawing from psychology, sociology, government and law, chemistry, biology, literature and philosophy.

Students are required to take PSYC3360 Forensic Psychology and an introductory science course with a forensics component (4 credits). Students can then select the remaining 9 credits from a broad array of elective courses in multiple disciplines.

In order to fulfill the minor, students are required to take no more than 3 credits of their elective courses in any single discipline.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS1000 Introduction to Entrepreneurship and Innovation</td>
<td>3</td>
</tr>
<tr>
<td>FILM3426 Producing Movies</td>
<td>3</td>
</tr>
<tr>
<td>MKTG2120 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>BUSI1000 Foundations of Business</td>
<td>3</td>
</tr>
<tr>
<td>COMM2099 Professional Communications</td>
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<td>MKTG3360 Digital Marketing</td>
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</tr>
</tbody>
</table>

### Double Majors and Minors

#### 5 credits of Development Theater

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEAH1201 Development of the Theater: Ancient to Elizabethan</td>
<td>3</td>
</tr>
<tr>
<td>THEAH1202 Development of the Theater: Restoration to Today</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Two of the following 3-credit literature courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS3101 Greek and Roman Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3102 Studies in Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3103 Modern Drama: 1880–1930</td>
<td>3</td>
</tr>
<tr>
<td>LITS3104 Contemporary American Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3105 Contemporary European Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3106 Contemporary World Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3213 Shakespeare I</td>
<td>3</td>
</tr>
<tr>
<td>LITS3214 Shakespeare II</td>
<td>3</td>
</tr>
</tbody>
</table>

#### 6 credits from the following 3-credit dance and theater courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN1320 Beginning Dance I</td>
<td>3</td>
</tr>
<tr>
<td>THEA1203 Basic Acting I</td>
<td>3</td>
</tr>
<tr>
<td>THEA2005 Directing I</td>
<td>3</td>
</tr>
<tr>
<td>THEA2339 Musical Theater Workshop</td>
<td>3</td>
</tr>
<tr>
<td>THEA3336 Acting for Film and Television</td>
<td>3</td>
</tr>
<tr>
<td>THEAH1201 Development of the Theater: Ancient to Elizabethan</td>
<td>3</td>
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</table>

#### Economics Interdisciplinary Minor

<table>
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<tbody>
<tr>
<td>BUSI1000 Foundations of Business</td>
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<td>COMM2099 Professional Communications</td>
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#### Forensics Interdisciplinary Minor

The forensics interdisciplinary minor is a 16-credit minor designed for students who are interested in how physical and psychological evidence resolve issues involving criminal behavior, crime scenes and criminal investigations. This highly popular field spans many disciplines, drawing from psychology, sociology, government and law, chemistry, biology, literature and philosophy.

Students are required to take PSYC3360 Forensic Psychology and an introductory science course with a forensics component (4 credits). Students can then select the remaining 9 credits from a broad array of elective courses in multiple disciplines.

In order to fulfill the minor, students are required to take no more than 3 credits of their elective courses in any single discipline.

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</tbody>
</table>

### Entertainment and Business Management Interdisciplinary Minor

The entertainment and business management interdisciplinary minor allows students to focus on the unique requirement of developing a product for the entertainment and/or communication industries. Aspects of production management and communication are addressed, and the student will learn about the business role of the producer, from acquiring a product, through production and distribution. Skills involved and developed include leadership, communication, marketing and accounting.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENTR2700 Introduction to Entrepreneurship and Innovation</td>
<td>3</td>
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<tr>
<td>FILM3426 Producing Movies</td>
<td>3</td>
</tr>
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<td>MKTG2120 Principles of Marketing</td>
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</table>

### Electives (6 credits)

Select from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BUSI1000 Foundations of Business</td>
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<td>COMM2099 Professional Communications</td>
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<td>FILM3427 Distributing Movies and Media</td>
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*Prerequisite is MKTG2120 Principles of Marketing.*

### Forensics Interdisciplinary Minor

The forensics interdisciplinary minor is a 16-credit minor designed for students who are interested in how physical and psychological evidence resolve issues involving criminal behavior, crime scenes and criminal investigations. This highly popular field spans many disciplines, drawing from psychology, sociology, government and law, chemistry, biology, literature and philosophy.

Students are required to take PSYC3360 Forensic Psychology and an introductory science course with a forensics component (4 credits). Students can then select the remaining 9 credits from a broad array of elective courses in multiple disciplines.

In order to fulfill the minor, students are required to take no more than 3 credits of their elective courses in any single discipline.

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<td>MKTG3360 Digital Marketing</td>
<td>3</td>
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</tbody>
</table>

### Electives (9 credits)

Select three courses from the following, with no more than 3 credits within a single discipline:

#### Biology

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1105 Current Topics in Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL1202 Introduction to Molecules, Cells and Genes</td>
<td>3</td>
</tr>
<tr>
<td>BIOL2030 Cell Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL3009 Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL3256 Genetics</td>
<td>3</td>
</tr>
<tr>
<td>BIOL3332 Immunology</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Chemistry

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM1201 General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2221 Analytical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2581 Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM3100 Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CMGY1306 Introduction to Crime and Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CMGY2300 Wrongful Convictions</td>
<td>3</td>
</tr>
<tr>
<td>CMGY2307 Deviance and Social Control</td>
<td>3</td>
</tr>
</tbody>
</table>
Double Majors and Minors

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CMLGY2533  Criminal Law
CMLGY2560  Victimology
CMLGY2701  Penology
CMLGY3301  Women and Crime
CMLGY3308  Law and Society
CMLGY3309  Policy Analysis
CMLGY3310  Juvenile Delinquency

Philosophy
PHIL1011  Introduction to Logic

Psychology
PSYCH3005  Abnormal Psychology
PSYCH3032  Physiological Psychology
PSYCH3302  Human Development
(Adolescent)
PSYCH3310  Social Psychology
PSYCH3334  Psychopharmacology
PSYCH4291  History and Systems of Psychology

Gender Studies Interdisciplinary Minor

Gender studies is an interdisciplinary program that places gender at the center of its analysis, research and scholarship. Gender studies draws from a wide range of disciplines, including literature, government and law, anthropology, sociology, criminology and psychology, to investigate how gender operates at every level of society, from the individual to the structural, from daily interactions to global processes. Although many aspects of gender studies have been inspired by feminism, a broad variety of theoretical approaches are used to study gender, including women’s studies, men’s studies and gay and lesbian studies. For information, contact the department of psychology and counseling, the department of social sciences and history or the department of communication studies.

The gender studies minor consists of 15 credits of gender studies-designated courses, such that at least three different disciplines are represented. At least nine credits in the minor must be at the 3000- or 4000-level.

The following is a sample of gender studies-designated courses:
ARTH3423  Women Artists
BIOL1010  Human Sexuality
CMLGY3301  Women and Crime
COMM2866  Women and Minorities in Media
COMM3014  Family Communication
COMM3051  Communication and Gender
GOVT2070  Women and American Politics
GOVT2071  Gender and Public Policy
LITS3221  Medieval and Renaissance Women Writers
SOCI3314  Sociology of Gender
SPAN4005  Latin-American Women Writers

Globalization and Society Interdisciplinary Minor

The globalization and society minor provides students with an understanding of the complex phenomenon of globalization. By using the disciplinary perspectives of anthropology, communication, economics, literature and sociology, the minor provides students with two things. One, it expands their disciplinary and interdisciplinary knowledge. Second, it makes them better prepared for employment opportunities in an interconnected world. Offered jointly by the department of literature, language, writing and philosophy; the department of communication studies; and the department of social sciences and history, the minor requires 18 credits. Since most theorization of globalization is rooted within the sociological perspective, students are required to take SOCI2248 Globalization, Culture and Identity and five other courses from the following list, making selections from at least two different disciplines.

Anthropology
ANTH2335  African Peoples and Cultures
ANTH2338  Israeli Society and Culture
ANTH3102  Anthropology of Children and Childhood

Communication
COMM3019  Global Communication

Economics
ECON3310  Current Economic Problems

History
HIST1150  World History I
HIST1151  World History II
HIST3322  The Roman Empire
HIST3347  History of Modern China

Literature
LITS3061  Contemporary World Literature

Required Courses (3-6 credits)

Courses
Credits
ITAL1002  Beginning Italian II.........................3
ITAL2005  Italian Conversation I or
ITAL2004  Italian Conversation II......................3

Language and Literature Electives (3-6 credits)

Courses
Credits
ITAL2005  Italian Cinema..................................3
ITAL3590  Italian Mafia in Literature and Film.....3
ITAL4800  Independent Study in Italian.............1–6
Double Majors and Minors
Maxwell Becton College of Arts and Sciences
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History and Social Science Electives
(6 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HIST2223</td>
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</tr>
<tr>
<td>Renaissance and Reformation</td>
<td>3</td>
</tr>
<tr>
<td>HIST3321</td>
<td></td>
</tr>
<tr>
<td>The Roman Republic</td>
<td></td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>HIST3322</td>
<td></td>
</tr>
<tr>
<td>The Roman Empire</td>
<td>3</td>
</tr>
</tbody>
</table>

Bergamo Courses
Students will receive credit for relevant courses approved by the department in Italian-centered curriculum.

Japanese Studies Interdisciplinary Minor
Students must complete 15 credits combining language courses, up to the intermediate level, and courses related to the nation(s) where the language is spoken. Select courses may be taken at partner institutions to complete the minor. Please contact the department of literature, language, writing, and philosophy for details and approval.

Latin-American Studies Interdisciplinary Minor
The Latin-American studies minor is a 15-credit cultural studies program designed to offer Becton College students an interdisciplinary minor that incorporates Latin American-centered curriculum to include Spanish language as well as literature and history. Students can also earn credit through courses linked to short-term study abroad in Latin America regularly offered at Becton College, while they can also earn credit from a full-semester, study-abroad program in Latin America.

Requirements
From the 15 credits available:
• Students need a minimum of 6 credits in language and literature and 6 credits in history.
• The students can take the remaining 3 credits in either language and literature or history

Language and Literature Courses

Required Language and Literature Courses
Pick 1 or 2 courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN1002</td>
<td></td>
</tr>
<tr>
<td>Beginning Spanish II</td>
<td>3</td>
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<tr>
<td>SPAN2003</td>
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<tr>
<td>Spanish Conversation I*</td>
<td>3</td>
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<tr>
<td>SPAN2004</td>
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<tr>
<td>Spanish Conversation II*</td>
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<td>SPAN2009</td>
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<tr>
<td>Spanish for Professions</td>
<td>3</td>
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<tr>
<td>SPAN3411</td>
<td></td>
</tr>
<tr>
<td>Latin-American Culture and Civilization (Spanish)</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Language and Literature Courses
Pick 0 to 2 courses:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>SPAN2006</td>
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</tr>
<tr>
<td>Music in Spanish: Writing and Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN2007</td>
<td></td>
</tr>
<tr>
<td>Hispanic Current Events: Writing and Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN2008</td>
<td></td>
</tr>
<tr>
<td>Hispanic Film: Writing and Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN2507</td>
<td></td>
</tr>
<tr>
<td>Latin-American Culture and Civilization (English)</td>
<td>3</td>
</tr>
<tr>
<td>SPAN2530</td>
<td></td>
</tr>
<tr>
<td>Latin-American Film</td>
<td>3</td>
</tr>
<tr>
<td>SPAN3310</td>
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<tr>
<td>Latin-American Women Writers</td>
<td>3</td>
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<tr>
<td>SPAN3451</td>
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</tr>
<tr>
<td>Latin-American Short Stories</td>
<td>3</td>
</tr>
<tr>
<td>SPAN3441</td>
<td></td>
</tr>
<tr>
<td>Latin-American Theater</td>
<td>3</td>
</tr>
<tr>
<td>SPAN3463</td>
<td></td>
</tr>
<tr>
<td>The Hispanic Essay</td>
<td>3</td>
</tr>
<tr>
<td>SPAN4440</td>
<td></td>
</tr>
<tr>
<td>The Hispanic Novel: From Cervantes to Garcia Márquez</td>
<td>3</td>
</tr>
</tbody>
</table>

History Courses

Available History Courses
Pick 2 or 3 courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST2501</td>
<td></td>
</tr>
<tr>
<td>Colonial Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST2502</td>
<td></td>
</tr>
<tr>
<td>Modern Latin America</td>
<td>3</td>
</tr>
</tbody>
</table>

*SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II may be taken in any order.

Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST2503</td>
<td></td>
</tr>
<tr>
<td>Indigenous Peoples of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST2504</td>
<td></td>
</tr>
<tr>
<td>Gender and Race in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIST2506</td>
<td></td>
</tr>
<tr>
<td>Pre-Columbian Americans</td>
<td>3</td>
</tr>
<tr>
<td>HIST3251</td>
<td></td>
</tr>
<tr>
<td>Crime and Punishment in Latin America</td>
<td>3</td>
</tr>
</tbody>
</table>

Or in Conjunction with Study Abroad
(Short term of 3-6 credits or full-semester study abroad of up to 15 credits is highly recommended. Students will receive credit for relevant courses approved by the department of social sciences and history for Latin-American and/or Spanish-centered curriculum.

Prelaw Interdisciplinary Minor
The 15-credit prelaw minor provides students with the substantive background and specific skills for success in law school as well as basic exposure to legal systems and concepts. The prelaw minor targets these areas for development.
1. Clear, concise, organized writing;
2. Logic and reasoning skills;
3. Oral argument and advocacy;
4. Effective argument construction and assessment; and
5. Exposure to legal thinking and terminology.

Required Course (3 credits)
GOVT1200
Introduction to Law*

or

GOVT3240
Law and Society..........................3

Electives (12 credits)
Select from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFAM2100</td>
<td></td>
</tr>
<tr>
<td>The New Jim Crow</td>
<td>3</td>
</tr>
<tr>
<td>ANTH2431</td>
<td></td>
</tr>
<tr>
<td>Anthropology of Crime</td>
<td>3</td>
</tr>
<tr>
<td>ANTH3349</td>
<td></td>
</tr>
<tr>
<td>War and Crime</td>
<td>3</td>
</tr>
<tr>
<td>CMLG1306</td>
<td></td>
</tr>
<tr>
<td>Introduction to Crime and Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CMLG2317</td>
<td></td>
</tr>
<tr>
<td>Probation and Parole: Theory and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

*This course should be taken before the other classes in the prelaw minor sequence.
Teacher Certification
Maxwell Becton College of Arts and Sciences
Florham Campus

CMLGY2503
Crime and Media.......................... 3
CMLGY2701
Penology.................................... 3
GOVT1200
Introduction to Law....................... 3
GOVT2030
The Supreme Court........................ 3
GOVT2071
Gender and Public Policy................... 3
GOVT2250
Judicial Process............................ 3
GOVT3210
Civil Liberties and Civil Rights*.......... 3
GOVT3220
Criminal Law................................ 3
GOVT3230
International Criminal Law................. 3
GOVT3240
Law and Society............................ 3
GOVT4220
Advanced Criminal Law..................... 3
HIST3250
Crime and Punishment in South Africa.... 3
HIST3251
Crime and Punishment in Latin America... 3
PHIL2432
Philosophy of Law.......................... 3

Electives (6 credits)
Select two of the following courses:

COMM2005
Narrative Communication in Media and Everyday Life...............3
CREW2002
Creative Writing: Fiction....................3
FILM3303
Advanced Screenwriting I...................3
FILM3304
Advanced Screenwriting II..................3
THEA3255
Advanced Playwriting........................3

Personalized Minor
In consultation with a faculty mentor, a student may design a personalized minor to meet specific needs or interests. The student must then submit to the Becton College Dean’s Office a written rationale for the minor, a title for the minor and a list of the needed courses, demonstrating that they will be offered in time for graduation. The minor is then subject to the approval of the faculty mentor and the associate dean of academic affairs. A Declaration of Minors form must then be completed with the signature of the mentor and a copy given to the Office of Enrollment Services. The faculty mentor must then oversee the minor. Upon graduation, enrollment services will contact the mentor to ensure that the minor will appear on a student’s transcript. The minor should be declared no later than the first semester of the student’s junior year; it must consist of a minimum of 18 credits and it must rely primarily on courses already offered in the College. A student may take up to one Independent Study in order to complete the minor.

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

In New Jersey, the State Department of Education grants approval for teacher certification based upon the following:
• a bachelor’s degree from an accredited institution which includes 60 credits in liberal arts and science courses for elementary education, including at least 3 credits in physiology, biology or health;

*This course will include a significant legal writing emphasis.
Those individuals desiring to teach on the middle-school level (5*, 6*, 7, 8) must qualify for elementary school certification with subject-matter specialization endorsement. In order to do so, the following requirements must be met, according to N.J.A.C. 6A:9–8.1:

1. Hold a Certificate of Eligibility (CE), Certificate of Eligibility with Advanced Standing (CEAS) or standard certificate;
2. Complete study in the characteristics of children and young adolescents (adolescent psychology or developmental psychology);
3. Pass the appropriate state test in content-area specialization for middle school;
4. Complete a prescribed coherent sequence of courses in, but not limited to, one of the following specializations: 15 credits in a single CCCS subject field (mathematics, English, history, etc.);

Prospective teachers in the QUEST (B.A. or B.S./M.A.T.) program follow the traditional route to teacher certification, which requires the candidate to hold a bachelor’s degree from an accredited college or university; to have completed at least 30 credit hours in courses appropriate to the instructional field of certification; and to pass the state-required Praxis II Test. In the traditional route, the professional development requirement is met by completing an approved teacher-education program (which includes course work in education and three levels of practical [field-based] experience — initial exposure in the classroom followed by a more intensive field experience and culminating with a supervised student teaching experience). All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school with at least 175 hours prior to the final, full-time semester of student teaching. If students have met all of the requirements and have completed an approved student-teaching experience, they may be recommended for a “Certificate of Eligibility with Advanced Standing,” which qualifies them to be hired as first-year teachers with a provisional certificate to satisfy the state’s “Induction Year” requirement for standard certification. The hiring school district is required: 1) to provide the new teacher with a mentor and special on-the-job support and 2) to evaluate the new teacher’s performance and make a recommendation on the issuance (or nonissuance) of a standard certificate at the end of the year.

Regarding teacher certification in other states, New Jersey has “reciprocity” with a number of other states and the District of Columbia. Persons seeking employment in another state should write to that state’s office of teacher certification for information.

Course Numbering System

0000 — Developmental Level: remedial or developmental courses intended to prepare students for entry into curriculum or to remove a deficiency, no degree credit.

1000 — Freshman Level: a lower-division course having no formal prerequisites beyond admission into the curricula or intended for freshmen or lower-division students.

2000 — Sophomore Level: a lower-division course having a 1000-level prerequisite or intended for sophomores.

3000 — Junior Level: an upper-division course having a 2000-level prerequisite or intended for juniors or upper-division students.

4000 — Senior Level: an upper-division course or thesis having a 3000-level prerequisite or intended for seniors.

5000–9000 — Graduate Level: a graduate course.

*This requirement does not apply to those who teach in a self-contained classroom.

Allied Health Sciences Majors

Department of Biological and Allied Health Sciences

Detailed information on specific majors is included in the alphabetical listing of majors.

Allied Health Technologies (B.S.A.H.T.)
See page 65.
Concentration: radiologic technology

Clinical Laboratory Sciences (B.S.C.L.S.)
See page 71.
Concentration: medical laboratory science (medical technology)

Medical Imaging Sciences (B.S.M.I.S.)
See page 95.
Concentrations: diagnostic medical sonography, vascular technology

Allied Health Sciences Programs

The programs in the allied health sciences at the Florham Campus are designed to provide the broad, intensive, academic and clinical experiences that undergraduate students need to assume their chosen professions. The core curriculum is designed to meet the professional essentials for state licensing and/or National Registry Examination. The allied health programs may be subject to change to ensure that they are continuously in accordance with professional essentials. Information is available in the Allied Health Office about academic and clinical courses approved after publication of this bulletin.

The programs in allied health articulate with the B.S. degree in biology as well as many other disciplines, permitting flexibility in preparation for an advanced professional degree.

The curriculum provides a special environment in which students can integrate their academic and professional applied learning with the clinical practicum. It emphasizes the need for sound preparation in the natural and physical sciences, familiarity with the disciplines represented by courses in the liberal arts and use of the
latest technological innovations in patient care. The medical directors and clinical and academic faculties supervise this integration using excellent physical facilities and human resources of the primary teaching hospitals. Selected secondary teaching centers in health care hospitals and community services are utilized for required practicum experiential training and also are affiliated by contractual agreement.

All allied health majors must complete 96 credits at FDU in their concentration in addition to the clinical courses required by the affiliate institution.

Should a student desire to attend a clinical institution with which FDU does not have a current affiliation, the director of allied health will try to arrange for the student to attend that institution, provided that the institution is nationally accredited in the student’s particular concentration. Reasonable time constraints must be considered to enable both schools to facilitate such an arrangement.

Students attending Rutgers School of Health Professions (Rutgers SHP) will be awarded a joint (FDU/Rutgers SHP) bachelor of science degree after successfully completing their concentration at that institution. Students attending other institutions will be awarded a bachelor of science degree from FDU in their appropriate concentration.

Undergraduate Admission

Students considering a degree in allied health should have a strong interest and proficiency in science and mathematics. The selection of an allied health career requires a great deal of introspection on the part of the student. A strong sensitivity to patient care, willingness to work with the sick and injured, as well as academic ability are necessary. Candidates must be in good health.

Transfer Students

Transfer students or students who are certified or registry approved may receive transfer credits toward their B.S. degrees. Transfer students must make up areas of deficiency. The admissions department will evaluate transcripts and determine which credits may be accepted toward the allied health program. Permission to enter the allied health program resides with the allied health adviser.

Students with earned associate degrees from accredited institutions may apply for programs leading to a baccalaureate degree in the sciences, humanities, education or business administration. The credits earned in the associate degree program will be evaluated according to University policy, as stated in an earlier section of this bulletin.

Faculty

The academic and clinical faculties, together, have developed innovative and relevant courses critical to the basic principles in all the health fields. The courses are designed to introduce students to professional choices during the initial stages of their formal study. Programs are designed to meet national professional essentials. In order for the program to reflect the needs of consumer education and health care services, consultants in each professional field, together with consumer representatives, provide discussion and feedback on the philosophy and curriculum of the program.

Advising

Allied health majors are assigned to the allied health adviser for advisement. In-depth academic and professional counseling is provided throughout the college experience.

Career Opportunities

The health care delivery system needs humane, competent health professionals to provide primary and preventive health care, as well as to assume professional positions in industry and research.

Students interested in upward mobility must think in terms of a baccalaureate degree and/or a double major. The objectives to be considered are sufficient academic and clinical training that would permit students to sit for registry, licensure and/or certification examinations monitored by the national professional societies.

The health delivery system represented by hospitals, clinics, institutions, agencies and medical-group practices requires the services of health professionals for extended care. Advanced specialization, teaching credentials, positions in research, industrial sales or marketing provide opportunities for advancement and geographical mobility.

Allied Health Technologies Major

(B.S.A.H.T.)

Department of Biological and Allied Health Sciences

Completion of this program will result in a Bachelor of Science in Allied Health Technologies with a concentration in radiologic technology awarded jointly by Fairleigh Dickinson University and the partner institution. Students will complete 96 credits during their first three years at FDU. They then must apply for acceptance to the professional component at the partner institution for their senior year. Professional courses are taken at the partner institution. A joint degree is awarded upon completion of the professional component.

Admission to the clinical courses at the partner institution requires a separate application, usually in the junior year. Consult the program adviser for application details and time lines. Admissions decisions for the clinical program are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status for the degree program and cannot be guaranteed by FDU.

For more information regarding these degrees, contact the allied health adviser, Florham Campus.

Radiologic Technology Concentration

Radiologic technologists perform a variety of diagnostic and therapeutic services within the health care industry and may find employment in hospitals, clinics and imaging centers. The program prepares students to perform traditional X-rays, bone densitometry and inject contrast media. Additional training is required for more advanced imaging technologies such as magnetic resonance imaging (MRI) or computed tomography (CT) scans. Specific requirements of the radiologic technology concentration are listed as follows.
Biochemistry
Maxwell Becton College of Arts and Sciences
Florham Campus

Requirements for the Bachelor of Science in Allied Health Technologies Degree

Biology Requirements
Biol 1110
- Medical and Pathological Terminology..........................2
Biol 1201, Biol 1205
- Biological Diversity (Lecture and Laboratory).................4
Biol 1202, Biol 1204
- Introduction to Molecules, Cells and Genes (Lecture and Laboratory).................4
Biol 1205, Biol 1207
- Anatomy and Physiology I (Lecture and Laboratory)...........4
Biol 1206, Biol 1208
- Anatomy and Physiology II (Lecture and Laboratory)..........4
Biol 2003, Biol 2004
- Cell Biology (Lecture and Laboratory)..........................4
Biology Elective (Lecture and Laboratory)..........................4

Chemistry Requirements
Chem 1201, Chem 1203
- General Chemistry I (Lecture and Laboratory)..................4
Chem 1202, Chem 1204
- General Chemistry II (Lecture and Laboratory)..................4

Physics Requirements
Phys 1001, Phys 1011
- General Physics I (Lecture and Laboratory)......................4
Phys 1002, Phys 1012
- General Physics II (Lecture and Laboratory)......................4

Other Requirement
Psych 1201
- General Psychology..................................................3

After completion of three years of study (a minimum of 96 credits) at FDU, the program is completed in any JR-CERT Radiologic Technology training program (generally two years). With the successful completion of the clinical training program at the partner institution, the student will earn the Bachelor of Science in Allied Health Technologies.

Biochemistry Major (B.S.)

Department of Chemistry and Biochemistry

The bachelor of science with a major in biochemistry program is designed for students focused on preprofessional study, preparing them for admission to a school of pharmacy, medicine, veterinary medicine or dentistry with a series of core courses in chemistry and biology. The curriculum offers lecture and laboratory course work in topics that will effectively prepare students for future plans in these areas and will also provide students with extensive preparation for graduate school in chemistry, biochemistry and molecular biology or career plans within the areas of chemistry, biochemistry or related areas of biotechnology. Note: The B.S. in biochemistry is American Chemical Society (ACS)-certified.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1201</td>
</tr>
<tr>
<td>BIOL1202</td>
</tr>
<tr>
<td>BIOL2005, BIOL2004</td>
</tr>
<tr>
<td>BIOL2003</td>
</tr>
<tr>
<td>BIOLOGY-ELECTIVE</td>
</tr>
</tbody>
</table>

Electives (1–6 credits)

Students may select from the following list of courses.

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL3009, BIOL3109</td>
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<tr>
<td>BIOL3221, BIOL3251</td>
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<tr>
<td>BIOL3256, BIOL3257</td>
</tr>
<tr>
<td>BIOL3332, BIOL3333</td>
</tr>
<tr>
<td>BIOL3360, BIOL3361</td>
</tr>
<tr>
<td>BIOL3408, BIOL3409</td>
</tr>
<tr>
<td>BIOL4444</td>
</tr>
<tr>
<td>BIOL3470, BIOL3471</td>
</tr>
<tr>
<td>CHEM4215</td>
</tr>
<tr>
<td>CHEM4263</td>
</tr>
<tr>
<td>CHEM4351</td>
</tr>
<tr>
<td>CHEM4373</td>
</tr>
<tr>
<td>CHEM4430</td>
</tr>
<tr>
<td>CHEM4436, CHEM4437</td>
</tr>
</tbody>
</table>

Research in Chemistry..................0–3
CHEM4423, CHEM4429
Junior Mentored Research in Chemistry..........................0–3
CHEM4440, CHEM4441
Senior Mentored Research in Chemistry..........................0–3
Another course with approval from the department chair.

**Prepharmacy Concentration**

Fairleigh Dickinson University offers the prerequisite courses for admission to most pharmacy schools. FDU students who complete the prepharmacy program must apply for admission to and meet the entrance requirements of the pharmacy school of their choice.

In addition to other General Education requirements, students must complete 95 credits as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1201, BIOL1203</td>
<td>Biological Diversity (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL1202, BIOL1204</td>
<td>Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL1205, BIOL1207</td>
<td>Anatomy and Physiology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1201, CHEM1202</td>
<td>General Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM1203, CHEM1204</td>
<td>General Chemistry Laboratory I, II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM2211, CHEM2215</td>
<td>Inorganic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM2221, CHEM2223</td>
<td>Analytical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM2261, CHEM2262</td>
<td>Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM2263, CHEM2264</td>
<td>Organic Chemistry Laboratory I, II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM3242, CHEM3244</td>
<td>Physical Chemistry II (Lecture and Laboratory)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM3281</td>
<td>Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM3389</td>
<td>Biochemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM4253</td>
<td>Instrumental Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CHEM4254</td>
<td>Instrumental Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM4253</td>
<td>Pharmacokinetics</td>
<td>3</td>
</tr>
<tr>
<td>CHEM4235</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM4401</td>
<td>Chemistry Seminar</td>
<td>1</td>
</tr>
<tr>
<td>COMM2099</td>
<td>Professional Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECON2001</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ENGW1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>ENGW1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>MATH1133</td>
<td>Applied Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH1203, MATH2202</td>
<td>Calculus I, II</td>
<td>8</td>
</tr>
<tr>
<td>PHYS2003, PHYS2013</td>
<td>General Physics with Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2004, PHYS2014</td>
<td>General Physics with Calculus II</td>
<td>4</td>
</tr>
</tbody>
</table>

**Electives (3–4 credits)**

Students may select from the following list of courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL3009, BIOL3019</td>
<td>Microbiology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3221, BIOL3251</td>
<td>Microbiology — Medical Focus (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3256, BIOL3257</td>
<td>Genetics (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3332, BIOL3335</td>
<td>Immunology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3560, BIOL3561</td>
<td>Introduction to Molecular Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3408, BIOL3409</td>
<td>Forensic Science (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL4444</td>
<td>Selected Studies in Cell and Molecular Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIOL4470, BIOL4471</td>
<td>Introduction to Neuroscience (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM3241, CHEM3245</td>
<td>Physical Chemistry I (Lecture and Recitation)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM3243</td>
<td>Physical Chemistry Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>CHEM3282</td>
<td>Biochemistry II</td>
<td>3</td>
</tr>
</tbody>
</table>

The curriculum outlined above satisfies most of the first two years' requirements for majors in chemistry and biology and also provides a convenient entry to other degree programs in the University. This means that prepharmacy students will have built-in lateral mobility if their interests change. It also provides premedical students with entry to an alternative health care profession.

**B.S. in Biochemistry/Pharm.D. Seven-year Program**

Students admitted into this program will spend six semesters on undergraduate biochemistry requirements and eight semesters in the FDU School of Pharmacy and Health Sciences. High school applicants wishing to enter this program must have an SAT score of 1,150 or higher (on the 1,600 scale) and a 3.50 grade point average. To remain in the program, students must maintain a 3.50 grade point ratio in the first six semesters and must also have a grade of B- or better in all prerequisite college courses. See Combined Degree Program section of this publication, page 244.
Biology Major (B.S.)

Department of Biological and Allied Health Sciences

This curriculum is designed for students who plan to attend graduate school and for preprofessional students who wish to prepare for admission to a school of chiropractic, dentistry, medicine, osteopathy, pharmacy, podiatry or veterinary medicine. Students should consult the catalog of the school they plan to attend in order to include in their undergraduate program any special prerequisites not included in the biology curriculum.

Dental Schools: Three or four years of college are required for admission to schools of dental medicine. The minimum predental admission requirements are set forth by the American Dental Association. These include completion of a minimum of two years of work in an accredited college of liberal arts and sciences. It should be noted, however, that the majority of the students accepted have completed four years of undergraduate work. The college study must include, as a minimum, at least two semesters' credit in each of the following: English, biology, physics, inorganic chemistry and organic chemistry. Lectures and laboratory work are required in the science courses. The remaining work may be in the liberal arts electives such as history, philosophy, psychology, economics, English, foreign languages, mathematics and sociology. For students entering the Rutgers School of Dental Medicine, a combined seven-year program leading to a Bachelor of Science degree and a Doctor of Dental Medicine (D.M.D.) is offered on the conditions described in this bulletin, see page 252. Students should check "Predental Degree Option" in the index.

The admission course requirements for typical dental schools are 6 credits of English and 8 credits including laboratory of each of the following: biology, inorganic chemistry, organic chemistry and physics. Applicants must take the Dental Admissions Test.

Medical Schools: Entrance credits vary, but most schools require three or four years of college to include a general course in biology, two semesters of general physics, inorganic and organic chemistry and two or four semesters of English. A few require a reading knowledge of a modern foreign language. Mathematics through calculus is recommended. The Medical College Admission Test of American Medical Colleges is required. Students should check the admission requirements for the medical school they plan to attend.

Requirements for the Bachelor of Science Degree

Prerequisites: elementary algebra, plane geometry, one year of science. Up to precalculus level of mathematics preferred as well as high school biology and chemistry.

Students should see College requirements on pages 54–55 for details of the college general education requirements.

A student concentrating in biology must, in addition, fulfill the following requirements:

**Biology Core**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1201, BIOL1203</td>
<td>4</td>
</tr>
<tr>
<td>Biological Diversity (Lecture and Laboratory)*</td>
<td>4</td>
</tr>
<tr>
<td>BIOL1202, BIOL1204</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Molecules, Cells and Genes (Lecture and Laboratory)*</td>
<td>4</td>
</tr>
<tr>
<td>BIOL2003, BIOL2004</td>
<td>4</td>
</tr>
<tr>
<td>Cell Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL2049, BIOL2050</td>
<td>4</td>
</tr>
<tr>
<td>Ecology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3256, BIOL3257</td>
<td>4</td>
</tr>
<tr>
<td>Genetics (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL4401</td>
<td>2</td>
</tr>
<tr>
<td>Biology Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

One course must be selected from each of the three major area courses:

Area I Ecology and Environmental Biology | 4
Area II Cell and Molecular Biology | 4
Area III Anatomy and Physiology | 4

**Biology Electives (8 Credits)**

Select two 4-credit laboratory courses from major course Areas I, II or III (see above). If two biology elective courses are selected from the same major area, a concentration in that area may be declared.

**Chemistry**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM1201, CHEM1202</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry I, II</td>
<td>3 credits each semester</td>
</tr>
<tr>
<td>CHEM1203, CHEM1204</td>
<td>2</td>
</tr>
<tr>
<td>General Chemistry Laboratory I, II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM2261, CHEM2262</td>
<td>6</td>
</tr>
<tr>
<td>Organic Chemistry I, II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM2263, CHEM2264</td>
<td>2</td>
</tr>
<tr>
<td>Organic Chemistry Laboratory I, II</td>
<td>2</td>
</tr>
</tbody>
</table>

**Anatomy and Physiology Concentration**

An anatomy and physiology concentration is offered. Students take upper-level electives in areas such as BIOL3253, BIOL3254 Comparative Anatomy and BIOL3337, BIOL3327 General Physiology. For additional information contact the biological and allied health sciences department.

**Cell and Molecular Biology Concentration**

A cell and molecular biology concentration is offered. Students take upper-level electives in areas such as BIOL3360, BIOL3361 Introduction to Molecular Biology, BIOL4500, BIOL4501 Cell Biology Cancer and BIOL6880 Neurobiology. For additional information contact the biological and allied health sciences department.

**Ecology and Environmental Biology Concentration**

An ecology and environmental biology concentration is offered. Students take upper-level electives in areas such as BIOL4100, BIOL4110 Marine Ecology, BIOL4460, BIOL4461 Ecotoxicology and BIOL4480, BIOL4481 Insect-transmitted Diseases. For additional information contact the biological and allied health sciences department.

**Prepharmacy Concentration**

Students in the prepharmacy concentration focus on course work that prepare them for admission to a pharmacy school focusing on prerequisites for pharmacy school such as anatomy, physiology and biochemistry. This particular concentration does not involve an affiliation with any pharmacy school.

Mathematics

MATH1107 Precalculus, MATH1133 Applied Statistics and MATH1203 Calculus I.

Physics

PHYS1001, PHYS1011; PHYS1002, PHYS1012

General Physics I, II —

(Lecture and Laboratory)

4 credits each semester | 8

*Normally taken freshman year.*
**Biology Minor**
The biology minor is for students not majoring in biology.

Students minoring in biology must take 20 credits distributed as follows:

**Required**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1201, BIOL 1203</td>
<td>4</td>
</tr>
<tr>
<td>Biological Diversity (Lecture and Laboratory)</td>
<td></td>
</tr>
<tr>
<td>BIOL 1202, BIOL 1204</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
<td></td>
</tr>
<tr>
<td>BIOL 2003, BIOL 2004</td>
<td>4</td>
</tr>
<tr>
<td>Cell Biology (Lecture and Laboratory)</td>
<td></td>
</tr>
</tbody>
</table>

**And**

Option 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2049, BIOL 2050</td>
<td>4</td>
</tr>
<tr>
<td>Ecology (Lecture and Laboratory)</td>
<td></td>
</tr>
<tr>
<td>BIOL 3256, BIOL 3257</td>
<td>4</td>
</tr>
<tr>
<td>Genetics (Lecture and Laboratory)</td>
<td></td>
</tr>
</tbody>
</table>

Option 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1205, BIOL 1206</td>
<td>8</td>
</tr>
<tr>
<td>Anatomy and Physiology I, II</td>
<td></td>
</tr>
<tr>
<td>(Lecture and Laboratory)</td>
<td></td>
</tr>
</tbody>
</table>

**Accelerated Programs with Professional Schools**
Maxwell Becton College of Arts and Sciences has combined degree programs with professional schools for its exceptional students. In these programs, students earn both their B.S. degree and professional degree in one year less than the two degrees normally would require separately. These programs include:

- B.S./D.P.M. (Doctor of Podiatric Medicine) with New York College of Podiatric Medicine, New York.
- B.S./D.V.M. (Doctor of Veterinary Medicine) with Ross University School of Medicine, Basseterre, St. Kitts, West Indies.

Contact the health preprofessional adviser in the biological and allied health sciences department for more information about these programs.

**Chemistry Major (B.S.)**

**Department of Chemistry and Biochemistry**

**Requirements for the Bachelor of Science Degree**
The Bachelor of Science with a major in chemistry program is designed for students who plan to enter graduate school or the chemical industry. The curriculum is particularly suited for graduate programs in chemical engineering, computational chemistry, nuclear science, environmental science and the pharmaceutical and energy industry. The curriculum is certified by the American Chemical Society.

The program is also well suited to premedical students. Entrance requirements for most medical schools require an undergraduate program to include a general course in biology, general physics, English composition, a modern language and some calculus, in addition to a strong chemistry background. Premedical students should add to the Bachelor of Science with a major in chemistry program two semesters of general biology (botany and zoology) and, perhaps, one advanced biology course as electives. Preprofessional counseling for science and health careers is available on campus. Note: The B.S. in chemistry is American Chemical Society (ACS)-certified.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1201, CHEM 1202</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry I, II</td>
<td></td>
</tr>
<tr>
<td>CHEM 1203, CHEM 1204</td>
<td>2</td>
</tr>
<tr>
<td>General Chemistry Laboratory I, II</td>
<td></td>
</tr>
<tr>
<td>CHEM 2211, CHEM 2213</td>
<td>4</td>
</tr>
<tr>
<td>Inorganic Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 2221, CHEM 2223</td>
<td>4</td>
</tr>
<tr>
<td>Analytical Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 2261, CHEM 2262</td>
<td>6</td>
</tr>
<tr>
<td>Organic Chemistry I, II</td>
<td></td>
</tr>
<tr>
<td>CHEM 2263, CHEM 2264</td>
<td>2</td>
</tr>
<tr>
<td>Organic Chemistry Laboratory I, II</td>
<td></td>
</tr>
<tr>
<td>CHEM 3241, CHEM 3242</td>
<td>6</td>
</tr>
<tr>
<td>Physical Chemistry I, II</td>
<td></td>
</tr>
<tr>
<td>CHEM 3243, CHEM 3244</td>
<td>4</td>
</tr>
<tr>
<td>Physical Chemistry Laboratory I, II</td>
<td></td>
</tr>
<tr>
<td>CHEM 3281</td>
<td>3</td>
</tr>
<tr>
<td>Biochemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 3389</td>
<td>1</td>
</tr>
<tr>
<td>Biochemistry Laboratory</td>
<td></td>
</tr>
</tbody>
</table>
Students may take graduate courses as electives in the seventh and eighth semesters with the approval of the chairperson. See the Graduate Studies Bulletin for a list of courses and descriptions.

Students should see pages 54–55 for the College requirements for details of the college general education requirements.

Students planning to enter pharmacy or medical school should take BIOL1201, BIOL1203 Biological Diversity; BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes; BIOL1205, BIOL1207 Anatomy and Physiology I; BIOL1206, BIOL1208 Anatomy and Physiology II; and additional advanced biology courses as advised. Students considering graduate work in biological chemistry should take as electives BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes; BIOL2003, BIOL2004 Cell Biology; and BIOL3009, BIOL3019 Microbiology. They also might consider BIOL3337 General Physiology and/or courses from the graduate offerings: BIOL6703 Cell Physiology, BIOL6711 Virology and a course in molecular biology.

**Chemistry Minor**

The chemistry minor is for students not majoring in chemistry.

The chemistry minor consists of 19–20 credits distributed as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM1201, CHEM1202</td>
<td>General Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM1203, CHEM1204</td>
<td>General Chemistry Laboratory I, II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM2261, CHEM2262</td>
<td>Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM2263, CHEM2264</td>
<td>Organic Chemistry Laboratory I, II</td>
<td>2</td>
</tr>
<tr>
<td>Plus one 2000- or 3000-level chemistry course</td>
<td>3–4</td>
<td></td>
</tr>
</tbody>
</table>

**Combined B.S./M.S. in Chemistry with a Concentration in Pharmaceutical Chemistry**

A qualified chemistry major in the fifth semester, with departmental approval, may plan a program to complete the requirements for a Master of Science degree in one additional year beyond the program. See Combined Degree Program section of this publication, page 23.
Clinical Laboratory Sciences Major (B.S.C.L.S.)

Department of Biological and Allied Health Sciences

Completion of this program will result in a B.S. in Clinical Laboratory Sciences with a concentration in medical laboratory science (medical technology) awarded jointly by Fairleigh Dickinson University and the Rutgers School of Health Professions (Rutgers SHP). Students will complete 96 credits during their first three years at Fairleigh Dickinson University. They then must apply for acceptance to the professional component at Rutgers SHP.

Admission to the clinical courses at Rutgers SHP requires a separate application, usually in the junior year. Consult the allied health adviser for application details and time lines. Admissions decisions for the clinical program are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status for the degree program and cannot be guaranteed by FDU. Students admitted to the clinical program must maintain a minimum grade point ratio of 3.00 and a “C” or better in their prerequisite courses at FDU subsequent to admission.

Also see “Allied Health Sciences Majors,” page 64.

Requirements for the Bachelor of Science in Clinical Laboratory Sciences

Medical Laboratory Science (Medical Technology) Concentration

Medical laboratory scientists use sophisticated instruments and biochemical, microscopic, molecular and immunological techniques to analyze medical specimens. They provide essential information to physicians about the presence, extent or absence of disease, as well as the effectiveness of treatment. They also apply their biomedical expertise in many areas such as cancer research, stem cell and organ transplantation and infections and genetic-disease testing.

Biology Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1110 Medical and Pathological Terminology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL1205, BIOL1207 Anatomy and Physiology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL1206, BIOL1208 Anatomy and Physiology II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3009, BIOL3019 Microbiology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3332, BIOL3333 Immunology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
</tbody>
</table>

Chemistry Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM1201, CHEM1203 General Chemistry I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM202, CHEM204 General Chemistry II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM2261, CHEM2263 Organic Chemistry I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM2262, CHEM2264 Organic Chemistry II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM3281, CHEM3589 Biochemistry I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
</tbody>
</table>

Communication Studies Major (B.A.)

Department of Communication Studies

The B.A. in communication studies is a general liberal arts major providing undergraduate students with a grounding in theory and practice in communication in preparation for professional careers or further study. The major emphasizes connections between disciplines dealing with the role of communication in contemporary culture and lays the foundations for excellence in creative and critical thinking, interpersonal skills, writing and speaking.

Requirements for the Bachelor of Arts Degree

Students majoring in communication studies must complete 18 credits of required courses and 27 credits of communication electives.

Required Courses (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2001 Perspectives on Communication Studies</td>
<td>3</td>
</tr>
<tr>
<td>COMM5018 Mass Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM5019 Global Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM5022 Communication Research</td>
<td>3</td>
</tr>
<tr>
<td>COMM4001 Communication Internship I</td>
<td>3</td>
</tr>
<tr>
<td>COMM4005 Literary and Communication Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

Communication Electives (27 credits)

Students select at least nine COMM-prefixed 3-credit courses.

or

Students have the option of choosing a concentration: human communication, multimedia journalism or public relations (see this page and next page).

Human Communication Concentration

This concentration is for students who wish to gain a thorough understanding of human communication and the theories

71
that describe and explain it. It is recommended for students with an interest in all aspects of human interaction or for students considering an advanced course of study.

**Fundamentals (take both courses)**
- COMM2002: Small Group Communication
- COMM2003: Interpersonal Communication

**Principles (take two courses)**
- COMM2005: Narrative Communication in Media and Everyday Life
- COMM2006: Nonverbal Communication
- COMM3004: Organizational Communication
- COMM3014: Family Communication

**Exploration (take two courses)**
- COMM2210: Popular Culture and the Media
- COMM3005: Social Media, Communication and Community
- COMM3023: Film and Culture
- COMM3051: Communication and Gender
- COMM3437: Talk at Work

**Plus**
- 3 COMM Electives

### Multimedia Journalism Concentration

This concentration is for students interested in pursuing a career in the ever-changing world of journalism. Although journalism still involves the basics of researching and gathering information, today's journalists have more tools at their disposal for delivering information to the public: photography, blogs, podcasts, webcasts and more. Potential positions include reporter, editor, newscaster, photojournalist and more.

**Fundamentals (take both courses)**
- COMM2011: Introduction to Journalism
- COMM4444: Multimedia Journalism

**Principles (take two courses)**
- COMM2005: Narrative Communication in Media and Everyday Life
- COMM2214: Introduction to Broadcasting
- COMM3012: Newswriting
- COMM3016: News Editing

**Exploration (take two courses)**
- COMM2866: Women and Minorities in Media
- COMM3013: Feature Writing
- COMM3051: Communication and Gender
- COMM3060: Television News
- COMM3248: Writing for Broadcast and Podcast

**Plus**
- 3 COMM Electives

## Public Relations Concentration

This concentration is for students interested in pursuing a career in the public relations field. The field of public relations has continued to grow and change over the last 10 years and now, more than ever, students need to enhance their knowledge and be well versed in the role that issues of global- ization, ethics and responsibility now play in the field. Potential positions include publicity manager, events planner, press agent, lobbyist, strategic communication manager and more.

**Fundamentals (take both courses)**
- COMM2004: Public Relations Principles
- COMM3035: Public Relations Writing

**Principles (take two courses)**
- COMM3004: Organizational Communication
- COMM3030: Events Planning
- COMM3244: Public Relations Campaigns
- COMM3248: Writing for Broadcast and Podcast

**Exploration (take two courses)**
- COMM2002: Small Group Communication
- COMM2003: Interpersonal Communication
- COMM2005: Narrative Communication in Media and Everyday Life

**Plus**
- 3 COMM Electives

### Advertising Minor

The 15-credit advertising minor is designed for students interested in studying the theoretical, practical and creative elements that go into the creation of compelling and successful advertisements and advertising campaigns. The philosophy behind the minor builds on the recognition that the professional domain of advertising draws from many varied disciplines. First, students must develop a foundational understanding of the concepts and theories included in the areas of advertising and marketing. Then they must develop and polish their theoretical understanding and professional skills in the areas of computer graphics, desktop publishing and basic video making — they need to understand all of the theoretical and creative elements that go into the creation of both print ads and commercials. Finally, students should be given the opportunity to develop their skills with courses that will enhance their knowledge regarding account management, campaign planning, implementation and evaluation.

Note: In order to fulfill the advertising minor, students must select no more than 9 credits in their major discipline. This policy is meant to ensure that students are taking full advantage of the interdisciplinary nature of the minor.

### Required Courses (9 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGD1513</td>
<td>Creative Imagery with Photoshop.............3</td>
<td></td>
</tr>
<tr>
<td>CGD1514</td>
<td>Illustrator Graphics and Design.............3</td>
<td></td>
</tr>
<tr>
<td>COMM2221</td>
<td>Advertising Principles.........................3</td>
<td></td>
</tr>
</tbody>
</table>


**Elective Courses (6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>COMM4001</td>
<td></td>
</tr>
<tr>
<td>Communication Internship I*</td>
<td>3</td>
</tr>
<tr>
<td>Computer Graphic Design</td>
<td></td>
</tr>
<tr>
<td>CGD2370</td>
<td></td>
</tr>
<tr>
<td>Print Layout</td>
<td>3</td>
</tr>
<tr>
<td>CGD3363</td>
<td></td>
</tr>
<tr>
<td>Interactive Publishing</td>
<td>3</td>
</tr>
<tr>
<td>Film</td>
<td></td>
</tr>
<tr>
<td>FILM1005</td>
<td></td>
</tr>
<tr>
<td>Filmmaking I: Basic Production</td>
<td>3</td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td>MKTG2120</td>
<td></td>
</tr>
<tr>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4272</td>
<td></td>
</tr>
<tr>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4365</td>
<td></td>
</tr>
<tr>
<td>Marketing Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Broadcasting Minor**

The broadcasting minor is designed for students interested in studying the theoretical, practical and creative elements within the radio and television industries. The philosophy behind the minor builds on the recognition that the professional domain of broadcasting draws from many varied disciplines. First, students must develop a foundational understanding of the concepts and theories included in the areas of radio and television. Then students can choose to further develop their skills in one or more of the areas through their selection of elective courses. Students are encouraged to take at least one approved broadcasting internship in the field of their choice, as prospective employers look for practical field experience from students.

Note: In order to fulfill the broadcasting minor, students must select no more than 9 credits in their major discipline.

This policy is meant to ensure that students are taking full advantage of the interdisciplinary nature of the minor.

**Required Courses (9 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2214</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Broadcasting</td>
<td></td>
</tr>
<tr>
<td>COMM3549</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Television</td>
<td></td>
</tr>
<tr>
<td>FILM1005</td>
<td>3</td>
</tr>
<tr>
<td>Filmmaking I: Basic Production</td>
<td></td>
</tr>
</tbody>
</table>

*Internship must be in radio or television.*

**Elective Courses (6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cinema Studies</td>
<td></td>
</tr>
<tr>
<td>CINE1501</td>
<td></td>
</tr>
<tr>
<td>Cinematic Storytelling</td>
<td>3</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>COMM3060</td>
<td></td>
</tr>
<tr>
<td>Television News</td>
<td>3</td>
</tr>
<tr>
<td>COMM3248</td>
<td></td>
</tr>
<tr>
<td>Writing for Broadcast and Podcast</td>
<td></td>
</tr>
<tr>
<td>COMM3341</td>
<td></td>
</tr>
<tr>
<td>Radio Management</td>
<td>3</td>
</tr>
<tr>
<td>COMM4001</td>
<td></td>
</tr>
<tr>
<td>Communication Internship I*</td>
<td>3</td>
</tr>
<tr>
<td>COMM4002</td>
<td></td>
</tr>
<tr>
<td>Communication Internship II*</td>
<td>3</td>
</tr>
<tr>
<td>Film</td>
<td></td>
</tr>
<tr>
<td>FILM2208</td>
<td></td>
</tr>
<tr>
<td>Filmmaking II: The Professional Crew</td>
<td></td>
</tr>
<tr>
<td>FILM2210</td>
<td></td>
</tr>
<tr>
<td>Postproduction I</td>
<td>3</td>
</tr>
<tr>
<td>FILM2255</td>
<td></td>
</tr>
<tr>
<td>TV News and Magazine Production</td>
<td></td>
</tr>
<tr>
<td>FILM4461</td>
<td></td>
</tr>
<tr>
<td>Documentary Filmmaking</td>
<td>3</td>
</tr>
<tr>
<td>Theater</td>
<td></td>
</tr>
<tr>
<td>THEA2005</td>
<td></td>
</tr>
<tr>
<td>Directing I</td>
<td>3</td>
</tr>
<tr>
<td>THEA2205</td>
<td></td>
</tr>
<tr>
<td>TV Writing and Screenwriting</td>
<td></td>
</tr>
<tr>
<td>THEA3336</td>
<td></td>
</tr>
<tr>
<td>Acting for Film and Television</td>
<td></td>
</tr>
<tr>
<td>Writing and Creative Writing</td>
<td></td>
</tr>
<tr>
<td>CREW1002</td>
<td></td>
</tr>
<tr>
<td>Introduction to Fiction Writing</td>
<td></td>
</tr>
<tr>
<td>CREW2250</td>
<td></td>
</tr>
<tr>
<td>Screenwriting I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Communication Minor**

The communication minor is for students interested in the communication discipline who are not majoring in communication studies.

**Required Courses (9 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2001</td>
<td></td>
</tr>
<tr>
<td>Perspectives on Communication Studies</td>
<td></td>
</tr>
<tr>
<td>COMM3019</td>
<td></td>
</tr>
<tr>
<td>Global Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM3050</td>
<td></td>
</tr>
<tr>
<td>Communication Theory</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM4005</td>
<td></td>
</tr>
<tr>
<td>Literary and Communication Theory</td>
<td></td>
</tr>
</tbody>
</table>

*Internship must be in radio or television.*

**Elective Courses (6 credits)**

Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2002</td>
<td></td>
</tr>
<tr>
<td>Small Group Communication</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM2003</td>
<td></td>
</tr>
<tr>
<td>Interpersonal Communication</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM5014</td>
<td></td>
</tr>
<tr>
<td>Family Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2005</td>
<td></td>
</tr>
<tr>
<td>Narrative Communication in Media and Everyday Life</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM2210</td>
<td></td>
</tr>
<tr>
<td>Popular Culture and the Media</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM2866</td>
<td></td>
</tr>
<tr>
<td>Women and Minorities in Media</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM5018</td>
<td></td>
</tr>
<tr>
<td>Mass Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**Journalism Minor**

The journalism minor is intended for students who seek to develop a richer understanding of print, online and broadcast media. The purpose of the minor in journalism is to offer students the opportunity to build a skill-set suitable for the professional field of news media. Students can choose from a variety of courses such as newswriting, news editing and article writing. They can also gain newsroom experience through general work with the school newspaper, The Pillar, or the completion of a department-approved internship.

**Required Courses (9 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2011</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Journalism</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM3012</td>
<td>3</td>
</tr>
<tr>
<td>Newswriting</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM5016</td>
<td>3</td>
</tr>
<tr>
<td>News Editing</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Courses (6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2851</td>
<td>3</td>
</tr>
<tr>
<td>Visual Journalism</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM3013</td>
<td>3</td>
</tr>
<tr>
<td>Feature Writing</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM3015</td>
<td>3</td>
</tr>
<tr>
<td>Political Reporting: Journalism in an Election Year</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>COMM5018</td>
<td>3</td>
</tr>
<tr>
<td>Mass Communication</td>
<td></td>
</tr>
</tbody>
</table>

---

Communication Studies
Maxwell Becton College of Arts and Sciences
Florham Campus
Political Communication Minor
The political communication minor exposes students to an array of academic skills, substantive knowledge and political experiences that will help them analyze, understand and deploy political discourse in a variety of forms including campaign materials, media coverage, rhetoric, advertisements, constituent communications, persuasive writing and more technical communication and correspondence. The minor addresses issues such as public opinion formation, strategic communication, press-state relations, communication between publics, political participation and international relations.

Required Courses (6 credits)
COMM2001
Perspectives on Communication Studies..........................3
GOVT2045
Public Opinion..................................................3

Elective Courses (9 credits)
Two courses each from communication studies and political science from the list below:

COMM2011
Introduction to Journalism..................................3
COMM2866
Women and Minorities in Media..........................3
COMM3012
Newswriting...................................................3
COMM3018
Mass Communication.........................................3
GOVT1000
American Government and Politics........................3
GOVT2520
Qualitative Research Methods............................3
GOVT2526
Polls and Surveys.............................................3
GOVT4498
Internship in Government and Law*........................3

Rotating Topical Courses
COMM3004
Organizational Communication............................3
COMM3015
Political Reporting: Journalism in an Election Year........3
COMM3051
Communication and Gender................................3
GOVT2015
Campaigns and Elections..................................3
GOVT2526
Polls and Surveys.............................................3
GOVT3040
Politics and the Media.......................................3
GOVT3060
Political Behavior.............................................3

Public Relations Minor
The public relations minor is designed for students interested in studying the theoretical and practical elements associated with the ethical and responsible practice of public relations and corporate communications. The field of public relations has continued to grow and change over the last 10 years and now, more than ever, students need to enhance their knowledge and be well versed in the role that issues of globalization, ethics and responsibility now play in the field.

Required Courses (6 credits)
COMM2004
Public Relations Principles.................................3
COMM3035
Public Relations Writing..................................3

Elective Courses (9 credits)
Three courses from the following:
COMM2099
Professional Communications............................3
COMM3004
Organizational Communication........................3
COMM3050
Events Planning..............................................3
COMM3244
Public Relations Campaigns...............................3
COMM4001
Communication Internship I*.............................3
PSYC1201
General Psychology.........................................3
PSYC3310
Social Psychology...........................................3
PSYC3318
Psychology of Everyday Persuasion**.................3

Accelerated Combined Degree Program — B.A. in Communication Studies/M.A. in Communication
The department also offers an accelerated B.A. in communication studies/M.A. in communication program. For more information, see page 214.
Electives (12–17 credits)
Four additional courses to be selected from the 3000- or higher-level offerings in computer science (CSCI designation).

Mathematics
Required Courses (11 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1205</td>
<td></td>
</tr>
<tr>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH2202</td>
<td></td>
</tr>
<tr>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH318</td>
<td></td>
</tr>
<tr>
<td>Differential Equations</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MATH3220</td>
<td>3</td>
</tr>
<tr>
<td>Linear Algebra</td>
<td></td>
</tr>
</tbody>
</table>

Electives (3 credits)
One additional course to be selected from the mathematics offerings (MATH designation) above the level of MATH2255 Discrete Structures.

Physics
Required Courses (8 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS2003, PHYS2013, PHYS2023 General Physics with Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2004, PHYS2014, PHYS2024 General Physics with Calculus II</td>
<td>4</td>
</tr>
</tbody>
</table>

Cybersecurity Concentration
Students planning to major in computer science with a concentration in cybersecurity will take specialized courses in computer science and mathematics such as cryptography and network and data security. There is a provision for internships that will provide practical experience in the field. Courses in this concentration will cover a range of topics from an overview of computer security, foundations — access control matrix, policy — security policies, confidentiality policies, integrity policies and hybrid policies to implementation — information-hiding techniques — steganography, digital watermarking, cryptography, fingerprinting, key management, cipher techniques, authentication, access control mechanisms, confinement problem, user and system security, data security, copyright, digital certificates and digital rights management.

The National Security Agency (NSA) and the Department of Homeland Security (DHS) have designated Fairleigh Dickinson University as a National Center of Academic Excellence in Information Assurance Education (CAE/IAE) for the academic years 2012 through 2015. It has been renewed for the period 2015 through 2020.

Required Courses (24 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI1205</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Computer Programming</td>
<td></td>
</tr>
<tr>
<td>CSCI2215</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Computer Science</td>
<td></td>
</tr>
<tr>
<td>CSCI2216</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Computer Science II</td>
<td></td>
</tr>
<tr>
<td>CSCI2255</td>
<td>3</td>
</tr>
<tr>
<td>Operating Systems</td>
<td></td>
</tr>
<tr>
<td>CSCI3278</td>
<td>3</td>
</tr>
<tr>
<td>Discrete Structures</td>
<td></td>
</tr>
<tr>
<td>CSCI3304</td>
<td>3</td>
</tr>
<tr>
<td>Computer Organization</td>
<td></td>
</tr>
<tr>
<td>CSCI3315</td>
<td>3</td>
</tr>
<tr>
<td>Software Design</td>
<td></td>
</tr>
<tr>
<td>CSCI3371</td>
<td></td>
</tr>
<tr>
<td>Modeling and Simulation</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MATH3303</td>
<td>3</td>
</tr>
<tr>
<td>Probability</td>
<td></td>
</tr>
<tr>
<td>CSCI14391</td>
<td>1</td>
</tr>
<tr>
<td>Senior Project I</td>
<td></td>
</tr>
<tr>
<td>and</td>
<td></td>
</tr>
<tr>
<td>CSCI14391</td>
<td>2</td>
</tr>
<tr>
<td>Senior Project II</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>CSCI4498</td>
<td>3</td>
</tr>
<tr>
<td>Co-op in Computer Science</td>
<td></td>
</tr>
</tbody>
</table>

Computer Science Electives (18 credits)

Students opting for the cybersecurity concentration will include the following in their choice of electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI1517</td>
<td>3</td>
</tr>
<tr>
<td>Cyber Security</td>
<td></td>
</tr>
<tr>
<td>CSCI1555</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Cryptography</td>
<td></td>
</tr>
<tr>
<td>CSCI5668</td>
<td>3</td>
</tr>
<tr>
<td>Data Communications and Computer Networks</td>
<td></td>
</tr>
<tr>
<td>CSCI3869</td>
<td>3</td>
</tr>
<tr>
<td>Network Security</td>
<td></td>
</tr>
</tbody>
</table>

In addition to 6 credits of electives in computer science.

Recommended Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI3268</td>
<td>3</td>
</tr>
<tr>
<td>Database Systems</td>
<td></td>
</tr>
<tr>
<td>CSCI3333</td>
<td>3</td>
</tr>
<tr>
<td>Computer Algorithms</td>
<td></td>
</tr>
</tbody>
</table>
Cognate Courses

MATH1203  Calculus I.................................................4
MATH2202  Calculus II.................................................4
MATH3318  Differential Equations or
MATH3220  Linear Algebra.............................................3
PHYS2003, PHYS2013, PHYS2023  
General Physics with 
Calculus I.................................................................4
PHYS2004, PHYS2014, PHYS2024  
General Physics with 
Calculus II...............................................................4

As part of the humanities and social science requirements, students will opt to take PHIL1103 Ethics and SOCI2306 Crime and Criminology.

Data Mining Concentration

Students planning to major in computer science with a concentration in data mining will take courses in computer science and mathematics. The concentration was designed based on guidelines provided by the ACM SIGKDD (Association for Computing Machinery's Special Interest Group on Knowledge Discovery and Data Mining) Curriculum Committee.

Required Courses (31 credits)

CSCI1205  Introduction to Computer Programming...............................................................3
CSCI2215  Introduction to Computer Science...............................................................3
CSCI2216  Introduction to Computer Science II...............................................................3
CSCI2233  Data Structures and Algorithms...............................................................3
CSCI2255  Discrete Structures...............................................................3
CSCI3278  Operating Systems...............................................................3
CSCI3304  Computer Organization...............................................................3
CSCI3315  Software Design...............................................................3
CSCI4391  Senior Project I...............................................................1

and

CSCI4392  Senior Project II...............................................................2

or

CSCI4498  Co-op in Computer Science...............................................................3

MATH3303  Probability...............................................................3

Elective Courses (18 credits)

CSCI3268  Database Systems...............................................................3
CSCI3269  Introduction to Data Mining...............................................................3
CSCI3270  Introduction to Machine Learning...............................................................3
CSCI3333  Computer Algorithms...............................................................3
CSCI3998  Artificial Intelligence...............................................................3

Any 3000- or 4000-level CSCI course...............................................................3

Additional Cognate Requirements

MATH1203  Calculus I...............................................................4
MATH2202  Calculus II...............................................................3
MATH3220  Linear Algebra...............................................................3
PHYS2003, PHYS2013, PHYS2023  
General Physics with 
Calculus I...............................................................4
PHYS2004, PHYS2014, PHYS2024  
General Physics with 
Calculus II...............................................................4

Game Development Concentration

Students planning to major in computer science with a concentration in game development will take courses in computer science, mathematics and animation. The concentration prepares students for a career in gaming as well as in computer science. Students will take special courses that have been designed for this concentration as well as courses in animation and game design.

Required Courses (27 credits)

CSCI1205  Introduction to Computer Programming...............................................................3
CSCI2215  Introduction to Computer Science...............................................................3
CSCI2216  Introduction to Computer Science II...............................................................3
CSCI2233  Data Structures and Algorithms...............................................................3
CSCI2255  Discrete Structures...............................................................3
CSCI2278  Operating Systems...............................................................3

Elective Courses (18 credits)

Additional courses to be selected from the 2000- or higher-level offerings in computer science (CSCI designation). Students opting for the game development concentration must include the following in their choice of electives.

CSCI3333  Computer Algorithms...............................................................3
CSCI3588  Introduction to Game Programming...............................................................3
CSCI3998  Artificial Intelligence...............................................................3
CSCI4488  Advanced Game Programming...............................................................3
CSCI electives from levels 3000 and 4000 (CSCI3268 Database Systems is recommended)...............................................................6

Additional Cognate Requirements

MATH1203  Calculus I...............................................................4
MATH2202  Calculus II...............................................................3
MATH3220  Linear Algebra...............................................................3
PHYS2003, PHYS2013, PHYS2023  
General Physics with 
Calculus I...............................................................4
PHYS2004, PHYS2014, PHYS2024  
General Physics with 
Calculus II...............................................................4

Students should also select three cognates from the following.

ANIM2240  Low Poly 3D Modeling...............................................................3
ANIM2500  3D Computer Animation...............................................................3
ANIM3330  3D Environment Modeling...............................................................3
ANIM3541  Character Animation Using CAT...............................................................3

Computer Science Minor

The computer science minor is for students not majoring in computer science. Students who wish to minor in computer science must take 15 credits in computer science, distributed as follows:
**Required Courses (12 credits)**
- CSCI1205 Introduction to Computer Programming
- CSCI2215 Introduction to Computer Science
- CSCI2216 Introduction to Computer Science II
- CSCI2255 Discrete Structures

**Elective Courses (6 credits)**
Six credits of additional course work in computer science to be selected from the 2000- or higher-level offerings in computer science (CSCI designation).

**Five-year Combined Degree Program — B.S./M.S. in Computer Science**
The department also offers a five-year B.S./M.S. in computer science program. For more information see page 238.

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**Creative Writing Major (B.A.)**

**School of the Arts**
The B.A. in creative writing offers wonderful opportunities for emerging writers as they prepare for careers in a variety of fields. Students have the chance to study with nationally celebrated professional authors and editors and to play a valued role in a vital community of writers and readers. The distribution of course requirements provides students with a solid background in literary studies, an introduction to creative writing in a number of genres, an advanced focus in a particular genre and an opportunity to choose from dozens of complementary minors to tailor the major to the student’s particular interests and needs.

Students have the chance to work as interns at *The Literary Review*, one of the most prestigious literary magazines in the country heading into its 61st year of publishing important writers from around the world. FDU’s online student magazine, *Sphere*, offers students the chance to work in all aspects of publishing as they collaborate to create the world’s first international student literary journal while making friends and contacts here and around the world.

The program is devoted to providing students with the best possible foundation for careers both in and out of the creative writing field. The program’s students are editors, lawyers, writers, teachers, professors and advertising and marketing executives — and many choose to go on to graduate school in creative writing or literature. Students will have many opportunities to volunteer in the community and discover just how much their particular talents are valued in the world while making a significant contribution to it.

**Requirements for the Bachelor of Arts Degree**
Students majoring in creative writing must complete 30–36 credits of writing courses and 9 credits of literature courses. An internship in an appropriate setting can be used as a writing elective.

**Required Courses (24 credits)**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CREW1001</td>
<td>Introduction to Creative Writing</td>
</tr>
<tr>
<td></td>
<td>CREW2002</td>
<td>Creative Writing: Fiction</td>
</tr>
<tr>
<td></td>
<td>CREW2003</td>
<td>Creative Writing: Poetry</td>
</tr>
<tr>
<td></td>
<td>CREW2255</td>
<td>Playwriting and Dramatic Structure</td>
</tr>
<tr>
<td></td>
<td>CREW2250</td>
<td>Screenwriting I</td>
</tr>
<tr>
<td></td>
<td>CREW3020</td>
<td>Reading as Writers</td>
</tr>
<tr>
<td></td>
<td>CREW4001</td>
<td>Senior Writing Project I</td>
</tr>
<tr>
<td></td>
<td>CREW4002</td>
<td>Senior Writing Project II</td>
</tr>
</tbody>
</table>

**Required Electives (6–12 credits)**
Students must take an advanced (3000-level) course in at least two of the four genres; students must have completed the 2000-level course before enrolling in the 3000-level course.

Students may elect other CREW 3000-level courses.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CREW2016</td>
<td>CNF: What’s Your Real Story</td>
</tr>
<tr>
<td></td>
<td>CREW3010</td>
<td>Special Topics: Invented Worlds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Speculative and Fantastic Fiction</td>
</tr>
<tr>
<td></td>
<td>CREW3011</td>
<td>Advanced Fiction Writing</td>
</tr>
<tr>
<td></td>
<td>CREW3012</td>
<td>Advanced Poetry Writing</td>
</tr>
<tr>
<td></td>
<td>CREW3013</td>
<td>Advanced Dramatic Writing</td>
</tr>
<tr>
<td></td>
<td>CREW3023</td>
<td>Special Topics: Telling the Truth</td>
</tr>
</tbody>
</table>

**Additional Electives**
- CREW4498 Internship (Creative Writing)
Criminology
Maxwell Becton College of Arts and Sciences
Florham Campus

**Literature Electives (9 credits)**

LITS2001
Survey I: Ancient to Early Modern
or
LITS2002
World Literature II: 13th–18th Centuries
or
LITS2003
Survey III: Approaches to World Literature

and

6 additional credits in LITS at the 2000–4000 level
Wroxton ENGL courses may be applied to these electives.

**Creative Writing Minor**
For students not majoring in creative writing.

**Required Course (3 credits)**
CREW1001
Introduction to Creative Writing

**Electives (12 credits)**
Select three of the following creative writing courses:
CREW2002
Creative Writing: Fiction
CREW2003
Creative Writing: Poetry
CREW2016
CNF: What’s Your Real Story
CREW2255
Playwriting and Dramatic Structure

Select one of the following advanced writing courses after having completed the 2000-level course in the same genre or with the permission of the instructor:
LITS2001
Survey I: Ancient to Early Modern
LITS2002
World Literature II: 13th–18th Centuries
LITS2003
Survey III: Approaches to World Literature

**Accelerated Combined Degree Program — B.A. in Creative Writing/M.F.A. in Creative Writing Program**
For the accelerated combined B.A. in creative writing/M.F.A. in creative writing degree program, see page 215.

**Criminology Major (B.A.)**

*Department of Social Sciences and History*

**Requirements for the Bachelor of Arts Degree**

The criminology major focuses on the nature and causes of crime and on the operation of the criminal justice system both nationally and internationally. Courses focus on the biological, psychological and sociological factors that cause crime; the consequences of crime; the impact of crime on victims and offenders; and the various mechanisms of enforcement and control at the local, state, federal and international levels. Additional courses focus on the social, political and economic factors that underlie crime; theories of punishment; the administration of justice in the United States; and some of the major trends in the field during the last 35 years, which include an examination of mandatory drug laws, zero-tolerance policing and sex-offender legislation. Students majoring in criminology take a minimum of 36 credits. These include the required foundation courses (15 credits); four electives drawn from criminology and/or sociology (12 credits); two electives drawn from government and law, psychology, anthropology or history (6 credits); and a required criminology internship (3 credits).

**Major Requirements (36–45 credits)**

**Required Major Courses (18 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMLGY1201</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>CMLGY1306</td>
<td>Introduction to Crime and Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CMLGY2205</td>
<td>Research Methods in Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CMLGY2307</td>
<td>Deviance and Social Control</td>
<td>3</td>
</tr>
<tr>
<td>CMLGY3309</td>
<td>Policy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CMLGY3997</td>
<td>Internship in Criminology</td>
<td>1–6</td>
</tr>
</tbody>
</table>

**Criminology Internship (3–6 credits)**

Students must take at least one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMLGY3997</td>
<td>Internship in Criminology</td>
<td>1–6</td>
</tr>
<tr>
<td>CMLGY3998</td>
<td>Internship in Criminology</td>
<td>1–6</td>
</tr>
</tbody>
</table>

**Criminology Electives (18–27 credits)**

Students must each take a minimum of 18 elective credits; 12 of these credits must be drawn from criminology/sociology courses, with at least 6 additional credits drawn from designated courses from at least two of the following fields: anthropology, history, government and law and psychology.

**Anthropology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH2450</td>
<td>Anthropology of Law</td>
<td></td>
</tr>
<tr>
<td>ANTH2441</td>
<td>Forensic Anthropology</td>
<td></td>
</tr>
<tr>
<td>ANTH3349</td>
<td>War and Crime</td>
<td></td>
</tr>
</tbody>
</table>

**Criminology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMLGY2300</td>
<td>Wrongful Convictions</td>
<td></td>
</tr>
<tr>
<td>CMLGY2431</td>
<td>Anthropology of Crime</td>
<td></td>
</tr>
<tr>
<td>CMLGY2701</td>
<td>Penology</td>
<td></td>
</tr>
<tr>
<td>CMLGY3301</td>
<td>Women and Crime</td>
<td></td>
</tr>
<tr>
<td>CMLGY3307</td>
<td>Civil Liberties and Civil Rights</td>
<td></td>
</tr>
<tr>
<td>CMLGY3310</td>
<td>Juvenile Delinquency</td>
<td></td>
</tr>
<tr>
<td>CMLGY3316</td>
<td>Global Terrorism</td>
<td></td>
</tr>
</tbody>
</table>

**Government and Law**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOVT1200</td>
<td>Introduction to Law</td>
<td></td>
</tr>
<tr>
<td>GOVT2250</td>
<td>Judicial Process</td>
<td></td>
</tr>
<tr>
<td>GOVT3200</td>
<td>American Constitutional Law</td>
<td></td>
</tr>
<tr>
<td>GOVT3210</td>
<td>Civil Liberties and Civil Rights</td>
<td></td>
</tr>
<tr>
<td>GOVT3220</td>
<td>Criminal Law</td>
<td></td>
</tr>
<tr>
<td>GOVT3240</td>
<td>Law and Society</td>
<td></td>
</tr>
</tbody>
</table>

Additional relevant courses may be permitted through the substitution and waiver process.

**History**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST2349</td>
<td>Contemporary America: 1968–Present</td>
<td></td>
</tr>
<tr>
<td>HIST3250</td>
<td>Crime and Punishment in South Africa</td>
<td></td>
</tr>
</tbody>
</table>

**Psychology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC3005</td>
<td>Abnormal Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC3310</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC3334</td>
<td>Psychopharmacology</td>
<td></td>
</tr>
<tr>
<td>PSYC3360</td>
<td>Forensic Psychology</td>
<td></td>
</tr>
</tbody>
</table>

*Students may also satisfy the criminology internship requirement through approved participation in The Washington Center for Internships.*
CMLGY3404 International Criminal Law
CMLGY3841 Torture
CMLGY3997 Internship in Criminology
Students must have approval from criminology program director to count courses not found on this list toward the criminology minor.

CMLGY1306 Introduction to Crime and Criminology

CMLGY1201 Introduction to Sociology
CMLGY2203 Research Methods in Criminology
CMLGY2204 Qualitative Research Methods
CMLGY2300 Wrongful Convictions
CMLGY2307 Deviance and Social Control
CMLGY2317 Probation and Parole: Theory and Practice
CMLGY2333 Criminal Law
CMLGY2360 Victimology
CMLGY2431 Anthropology of Crime
CMLGY2701 Penology
CMLGY3005 Abnormal Psychology
CMLGY3012 Crisis Intervention
CMLGY3030 Surveillance and Security
CMLGY3040 Capture and Control
CMLGY3207 Offender Reentry and Reintegration
CMLGY3301 Women and Crime
CMLGY3307 Civil Liberties and Civil Rights
CMLGY3308 Law and Society
CMLGY3309 Policy Analysis
CMLGY3310 Juvenile Delinquency
CMLGY3316 Global Terrorism
CMLGY3349 War and Crime
CMLGY3360 Forensic Psychology

English Language and Literature Major (B.A.)

Department of Literature, Language, Writing and Philosophy
In the 21st century, literature is a global art that transcends borders, illuminating human concerns, beliefs and experiences. Through the study of a wide range of literary works from past and present and from throughout the world, English language and literature majors in the Maxwell Becton College of Arts and Sciences develop insights needed to understand the diverse aesthetic, cultural and historical bases of literature, and enhance their ability to read with critical understanding and write clearly and analytically.

The English language and literature major offers two options: a track in English and American literature and a track in world literature. In addition, there are options for students in the five-year QUEST program.

Requirements for the Bachelor of Arts Degree
Students majoring in literature must complete 15 credits of required courses and 27 credits of literature electives.

English and American Literature Track

Required Courses (15 credits)

Credits
LITS2001 Survey I: Ancient to Early Modern........3
LITS2002 World Literature II: 13th–18th Centuries...............3
LITS2003 Survey III: Approaches to World Literature..................3
LITS2004 Introduction to Literary Criticism..........3
LITS4001 Senior Seminar: English and World Literatures........3
## Literature Electives (24 credits)

### National Traditions
Choose three courses (9 credits) from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS3011</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>LITS3012</td>
<td>American Literature II</td>
<td>3</td>
</tr>
<tr>
<td>LITS3013</td>
<td>African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3020</td>
<td>18th-century British Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3021</td>
<td>Victorian Age</td>
<td>3</td>
</tr>
<tr>
<td>LITS3051</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3054</td>
<td>Romanticism</td>
<td>3</td>
</tr>
<tr>
<td>LITS3201</td>
<td>British Writers</td>
<td>3</td>
</tr>
<tr>
<td>LITS3202</td>
<td>American Writers: Race in Black and White</td>
<td>3</td>
</tr>
<tr>
<td>LITS3212</td>
<td>Chaucer</td>
<td>3</td>
</tr>
<tr>
<td>LITS3213</td>
<td>Shakespeare I</td>
<td>3</td>
</tr>
<tr>
<td>LITS3221</td>
<td>Medieval and Renaissance Women Writers</td>
<td>3</td>
</tr>
<tr>
<td>LITS3230</td>
<td>Jane Austen: Fiction and Film</td>
<td>3</td>
</tr>
</tbody>
</table>

### Genres
Choose three courses (9 credits) from the following (only one course from LITS3151 Detective Fiction, LITS3152 Science Fiction and LITS3153 Comic Books and Graphic Novels):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS3101</td>
<td>Greek and Roman Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3102</td>
<td>Studies in Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3103</td>
<td>Modern Drama: 1880–1930</td>
<td>3</td>
</tr>
<tr>
<td>LITS3104</td>
<td>Contemporary American Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3105</td>
<td>Contemporary European Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3106</td>
<td>Contemporary World Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3107</td>
<td>Hispanic Drama</td>
<td>3</td>
</tr>
<tr>
<td>LITS3111</td>
<td>Studies in Poetry</td>
<td>3</td>
</tr>
<tr>
<td>LITS3112</td>
<td>20th-century Poetry</td>
<td>3</td>
</tr>
<tr>
<td>LITS3121</td>
<td>Studies in the Novel</td>
<td>3</td>
</tr>
<tr>
<td>LITS3122</td>
<td>20th-century Novel</td>
<td>3</td>
</tr>
<tr>
<td>LITS3123</td>
<td>Contemporary Fiction</td>
<td>3</td>
</tr>
<tr>
<td>LITS3151</td>
<td>Detective Fiction</td>
<td>3</td>
</tr>
<tr>
<td>LITS3152</td>
<td>Science Fiction</td>
<td>3</td>
</tr>
<tr>
<td>LITS3153</td>
<td>Comic Books and Graphic Novels</td>
<td>3</td>
</tr>
<tr>
<td>LITS3154</td>
<td>Women’s Autobiography</td>
<td>3</td>
</tr>
</tbody>
</table>

### Topics
Choose three courses (9 credits) from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS2008</td>
<td>Literary Perspectives on Global Cultures</td>
<td>3</td>
</tr>
<tr>
<td>LITS3014</td>
<td>American Dreams, American Tragedies</td>
<td>3</td>
</tr>
<tr>
<td>LITS3072</td>
<td>Latin-American Women Writers</td>
<td>3</td>
</tr>
<tr>
<td>LITS3301</td>
<td>The English Language</td>
<td>3</td>
</tr>
<tr>
<td>LITS3302</td>
<td>Myth and Sacred Texts</td>
<td>3</td>
</tr>
<tr>
<td>LITS3303</td>
<td>World Folk Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3311</td>
<td>Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3312</td>
<td>Young Adult Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3321</td>
<td>Post-modern Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3322</td>
<td>Post-colonial Studies</td>
<td>3</td>
</tr>
<tr>
<td>LITS3331</td>
<td>Ethnic American Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3341</td>
<td>Queer Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3351</td>
<td>Literary Perspectives on the Environment</td>
<td>3</td>
</tr>
</tbody>
</table>

## World Literature Track

### Required Courses (15 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS2001</td>
<td>Survey I: Ancient to Early Modern</td>
<td>3</td>
</tr>
<tr>
<td>LITS2002</td>
<td>World Literature II: 13th–18th Centuries</td>
<td>3</td>
</tr>
<tr>
<td>LITS2003</td>
<td>Survey III: Approaches to World Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS2004</td>
<td>Introduction to Literary Criticism</td>
<td>3</td>
</tr>
<tr>
<td>LITS4001</td>
<td>Senior Seminar: English and World Literatures</td>
<td>3</td>
</tr>
</tbody>
</table>

### Electives (24 credits)
Fifteen credits must emphasize non-Western literature. Courses emphasizing non-Western literature are designated with an asterisk.

#### National Traditions
Choose three courses (9 credits) from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS3050</td>
<td>Classical Tradition</td>
<td>3</td>
</tr>
<tr>
<td>LITS3051</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>LITS3052</td>
<td>Renaissance World</td>
<td>3</td>
</tr>
<tr>
<td>LITS3053</td>
<td>18th- and 19th-century European Fiction</td>
<td>3</td>
</tr>
<tr>
<td>LITS3054</td>
<td>Romanticism</td>
<td>3</td>
</tr>
<tr>
<td>LITS3061</td>
<td>Contemporary World Literature*</td>
<td>3</td>
</tr>
<tr>
<td>LITS3064</td>
<td>Vietnam in Film and Literature</td>
<td>1</td>
</tr>
<tr>
<td>LITS3070</td>
<td>Voices of Contemporary India*</td>
<td>3</td>
</tr>
<tr>
<td>LITS3071</td>
<td>Contemporary African Literature and Culture*</td>
<td>3</td>
</tr>
<tr>
<td>LITS3081</td>
<td>Hispanic Traditions*</td>
<td>3</td>
</tr>
<tr>
<td>LITS3082</td>
<td>Francophone World*</td>
<td>3</td>
</tr>
<tr>
<td>LITS3211</td>
<td>Dante</td>
<td>3</td>
</tr>
<tr>
<td>LITS3215</td>
<td>Cervantes</td>
<td>3</td>
</tr>
</tbody>
</table>

*Courses emphasizing non-Western literature.
**Film and Animation Major (B.A.)**

**School of the Arts**

The B.A. in film and animation is the choice for students who want to produce, direct, animate, write and shoot their own creative projects, as well as work in the growing field of film, video and digital entertainment. Within the major are seven concentrations: 2D animation, 3D animation, cinematography, directing, editing, film and video game animation.

**2D, 3D Animation Concentrations**

FDU’s undergraduate animation program offers three concentrations (3D animation, 2D animation and video game animation [see page 84 for video game animation]). Upon entry, animation majors select one of these concentrations to be their area of focus. As they work their way through the curriculum, students have the option to switch concentrations should they decide to do so. Anyone interested in doing double concentrations should meet with the program director on an individual basis to determine if that is possible.

2D animation exists in space that consists of height and width. The motion is comprised of one drawing followed by another in a slightly different pose, followed by another in a slightly different pose and so on. 2D computer software is used to execute the elements needed to produce today’s two-dimensional animations.

Animations created in 3D computer software packages exist in an X, Y and Z world. The elements created for these kinds of projects are treated almost as physical objects that can be lit to emulate real-world situations, textured realistically and cameras can be placed to view these environments from any angle.

In addition to the credits required for each concentration shown below, students must fulfill the college general education requirements (see pages 54–55).

---

**Courses emphasizing non-Western literature.**

**English Language and Literature Minor**

The English language and literature minor is for students who are not majoring in English language and literature.

**Required Courses (6 credits)**

Choose two of the following:

- **LITS2001** Survey I: Ancient to Early Modern
- **LITS2002** World Literature II: 15th–18th Centuries
- **LITS2003** Survey III: Approaches to World Literature

**Electives (12 credits)**

Any four LITS courses at the 2000-level or above or FREN, ITAL and SPAN 3000-level courses.

---

*Courses emphasizing non-Western literature.*
3D Animation Concentration Requirements

Required Theory and Production (30 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM1500 Storyboarding</td>
<td>3</td>
</tr>
<tr>
<td>ANIM1750 Motion Graphics with After Effects®</td>
<td>3</td>
</tr>
<tr>
<td>ANIM1850 3D Computer Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ANIM2270 ZBrush Digital Sculpting Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>ANIM2500 3D Computer Animation</td>
<td>3</td>
</tr>
<tr>
<td>ANIM3330 3D Environment Modeling</td>
<td>3</td>
</tr>
<tr>
<td>ANIM3331 Logo and Product Animation</td>
<td>3</td>
</tr>
<tr>
<td>ANIM3341 Character Animation Using CAT</td>
<td>3</td>
</tr>
<tr>
<td>ANIM4500 Thesis I</td>
<td>3</td>
</tr>
<tr>
<td>ANIM4600 Thesis II</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives (12 credits)

Select three courses from the following:

ART1201
Drawing I........................................3
ART1202
Drawing II.......................................3
ART1250
Art of the Graphic Novel........................3
ART3302
Life Drawing.....................................3

Cognate Requirement (3 credits)

CGD1515 Creative Imagery with Photoshop........3

2D Animation Concentration Requirements

Required Theory and Production (27 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIM1300 Writing for Animation</td>
<td>3</td>
</tr>
<tr>
<td>ANIM1400 Character Design</td>
<td>3</td>
</tr>
<tr>
<td>ANIM1500 Storyboarding</td>
<td>3</td>
</tr>
<tr>
<td>ANIM1501 Fundamentals of Animation Principles</td>
<td>3</td>
</tr>
<tr>
<td>ANIM1750 Motion Graphics with After Effects®</td>
<td>3</td>
</tr>
<tr>
<td>ANIM1800 Vector Animation Using Animate CC..</td>
<td>3</td>
</tr>
<tr>
<td>ANIM2100 Tradition Animation</td>
<td>3</td>
</tr>
<tr>
<td>ANIM4500 Thesis I</td>
<td>3</td>
</tr>
<tr>
<td>ANIM4600 Thesis II</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives (15–18 credits)

5–6 ANIM1000- to 4000-level courses

Cognate Requirements (12 credits)

Select one from the following:

ART1201 Drawing I........................................3
CGD1513 Creative Imagery with Photoshop........3
CGD1514 Illustrator Graphics and Design........3

Cinema Theory Concentration

Cinema Theory is an area that covers a wide array of skills. Directors for the film medium must be educated in both technical and aesthetic areas that encompass what goes on both behind and in front of the camera. Directors must work with other artists to make the film, all the while keeping in mind the experience of the audience. Story structure, performance, camera, editing, sound, set and production design — all come under the auspices of the film director. Students also complete courses in other skill areas, as required of a film and animation major.

Core Major Requirements (27 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CINE1350 History of Film..................................3</td>
<td></td>
</tr>
<tr>
<td>CINE1501 Cinematic Storytelling..........................3</td>
<td></td>
</tr>
<tr>
<td>FILM1005 Filmmaking I: Basic Production..................3</td>
<td></td>
</tr>
<tr>
<td>FILM2208 Filmmaking II: The Professional Crew...</td>
<td>3</td>
</tr>
<tr>
<td>FILM2210 Postproduction I................................</td>
<td>3</td>
</tr>
<tr>
<td>FILM2250 Screenwriting I..................................3</td>
<td></td>
</tr>
<tr>
<td>FILM3209 Filmmaking III: Mastering the Art and Craft of Film Production</td>
<td>3</td>
</tr>
<tr>
<td>FILM4311 Producing and Directing the Thesis Film I......</td>
<td>3</td>
</tr>
<tr>
<td>FILM4312 Producing and Directing the Thesis Film II.....</td>
<td>3</td>
</tr>
</tbody>
</table>

Concentration Requirements (9 credits)

Select three courses from the following:

FILM3211 Cinematography: Lighting......................3
FILM3214 Cinematography: Camera work....................3
FILM3401 Advanced Cinematography........................3
FILM3450 Reality TV Production...........................3
FILM4465 Client-driven Production II....................3

Major Electives (6–9 credits)

Cognate Requirements (10–16 credits)

ART1191 Photography I.....................................3
CGD1515 Creative Imagery with Photoshop........3
COMM3349 Introduction to Television..................3
THEA3112 Lighting for the Stage..........................3
THEA3531 Production and Crew I............................1
Any survey or auteur course..........................3

Directing Concentration

The directing concentration is an area that covers a wide array of skills. Directors for the film medium must be educated in both technical and aesthetic areas that encompass what goes on both behind and in front of the camera. Directors must work with other artists to make the film, all the while keeping in mind the experience of the audience. Story structure, performance, camera, editing, sound, set and production design — all come under the auspices of the film director. Students also complete courses in other skill areas, as required of a film and animation major.

Core Major Requirements (27 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CINE1501 Cinematic Storytelling..........................3</td>
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<tr>
<td>CINE3350 Twentieth-century Cinema........................3</td>
<td></td>
</tr>
<tr>
<td>FILM1005 Filmmaking I: Basic Production..................3</td>
<td></td>
</tr>
<tr>
<td>FILM2208 Filmmaking II: The Professional Crew...</td>
<td>3</td>
</tr>
<tr>
<td>FILM2210 Postproduction I................................</td>
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</tr>
<tr>
<td>FILM2250 Screenwriting I..................................3</td>
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<tr>
<td>FILM4311 Producing and Directing the Thesis Film I......</td>
<td>3</td>
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<tr>
<td>FILM4312 Producing and Directing the Thesis Film II.....</td>
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Film and Animation
Maxwell Becton College of Arts and Sciences
Florham Campus

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>FILM3209</td>
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<td>FILM4511</td>
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<td>CINE1501</td>
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<td>FILM1005</td>
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<td>FILM2208</td>
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<td>PSYC4291</td>
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<td>THEA1110</td>
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<tr>
<td>THEA2005</td>
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<td>THEA3551</td>
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**Concentration Requirements (9 credits)**

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<td>FILM3209</td>
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</tbody>
</table>

**Editing Concentration**

Editing concentration is where all the elements involved in making a film are put together. Orson Welles once said, “Editing isn’t just one part of filmmaking, it is filmmaking.” The editing room is where a story can be put together and taken apart; it’s where music and sound can be placed to enhance a story. And managing all the elements of postproduction — from syncing sound to cutting picture, to sound mixing and finalizing special effects — are under the management of the editor and postproduction supervisor. Students also complete courses in other skill areas, as required of a film and animation major.

**Core Major Requirements (27 credits)**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CINE1501</td>
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<tr>
<td>Filmmaking I: Basic Production</td>
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<tr>
<td>FILM2208</td>
<td>3</td>
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<tr>
<td>Filmmaking II: The Professional Crew</td>
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<tr>
<td>FILM2210</td>
<td>3</td>
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<tr>
<td>Postproduction I</td>
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<tr>
<td>FILM2250</td>
<td>3</td>
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<tr>
<td>Screenwriting I</td>
<td>3</td>
</tr>
<tr>
<td>FILM3209</td>
<td>3</td>
</tr>
<tr>
<td>Filmmaking III: Mastering the Art and Craft of Film Production</td>
<td>3</td>
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**Concentration Requirements (9 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FILM2214</td>
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<tr>
<td>Audio for Film and Video</td>
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<td>FILM3212</td>
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<tr>
<td>Postproduction II</td>
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<td>FILM5430</td>
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<td>Reality TV Production</td>
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<td>FILM4461</td>
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<tr>
<td>Documentary Filmmaking</td>
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<tr>
<td>FILM4465</td>
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<tr>
<td>Client-drive Production I</td>
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**Major Electives (6–9 credits)**

Note: Three credits in internship experience may be used to fulfill major elective requirements.

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ANIM1750</td>
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<tr>
<td>Motion Graphics with After Effects®</td>
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<tr>
<td>CGD1313</td>
<td>3</td>
</tr>
<tr>
<td>Creative Imagery with Photoshop</td>
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</tbody>
</table>

**Film Production Concentration**

In the film production concentration, students learn modern digital film production, which has begun to take over the independent film circuit by storm, as well as industry-standard video and film production, shooting projects with HD, (HL), 44p digital cameras, professional Betacam and ArriFlex 16mm cameras. Students learn nonlinear postproduction in Becton College’s Final Cut and Avid Editing Rooms. Courses in screenwriting, directing, lighting and cinematography complement production and postproduction courses. The program culminates in senior thesis projects screened at a public movie theater.

**Required Theory and Production (27 credits)**

<table>
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<tr>
<th>Course</th>
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<td>CINE1501</td>
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<td>FILM3209</td>
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<td>Filmmaking III: Mastering the Art and Craft of Film Production</td>
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<tr>
<td>FILM4311</td>
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<td>FILM4312</td>
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<tr>
<td>FILM4311, FILM4312</td>
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**Cognate Requirements (15–16 credits)**

<table>
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<tr>
<td>COMM2210</td>
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<td>Popular Culture and the Media</td>
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<tr>
<td>MUSH2205</td>
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<tr>
<td>Music for the Movies</td>
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<tr>
<td>THEA3551</td>
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<td>Production and Crew I</td>
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<tr>
<td>FILM survey or auteur course</td>
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**Major Elective Courses (Film Production) (15–25 credits)**

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<th>Course</th>
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<tr>
<td>ANIM1750</td>
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<td>Motion Graphics with After Effects®</td>
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<td>3</td>
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<tr>
<td>Production and Crew II</td>
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</tr>
</tbody>
</table>

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Film and Animation
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All Concentrations

Concentration Electives
(14–16 credits)

Electives may be selected from a variety of courses in concentration and cognate disciplines. It is recommended that each student select courses from the elective category that fit into the following tracks:

Cinematography, Film, Directing and Editing Concentrations

ANIM1750 Motion Graphics with After Effects®
ANIM1850 3D Computer Animation
ANIM2000 3D Computer Modeling
ANIM3300 3D Environment Modeling
ANIM3410 Character Animation Using CAT
CGD2213 2D Design with the Computer
CGD3503 Web Design
CINE1350 History of Film
CINE2404 Films of Alfred Hitchcock
CINE2405 American Film Comedy
CINE3011 Film Noir: Mystery Films 1940s–50s
CINE3215 Introduction to World Cinema
CINE4801 Horror and Science Fiction Movies
COMM5012 Newswriting
COMM5020 Art and Theory of Film
COMM5349 Introduction to Television
FILM3211 Cinematography: Lighting
FILM3212 Postproduction II
FILM3214 Cinematography: Camerawork
FILM3563 Film Directing
FILM3501 Advanced Cinematography
FILM4255 16mm Motion Picture Photography
FILM4256 Producing Movies
FILM427 Distributing Movies and Media
FILM430 Reality TV Production
FILM4362 Advanced Production
FILM4409 Music Scoring for Film Video
FILM442 Internship in Film I
FILM443 Internship in Film II
FILM446 Documentary Filmmaking
FILM4463 Sports Video Production
FILM4465 Client-driven Production I
FILM4466 Producing the Digital Film I
FILM4467 Producing the Digital Film II
FILM4470 Client-driven Production II
FILM4800 Independent Study

Animation Concentration

ANIM2243 Advanced After Effects®
ANIM2245 3D Character Modeling
ANIM2285 3D Asset Creation for Video Games
ANIM2300 Texturing for 3D Production
ANIM3225 Vector Animation II
ANIM3250 3D Particle Animation and Effects
ANIM3343 Advanced Character Animation
ANIM3345 Custom 3D Character Rigging and Animation
ANIM4100 Design and Development of Video Games
ANIM4422 Internship in Animation I
ANIM4423 Internship in Animation II
ANIM4800 Independent Study in Animation
ANIM4900 Faculty/Student Research
ANIM4901 Faculty/Research
ANIMH1202 History of Special Effects and Animation

Video Game Animation Concentration

ANIM1500 Storyboarding
ANIM1750 Motion Graphics with After Effects®
ANIM1850 3D Computer Modeling
ANIM2243 Advanced After Effects®
ANIM2245 3D Character Modeling
ANIM2285 3D Asset Creation for Video Games
ANIM2300 Texturing for 3D Production
ANIM3250 3D Particle Animation and Effects
ANIM3331 Logo and Product Animation
ANIM3343 Advanced Character Animation
ANIM3345 Custom 3D Character Rigging and Animation
ANIM4422 Internship in Animation I
ANIM4423 Internship in Animation II
ANIMH1202 History of Special Effects and Animation

Animation Minor

Animation is the process of creating the illusion of motion through a variety of techniques. The 15-credit minor in animation prepares students to understand the various types of digital 2D motion graphics (which focus on image manipulation) and 3D computer animation (which takes
place in virtual worlds) and their uses. The flexibility of this minor allows students to target their area of interest whether it is commercial-style motion graphics, special effects or 3D character animation.

**Required Courses (9 credits)**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CINE2015</td>
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<td>CINE2207</td>
<td>East Asian Cinema</td>
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<tr>
<td>CINE2515</td>
<td>Spanish Film</td>
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<td>CINE3015</td>
<td>Japanese Culture Through Film</td>
<td>3</td>
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<tr>
<td>CINE3215</td>
<td>Introduction to World Cinema</td>
<td>3</td>
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</tbody>
</table>

**Auteur Course (3 credits)**

Three credits on a director, such as:

- CINE2010 Films of Spike Lee
- CINE2350 The American Film Director
- CINE2404 Films of Alfred Hitchcock
- CINE2406 Clint Eastwood — The Total Artist
- CINE2408 The Films of Woody Allen
- CINE3345 Films of Steven Spielberg

**Cinema Studies Course (3 credits)**

Three credits of cinema survey such as:

- CINE2205 Blondes and Bombshells
- CINE2405 American Film Comedy
- CINE3335 The American Film
- CINE3010 Film Noir: The Dark Side of Cinema
- CINE3011 Film Noir: Mystery Films 1940s–50s
- HIST2100 Medieval History in Film

**Film Production Minor**

The film production minor is for students not majoring in film and animation. The minor in film consists of six courses that will prepare students to understand the filmmaking process, analyze the strengths of different genres in the medium and create short films in a digital medium in one of the genres that they have studied.

The courses in this minor will cover the foundations of the three stages of production, 1) conception and development of an idea, 2) preproduction and production and 3) postproduction. Students will choose to emphasize either their writing or production skills.

**Required Foundation Courses (6 credits)**

- CINE1501 Cinematic Storytelling
- FILM1005 Filmmaking I: Basic Production
- FILM2208 Filmmaking II: The Professional Crew
- FILM2210 Postproduction I
- FILM2250 Screenwriting I or FILM3209 Filmmaking III: Mastering the Art and Craft of Film Production

**Screenwriting/Dramatic Writing Minor**

The screenwriting/dramatic writing minor is designed for students interested in studying the art and craft of writing for the screen and/or stage. The rationale for the proposed required courses for this minor is that knowledge of all forms of creative and dramatic writing contribute to each other and is necessary for a student to become a well-rounded writer no matter what the format. The most talented, acclaimed and successful screenwriters and playwrights often cross genres. For information contact School of the Arts.

**Required Courses (9 credits)**

- CREW2255 Playwriting and Dramatic Structure
- FILM2250 Screenwriting I
- FILM2251 Screenwriting II

**Electives (6 credits)**

Select two of the following courses:

- COMM2005 Narrative Communication in Media and Everyday Life
- CREW2002 Creative Writing: Fiction
- FILM3303 Advanced Screenwriting I
- FILM3304 Advanced Screenwriting II
- THEA3255 Advanced Playwriting
3D Video Game Animation Minor
With the advancement of 3D-accelerated graphics, video games now go far beyond the sprite-based 2D graphics to display visuals that are more realistic and lifelike. In the 15-credit video game animation minor, students learn how to create optimized 3D graphics and animations that will respond well for the player, and then apply interactivity to those pieces using industry-standard game-creation platforms. Both first-person (rendered from the perspective of the player’s character) and third-person (shown from a distance away from the player’s character) games are explored.

Required Courses (9 credits)
- ANIM2240 Low Poly 3D Modeling..................3
- ANIM2500 3D Computer Animation..............3
- CGD1315 Creative Imagery with Photoshop.....3

Elective Courses (6 credits)
Select two of the following courses:
- ANIM650 Game Design...................................3
- ANIM350 3D Game Creation Using Unreal........3
- ANIM3450 3D Game Creation Using Unity........3

Accelerated Combined Degree Program — B.A. in Film and Animation/M.A in Animation Program
For the accelerated combined B.A. in film and animation/M.A. in animation degree program, see page 216.

Accelerated Combined Degree Program — B.A. in Film and Animation/M.F.A in Animation Program
For the accelerated combined B.A. in film and animation/M.F.A. in animation degree program, see page 217.

Fine Arts Major (B.A.)
School of the Arts
Requirements for the Bachelor of Arts Degree
The School of the Arts offers a concentration in studio arts.
Students should see College requirements on pages 54-55 for details of the general education requirements.

Studio Arts Concentration (42-45 credits plus 6 cognate credits)
The studio arts concentration offers a program of study for students interested in careers in the fine arts and related fields, such as art education, art therapy and museum studies. This innovative approach to the studio arts matches courses across disciplines from the unique ART1250 Art of the Graphic Novel and ART1260 Ceramics Character Sculpture to the traditional ART3326 Life Drawing and ART3337 Life Sculpture. Students gain a strong foundation as they are individually encouraged to develop their own artistic voice in an interdisciplinary approach. Knowledge of traditional skills is emphasized along with contemporary art and ideas. Offerings include a wide range of classes at multiple levels in drawing, painting, ceramics, sculpture, photography, two- and three-dimensional design, color theory, printmaking, computer graphics and art history. Students are exposed to a range of professional practices which prepare them for diverse careers in the arts.

Major Requirements (42-45 credits plus 6 cognate credits)
Required Courses (33 credits/27 Studio Arts plus 6 cognate credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<td>ART1201</td>
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<td>ART2319</td>
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<td>ART2320</td>
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<td>ART3326</td>
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<tr>
<td>ART3337</td>
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Cognate Requirements — Art History (6 credits)
ARTH1205 Art History: Prehistoric Through Medieval.................3
ARTH1206 Art History: Renaissance Through Today....................3

Major Electives (15-18 credits)
It is suggested that electives be taken in studio arts and/or art history. See adviser for updated elective list.
ART1157 Printmaking I..................................................3
ART1169 Watercolor Painting I........................................3
ART1191 Photography I..................................................3
ART1250 Art of the Graphic Novel.................................3
ART1260 Ceramic Character Sculpture...............................3
ART2060 Advanced Character Sculpture............................3
ART2061 Animal Sculpture...............................................3
ART2062 Advanced Animal Sculpture.................................3
ART2269 Watercolor Painting II......................................3
ART2316 Ceramics II......................................................3
ART2319 Drawing III......................................................3
ART2320 Drawing IV.........................................................3
ART2326 Painting II.......................................................3
ART2336 Sculpture II.......................................................3
ART3302 Life Drawing....................................................3
Art History Minor
The minor in art history is designed for students interested in studying the history of visual art as an academic discipline. The required six courses have been selected to prepare students in the fundamentals of this discipline and to cover a range of historical periods — spanning prehistoric to contemporary — as well as a variety of media. One studio art class is included to enhance the students’ appreciation of the creative process and to strengthen their ability to write accurately about art.

Required Courses (9 credits)
ARTH1205
Art History: Prehistoric Through Medieval.......................... 3
ARTH1206
Art History: Renaissance Through Today............................ 3
ARTH2218
20th-century Art........................................ 3

Art History Elective (3 credits)
ARTH2265
History of Photography............................................. 3

Required Courses (12 credits)
ARTH1201
Drawing I............................................. 3
ARTH1225
Painting I............................................. 3
ARTH1231
2-Dimensional Design I...................................... 3
ARTH2233
3-Dimensional Design......................................... 3

Studio Arts Elective (3 credits)
Select any one of the following:
ART1250
Art of the Graphic Novel......................................... 3
ART2316
Ceramic Character Sculpture.................................... 3

Elective (3 credits)
Select any one of the following:
ARTH1315
Ceramics I............................................. 3
ARTH2233
3-Dimensional Design......................................... 3

Studio Arts Minor
The minor in studio arts consists of five courses (15 credits) that will prepare students in the fundamentals of two-dimensional and three-dimensional visual language, allowing them to express themselves in a range of methods and materials. These courses instill in students the conceptual foundations for understanding the creative process as well as the technical skills to implement their ideas. Student art exhibitions and faculty-led trips to museums and galleries enrich the learning experience.

Required Courses (12 credits)

Studio Arts Elective (3 credits)
Select any one of the following:
ART1250
Art of the Graphic Novel......................................... 3

Elective (3 credits)
Select any one of the following:
ARTH1315
Ceramics I............................................. 3

Studio Arts Minor
The minor in studio arts consists of five courses (15 credits) that will prepare students in the fundamentals of two-dimensional and three-dimensional visual language, allowing them to express themselves in a range of methods and materials. These courses instill in students the conceptual foundations for understanding the creative process as well as the technical skills to implement their ideas. Student art exhibitions and faculty-led trips to museums and galleries enrich the learning experience.
Government and Law Major (B.A.)
Department of Social Sciences and History

Requirements for the Bachelor of Arts Degree
Students majoring in government and law must complete 30–45 credits of course work in GOVT courses or approved substitutions. The following courses are required.

Credits
GOVT1000
American Government and Politics............. 3
GOVT1100
Global Politics........................................ 3
GOVT2400
Political Ethics........................................ 3
GOVT2500
Social Analysis........................................ 3
GOVT3801
Current Events Seminar.......................... 3
GOVT4498
Internship in Government and Law............. 3

Students may also take specially designed tracks in global politics and legal studies. Students shall select the remaining credits of course work from the 2000-, 3000- and 4000-level courses in government and law with the guidance of their faculty adviser.

Government and law is favored by students preparing for law school. It is not required but students interested in law may wish to major with the legal studies concentration and/or double major with criminology (pages 78–79) or pursue a criminology minor (page 79).

Government and law majors interested in a career in teaching may also be admitted to QUEST, the five-year accelerated preparation program for teaching certification.

Students should see College requirements on pages 54–55 for details of the general education requirements.

Global Politics Concentration
Students majoring in government and law with a concentration in global politics must complete 33–42 credits of course work in the area of government and law.

The goal of the global politics concentration track is to prepare students for careers in international corporations, non-governmental organizations (NGOs) and departments and agencies of the federal government which manage foreign affairs.

In addition to the courses required of all government and law majors, students in this track must take a minimum of 12 GOVT credits with a global politics emphasis at a 2000 or higher level. These courses will be designated GOVT2100–2199, GOVT3100–3199 and GOVT4100–4199.

Legal Studies Concentration
Students majoring in government and law with a concentration in legal studies must complete 33–42 credits of course work in the area of government and law.

The goal of the legal studies concentration is to prepare students for law school or to provide students with a basic overview of law and legal institutions to help them in a variety of careers in government service, public policy or the private sector.

In addition to the courses required of all government and law majors, students in this concentration shall take the following courses:

Credits
GOVT1200
Introduction to Law  or
GOVT5240
Law and Society................................. 3
GOVT2230
Judicial Process  or
GOVT2030
The Supreme Court.............................. 3
GOVT3210
Civil Liberties and Civil Rights  or
GOVT3220
Criminal Law................................. 3

An additional government and law course cross-listed in another field (such as anthropology, criminology, sociology or literature). These courses will be designated GOVT2380–2399, GOVT3380–3399 and GOVT4380–4399.

Government and Law Minor
The government and law minor is for students not majoring in government and law. Students minoring in government and law must take five courses (15 credits) of government and law (GOVT).

Graphic Design Major (B.A.)
School of the Arts
The graphic design major provides individuals with the opportunity to learn the skills, principles and latest industry-standard tools needed to prepare for a wide variety of careers in the graphic design industry. The courses focus on the art of communication and problem solving through the use of type, space, visual imagery and computer software. This rigorous curriculum merges creative visual aesthetics with modern technology, which is necessary for mastering print, illustration or web media production.

Completion of this program will result in a Bachelor of Arts in graphic design with a concentration in illustration, print design or web design awarded by Fairleigh Dickinson University. Admission decisions are made in accordance with criteria, policies and procedures established by FDU. Students must maintain a grade point ratio of 2.00 in their courses at FDU subsequent to admission.

For more information regarding this major contact the graphic design adviser or the director of the graphic design program at the Florham Campus, Madison, New Jersey.

Requirements for the Bachelor of Arts Degree

Illustration Concentration
Illustration allows for a personal style, giving students a competitive edge in their design careers. The illustration concentration gives students the opportunity to develop their abilities in a wide range of marketing, advertising and editorial-art arenas, through the development of critical-thinking skills in visual communication. Students will learn a variety of digital and real-media techniques, with an emphasis on design principles and concept development.

Required Theory and Production Courses (33 credits)

Credits
CGD1212
Introduction to Graphic Design............. 3
CGD1315
Creative Imagery with Photoshop......... 3
Choose four from the following:

**Concentration Electives**

**12 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CGD1050</td>
<td>Creative Concept Drawing</td>
<td>3</td>
</tr>
<tr>
<td>CGD2170</td>
<td>Branding Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD2243</td>
<td>Children's Book Publishing</td>
<td>3</td>
</tr>
<tr>
<td>CGD3303</td>
<td>Web Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD3315</td>
<td>WordPress</td>
<td>3</td>
</tr>
<tr>
<td>CGD3352</td>
<td>Typography 2</td>
<td>3</td>
</tr>
<tr>
<td>CGD3355</td>
<td>Package Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD3358</td>
<td>Project-based Web Design</td>
<td>3</td>
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<tr>
<td>CGD3560</td>
<td>Freelance Practices</td>
<td>3</td>
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<tr>
<td>CGD3562</td>
<td>Mobile App Design</td>
<td>3</td>
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<tr>
<td>CGD3563</td>
<td>Interactive Publishing</td>
<td>3</td>
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<tr>
<td>CGD3573</td>
<td>Email Blast Design and Implementation</td>
<td>3</td>
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<tr>
<td>CGD3574</td>
<td>Online Ad Design and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>CGD3580</td>
<td>Social Media Marketing Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD3585</td>
<td>E-commerce Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD4422</td>
<td>Graphic Design Internship I</td>
<td>3</td>
</tr>
<tr>
<td>CGD4423</td>
<td>Graphic Design Internship II</td>
<td>3</td>
</tr>
<tr>
<td>CGD4900</td>
<td>Faculty/Student Research I</td>
<td>3</td>
</tr>
<tr>
<td>CGD4901</td>
<td>Faculty/Student Research II</td>
<td>3</td>
</tr>
<tr>
<td>CGDH2020</td>
<td>History of Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>CGDH2216</td>
<td>Design for Social Responsibility</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** Six credits in internship experience may be used to fulfill major elective requirements.

**Cognate Requirements (9 credits)**

<table>
<thead>
<tr>
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</thead>
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<td>ART3302</td>
<td>Creative Concept Drawing</td>
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</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>ART1169</td>
<td>Watercolor Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART1201</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART3350</td>
<td>Illustration</td>
<td>3</td>
</tr>
</tbody>
</table>

**Print Design Concentration**

The print design concentration teaches the creative process of producing visual communications and presentations in order to convey a specific message to a targeted audience, specifically intended for printing. The most common types of print-design products are publications, brochures, business cards, posters, product labels and packaging.

**Required Theory and Production Courses (33 credits)**

<table>
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<tr>
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<tbody>
<tr>
<td>CGD1212</td>
<td>Introduction to Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD1313</td>
<td>Creative Imagery with Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>CGD1314</td>
<td>Illustrator Graphics and Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD2211</td>
<td>Typography 1</td>
<td>3</td>
</tr>
<tr>
<td>CGD2221</td>
<td>2D Design with the Computer</td>
<td>3</td>
</tr>
<tr>
<td>CGD2370</td>
<td>Print Layout</td>
<td>3</td>
</tr>
<tr>
<td>CGD3355</td>
<td>Package Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD3363</td>
<td>Interactive Publishing</td>
<td>3</td>
</tr>
<tr>
<td>CGD4420</td>
<td>Thesis</td>
<td>3</td>
</tr>
<tr>
<td>CGD4500</td>
<td>Portfolio Preparation</td>
<td>5</td>
</tr>
<tr>
<td>CGDH2020</td>
<td>History of Graphic Design</td>
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</table>

**Concentration Electives**

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<td>The Digital Children's Book</td>
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</tr>
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<td>CGD2170</td>
<td>Branding Design</td>
<td>3</td>
</tr>
<tr>
<td>CGD2215</td>
<td>Editorial Illustration and Design</td>
<td>3</td>
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<td>Children's Book Publishing</td>
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<tr>
<td>CGD3515</td>
<td>WordPress</td>
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<tr>
<td>CGD3552</td>
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**Cognate Requirements (9 credits)**

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**Print Design Concentration**

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**Required Theory and Production Courses (33 credits)**

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**Concentration Electives**

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**Cognate Requirements (9 credits)**

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C G D 4 5 00
activity of web-based products.

The functionality, navigation and inter-
front-end user interface as well as develop-

(12 credits)

proprietary software. Students study how
authoring and coding through the use of

products including interface design,

production of websites and other internet

es a variety of skills in the design and pro-
duction of websites and other internet

products including interface design, authoring and coding through the use of proprietary software. Students study how websites work in order to produce the front-end user interface as well as developing the functionality, navigation and interactivity of web-based products.

Required Theory and Production Courses (30 credits)

CGD1212
  Introduction to Graphic Design............3
CGD1313
  Creative Imagery with Photoshop..........3
CGD1314
  Illustrator Graphics and Design...........3
CGD2213
  2D Design with the Computer..............3
CGD3303
  Web Design..................................3
CGD3315
  WordPress....................................3
CGD3358
  Project-based Web Design................3
CGD4420
  Thesis........................................3
CGD4500
  Portfolio Preparation.....................3
CGDH12020
  History of Graphic Design................3

Web Design Concentration

The web design concentration encompasses a variety of skills in the design and production of websites and other internet products including interface design, authoring and coding through the use of proprietary software. Students study how websites work in order to produce the front-end user interface as well as developing the functionality, navigation and interactivity of web-based products.

Required Theory and Production Courses (30 credits)

CGD2212
  Typography I.................................3
CGD2215
  Editorial Design and Illustration.........3
CGD2243
  Children’s Book Publishing...............3
CGD2370
  Print Layout..................................3
CGD3351
  Illustration Design........................3
CGD3352
  Typography 2................................3
CGD3355
  Package Design.............................3
CGD3360
  Freelance Practices........................3
CGD3362
  Mobile App Design..........................3
CGD3365
  Interactive Publishing......................3
CGD3375
  Email Blast Design and Implementation...3
CGD3374
  Online Ad Design and Implementation......3
CGD3380
  Social Media Marketing Design............3
CGD3385
  E-commerce Design..........................3
CGD4422
  Graphic Design Internship I...............3
CGD4423
  Graphic Design Internship II..............3
CGD4900
  Faculty/Student Research I................3
CGD4901
  Faculty/Student Research II................3
CGDH2216
  Design for Social Responsibility..........3

Note: Six credits in internship experience may be used to fulfill major elective requirements.

Cognate Requirements (9 credits)

ANIM1750
  Motion Graphics with After Effects® .......3
ANIM1850
  3D Computer Modeling......................3
ART1201
  Drawing I....................................3
ART1260
  Ceramic Character Sculpture..............3
ART2233
  3-Dimensional Design......................3

Web Design Minor

This 15-credit minor in graphic design will prepare students to understand, formulate and create design solutions for a variety of visual communication problems in print, the web and other two-dimensional design contexts.

To achieve this goal, the courses in this minor seek to instill in students the conceptual foundations for understanding design, the desire to develop visual sensitivity and the requisite traditional and software skills necessary to confront real-world design situations competitively.

Required Courses

CGD1313
  Creative Imagery with Photoshop..........3
CGD1314
  Illustrator Graphics and Design...........3
CGD2213
  2D Design with the Computer..............3
CGD2370
  Print Layout..................................3
CGD3303
  Web Design..................................3

Note: Students who previously declared an 18-credit minor must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor. No course substitutions will be permitted.

Web Design Minor

This 15-credit minor will allow students to explore the field of web design, learning the industry-standard tools and software for development of personal and commercial websites for the computer and mobile devices. The focus is on design, composition, color therapy, typography, interaction and responsive design.

Required Courses (9 credits)

CGD1313
  Creative Imagery with Photoshop..........3
CGD3303
  Web Design..................................3
CGD3315
  Graphic Design.........................3
Electives (6 credits)
Select two of the following courses:

- ANIM1750 Motion Graphics with After Effects® ....3
- ANIM1850 3D Computer Modeling .........................3
- CGD3358 Project-based Web Design .........................3
- CGD3360 Freelance Practices.................................3
- CGD3361 Mobile Web Design.................................3
- CGD3362 Mobile App Design.................................3
- CGD3373 Email Blast Design and Implementation ..........3
- CGD3374 Online Ad Design and Implementation ..........3
- CGD3380 Social Media Marketing Design ..................3
- CGD3385 E-commerce Design.................................3

History Major (B.A.)
Department of Social Sciences and History
Requirements for the Bachelor of Arts Degree
History is the study of the human past, which is an ongoing process of learning and discovery. The major is designed to provide students with a nuanced understanding of the past and to equip them with the tools and skills necessary to become effective critical thinkers, researchers and writers. History majors interested in a career in teaching may also be admitted to QUEST, the five-year accelerated preparation program for teaching certification.

Required Courses (15 credits)

- HIST1150 World History I......................................3
- HIST1151 World History II....................................3
- HIST3802 Historical Methods................................3

Choose one of the following courses

- HIST2400 The Indian Ocean................................5
- HIST2401 Pacific Worlds.......................................3
- HIST2402 Atlantic Worlds.....................................5
- HIST2403 Mediterranean Worlds............................3

Choose one from a 4000-level seminar
(Prerequisite: HIST3802 Historical Methods)

Major Elective Courses (18–21 credits)
Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.

- A. Africa and Asia
- B. Europe
- C. Latin America
- D. United States

Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

Cognate Requirements (9 credits)

- ECON1111 Introduction to Economics.........................3
- GEOG1102 Geography and World Issues..................3
- GOVT1000 American Government and Politics..............3

Elementary Education Specialization

Major Elective Courses (18–21 credits)
Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.

- A. Africa and Asia
- B. Europe
- C. Latin America
- D. United States

Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

Cognate Requirement (3 credits)

- GEOG1102 Geography and World Issues..................3

Secondary Education Specialization

Major Elective Courses (18–21 credits)
Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.

- A. Africa and Asia
- B. Europe
- C. Latin America
- D. United States

Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

Cognate Requirement (3 credits)

- ECON1111 Introduction to Economics.........................3
- GEOG1102 Geography and World Issues..................3
- GOVT1000 American Government and Politics..............3
Elementary Education and Special Education Specialization

Major Elective Courses (18-21 credits)
Note: Select three credits from each of the following areas. At least six credits of major electives must be at the 3000 level.
A. Africa and Asia
B. Europe
C. Latin America
D. United States
Note: Three credits in internship experience (HIST4498 Internship in History) may be used to fulfill major elective requirements.

Cognate Requirement (3 credits)
Credits
GEOG1102 Geography and World Issues.................. 3

History Minor
The history minor is not for students majoring in history. The history minor consists of 15 credits in history (HIST) courses.

Humanities Major (B.A.)
Department of Literature, Language, Writing and Philosophy

Requirements for the Bachelor of Arts Degree
The humanities major is designed for students who desire to pursue a broadly based liberal arts education. It offers an integrated experience built around two seminars taken in the sophomore or junior year and the senior year.
Majors will complete a total of 36-39 credits. Two options are available.

Standard Program (for students not in the QUEST/Teacher Preparation Program)
A. Humanities Seminar — 6 credits
HUMN2201 Humanities Seminar I — 3 credits completed no later than the first semester of the junior year
HUMN5211 Humanities Seminar II — 3 credits completed in the senior year
B. Basic Humanities Electives — 24 credits (No more than one course at the 1000-level in any one discipline)
Literature — 6 credits (any 2000- or 3000-level ENGL, LITS or courses in literature in translation in modern languages)
History — 6 credits
Philosophy — 6 credits
Arts (music, art history, theater, film) — 6 credits in courses emphasizing historical or generic content; production and studio courses are not counted toward the humanities major.
C. Advanced Electives — 6–9 credits at 2000- or 3000-level in any combination of disciplines in Category B. An internship experience may be included in this group of courses.

Humanities B.A./QUEST/Teacher Preparation — Elementary Education
This option provides sufficient credits in English and history courses to permit QUEST students to qualify for middle-school certification as well.

A. Humanities Seminar — 6 credits
HUMN2201 Humanities Seminar I — 3 credits completed no later than the first semester of the junior year
HUMN5211 Humanities Seminar II — 3 credits completed in the senior year
B. Humanities Electives
Literature — 9 credits (any 2000- to 4000-level courses in ENGL, LITS or literature in translation in modern languages)
History — 12 credits (at least 3 credits in world history and 3 credits in American history)
Philosophy — 3 credits
Arts — 3 credits (any course in art history, music, theater, film emphasizing historical or generic content; production and studio courses are not counted toward the major)
Additional electives in history, literature, philosophy, art or internship — 3–6 credits
Note that ENGW1101 College Writing Workshop and ENGW1102 Research Writing Workshop count toward the credits in English, and GOVT1000 American Government and Politics is counted toward the credits in history required for certification. GOVT1000 American Government and Politics is taken to fulfill the College's general education requirements in social and behavioral sciences.

Humanities Minor
The humanities minor is for students not majoring in humanities. Students minoring in humanities must take 18 credits distributed as below:

Required Course (3 credits)
Credits
HUMN2201 Humanities Seminar I.............................. 3

Introductory Humanities Electives (6 credits)
Introductory (1000- to 2000-level) courses in English, literature, film (non-production), history, philosophy, theater (non-studio), art (non-studio) and music (non-performance).

Advanced Humanities Electives (9 credits)
Any advanced courses (2000-, 3000-, 4000-level) in subjects above; no more than 6 credits in a single discipline.
Mathematics

Mathematics Major (B.A.)

Department of Mathematics, Computer Science and Physics

Requirements for the Bachelor of Arts Degree

Students should see College requirements (pages 54–55) for details of the general education requirements. Majors must complete 40–41 credits of courses in mathematics and computer science and 8 credits in physics to be distributed as follows:

Required Courses (26 credits)

- CSCI2215 Introduction to Computer Science
- MATH1203 Calculus I, II, III
- MATH2202
- MATH2203
- MATH2255 Discrete Structures
- MATH3220 Linear Algebra
- MATH3251 Introductory Analysis
- MATH3232 Multivariable Advanced Calculus
- MATH3303 Probability

Elective Courses (15 credits)

Five courses to be selected from the mathematics offerings (MATH designation) above the level of MATH2255 Discrete Structures or, with the permission of the department, from the graduate offerings in mathematics. With the permission of the department, up to 6 credits from the 2000- or higher-level offerings in computer science (CSCI designation) may be substituted for mathematics electives.

At least one of the following pairs of courses must be completed.

**Pair I**
- MATH3251 Introductory Analysis
- MATH3355 Complex Variables

**Pair II**
- MATH3309 Numerical Analysis
- MATH3318 Differential Equations

**Pair III**
- MATH3210 Number Theory
- MATH3225 Abstract Algebra

**Pair IV**
- MATH3318 Differential Equations

- MATH3371 Modeling and Simulation or
- MATH2255 Discrete Structures or
- MATH3306 Combinatorics or
- MATH3310 Probability or
- MATH3315 Higher Geometry or

- MATH3305 Advanced Probability and Statistics

Required Physics Courses (8 credits)

- Majors must complete PHYS2003, PHYS2013, PHYS2023 and PHYS2004, PHYS2014, PHYS2024 General Physics with Calculus I and II. PHYS2003, PHYS2015 will be applied to the science requirements of the general education requirements.

- Students are urged to take CHEM1201 General Chemistry I and CHEM203 General Chemistry Laboratory I in fulfillment of the additional science requirement of the general education requirements.

Actuarial Science Concentration

Students planning to major in mathematics with a concentration in actuarial science should complete all requirements for the B.A. degree in mathematics with the selection of the following courses as electives in the major:

- MATH3305 Advanced Probability and Statistics
- MATH3309 Numerical Analysis

To fulfill the general education requirements, they are required to take:

- ECON2001 Introduction to Microeconomics
- ECON2102 Introduction to Macroeconomics

Additional cognate requirements include:

- ACCT2021 Introductory Financial Accounting
- CSCI1205 Introduction to Computer Programming
- CSCI2215 Introduction to Computer Science
- FIN3250 Principles of Financial Analysis
- FIN3310 Intermediate Financial Analysis

- The above requirements will assist students in preparing for actuarial exams 1 and 2, which are jointly administered by the Society of Actuaries and the Casualty Actuarial Society.

- The student may
  1. Study the Theory of Interest and Life Contingencies to strengthen their preparation for exam 2 and/or
  2. Study Actuarial Mathematics and Models to begin preparation for exam 3.

Computer Science Concentration

Students planning to major in mathematics with a concentration in computer science should choose CSCI1205 Introduction to Computer Programming in fulfillment of the quantitative analysis requirement of the general education requirements.

Required Courses (34 credits)

- CSCI2215 Introduction to Computer Science
- CSCI2216 Introduction to Computer Science II
- CSCI2233 Data Structures and Algorithms
- CSCI2255 Discrete Structures
- MATH1203 Calculus I
- MATH2202 Calculus II
- MATH2203 Calculus III
- MATH3220 Linear Algebra
- MATH3251 Introductory Analysis
- MATH3232 Multivariable Advanced Calculus
- MATH3303 Probability

Elective Courses (15 credits)

Two courses (3 credits each) to be selected from the mathematics offerings (MATH designation) above the level of MATH2255 Discrete Structures or, with the permission of the department, from the graduate offerings in mathematics and three courses (3
Required Physics Courses (8 credits)

Majors must also complete PHYS2003, PHYS2013, PHYS2025 and PHYS2004, PHYS2014, PHYS2024 General Physics with Calculus I and II. PHYS2003, PHYS2013 will be applied to the laboratory science requirement of the core curriculum.

Students are urged to take CHEM1201 General Chemistry I and CHEM1203 General Chemistry Laboratory I in fulfillment of the additional science requirement of the general education requirements.

Financial Mathematics Concentration

Students planning to major in mathematics with a concentration in financial mathematics should complete all requirements for the B.A. degree in mathematics with the selection of the following courses as electives in the major:

**Required Courses (15 credits)**

- MATH1203 Calculus I ...............................................4
- MATH2202 Calculus II ............................................. 4
- MATH3300 Statistics I ..............................................3
- MATH3303 Probability ............................................. 3

Mathematics for Cybersecurity Minor

This 16-credit minor is for non-computer science majors.

**Required Courses (16 credits)**

- CSCI1205 Introduction to Computer Programming...............3
- MATH1133 Applied Statistics........................................3
- MATH1203 Calculus I ...............................................4
- MATH2255 Discrete Structures................................... 3
- MATH3355 Introduction to Cryptography.........................3

Mathematics for the Business World Minor

**Required Courses (15 credits)**

- MATH1203 Calculus I ...............................................4
- MATH2202 Calculus II ............................................. 4
- MATH3303 Probability............................................. 3
- MATH3371 Modeling and Simulation
  or
- MATH3305 Advanced Probability and Statistics
  or
- MATH3307 Mathematics of Finance............................4

Elective Courses (7 credits)

Seven credits of additional course work in mathematics to be selected from the 2000- or higher-level offerings in mathematics (MATH designation).

Mathematics Minor

The mathematics minor is for students not majoring in mathematics. Students majoring in mathematics must take 18 credits in mathematics distributed as follows:

**Required Courses (11 credits)**

- MATH1203 Calculus I ...............................................4
- MATH2202 Calculus II ............................................. 4
- MATH3220 Linear Algebra........................................3

**Elective Courses (7 credits)**

Seven credits of additional course work in mathematics to be selected from the 2000- or higher-level offerings in mathematics (MATH designation).
Medical Imaging Sciences Major (B.S.M.I.S.)
Department of Biological and Allied Health Sciences

Completion of this program will result in a Bachelor of Science in Medical Imaging Sciences with a concentration in diagnostic medical sonography or vascular technology awarded jointly by Fairleigh Dickinson University and the Rutgers School of Health Professions (Rutgers SHP). Students will complete 96 credits during their first three years at FDU. They then must apply for acceptance to the professional component at Rutgers SHP for their senior year. A joint degree is awarded upon completion of the professional component.

Admission to the clinical courses at Rutgers SHP requires a separate application, usually in the junior year. Consult the program adviser for application details and timelines. Admissions decisions for the clinical program are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status for the degree program and cannot be guaranteed by FDU. Students admitted to the clinical program must maintain a minimum grade point ratio of 2.85 and a "C" or better in their prerequisite courses at FDU subsequent to admission.

For more information regarding these degrees, contact the allied health adviser, Florham Campus.

Also see “Allied Health Sciences Majors,” page 64.

Requirements for the Bachelor of Science in Medical Imaging Sciences Degree

**Biology Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL.1110 Medical and Pathological Terminology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL.1201, BIOL.1203 Biological Diversity (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL.1202, BIOL.1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL.1205, BIOL.1206 Anatomy and Physiology I, II*</td>
<td>8</td>
</tr>
<tr>
<td>BIOL.2003, BIOL.2004 Cell Biology (Lecture and Laboratory)...</td>
<td>4</td>
</tr>
<tr>
<td>BIOL.3009, BIOL.3019 Microbiology (Lecture and Laboratory)...</td>
<td>4</td>
</tr>
<tr>
<td>BIOL.3256, BIOL.3257 Genetics (Lecture and Laboratory)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Chemistry Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM.2261, CHEM.2262 Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM.2263, CHEM.2264 Organic Chemistry Laboratory I, II</td>
<td>2</td>
</tr>
</tbody>
</table>

**Physics Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS.1001, PHYS.1011; PHYS.1002, PHYS.1012 General Physics I, II — (Lecture and Laboratory)</td>
<td>4 credits each semester</td>
</tr>
<tr>
<td></td>
<td>or</td>
</tr>
<tr>
<td>PHYS.2003, PHYS.2015; PHYS.2004, PHYS.2014 General Physics with Calculus I, II — (Lecture and Laboratory)</td>
<td>8 credits each semester</td>
</tr>
</tbody>
</table>

After completion of three years of study (a minimum of 96 credits) at FDU, the program is completed in 12–15 months at the Rutgers School of Health Professions. With the successful completion of the program at Rutgers SHP, the student will earn the Bachelor of Science in Medical Imaging Sciences.

*A grade of B- or better is required for Diagnostic Medical Sonography and Vascular Technology concentrations.

Concentrations

There are two concentrations available within this degree:

**Diagnostic Medical Sonography Concentration**

Diagnostic medical sonographers provide patient services using diagnostic ultrasound under the supervision of a licensed physician. Sonographers look for subtle differences between healthy and pathological areas and decide what images to include in their report. The sonographer may provide this service in a variety of medical settings where the physician is responsible for the use and interpretation of ultrasound procedures. For requirements see “Requirements for the Bachelor of Science in Medical Imaging Sciences Degree.” A grade of B- or better in BIOL.1205, BIOL.1206 Anatomy and Physiology I, II is required for this concentration.

**Vascular Technology Concentration**

Vascular technologists assist physicians in the diagnosis of disorders affecting circulation by use of ultrasound instrumentation. They noninvasively record vascular information such as blood pressure, oxygenation and circulation throughout the body. For requirements see “Requirements for the Bachelor of Science in Medical Imaging Sciences Degree.” A grade of B- or better in BIOL.1205, BIOL.1206 Anatomy and Physiology I, II and CPR Certification are required for this concentration.
Philosophy
Major (B.A.)
Department of Literature, Language, Writing and Philosophy

Requirements for the Bachelor of Arts Degree
Philosophy as a major can be combined with any other major and/or minor in the liberal arts and social sciences. Students concentrating in philosophy must complete 30 credits (10 courses) in philosophy.

Required Courses (9 credits)
To be taken in the first or second semester:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL1101</td>
<td>Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHIL1102</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
</tbody>
</table>

To be taken in the last year:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL4401</td>
<td>Philosophy Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses (21 Credits)
To be chosen from the available courses. The student must consult with his/her adviser to make sure that the distribution is reasonable and representative across the subfields of philosophy.

History of Philosophy, Metaphysics, Epistemology, Philosophy of Language, Philosophy of Mind, Philosophy of Science

- PHIL1106: Ideas of Happiness
- PHIL1107: Dreams and the Imagination
- PHIL1112: Critical Thinking for College and Life
- PHIL1114: Philosophy Through Movies
- PHIL1119: Nietzsche: Philosopher as Psychologist
- PHIL2208: Ethical Issues in the Movies
- PHIL2210: What is Radical Politics?
- PHIL2211: Philosophy and Film
- PHIL2252: Philosophy of Law
- PHIL2777: Formal Logic
- PHIL2828: Immortality and Reincarnation
- PHIL3005: War and Philosophy
- PHIL3306: The Problem of Evil

Philosophy of Religion, Ethics, Social and Political Philosophy, Philosophy of Art

- PHIL1103: Ethics
- PHIL1106: Ideas of Happiness
- PHIL1119: Legal Issues from a Philosophical Perspective
- PHIL1440: Biomedical Ethics
- PHIL2205: Contemporary Philosophy
- PHIL2207: Social and Political Philosophy
- PHIL2208: Philosophy of Religion
- PHIL2210: Crime and Punishment
- PHIL2211: What is Radical Politics?
- PHIL2211: Philosophy and Film
- PHIL2432: Philosophy of Law
- PHIL2777: Formal Logic
- PHIL2828: Immortality and Reincarnation
- PHIL3005: War and Philosophy
- PHIL3306: The Problem of Evil

The remaining 9 credits should be selected from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL1105</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL1106</td>
<td>Ideas of Happiness</td>
<td>3</td>
</tr>
<tr>
<td>PHIL1119</td>
<td>Dreams and the Imagination</td>
<td>3</td>
</tr>
<tr>
<td>PHIL1120</td>
<td>Critical Thinking for College and Life</td>
<td>3</td>
</tr>
<tr>
<td>PHIL1140</td>
<td>Biomedical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHIL1439</td>
<td>Nietzsche: Philosopher as Psychologist</td>
<td>3</td>
</tr>
<tr>
<td>PHIL2008</td>
<td>Ethical Issues in the Movies</td>
<td>3</td>
</tr>
<tr>
<td>PHIL2102</td>
<td>Space and Time</td>
<td>3</td>
</tr>
<tr>
<td>PHIL2201</td>
<td>Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL2202</td>
<td>Modern Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL2205</td>
<td>Contemporary Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL3005</td>
<td>War and Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHIL3306</td>
<td>The Problem of Evil</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Students who previously declared an 18-credit minor in this area must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor. No course substitutions will be permitted.
**Physical Education**
*Associate Dean’s Office*

The University encourages student participation in those physical activities that have social significance and allow for lifetime participation and interest. With this philosophy in mind, the emphasis in physical education courses is on those activities that have enduring value.

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**Psychology Major (B.A.)**

*Department of Psychology and Counseling*

**Requirements for the Bachelor of Arts Degree**

The psychology major is designed for students to gain a broad background in the scientific study and philosophical understanding of people, along with the practical applications of the discipline. For those students who wish to pursue advanced degrees, the program provides the basic knowledge and tools necessary for graduate study.

Students majoring in psychology must complete a minimum of 32 credits of course work in psychology. Students should see College requirements on pages 54–55 for details of the general education requirements. The required courses and suggested sequence are:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PSYC1201 General Psychology (first or second semester)</td>
</tr>
<tr>
<td></td>
<td>PSYC2210 Psychological Statistics (third semester)</td>
</tr>
<tr>
<td></td>
<td>PSYC2211 Research Methods (fourth semester)</td>
</tr>
<tr>
<td></td>
<td>PSYC4291 History and Systems of Psychology</td>
</tr>
</tbody>
</table>

In addition, students are required to select one of the listed courses from each of the following content areas of psychology.

**Area I: Experimental Psychology**

- PSYC5030 Advanced Experimental Psychology | 3
- PSYC5032 Physiological Psychology | 5
- PSYC3331 Theories of Learning | 5
- PSYC3333 Sensation and Perception | 5
- PSYC3334 Psychopharmacology | 5
- PSYC3335 Cognitive Psychology | 5

**Area II: Social Psychology**

- PSYC3011 Group Dynamics | 3
- PSYC3015 Theories of Personality | 3
- PSYC3310 Social Psychology | 3

**Area III: Clinical Psychology**

- PSYC3001 Human Development (Child) | 3
- PSYC3005 Abnormal Psychology | 3
- PSYC3302 Human Development (Adolescent) | 3

**Area IV: Industrial Psychology**

- PSYC3320 Managerial Psychology | 3
- PSYC3322 Industrial Psychology | 3

The remaining credits may be electives selected, with the guidance of the students’ faculty advisers, from the PSYC3000 and PSYC4000 series of psychology course offerings. It is suggested that those students who seek a professional career in psychology:

1. Avoid an overconcentration in any one area of psychology at the undergraduate level and have as broad an exposure as possible to the entire field.
2. Become involved in an independent study project or internship at some point during their fifth through eighth semester of study.

Students concentrating in psychology must complete the social-behavioral sciences requirement of the general education requirements in an area other than psychology.

**Behavioral Neuroscience Concentration**

The psychology department, in conjunction with the biological and allied health sciences and chemistry departments, offers a course of study leading to a B.A. in psychology with a concentration in behavioral neuroscience. This is designed for students wishing to earn a baccalaureate degree with an emphasis on the physiological basis of behavior. The curriculum of 120 credits is structured to maximize the benefits available through the interdisciplinary study of psychology, biology and chemistry. Undergraduate course requirements provide for the integrated understanding of the phar-
Sociology
Maxwell Becton College of Arts and Sciences
Florham Campus

Macology of drug action and brain function as they relate to the discipline of behavioral neuroscience. Major core requirements include two semesters of general chemistry and laboratories, one semester of organic chemistry and laboratory, one semester of cell biology and laboratory and one semester of lectures and laboratories on the anatomy and physiology of the human body. Psychology requirements include general psychology, two semesters of statistical and experimental methods, physiological psychology and psychopharmacology. Course study culminates with an advanced neuroscience methods seminar. Graduates would be prepared for graduate study in psychology, biology or neuroscience. Career openings exist in pharmaceutical research, pharmaceutical sales and marketing, hospital laboratory technology and animal care.

**Major Requirements (46 credits)**

**Required Major Courses (40 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1202</td>
<td>Introduction to Molecules, Cells and Genes</td>
<td>4</td>
</tr>
<tr>
<td>BIOL2003, BIOL2004</td>
<td>Cell Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1202</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2261</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2263</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC1201</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC2210</td>
<td>Psychological Statistics</td>
<td>4</td>
</tr>
<tr>
<td>PSYC2211</td>
<td>Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>PSYC3032</td>
<td>Physiological Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC3333</td>
<td>Psychopharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC4130</td>
<td>Behavioral Neuroscience Methods</td>
<td>4</td>
</tr>
<tr>
<td>PSYC4447</td>
<td>Medical Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major Elective Courses (6 credits)**

Select from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM4430</td>
<td>Selected Topics in Chemistry</td>
<td>1–3</td>
</tr>
<tr>
<td>CHEM4685</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC3333</td>
<td>Sensation and Perception</td>
<td>3</td>
</tr>
<tr>
<td>PSYC3335</td>
<td>Cognitive Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Psychology Minor**

The psychology minor is for students not majoring in psychology. The psychology minor (15 credits) consists of

**Required Course (3 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC1201</td>
<td>General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives (12 credits)**

PSYC courses (3 credits each).............12

- Note: Students who previously declared an 18-credit minor must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor. No course substitutions will be permitted.

**Combined Accelerated B.A./M.A. Program**

The department also offers an accelerated B.A./M.A. program. For more information, see page 223.

**Sociology Major (B.A.)**

**Department of Social Sciences and History**

Students majoring in sociology develop the knowledge and analytical skills needed to pursue entry-level positions and professional careers in law, business, criminal justice, education, government, health and medicine, human resources, public relations, social work and social services. In addition, the bachelor's degree is a first step for graduate work in sociology in preparation for a career as a professor or researcher. Sociology majors interested in a career in teaching may also be admitted to QUEST, the five-year accelerated preparation program for teaching certification.

**Requirements for the Bachelor of Arts Degree**

Students should see College requirements on pages 54–55 for details of the general education requirements. Students majoring in sociology must complete 30–45 credits of course work in the area of sociology. The following courses must be included in the 30 credits.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI1201</td>
<td>Introduction to Sociology</td>
<td></td>
</tr>
<tr>
<td>SOCI2203</td>
<td>Methods in Social Research</td>
<td></td>
</tr>
<tr>
<td>SOCI3021</td>
<td>Classical Sociological Theory</td>
<td></td>
</tr>
<tr>
<td>SOCI3022</td>
<td>Contemporary Social Theory</td>
<td></td>
</tr>
</tbody>
</table>

- The remaining 21–36 credits of course work shall be selected from SOCI2000, SOCI3000 and SOCI4000 courses with the guidance of the students' faculty advisers.
- Students majoring in sociology may choose to take the criminology or prelaw minor, see page 79 and pages 62–63.

**Anthropology Minor**

Students minoring in anthropology must take ANTH1202 Cultural Anthropology (3 credits) plus four other courses (12 credits) in anthropology (ANTH) for a total of 15 credits.

**Sociology Minor**

The sociology minor is for students not majoring in sociology. Students minoring in sociology must take SOCI1201 Introduction to Sociology plus four other courses (12 credits) in sociology (SOCI) for a total of 15 credits.
Theater Arts Major (B.A.)

School of the Arts

The theater arts program at FDU allows a student interested in making a career in theater a choice of one of six concentrations offered: acting, design and technical theater, directing, musical theater, playwriting and theater studies. Students will begin their studies at the Florham Campus in Madison, New Jersey; spend a semester in England at the University’s Wroxton College; then return to the Florham Campus to spend two intensive years that will include internships with a choice of casting directors, talent agents or local or Manhattan-based theater companies. Madison’s proximity to New York City will also enable students to take advantage of the many opportunities available in the “theater capital of the world.”

Requirements for the Bachelor of Arts Degree

Concentration choices should be made in consultation with an adviser. Students should see College requirements on pages 54–55 for details of the general education requirements.

Concentrations

Six areas of concentration are offered.

Acting Concentration

Foundation Courses (36 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN2506</td>
<td>Movement for the Actor...</td>
</tr>
<tr>
<td>THEA1205</td>
<td>Basic Acting</td>
</tr>
<tr>
<td>THEA2005</td>
<td>Directing I</td>
</tr>
<tr>
<td>THEA2204</td>
<td>Intermediate Acting</td>
</tr>
<tr>
<td>THEA2209</td>
<td>Stagecraft I</td>
</tr>
<tr>
<td>THEA3356</td>
<td>Acting for Film and Television</td>
</tr>
<tr>
<td>THEA3358</td>
<td>Acting Shakespeare</td>
</tr>
<tr>
<td>THEA4405</td>
<td>Senior Seminar: The Working Actor</td>
</tr>
</tbody>
</table>

Another course is offered periodically.

Advanced Acting........................................3
Development of the Theater: Ancient to Elizabethan........3
Development of the Theater: Restoration to Today...........3
Playwriting and Dramatic Structure........................3

Cognate Requirements (9 credits)

One of the following courses offered at Wroxton College, England
ENGL3421
Not of an Age … But for All Time.........................3
ENGL3422
“The Play’s the Thing”........................................3
ENGL3424
“To Hold the Mirror Up to Nature”.........................3
ENGL3456
20th-century Drama...........................................3

Plus two of the following
SPCH1107
Fundamentals of Speech...................................3
SPCH1204
Voice for the Actor..........................................3
SPCH2004
Speech and Diction...........................................3

Major Electives (9 credits)

Students should choose three from among the following recommended courses.
DAN316
Stage Combat..................................................1
THEA1005
Makeup for the Stage.......................................1
THEA2310
Stage Management...........................................3
THEA2359
Musical Theater Workshop.................................3
THEA3339
The London Theatre Experience..........................3
THEA5337
Night at the Theater.......................................3

Other courses are offered periodically.

Design and Technical Theater Concentration

Foundation Courses (30 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA2005</td>
<td>Directing I</td>
</tr>
<tr>
<td>THEA2209</td>
<td>Stagecraft I</td>
</tr>
<tr>
<td>THEA2215</td>
<td>Set Design I</td>
</tr>
<tr>
<td>THEA2310</td>
<td>Stage Management</td>
</tr>
<tr>
<td>THEA3110</td>
<td>Stagecraft II</td>
</tr>
<tr>
<td>THEA3112</td>
<td>Lighting for the Stage</td>
</tr>
<tr>
<td>THEA3351</td>
<td>Production and Crew I</td>
</tr>
<tr>
<td>THEA3352</td>
<td>Production and Crew II</td>
</tr>
<tr>
<td>THEA3353</td>
<td>Production and Crew III</td>
</tr>
<tr>
<td>THEA3370</td>
<td>Development of the Theater: Ancient to Elizabethan</td>
</tr>
<tr>
<td>THEA3392</td>
<td>Development of the Theater: Restoration to Today</td>
</tr>
</tbody>
</table>

Cognate Requirement (3 credits)

One of the following courses offered at Wroxton College, England
ENGL3421
Not of an Age … But for All Time.........................3
ENGL3422
“The Play’s the Thing”........................................3
ENGL3424
“To Hold the Mirror Up to Nature”.........................3
ENGL3456
20th-century Drama...........................................3

Major Electives (15 credits)

Students should choose five from among the following recommended courses.
ART1201
Drawing I..................................................3
ART2236
Introduction to Color...................................3
CGD1313
Creative Imagery with Photoshop.........................3
THEA2216 | Set Design II | 3 |
THEA3325 | Stagecraft III | 3 |
THEA4415 | Building the Scenic Model | 3 |
THEA4416 | Rendering and Drafting for the Theater | 3

*To qualify for study at Wroxton College, students must maintain a 3.00 grade point ratio. If students do not qualify to study at Wroxton College, they may choose to minor in fine arts, with a theater concentration.
**Theater Arts**
Maxwell Becton College of Arts and Sciences
Florham Campus

### Directing Concentration

**Foundation Courses (45 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS3103</td>
<td>Modern Drama: 1880–1930</td>
</tr>
<tr>
<td>THEA1205</td>
<td>Basic Acting I</td>
</tr>
<tr>
<td>THEA2005</td>
<td>Directing I</td>
</tr>
<tr>
<td>THEA2209</td>
<td>Stagecraft I</td>
</tr>
<tr>
<td>THEA2215</td>
<td>Set Design I</td>
</tr>
<tr>
<td>THEA2310</td>
<td>Stage Management</td>
</tr>
<tr>
<td>THEA3006</td>
<td>Directing II</td>
</tr>
<tr>
<td>THEA3112</td>
<td>Lighting for the Stage</td>
</tr>
<tr>
<td>THEA3351</td>
<td>Production and Crew I</td>
</tr>
<tr>
<td>THEA3352</td>
<td>Production and Crew II</td>
</tr>
<tr>
<td>THEA3353</td>
<td>Production and Crew III</td>
</tr>
<tr>
<td>THEA3358</td>
<td>Acting Shakespeare</td>
</tr>
<tr>
<td>THEA4800</td>
<td>Independent Study in Theater/Directing</td>
</tr>
<tr>
<td>THEA1201</td>
<td>Development of the Theater: Ancient to Elizabethan</td>
</tr>
<tr>
<td>THEA1202</td>
<td>Development of the Theater: Restoration to Today</td>
</tr>
<tr>
<td>THEA2255</td>
<td>Playwriting and Dramatic Structure</td>
</tr>
<tr>
<td>THEA3377</td>
<td>Night at the Theater</td>
</tr>
</tbody>
</table>

**Cognate Requirement (3 credits)**

One of the following courses offered at Wroxton College, England

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL3421</td>
<td>Not of an Age ... But for All Time</td>
</tr>
<tr>
<td>ENGL3422</td>
<td>“The Play’s the Thing”</td>
</tr>
<tr>
<td>ENGL3424</td>
<td>“To Hold the Mirror Up to Nature”</td>
</tr>
<tr>
<td>ENGL3456</td>
<td>20th-century Drama</td>
</tr>
</tbody>
</table>

And choose two from the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN2020</td>
<td>Basic Tap</td>
</tr>
<tr>
<td>DAN2021</td>
<td>Ballet I</td>
</tr>
<tr>
<td>MUSI12221</td>
<td>Fundamentals of Music Theory</td>
</tr>
<tr>
<td>SPCH1107</td>
<td>Fundamentals of Speech</td>
</tr>
</tbody>
</table>

### Musical Theater Concentration

**Foundation Courses (33 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN1320</td>
<td>Beginning Dance I</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>DAN2505</td>
<td>Dance II</td>
</tr>
<tr>
<td>MUSIC1015</td>
<td>Basic Vocal Technique</td>
</tr>
<tr>
<td>SPCH11204</td>
<td>Voice for the Actor</td>
</tr>
<tr>
<td>THEA1205</td>
<td>Basic Acting I</td>
</tr>
<tr>
<td>THEA2204</td>
<td>Intermediate Acting</td>
</tr>
<tr>
<td>THEA2209</td>
<td>Stagecraft I</td>
</tr>
<tr>
<td>THEA2339</td>
<td>Musical Theater Workshop</td>
</tr>
<tr>
<td>THEA2340</td>
<td>Advanced Musical Theater Workshop</td>
</tr>
<tr>
<td>THEA4405</td>
<td>Senior Seminar; The Working Actor</td>
</tr>
<tr>
<td>THEA1201</td>
<td>Development of the Theater: Ancient to Elizabethan</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>THEA1202</td>
<td>Development of the Theater: Restoration to Today</td>
</tr>
<tr>
<td>THEA3344</td>
<td>History of the Musical</td>
</tr>
</tbody>
</table>

**Cognate Requirements (9 credits)**

One of the following courses offered at Wroxton College, England

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL3421</td>
<td>Not of an Age ... But for All Time</td>
</tr>
<tr>
<td>ENGL3422</td>
<td>“The Play’s the Thing”</td>
</tr>
<tr>
<td>ENGL3424</td>
<td>“To Hold the Mirror Up to Nature”</td>
</tr>
<tr>
<td>ENGL3456</td>
<td>20th-century Drama</td>
</tr>
</tbody>
</table>

And choose two from the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN2020</td>
<td>Basic Tap</td>
</tr>
<tr>
<td>DAN2021</td>
<td>Ballet I</td>
</tr>
<tr>
<td>MUSI12221</td>
<td>Fundamentals of Music Theory</td>
</tr>
<tr>
<td>SPCH1107</td>
<td>Fundamentals of Speech</td>
</tr>
</tbody>
</table>

### Major Electives (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DAN2506</td>
<td>Movement for the Actor</td>
</tr>
<tr>
<td>DAN2600</td>
<td>Theater Dance</td>
</tr>
<tr>
<td>MUSIC1020</td>
<td>Chorus</td>
</tr>
<tr>
<td>MUSIC1376</td>
<td>Private Instruction in Voice</td>
</tr>
<tr>
<td>MUSIC215</td>
<td>Vocal Technique II</td>
</tr>
<tr>
<td>SPCH2004</td>
<td>Speech and Diction</td>
</tr>
<tr>
<td>THEA1005</td>
<td>Makeup for the Stage</td>
</tr>
<tr>
<td>THEA3356</td>
<td>Acting for Film and Television</td>
</tr>
<tr>
<td>THEA3359</td>
<td>The London Theatre Experience</td>
</tr>
<tr>
<td>THEA4420</td>
<td>Advanced Acting</td>
</tr>
<tr>
<td>THEA3377</td>
<td>Night at the Theater</td>
</tr>
</tbody>
</table>

### Playwriting Concentration

**Foundation Courses (31 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CREW4001</td>
<td>Senior Writing Project I, II</td>
</tr>
<tr>
<td>FILM2250</td>
<td>Screenwriting I</td>
</tr>
<tr>
<td>THEA1205</td>
<td>Basic Acting I</td>
</tr>
<tr>
<td>THEA2005</td>
<td>Directing I</td>
</tr>
<tr>
<td>THEA3351</td>
<td>Production and Crew I</td>
</tr>
<tr>
<td>THEA4800</td>
<td>Independent Study in Theater/Directing</td>
</tr>
<tr>
<td>THEA1201</td>
<td>Development of the Theater: Ancient to Elizabethan</td>
</tr>
<tr>
<td>THEA1202</td>
<td>Development of the Theater: Restoration to Today</td>
</tr>
<tr>
<td>THEA2255</td>
<td>Playwriting and Dramatic Structure</td>
</tr>
<tr>
<td>THEA3377</td>
<td>Night at the Theater</td>
</tr>
</tbody>
</table>

And choose two from the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL3421</td>
<td>Not of an Age ... But for All Time</td>
</tr>
<tr>
<td>ENGL3422</td>
<td>“The Play’s the Thing”</td>
</tr>
<tr>
<td>ENGL3424</td>
<td>“To Hold the Mirror Up to Nature”</td>
</tr>
<tr>
<td>ENGL3456</td>
<td>20th-century Drama</td>
</tr>
</tbody>
</table>

**Cognate Requirements (9 credits)**

One of the following courses offered at Wroxton College, England

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL3421</td>
<td>Not of an Age ... But for All Time</td>
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<tr>
<td>ENGL3422</td>
<td>“The Play’s the Thing”</td>
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<tr>
<td>ENGL3424</td>
<td>“To Hold the Mirror Up to Nature”</td>
</tr>
<tr>
<td>ENGL3456</td>
<td>20th-century Drama</td>
</tr>
</tbody>
</table>

And choose two from the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN2020</td>
<td>Basic Tap</td>
</tr>
<tr>
<td>DAN2021</td>
<td>Ballet I</td>
</tr>
<tr>
<td>MUSI12221</td>
<td>Fundamentals of Music Theory</td>
</tr>
<tr>
<td>SPCH1107</td>
<td>Fundamentals of Speech</td>
</tr>
</tbody>
</table>

Choose two from the following

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LITS3103</td>
<td>Modern Drama: 1880–1930</td>
</tr>
<tr>
<td>LITS3104</td>
<td>Contemporary American Drama</td>
</tr>
<tr>
<td>LITS3105</td>
<td>Contemporary European Drama</td>
</tr>
</tbody>
</table>
Cognate Requirement (3 credits)
One of the following courses offered at Wroxton College, England

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL3421</td>
<td>Not of an Age ... But for All Time</td>
</tr>
<tr>
<td>ENGL3422</td>
<td>“The Play’s the Thing”</td>
</tr>
<tr>
<td>ENGL3424</td>
<td>“To Hold the Mirror Up to Nature”</td>
</tr>
<tr>
<td>ENGL3456</td>
<td>20th-century Drama</td>
</tr>
</tbody>
</table>

Theater Studies Concentration

Foundation Courses (29 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN2506</td>
<td>Movement for the Actor</td>
</tr>
<tr>
<td>DAN3316</td>
<td>Stage Combat I</td>
</tr>
<tr>
<td>THEA1110</td>
<td>Introduction to Acting</td>
</tr>
<tr>
<td>THEA2005</td>
<td>Directing I</td>
</tr>
<tr>
<td>THEA2209</td>
<td>Stagecraft I</td>
</tr>
<tr>
<td>THEA2310</td>
<td>Stage Management</td>
</tr>
<tr>
<td>THEA3351</td>
<td>Production and Crew I</td>
</tr>
<tr>
<td>THEAH1201</td>
<td>Development of the Theater: Ancient to Elizabethan</td>
</tr>
<tr>
<td>THEAH1202</td>
<td>Development of the Theater: Restoration to Today</td>
</tr>
<tr>
<td>THEAH2255</td>
<td>Playwriting and Dramatic Structure</td>
</tr>
<tr>
<td>THEAH3337</td>
<td>Night at the Theater</td>
</tr>
</tbody>
</table>

Major Electives (16 credits)
Choose from the selection below.

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DAN1320</td>
<td>Beginning Dance I</td>
</tr>
<tr>
<td>MUSI2221</td>
<td>Fundamentals of Music Theory</td>
</tr>
<tr>
<td>THEA1005</td>
<td>Makeup for the Stage</td>
</tr>
<tr>
<td>THEA2215</td>
<td>Set Design I</td>
</tr>
<tr>
<td>THEA2220</td>
<td>Introduction to Acting II</td>
</tr>
<tr>
<td>THEA2239</td>
<td>Musical Theater Workshop</td>
</tr>
<tr>
<td>MUSI1211</td>
<td>Survey of Music: Ancient to 1800</td>
</tr>
<tr>
<td>MUSI1221</td>
<td>Survey of Music: 1800 to Today</td>
</tr>
<tr>
<td>MUSI1222</td>
<td>Fundamentals of Music Theory</td>
</tr>
</tbody>
</table>

Electives (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC1015</td>
<td>Basic Vocal Technique</td>
</tr>
<tr>
<td>MUSIC1020</td>
<td>Chorus</td>
</tr>
</tbody>
</table>

Dance Studies Minor

The dance studies minor provides a comprehensive overview of dance as an art form through technique, dance history, dance appreciation and choreographic practice. The minor develops a dancer’s technique, exposes students to a history of the art form and provides study in creative choreographic principles and practice.

Required Courses (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN1320</td>
<td>Beginning Dance I</td>
</tr>
<tr>
<td>DAN2505</td>
<td>Dance II</td>
</tr>
<tr>
<td>DAN2507</td>
<td>Choreography</td>
</tr>
<tr>
<td>DANH1322</td>
<td>Dance History and Appreciation</td>
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Elective Courses (6 credits)

Select two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN2020</td>
<td>Basic Tap</td>
</tr>
<tr>
<td>DAN2021</td>
<td>Ballet I</td>
</tr>
<tr>
<td>DAN2022</td>
<td>Ballet II</td>
</tr>
<tr>
<td>DAN2505</td>
<td>Dance II (if not taken to fulfill required course)</td>
</tr>
<tr>
<td>DAN2506</td>
<td>Movement for the Actor</td>
</tr>
<tr>
<td>DAN2600</td>
<td>Theater Dance</td>
</tr>
<tr>
<td>DAN3020</td>
<td>Advanced Tap</td>
</tr>
</tbody>
</table>

Musical Theater Minor

Required Courses (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAN1320</td>
<td>Beginning Dance I</td>
</tr>
<tr>
<td>DAN2505</td>
<td>Dance II</td>
</tr>
<tr>
<td>THEA1110</td>
<td>Introduction to Acting</td>
</tr>
<tr>
<td>THEA2339</td>
<td>Musical Theater Workshop</td>
</tr>
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</table>

Choose three other courses from the following (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>DAN2020</td>
<td>Basic Tap</td>
</tr>
<tr>
<td>DAN2021</td>
<td>Ballet I</td>
</tr>
<tr>
<td>DAN2506</td>
<td>Movement for the Actor</td>
</tr>
<tr>
<td>THEA2340</td>
<td>Advanced Musical Theater Workshop</td>
</tr>
<tr>
<td>THEAH3344</td>
<td>History of the Musical</td>
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</table>

Music Minor

Required Courses (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSI1211</td>
<td>Survey of Music: Ancient to 1800</td>
</tr>
<tr>
<td>MUSI1221</td>
<td>Survey of Music: 1800 to Today</td>
</tr>
<tr>
<td>MUSI1222</td>
<td>Fundamentals of Music Theory</td>
</tr>
</tbody>
</table>

Electives (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC1015</td>
<td>Basic Vocal Technique</td>
</tr>
<tr>
<td>MUSIC1020</td>
<td>Chorus</td>
</tr>
</tbody>
</table>

*Students with a theater studies concentration are not required to spend a semester at Wroxton College, England.*
Faculty & Staff
Maxwell Becton College of Arts and Sciences
Florham Campus

Theater Arts Minor
The theater arts minor offers a foundation in the diverse aspects of contemporary theater. The minor focuses on the collaborative approach to theatrical production, allowing students to study both the practical and academic aspects of theater. Students emerge with knowledge of acting, directing, stagecraft and dramaturgy/theater history. Minors are also encouraged to audition for or to crew departmental productions each year, providing opportunities for hands-on application of classroom learning.

Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA1110</td>
<td>3</td>
</tr>
<tr>
<td>THEA2005</td>
<td>3</td>
</tr>
<tr>
<td>THEA2209</td>
<td>3</td>
</tr>
<tr>
<td>THEAH1201</td>
<td>3</td>
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Select one of the following (3 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA2220</td>
<td>3</td>
</tr>
<tr>
<td>THEAH2255</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Students who previously declared an 18-credit minor must complete a Declaration of Minor form (available in the Records Office) in order to convert to the revised, 15-credit minor. Students who convert to the revised minor MUST complete all requirements affiliated with the 15-credit minor. No course substitutions will be permitted.

Faculty & Staff

Administration
G. Weinman, Dean
J. Lehr, Associate Dean for Academic Affairs

School of the Arts
H. Libov (Film), Chair; R. Barkley (Animation), R. Chace (Creative Writing), J. Cinco (Computer Graphics), D.G. Cochrane (Studio Arts), A. Cohen (Music), D. Daniel (Creative Writing), D. Grand (Creative Writing), E. Hoffman (Film), S. Hollis (Theater), D. Landau (Film), S. Lents (Theater), C. Loewus (Theater), J. Moonelis (Studio Arts), J. O’Neil (Web Design), J. Shaw (Animation), R. Steinke (Creative Writing)

Department of Biological and Allied Health Sciences

Department of Chemistry and Biochemistry
A. Teslja, Chair; G. Anderle, S. Bashkova, J. Bogart, M. Elshaer, E. Salaski

Department of Communication Studies
G. Radford, Chair; C. Caldiero, K. Dunsmore, C. Foster, K. Haspel, S. Laton, J. Lehr

Department of Literature, Language, Writing and Philosophy
M. Boyd (Literature), Chair; P. Bazán-Figueras (Spanish/Literature), S. Belen-Ramos (Spanish/Literature), P. Benson (Literature), L. Corces (Spanish/Literature), K. Douglas (College Writing), A. Fader (College Writing), N. Ghosh (Literature), O. Makridis (Philosophy), G. Pastorino (French/Italian/Literature), A. Patrick (Literature), F. Pinto (College Writing), B. Rabinowitz (College Writing), E. Reid (College Writing), K. Sammond (College Writing), G. Weinman (Literature), R. Young (College Writing)

Department of Mathematics, Computer Science and Physics

Department of Psychology and Counseling
A. Tasso, Chair; D. Brown, D. Calcagnetti, T. Conklin, D. DeNigris, R. Griffo, K. Shirley, V. Vignole, D. Wentworth

Department of Social Sciences and History
G. Darden (History), Chair; P. Burgholder (History), D. Cassino (Government and Law), F. Degiuli (Sociology), R. Houle (History), L. Huertas Castillo (History), K. Jenkins (Government and Law), R. Nasser (Sociology), R. Nisa (Geography), J. Nowotny (Criminology), B. Peabody (Government and Law), D. Rosen (Anthropology/Sociology), M. Sacks (Criminology), J. Schieman (Government and Law), A. Shlosberg (Criminology)

School of Pharmacy and Health Sciences
Silberman College of Business

Majors

Accounting (B.S.)

Business Administration (B.S.)
    Concentrations: information systems (Metropolitan Campus only); international business (Metropolitan, Florham and Vancouver campuses); sustainability management (Metropolitan and Florham campuses only)

Entrepreneurship (B.S.)*

Finance (B.S.)
    Concentration: financial planning and wealth management

Management (B.S.)
    Concentration: human resource management or leadership (choose one)

Marketing (B.S.)
    Concentration: digital marketing (optional)

Minors for Silberman College of Business Students

Accounting, digital marketing, entrepreneurship, finance, financial planning and wealth management, human resource management, leadership, marketing, sustainability management

Minors for Non-Silberman College of Business Students

Business administration, digital marketing, entrepreneurship, financial planning and wealth management, management — human resources, management — leadership, sustainability management

*Offered at the Florham Campus only.

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

Andrew J. Rosman, Dean

The Silberman College of Business is accredited by AACSB International - The Association to Advance Collegiate Schools of Business, the world’s preeminent accreditation authority for collegiate schools of business. It is also a member of the Middle Atlantic Association of Colleges of Business Administration and the New Jersey Collegiate Business Administration Association.

The College offers a B.S. degree and enables students to specialize in accounting, business administration, entrepreneurship, finance, management and marketing. Students can also earn concentrations in specific areas including international business, information systems, human resource management, leadership, sustainability management, financial planning and wealth management and digital marketing.

The College’s mission is to be a center of learning committed to the education of tomorrow’s leaders today, to prepare students to succeed in a global environment and to advance the understanding of business. It also prepares students to assume positions of responsibility in a global business community characterized by rapid technological and social change.

Undergraduate programs reflect a strong commitment to the liberal arts as a foundation for the study of business in a multicultural society. Graduate programs build on the diverse educational backgrounds and work experiences of the students by providing professional management education that emphasizes the link between the theory and the practice of business.

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

The College fulfills its mission through:

• A wide range of innovative, high-quality teaching methodologies appropriate to each discipline and constituency;
• A curriculum that responds to the needs, interests and insights of its students;
• The effective integration of recent research findings in classroom discussions through the creative application of theory to practice;
• Faculty members who are committed to making an appropriate contribution to the advancement of knowledge in their respective disciplines;
• The effective use of faculty skills in service to Fairleigh Dickinson University and the community;
• An innovative Professional Development Program (PDP) that enhances the readiness of Silberman College undergraduate students to succeed as business professionals upon graduation. The PDP fosters the development of a set of skills, knowledge and capabilities that complement the academic and technical foundation provided by the curriculum. The program helps build confidence and maturity in students as they transition to professional roles.
• A dedicated Office of Placement and Outreach focused on developing internship opportunities for Silberman College students.
• The College of Business also offers the Global Business Experience (GBE) Program.

The Silberman College of Business’ Rothman Institute of Innovation and Entrepreneurship helps build relationships with the external business community, as well as provide students with cocurricular opportunities to enhance their classroom experience. The institute’s mission is to teach and support entrepreneurship and innovation in the academic, business and nonprofit communities.

The College also offers students and faculty opportunities for professional and personal growth both inside and outside the classroom. It maintains close relationships with the business community in the region. Guests from leading organizations are frequent speakers at student forums and at other events hosted by the College and its institute. Internship programs are available to provide work experience for undergraduate students in their chosen fields of study while providing organizational decision-makers the opportunity to observe contemporary students in a professional environment.

Students earning an undergraduate degree in business from Silberman College have the opportunity to earn a major in the following disciplines: accounting, business administration, entrepreneurship, finance, management and marketing. Students earning a major must complete a sequence of seven courses prescribed by the department responsible for the major. Students pursuing a specialization in accounting also have the opportunity to pursue a 150-hour combined B.S./M.S. degrees (4+1). Graduates from this program meet the New Jersey academic requirements for the Certified Public Accountant examination. Students preparing to qualify for examination in other states should choose electives to meet the specific requirements of the state in which they plan to be examined. Please contact the chair of the accounting, taxation and law department for further information.

Students in the Silberman College of Business can also earn both an undergraduate and graduate degree in one less year that it would traditionally take, by pursuing one of the five-year combined degree programs. The most common graduate degrees are the M.B.A. — Master of Business Administration — and the Master of Science in accounting (4+1). For additional information, contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135. Admission requirements for the graduate portion of the program apply.

Academic Regulations
In addition to the academic regulations found elsewhere in this bulletin, the following regulations apply to the Silberman College of Business:

Admission
Academic proficiencies not achieved in high school or demonstrated by a validating examination prior to admission must be satisfied before matriculation. In some cases, extra course work may be required.

Transfer Students
A. Credit for courses completed at another educational institution is based upon their equivalence to courses offered at Fairleigh Dickinson University. In addition, no transfer of credit will be accepted for required business courses, until the student has completed, either at another institution or at Fairleigh Dickinson University, all pertinent course prerequisites. Comparable 2000- or above-level business courses completed at another institution before completion of the equivalent of two full years of academic study may not be transferred without validation. Silberman College of Business’ Undergraduate Services Office should be consulted regarding validation procedures.

B. All courses in a two-year A.A. degree program may not be transferable. The courses must fit the business program and be compatible in content and sequencing.

C. A maximum of 64 credits may be transferred from a two-year college. In addition, these courses must be compatible in content and sequencing with the Fairleigh Dickinson University program.

D. A maximum of 26 credits may be awarded for nontraditional education by the validation techniques listed below:
• General CLEP (College-Level Examination Program) examinations
• Subject CLEP examinations
• Advanced placement examinations (English, mathematics, history)
• USAFI courses if taken through an accredited college and validated by Fairleigh Dickinson University

TECEP examinations (Thomas A. Edison College)
E. Business courses must be taken at an appropriate institution in order to be eligible for transfer.

F. Transfer credit for nontraditional courses, previously validated by another institution, must be validated by the Silberman College of Business before award of credit can be considered under (D) above.

G. Transfer students must complete the final 32 credits of baccalaureate study within the College.

H. A majority of required business core courses and a majority of the major courses in the discipline must be completed within the Silberman College of Business.

Pass/No Credit
The pass/no credit (P/NC) privilege is only available to students with a cumulative grade point ratio (CGPR) of 3.00 or better who have achieved fifth-semester standing. A maximum of 6 credits may be earned at the rate of 3 credits per semester through this option. Credit is limited to elective courses not taken in the Silberman College of Business. Departmental approval is required during the first two weeks of the semester.

Graduation Requirements
A student must complete a minimum of 33 credits as a matriculant in the Silberman College of Business. The cumulative grade point ratio for all work completed at the University must be at least 2.00. In addition, a grade of “C” or higher is required in all core and major (or minor) courses in a discipline to graduate with a major or minor in that discipline.

Acceptance to Major (or Minor)
For acceptance into a given major (or minor), a minimum grade of “C” must have been earned in the business core course(s) pertaining to the same discipline as the major (or minor), as designated by each department. If a student wishes to declare a major (or minor) but has less than a “C” in a course in the business core course with discipline, then the student must retake the course to earn a grade of “C” or higher. If the student’s department chair or faculty adviser agrees, a student may retake the course while concurrently taking additional courses leading to the major (or minor).

Dual Major
A second undergraduate degree from the Silberman College of Business is not
permitted. However, a student may obtain a second major by completing appropriate courses between 9 and 21 credits beyond the 121 credits required for the Bachelor of Science degree. The courses must include all required courses within the second major plus adviser-approved electives.

Minors

Students at the Silberman College of Business have the option of earning a minor in a non-business area by completing the requirements set forth by University College: Arts • Sciences • Professional Studies (for students at the Metropolitan Campus) or Maxwell Becton College of Arts and Sciences (for students at the Florham Campus) or in a business discipline, as set forth by the respective departments. For more details, students must consult with their advisers.

Minors for Silberman College of Business Students

Accounting Minor

The minor in accounting requires earning 12 credits by completing the four required major accounting courses. If any accounting major courses have been counted toward the student’s major, they cannot be counted toward the minor in accounting.

Digital Marketing Minor

The minor in digital marketing requires earning 12 credits by completing the four required major marketing courses.

Human Resource Management Minor

The minor in human resource management requires earning 12 credits distributed as follows:

Required Course

MGMT3700

Human Resources Management........3

Elective Courses

Choose three of the following 3-credit courses:

MGMT3610

Leading Teams..............................3

EGMT3710

Strategic Staffing............................3

MGMT3720

Training, Development and Performance Management........3

MGMT4499

Internship in Human Resources Management..................3

MGMT4730

Strategic Human Resource Management..................3

Any management major courses that have been counted toward the student’s major cannot be counted toward the minor in human resource management.

Leadership Minor

The minor in leadership requires earning 12 credits distributed as follows:

Required Course

Credits

MGMT3610

Leading Teams..................................3

Elective Courses

Choose three of the following 3-credit courses:

MGMT3400

Managing Sustainability in the Global Context........3

MGMT3620

Leadership and Personal Development..................3

MGMT3700

Human Resources Management..................3

MGMT4498

Internship in Management..................3

MGMT4640

Managing Projects and Organizations..................3

Any management major courses that have been counted toward the student’s major cannot be counted toward the minor in leadership.

Marketing Minor

The minor in marketing requires earning 12 credits by completing the four required major marketing courses. Any marketing major courses that have been counted toward the student’s major cannot be counted toward the minor in marketing.

Sustainability Management Minor

Credits

DSCI3502

Value Chain Management for Sustainability..................3

ENTR3700

Doing Well Through Doing Good or

MGMT4490

Guided Internship in Sustainability Management........3

MGMT3400

Managing Sustainability in the Global Context........3

MKTG3501

Marketing for a Sustainable World..................3

Additionally, students must select one of the following sustainability-related science courses:

BIOL1070, BIOL1071

Ecosystem and Environmental Science..................4

Students desiring this minor must meet the College’s criteria for internships.
**Academic Regulations**

Silberman College of Business
Florham Campus, Metropolitan Campus and Vancouver Campus

### Minors for Non-Silberman College of Business Students

#### Business Administration Minor
Completion of all of the following courses with passing grades and attaining a minimum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in business administration:

- **ACCT2021** Introductory Financial Accounting — 3 credits
- **ECON2001** Introduction to Microeconomics — 3 credits
- **FIN3250** Principles of Financial Analysis — 3 credits
- **LAW2276** Business and the Law — 3 credits
- **MGMT2600** Organizational Behavior — 3 credits
- **MKTG2120** Principles of Marketing — 3 credits

Students must also satisfy a statistics requirement. A three-credit statistics course taken as part of their own program of study will qualify. Students must declare their intention to pursue the minor in business administration no later than their junior year.

This minor is not available for students pursuing a major in the Silberman College of Business.

#### Digital Marketing Minor
Completion of all of the following courses with passing grades and attaining a minimum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in digital marketing:

- **MKTG2120** Principles of Marketing — 3 credits
- **MKTG3360** Digital Marketing — 3 credits
- **MKTG3383** Social Media Marketing — 3 credits
- **MKTG4272** Consumer Behavior — 3 credits

**MKTG4499** Internship in Marketing Studies* (Digital Focused) — 3 credits

**Entrepreneurship Minor**
Completion of all of the following courses (three required and two electives) with passing grades and attaining a minimum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in entrepreneurship:

**Required Course**

- **ENTR2700** Introduction to Entrepreneurship and Innovation — 3 credits
- **ENTR3700** Doing Well Through Doing Good — 3 credits
- **FIN3330** Personal Financial Management or **ENTR3500** E-business for Entrepreneurs — 5 credits

Select two electives from the following courses:

- **ENTR3202** Family Business Management — 3 credits
- **ENTR3601** Women as Entrepreneurs — 3 credits
- **ENTR4498, ENTR4499** Internship in Entrepreneurial Studies — 3 credits

**Financial Planning and Wealth Management Minor**
Completion of all of the following courses with passing grades and attaining a minimum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in financial planning and wealth management:

- **WMA3335** Personal Financial Management or **FIN3330** Personal Financial Management — 3 credits
- **WMA4265** Personal Tax Planning — 3 credits
- **WMA4350** Investment Planning — 3 credits
- **WMA4380** Client Relations in Financial Management — 5 credits

**Take one of the following three:**

- **WMA4267** Retirement Planning — 5 credits

*Students desiring this minor must meet the College’s criteria for internships.

---

**Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1180</td>
<td>Climate Change Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL2049, BIOL2050</td>
<td>Ecology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1027, CHEM1028</td>
<td>Chemistry for the Global Citizen</td>
<td>4</td>
</tr>
<tr>
<td>PHYS1010, PHYS1020</td>
<td>Physics of Sustainable Energy</td>
<td>4</td>
</tr>
<tr>
<td>MKTG2120</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3360</td>
<td>Digital Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3383</td>
<td>Social Media Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4272</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4499</td>
<td>Internship in Marketing Studies*</td>
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<td>MGMT2600</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3700</td>
<td>Human Resources Management</td>
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<tr>
<td>MGMT3710</td>
<td>Strategic Staffing</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3720</td>
<td>Training, Development and Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT4730</td>
<td>Strategic Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>ENTR2700</td>
<td>Introduction to Entrepreneurship and Innovation</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3202</td>
<td>Family Business Management</td>
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</tr>
<tr>
<td>ENTR3601</td>
<td>Women as Entrepreneurs</td>
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<td>ENTR4498, ENTR4499</td>
<td>Internship in Entrepreneurial Studies</td>
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<tr>
<td>WMA3335</td>
<td>Personal Financial Management</td>
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<tr>
<td>WMA4265</td>
<td>Personal Tax Planning</td>
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<tr>
<td>WMA4350</td>
<td>Investment Planning</td>
<td>3</td>
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<td>WMA4380</td>
<td>Client Relations in Financial Management</td>
<td>5</td>
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<tr>
<td>WMA4267</td>
<td>Retirement Planning</td>
<td>5</td>
</tr>
<tr>
<td>WMA4370</td>
<td>Personal Estate and Gift Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4375</td>
<td>Risk Management and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>WMA3335</td>
<td>Personal Financial Management</td>
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<tr>
<td>WMA4265</td>
<td>Personal Tax Planning</td>
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<tr>
<td>WMA4350</td>
<td>Investment Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4380</td>
<td>Client Relations in Financial Management</td>
<td>5</td>
</tr>
<tr>
<td>DSCI3502</td>
<td>Value Chain Management for Sustainability</td>
<td>3</td>
</tr>
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</table>
General Curriculum • Five-year Combined Degree Programs
Silberman College of Business
Florham Campus, Metropolitan Campus and Vancouver Campus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENTR3700</td>
<td>Doing Well Through Doing Good</td>
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<td>or</td>
<td></td>
</tr>
<tr>
<td>MGMT4490</td>
<td>Guided Internship in Sustainability Management</td>
</tr>
<tr>
<td>MGMT3400</td>
<td>Managing Sustainability in the Global Context</td>
</tr>
<tr>
<td>MKTG3501</td>
<td>Marketing for a Sustainable World</td>
</tr>
<tr>
<td>BIOL1070,</td>
<td>Ecosystem and Environmental Science</td>
</tr>
<tr>
<td>BIOL1071</td>
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</tr>
<tr>
<td>BIOL1180</td>
<td>Climate Change Biology</td>
</tr>
<tr>
<td>BIOL2049,</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIOL2050</td>
<td></td>
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<tr>
<td>CHEM1027,</td>
<td>Chemistry for the Global Citizen</td>
</tr>
<tr>
<td>CHEM1028</td>
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<td>PHYS1010,</td>
<td>Physics of Sustainable Energy</td>
</tr>
<tr>
<td>PHYS1020</td>
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General Curriculum Requirements
The Silberman College of Business offers a bachelor of science degree. Within this degree are six majors: accounting, business administration, entrepreneurship, finance, management, and marketing.

A candidate for the Bachelor of Science degree at the Silberman College of Business must complete a minimum of 121 credits of course work, distributed as follows:

A. General Education Requirements (36 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMM2099</td>
<td>Professional Communications</td>
</tr>
<tr>
<td>or</td>
<td></td>
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<tr>
<td>COMM2101</td>
<td>Professional Communication</td>
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</table>

B. University Core (8 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
</tr>
</tbody>
</table>

C. Free Electives (15 credits)

Free Electives** | 15 |

D. Business Core (38 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT2021</td>
<td>Introductory Financial Accounting</td>
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<tr>
<td>ACCT2022</td>
<td>Introductory Managerial Accounting</td>
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<tr>
<td>CARR3000</td>
<td>Career Strategies</td>
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<tr>
<td>DSCI1234</td>
<td>Mathematics for Business Decisions</td>
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<td>or</td>
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<tr>
<td>DSCI1239</td>
<td>Calculus with Business Applications</td>
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<tr>
<td>DSCI2029</td>
<td>Introduction to Statistics</td>
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<td>ENGR2150</td>
<td>Engineering in the Global Context</td>
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<td>ECON2001</td>
<td>Introduction to Macroeconomics</td>
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<td>ECON2102</td>
<td>Introduction to Microeconomics</td>
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<tr>
<td>FIN3250</td>
<td>Principles of Financial Analysis</td>
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E. Restricted Business Core (3 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FIN3310</td>
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<td>ENTR3160</td>
<td>Launching New Ventures</td>
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</tbody>
</table>

F. Major Courses in Discipline (21 credits)

See major courses for each discipline (major).

For prerequisites see Course Descriptions pages 370–378.

Sample Credit-Hour Distribution Per Semester

Freshman Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
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<td>2</td>
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Sophomore Year

<table>
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<th>Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>3</td>
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<td>4</td>
<td>15</td>
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Junior Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>5</td>
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<tr>
<td>6</td>
<td>15</td>
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</tbody>
</table>

Senior Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Five-year Combined Degree Programs (4+1)

Students in the Silberman College of Business can earn both an undergraduate and graduate degree in just five years (4+1), by pursuing one of the following five-year combined degree programs:

- B.S. in accounting/M.B.A.
- B.S. in accounting/M.S. in accounting
- B.S. in business administration/M.B.A.
- B.S. in business administration/M.S. in accounting
- B.S. in entrepreneurship/M.B.A.
• B.S. in entrepreneurship/M.S. in accounting
• B.S. in finance/M.B.A.
• B.S. in finance/M.S. in accounting
• B.S. in management*/M.B.A.
• B.S. in management*/M.S. in accounting
• B.S. in marketing/M.B.A.
• B.S. in marketing/M.S. in accounting

These combined degree programs enable motivated students to earn their bachelor’s and master’s degrees in one year less than it would traditionally take. The most common graduate degrees offered in these combined programs are the M.B.A. — Master of Business Administration — and the Master of Science in accounting.

For additional information, call undergraduate programs and student services, Silberman College of Business, at 201-692-2135, or go to the respective majors in pages 108–114.

Admission requirements to the graduate portion of the program apply.

Accounting Major (B.S.)
Department of Accounting, Taxation and Law

The accounting program is designed to prepare students for careers as professional accountants with public accounting firms, private industry or government. The combined B.S./M.S. in accounting program meets the academic requirements for the New Jersey Certified Public Accountant (CPA) examination. The program will expose students to a broad range of studies to help them develop both personally and professionally. Students will gain outstanding technical knowledge, solid reasoning and communication skills and an appreciation of other cultures and economies.

Prerequisites for major courses are found at the end of course descriptions in the Course Descriptions section of this bulletin.

Requirements for the Bachelor of Science Degree

Accounting Major Courses
Students pursuing an accounting major must complete seven accounting major courses (21 credits) as follows:

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT3241</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Financial Accounting I...</td>
<td>3</td>
</tr>
<tr>
<td>ACCT3242</td>
<td>3</td>
</tr>
<tr>
<td>Intermediate Financial Accounting II...</td>
<td>3</td>
</tr>
<tr>
<td>ACCT3243</td>
<td>3</td>
</tr>
<tr>
<td>Cost Accounting: Measurement and Control...</td>
<td>3</td>
</tr>
<tr>
<td>ACCT3390</td>
<td>3</td>
</tr>
<tr>
<td>Accounting Information Systems...</td>
<td>3</td>
</tr>
<tr>
<td>ACCT4261</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Accounting...</td>
<td>3</td>
</tr>
<tr>
<td>ACCT4263</td>
<td>3</td>
</tr>
<tr>
<td>Auditing Concepts...</td>
<td>3</td>
</tr>
<tr>
<td>ACCT4267</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Federal Taxation...</td>
<td>3</td>
</tr>
</tbody>
</table>

Other accounting electives are permissible business electives with approval of accounting, taxation and law department chair.

Accounting Minor
The minor in accounting requires earning 12 credits by completing the four required major accounting courses. The minor in accounting is only available for students in the Silberman College of Business. If any accounting major courses have been counted toward the student’s major, they cannot be counted toward the minor in accounting.

Combined B.S./M.S. in Accounting Program
Five-year Programs (4+1)
In addition to the undergraduate program in accounting, Fairleigh Dickinson University offers a comprehensive 150-hour program leading to the combined Bachelor of Science (B.S.) in accounting/Master of Science (M.S.) in accounting degree. For further information see “Combined Degree Programs,” page 227.

Combined B.S. in Accounting/M.B.A.
Five-year Program (4+1)
Fairleigh Dickinson University also offers the following five-year combined degree program: B.S. in accounting/M.B.A.. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135, or see page 228.

Admission requirements to the graduate portion of the program apply.
Business Administration

Department of Management and Entrepreneurship

Credits 21

The business administration major enables students to opt for a program of study that can effectively channel their diverse preferences, offering the flexibility to select from a variety of advanced business courses that more closely match their interests and aspirations.

The business administration major is designed to offer students the opportunity to obtain a deeper yet still broad understanding of business administration by pursuing advanced studies in a range of selected disciplines.

Students may choose to complete the business administration major without a concentration or they may choose to complete the business administration major with a concentration in either information systems, international business or sustainability management.

Requirements for the Bachelor of Science Degree

In addition to the General Curriculum Requirements listed on page 107, a student majoring in business administration may choose from four tracks: 1) major in business administration without a concentration, 2) major in business administration with an information systems concentration, 3) a major in business administration with a concentration in international business and 4) major in business administration with a sustainability management concentration. (see below and next page).

Without Concentration

Students pursuing a business administration major (without a concentration) must complete 21 credits of business major courses as follows:

Required Courses

MIS4307
  Introduction to E-business

MIS4303
  Spreadsheet Applications in Business

Major Elective Courses

Select 18 credits among the business major courses offered by the other Silberman College of Business majors (provided that course prerequisites have been met). No more than 9 of these credits can be taken in any given discipline.

With Information Systems Concentration

The information systems concentration prepares students to be effective users and managers of information technologies/systems in business firms. It provides students with practical knowledge and skills in the integration of management and technology in the various business disciplines.

Prerequisites for business major courses are found at the end of course descriptions in the Course Descriptions section of this bulletin.

Required Courses

Required courses are only offered on the Metropolitan Campus.

MIS4301
  Data Communications and Networks

MIS4303
  Spreadsheet Applications in Business

MIS4304
  Database Applications in Business

MIS4305
  Systems Analysis, Design and Implementation

Major Elective Courses

3 elective courses selected from any permissible major courses offered in the other Silberman College of Business majors or any permissible management information systems course.

With International Business Concentration

The international business concentration prepares students to understand and effectively participate in the management of business firms operating in a multinational environment. Courses examine in-depth theories and applied concepts relevant to conducting business in a competitive global arena.

Required Courses

ECON4208
  International Trade

IBUS3201
  Fundamentals of International Business

MGMT3371
  International Management

MKTG3371
  Principles of International Marketing

MIS4307
  Introduction to E-business

MIS4303
  Spreadsheet Applications in Business

Major Elective Courses

2 elective courses selected from any permissible major courses offered in the other Silberman College of Business majors.

With Sustainability Management Concentration

The program fosters understanding about what determines the sustainability of human institutions, organizations, cultures and technologies in different environments. It is comprised of sustainability-oriented business courses from the management, economics, finance, marketing, decision sciences and entrepreneurship disciplines.

Required Courses

DSCI3502
  Value Chain Management for Sustainability

ENTR4500
  Sustainability Management Capstone: Social Venturing

FIN3505
  Finance, Value and Sustainability

MGMT3400
  Managing Sustainability in the Global Context

MGMT3504
  Becoming an Effective Sustainability Change Agent

MKTG3501
  Marketing for a Sustainable World

SUST3500
  Environmental Economics
Entrepreneurship

Silberman College of Business
Florham Campus, Metropolitan Campus and Vancouver Campus

Additionally, students must select one of the following sustainability-related science courses.

BIOL1070, BIOL1071
Ecosystem and Environmental Science........................................ 4

BIOL1180
Climate Change Biology........................................ 3

BIOL2049, BIOL2050
Ecology........................................................................ 4

CHEM1027, CHEM1028
Chemistry for the Global Citizen....................... 4

PHYS1010, PHYS1020
Physics of Sustainable Energy....................... 4

Transfer Credits/Advanced Standing Opportunities
Previously earned college credits may qualify upon review for transfer to this program. Students also can lighten their credit requirements through alternatively earned credits by examination. Such credits can be gained through the College Level Examination Program (CLEP).

Combined B.S. in Business Administration/M.B.A. in Finance, Management or Marketing or M.S. in Accounting Programs
Five-year Programs (4+1)
Fairleigh Dickinson University also offers four five-year combined degree programs: B.S. in business administration/M.B.A. in finance, management or marketing and B.S. in business administration/M.S. in accounting. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

Entrepreneurship Major (B.S.)

Department of Management and Entrepreneurship
(Florham Campus only)

Entrepreneurs foster technological and social change, and their innovation and creativity forge our future. The courses in the major are wide-ranging and pragmatic, focusing on critical entrepreneurial issues in corporations, small and start-up businesses and not-for-profit organizations. Students develop an entrepreneurial perspective through an interdisciplinary approach employing concepts from marketing, finance and management to explore the creation, growth and key success factors of small business units and new enterprises.

Classroom study is augmented with hands-on experience through case studies and fieldwork in selected entrepreneurial businesses and other organizations.

Entrepreneurship majors also have access to the services of the college’s nationally acclaimed Rothman Institute of Innovation and Entrepreneurship in achieving their career goals.

Requirements for the Bachelor of Science Degree

Entrepreneurship Major Courses
Students pursuing an entrepreneurship major must complete seven entrepreneurship major courses (21 credits) as follows:

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR2700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR4100</td>
<td>3</td>
</tr>
<tr>
<td>FIN3330</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3300</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3344</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives
Choose two of the following 3-credit courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR2700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR4100</td>
<td>3</td>
</tr>
<tr>
<td>FIN3330</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3300</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3344</td>
<td>3</td>
</tr>
</tbody>
</table>

Entrepreneurship Minor
Completion of all of the following courses (three required and two electives) with passing grades and attaining a minimum grade point ratio of 2.00 among them will qualify students to have recorded on their transcripts a minor in entrepreneurship:

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR2700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR4100</td>
<td>3</td>
</tr>
<tr>
<td>FIN3330</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two from the following courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTR2700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3700</td>
<td>3</td>
</tr>
<tr>
<td>ENTR4100</td>
<td>3</td>
</tr>
<tr>
<td>FIN3330</td>
<td>3</td>
</tr>
</tbody>
</table>

Combined B.S. in Entrepreneurship/M.B.A. or M.S. in Accounting or M.S. in Supply Chain Management or M.S. in Taxation Programs

Fairleigh Dickinson University also offers several combined degree programs: B.S. in entrepreneurship/M.B.A., B.S. in entrepreneurship/M.S. in accounting, B.S. in entrepreneurship/M.S. in supply chain management and B.S. in entrepreneurship/M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

*Distance-learning course

**Distance-learning course
Finance Major (B.S.)

Department of Economics, Finance and International Business

Credits 21

The finance major prepares students for careers in banking, investment and other financial endeavors.

Prerequisites for finance courses are found at the end of the course descriptions in the Course Descriptions section of this bulletin.

Requirements for the Bachelor of Science Degree

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN3371</td>
<td>International Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN4341</td>
<td>Financial Markets and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>FIN4343</td>
<td>Securities and Investments</td>
<td>3</td>
</tr>
<tr>
<td>FIN4405</td>
<td>Analytical Methods in Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Elective Courses

Choose three of the following 3-credit courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN3330</td>
<td>Personal Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN3421</td>
<td>Sports Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN4150</td>
<td>Working Capital Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN4221</td>
<td>Capital Budgeting</td>
<td>3</td>
</tr>
<tr>
<td>FIN4350</td>
<td>Derivatives</td>
<td>3</td>
</tr>
<tr>
<td>FIN4351</td>
<td>Portfolio Management</td>
<td>3</td>
</tr>
<tr>
<td>FIN4451</td>
<td>Internship in Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Financial Planning and Wealth Management Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN3371</td>
<td>International Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN4341</td>
<td>Financial Markets and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>FIN4343</td>
<td>Securities and Investments</td>
<td>3</td>
</tr>
<tr>
<td>FIN4405</td>
<td>Analytical Methods in Finance</td>
<td>3</td>
</tr>
<tr>
<td>WMA3335</td>
<td>Personal Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>WMA4265</td>
<td>Retirement Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4370</td>
<td>Personal Estate and Gift Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4375</td>
<td>Risk Management and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>WMA4380</td>
<td>Client Relations in Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>WMA4390</td>
<td>Financial Planning Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

For questions about this concentration contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135.

Finance Minor

The minor in finance requires earning 12 credits by completing the four required major finance courses. The minor in finance is only available for students in the Silberman College of Business. Any finance major courses that have been counted toward the student's major cannot be counted toward the minor in finance.

Financial Planning and Wealth Management Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMA3335</td>
<td>Personal Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>WMA4265</td>
<td>Retirement Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4370</td>
<td>Personal Estate and Gift Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4375</td>
<td>Risk Management and Insurance</td>
<td>3</td>
</tr>
<tr>
<td>WMA4380</td>
<td>Client Relations in Financial Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Take one of the following Enrichment Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMA4267</td>
<td>Retirement Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4370</td>
<td>Personal Estate and Gift Planning</td>
<td>3</td>
</tr>
<tr>
<td>WMA4375</td>
<td>Risk Management and Insurance</td>
<td>3</td>
</tr>
</tbody>
</table>

Combined B.S. in Finance/ M.B.A. in Accounting, Finance or Marketing or M.S. in Accounting or M.S. in Supply Chain Management or M.S. in Taxation Programs

Fairleigh Dickinson University also offers the following combined degree programs: B.S. in finance/M.B.A. in accounting, finance or marketing; B.S. in finance/M.S. in accounting; B.S. in finance/M.S. in supply chain management; and B.S. in finance/M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.
Management
Silberman College of Business
Florham Campus, Metropolitan Campus and Vancouver Campus

Management Major (B.S.)

Department of Management and Entrepreneurship

The major in management is designed for students who wish to develop the interpersonal and management skills they can use starting with their first professional job, as well as developing a long-term perspective and value system which will serve them their entire careers. Specifically, students develop the competencies to manage teams, processes, workgroups, departments and functional units to eventually move into positions of leadership in their companies. Students learn about management by doing management.

Management majors graduate with hands-on experience working on two real-life management projects with area charitable organizations as well as other exciting learning experiences such as field trips to area businesses and a semester-long correspondence with a professional mentor.

Prerequisites for business or management major courses are found at the end of the course descriptions in the Course Descriptions section of this bulletin.

Requirements for the Bachelor of Science Degree

In addition to the General Curriculum Requirements listed on page 107, students pursuing a B.S. in management will be required to choose a concentration in either human resource management or leadership. To attain a B.S. in management, students must take four required management courses in addition to three courses from either concentration.

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT5100</td>
<td>Managerial Ethics</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3371</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3610</td>
<td>Leading Teams</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3700</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
</tbody>
</table>

With Human Resource Management Concentration

Silberman College of Business human resource management students are equipped with a wide knowledge of various human resource management functions including recruitment, selection, training, performance evaluation, compensation and legal concerns.

Through discussion, hands-on learning and exposure to HR professionals, students learn how to manage various HR functions and develop an understanding of how human resources plays a vital role in the sustainable strategic management of companies.

The career- and skills-related focus of this concentration helps students develop the skills needed for successful careers in human resource management.

Major Elective Courses

Choose three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT3710</td>
<td>Strategic Staffing</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3720</td>
<td>Training, Development and Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT4499</td>
<td>Internship in Human Resources Management*</td>
<td>3</td>
</tr>
<tr>
<td>MGMT4730</td>
<td>Strategic Human Resource Management**</td>
<td>3</td>
</tr>
</tbody>
</table>

With Leadership Concentration

Silberman College of Business’ B.S. in management with a leadership concentration prepares students to effectively and ethically exercise leadership.

Students will be exposed to a variety of leadership perspectives and models. Self-assessments and guided exercises will provide students with insight into their leadership styles. As part of their major, students will engage in hands-on experiences of leadership and change management. They will develop the knowledge and capability to lead with attention to the “triple bottom line” of environmental stewardship, social equity and financial success.

Major Elective Courses

Choose three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT3400</td>
<td>Managing Sustainability in the Global Context</td>
<td>3</td>
</tr>
</tbody>
</table>

Human Resource Management Minor

The minor in human resource management requires earning 12 credits distributed as follows:

Required Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT3700</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses

Choose three of the following 3-credit courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT3610</td>
<td>Leading Teams</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3710</td>
<td>Strategic Staffing</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3720</td>
<td>Training, Development and Performance Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT4499</td>
<td>Internship in Human Resources Management*</td>
<td>3</td>
</tr>
<tr>
<td>MGMT4730</td>
<td>Strategic Human Resource Management*</td>
<td>3</td>
</tr>
</tbody>
</table>

Leadership Minor

The minor in leadership requires earning 12 credits distributed as follows:

Required Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT3610</td>
<td>Leading Teams</td>
<td>3</td>
</tr>
</tbody>
</table>

*This can replace either MGMT3710 Strategic Staffing or MGMT3720 Training, Development and Performance Management.

**Required.
**Elective Courses**

Choose three of the following 3-credit courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT3400</td>
<td>Managing Sustainability in the Global Context</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3620</td>
<td>Leadership and Personal Development</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3700</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT4498</td>
<td>Internship in Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT4640</td>
<td>Managing Projects and Organizations</td>
<td>3</td>
</tr>
</tbody>
</table>

The minor in leadership is only available to students in the Silberman College of Business. Any management major courses that have been counted toward the student’s major cannot be counted toward the minor in leadership.

**Sustainability Management Minor**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSCI3502</td>
<td>Value Chain Management for Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>ENTR3700</td>
<td>Doing Well Through Doing Good or Guided Internship in Sustainability Management</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3400</td>
<td>Managing Sustainability in the Global Context</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3501</td>
<td>Marketing for a Sustainable World</td>
<td>3</td>
</tr>
</tbody>
</table>

Additionally, students must select one of the following sustainability-related science courses,

- BIOL1070, BIOL1071 Ecosystem and Environmental Science
- BIOL1180 Climate Change Biology
- BIOL2049, BIOL2050 Ecology
- CHEM1027, CHEM1028 Chemistry for the Global Citizen
- PHYS1010, PHYS1020 Physics of Sustainable Energy

**Combined B.S. in Management/M.B.A. in Finance or Marketing or M.S. in Accounting or M.S. in Supply Chain Management or M.S. in Taxation Programs**

Fairleigh Dickinson University also offers combined degree programs: B.S. in management/M.B.A. in finance or marketing, B.S. in management/M.S. in accounting, B.S. in management/M.S. in supply chain management and B.S. in management/ M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

**Marketing Major (B.S.)**

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

Credits 21

The marketing curriculum is designed to prepare students for careers in sales, retailing, advertising, product management, direct marketing and research. This preparation is accomplished through course offerings in basic marketing concepts and supplemented by career-specific courses. The learning process is enhanced with projects, case studies and internships.

Marketing majors also are exposed to interdisciplinary courses that develop a broad range of business skills.

Prerequisites for marketing major courses are found at the end of the course descriptions in the Course Descriptions section of this bulletin.

**Requirements for the Bachelor of Science Degree**

**Marketing Major Courses**

Students pursuing a marketing major must complete seven marketing major courses (21 credits) as follows:

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG3344</td>
<td>Marketing Research*</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4272</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4405</td>
<td>Advanced Marketing Management</td>
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</tbody>
</table>

**Major Elective Courses**

Choose four from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG3360</td>
<td>Digital Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3371</td>
<td>Principles of International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3383</td>
<td>Social Media Marketing*</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3501</td>
<td>Marketing for a Sustainable World</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4365</td>
<td>Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4499</td>
<td>Internship in Marketing Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

*Distance-learning course
**Digital Marketing Concentration**

With so many advances in technology, today’s marketing arena is more complex than ever before. Marketers are struggling to keep up with information being shared and used by their customers on a variety of platforms. Marketing success lies in being able to understand these digital and social platforms, and in being able to seamlessly integrate a range of new capabilities with some of the more traditional ones.

A bachelor’s degree in marketing with a concentration in digital marketing will prepare students for a career in this dynamic field and will equip them with the knowledge and skills to plan, design and manage a well-integrated marketing strategy.

Students pursuing this option will be required to complete a total of 21 credits, which includes the following six required courses followed by an internship in the field of digital and/or social media marketing.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG3344</td>
<td>Marketing Research*</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3360</td>
<td>Digital Marketing**</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3383</td>
<td>Social Media Marketing**</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4272</td>
<td>Consumer Behavior*</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4499</td>
<td>Internship in Marketing Studies*</td>
<td>3</td>
</tr>
</tbody>
</table>

**Digital Marketing Minor**

The minor in digital marketing requires earning 12 credits by completing the four required major marketing courses. The minor in digital marketing is only available for students in the Silberman College of Business.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG3360</td>
<td>Digital Marketing**</td>
<td>3</td>
</tr>
<tr>
<td>MKTG3383</td>
<td>Social Media Marketing**</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4272</td>
<td>Consumer Behavior**</td>
<td>3</td>
</tr>
<tr>
<td>MKTG4499</td>
<td>Internship in Marketing Studies*</td>
<td>3</td>
</tr>
</tbody>
</table>

**Marketing Minor**

The minor in marketing requires earning 12 credits by completing the four required major marketing courses. The minor in marketing is only available for students in the Silberman College of Business. Any marketing major courses that have been counted toward the student’s major cannot be counted toward the minor in marketing.

**Combined B.S. in Marketing/ M.B.A. in Finance or Management or Marketing or M.S. in Supply Chain Management or M.S. in Taxation Programs**

Fairleigh Dickinson University also offers the following combined degree programs: B.S. in marketing/M.B.A. in finance, management or marketing; B.S. in marketing/M.S. in accounting, B.S. in marketing/M.S. in supply chain management and B.S. in marketing/M.S. in taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-2135; or see page 234.

Admission requirements to the graduate portion of the program apply.

---

*Required for all marketing majors.

**Required for the digital marketing concentration.

***Students must meet the College’s criteria for internships.

*Students desiring this minor must meet the College’s criteria for internships.
Anthony J. Petrocelli College of Continuing Studies

Majors

Hotel and Restaurant Management (B.S.)

Individualized Studies (B.A.)
Concentrations: global gaming management, hospitality management, specialized studies
Certificates: business and applied technology, business and communications, contemporary cyber communication, global transportation studies, health and human services administration, hospitality management, leadership administration, public service administration, security and terrorism studies, stewardship and sustainability, transit safety and security

Interdisciplinary Studies (B.A.)
Concentrations: leadership in a global society, sustainability, technology and society (Metropolitan Campus only), women’s leadership

Liberal Arts (A.A.)
Latino Promise®, MiraeRo Program (Korean Studies Program), Puerta al Futuro® (Gateway to the Future)®

Sports Administration (B.A.)

Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; Vancouver Campus, British Columbia, Canada; and Wroxton College, Oxfordshire, England

Lisa R. Braver, Dean

General Information

In April 1998, the University announced the formation of the New College of General and Continuing Studies to better address the special educational needs of nontraditional students, including adult learners. In recognition of support provided by an adult learner who earned his degree at Fairleigh Dickinson University, the college was renamed Anthony J. Petrocelli College of Continuing Studies in April 2005.

Recognizing that the student profile on most U.S. campuses is changing dramatically, the University’s Petrocelli College provides an enhanced focus on the adult learner and positions FDU as a leader in providing learning opportunities in a strong academic foundation for students of all ages. The College also provides a point of entry and a supportive educational environment for those full-time students from nontraditional and underserved backgrounds.

Integral to its commitment to serve lifelong learners, Petrocelli College features precollege programs, two- and four-year undergraduate degree offerings, six graduate degree programs, postbaccalaureate education and nondegree programs, with many credit, noncredit and certification options. While based on the Metropolitan Campus, Teaneck, New Jersey, the College offers programs on both New Jersey campuses, Wroxton College in Oxfordshire, England, and the Vancouver Campus in British Columbia, Canada, as well as at more than 30 other off-campus sites. Courses are offered in formats, at times and in locations convenient for those students outside the mainstream of traditional undergraduate and graduate populations served by the University’s other colleges. Many asynchronous online courses are also offered.

The College’s many initiatives represent an entrepreneurial approach to meeting the needs of students of all ages and backgrounds. Petrocelli College includes:

- Associate in Arts degree for adult learners;
- programs for special admit, full-time students (this includes students in the Petrocelli College associate degree);
- the Bachelor of Arts in individualized studies;
- the Bachelor of Arts in interdisciplinary studies;
- the Bachelor of Science in hotel and restaurant management and other programs in hotel, restaurant and tourism management;
- postbaccalaureate certificate programs;
- continuing education programming;
- on-site credit and workforce-training programs targeted to corporate employees;
- summer high school precollege programs and dual-enrollment high school programs; and
- educational programs for retired citizens.

In conjunction with the other colleges, Petrocelli College also is involved with distance-learning initiatives, summer programming...
Special Programs • Hotel and Restaurant Management
Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

and the support and development of credit certificate programs.

Special Programs
Evening, Weekend and Distance-learning Studies for Adults
Adults can further their education on a convenient evening, morning and weekend basis on the Metropolitan Campus, Teaneck, New Jersey, and through distance and blended learning.

For the person who is unable to spend three or four evenings a week in the classroom, courses are offered on Friday evenings and Saturdays. The evening-study program provides flexible scheduling options on a four-, six-, eight- and 12-week modular basis. Distance-learning and blended classes, with limited class attendance and mostly online study, are available during the fall, spring and summer semesters.

Retired Citizens
Currently at the Florham Campus, senior citizens may enroll in credit courses on a space-available basis for a fee of $265.00* per course. Noncredit offerings are also available through the continuing education division of Petrocelli College.

CLEP Preparation
The general tests of the College-Level Examination Program (CLEP) are designed for those individuals who have mastered freshman college-level material outside the traditional classroom setting. Credits received through CLEP are being accepted at a growing number of colleges across the nation.

Programs to prepare people for the CLEP examinations are offered by Petrocelli College in conjunction with the various adult high schools and industries in northern New Jersey.

Online Programs
Distance education is among the fastest-growing of all educational formats at colleges nowadays. Distance-education courses are offered during the fall, spring and summer semesters at Petrocelli College, enabling its students to study from the convenience of their offices or homes at any time, 24 hours a day, seven days a week.

Students do most or all of their study online, in an easy-to-use course management website, where all readings, lectures and assignments are posted and where they submit their work. Such study format provides students with the freedom they need when juggling busy lives, work responsibilities, family obligations, etc., with their degrees study.

The Office of Online Programs offers many online courses leading to the Bachelor of Arts in individualized studies in business, public administration and health and human services.

For information, contact (201) 692-7358.

Latino Promise® Program
Petrocelli College has established the Latino Promise® Program. Designed for traditional-age students who are attending the Metropolitan Campus, Latino Promise® provides support through Petrocelli College academic degree programs, scholarships and financial aid; a seminar program offered by successful Latino leaders; a personalized academic advisement program; and the Puerta al Futuro® Language Laboratory.

For information, contact (201) 692-2676.

MiraeRo (Korean Studies Program)
Designed for recent immigrants from South Korea, the MiraeRo Gateway Program is a Korean-to-English transition program with credit courses offered in Korean and English, leading to an associate's or bachelor's degree.

By attending the Korean Program, students can develop their English skills through a professional and structured program of study on the Metropolitan Campus in Teaneck, New Jersey. Students complete an assessment of written and verbal English skills at the conclusion of the associate's degree program and enroll in baccalaureate classes that are in English.

To learn more about the opportunities offered, contact (201) 692-7178 or visit https://petrocelli.fdu.edu/complete.

Hotel and Restaurant Management Major (B.S.)
International School of Hospitality and Tourism Management
This major, offered on the Metropolitan Campus, Teaneck, New Jersey; at the Florham Campus, Madison, New Jersey; at Wroxton College in Oxfordshire, England; and at the Vancouver Campus in British Columbia, Canada, is designed to prepare students to assume managerial functions in service industries including organizations such as hotels, motels, restaurants, resorts, entertainment complexes and casinos. In addition to a broad liberal arts curriculum, business core and extensive course work in hotel and restaurant subjects, students enrolled in this school are expected to accumulate significant knowledge outside of the classroom. The Professional Development Series involves the students in such activities as visits to major food markets, tours of ethnic neighborhoods in the metropolitan area, wine seminars, lectures by hospitality industry leaders, visits to diverse hospitality operations, internships and the European Seminar.

Undergraduate students are expected to complete 1,200 hours of diverse work experience. To meet this requirement the student works in a sophisticated laboratory — the New York metropolitan area's hospitality industry.

A specialization in hospitality management through the Bachelor of Arts in individualized studies program is also offered on the Metropolitan Campus and at the Florham Campus. Courses are also offered in Toms River, N.J., in cooperation with Ocean County College; in Jersey City, N.J., in cooperation with the culinary arts program of Hudson County Community College; in Mays Landing, N.J., in cooperation with Atlantic Cape Community College; in West Windsor, N.J., in cooperation with Mercer County Community College; and in Parsippany, N.J., in cooperation with Wyndham Worldwide and at the Vancouver Campus, the University's campus in Vancouver, British Columbia, Canada.

*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.
Hotel and Restaurant Management
Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and WroXton College

Requirements for the Bachelor of Science Degree

Course Requirements (51 credits) Credits
HRTM1100 Professional Development Sequence
(PDS) Work Experience .......................... 1
HRTM1101 Career Orientation and Professional Development ................. 1
HRTM1102 Professional Skill Development .......................... 1
HRTM2100 Professional Development Sequence
(PDS) Work Experience .......................... 1
HRTM2103 Management Values and Professional Standards ................. 2
HRTM2104 The Hospitality Manager and Law ................................ 2
HRTM2210 Sales and Marketing for Hospitality Managers ................. 3
HRTM2211 Accounting for Hospitality Managers ................................ 3
HRTM2233 Quantity Food Production ...................................... 3
HRTM2235 Sustainability and Ecotourism ..................................... 3
HRTM2500 Professional Development Sequence
(PDS) Lab ............................................. 0
HRTM3100 Professional Development Sequence
(PDS) Work Experience ................................ 1
HRTM3105 Managerial Challenges in the Workplace ......................... 1
HRTM3106 The Manager and the Group: Work Experience ................... 1
HRTM3108 Nutrition, Sanitation and Food Safety ................................ 3
HRTM3203 Food and Beverage Management .................................. 3
HRTM3207 Lodging Operations and Revenue Management .................. 3
HRTM3208 Financial Management in the Hospitality Industry ............ 3
HRTM3209 Human Resource Management .................................... 3
HRTM4107 Concepts in Transportation and Travel ......................... 2
HRTM4108 Global Issues in Hospitality Management (seminar abroad;
includes lab experience) ................................ 2
HRTM4109 Hospitality Operations Tactics and Strategy .................... 3
HRTM4204 Property Management .......................................... 3
HRTM4280 Domestic and International Tourism ................................ 3
Electives .............................................. 6
Total .................................................. 54

In addition to these courses, a number of specific general education courses have been developed to further prepare the students as hospitality managers.

Fees
The fee for HRTM4108 Global Issues in Hospitality Management (seminar abroad) is $3,200.00,* which includes airfare, hotels, some meals, seminars and scheduled visits to hospitality operations.

Recommended Course Sequencing

1st Semester
DSCI1128 Introduction to Mathematical Methods or
MATH1128 Mathematical Methods ..................................... 3
ENGW1101 College Writing Workshop ...................................... 3
HRTM1101 Career Orientation and Professional Development ............. 1
HRTM2500 Professional Development Sequence
(PDS) Lab ............................................. 0
MIS1045 Information Technology for Business or
MIS1135 Introduction to Computers ...................................... 3
PSYC1201 General Psychology ........................................... 3
UNIV1001 Transitioning to University Life .................................. 1
Foreign Language Requirement** ............................................... 5
Total .................................................. 17

2nd Semester

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGW1102</td>
<td>Research Writing Workshop .......... 3</td>
</tr>
<tr>
<td>GOVT1120</td>
<td>Comparative Government ............ 3</td>
</tr>
</tbody>
</table>
| HRTM1100 | Professional Development Sequence
(PDS) Work Experience 1 ............. 1 |
| HRTM1102 | Professional Skill Development ..... 1 |
| HRTM2500 | Professional Development Sequence
(PDS) Lab ..................................... 0 |
| HRTM3108 | Nutrition, Sanitation and Food Safety ..................................... 3 |
| UNIV1002 | Preparing for Professional Life .......... 1 |
| Foreign Language Requirement** ............................................... 5 |
| Total .................................................. 15 |

3rd Semester

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<tr>
<th>Course</th>
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<tr>
<td>ACCT2021</td>
<td>Introductory Financial Accounting .......... 3</td>
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<tr>
<td>DSCI2029</td>
<td>Introduction to Statistics or</td>
</tr>
<tr>
<td>DSCI/MATH1142</td>
<td>Introduction to Statistics ............. 3</td>
</tr>
<tr>
<td>ECON1121</td>
<td>Macroeconomics .................................... 3</td>
</tr>
<tr>
<td>HRTM2103</td>
<td>Management Values and Professional Standards ................. 2</td>
</tr>
<tr>
<td>HRTM2233</td>
<td>Quantity Food Production .................. 3</td>
</tr>
</tbody>
</table>
| HRTM2500 | Professional Development Sequence
(PDS) Lab ..................................... 0 |
| UNIV2001 | Cross-cultural Perspectives ..................... 3 |
| Total .................................................. 17 |

4th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
</table>
| HRTM2100 | Professional Development Sequence
(PDS) Work Experience 2 ............. 1 |
| HRTM2104 | The Hospitality Manager and Law .......... 2 |
| HRTM2211 | Accounting for Hospitality Managers .......... 2 |
| HRTM2235 | Sustainability and Ecotourism ............ 3 |
| HRTM2500 | Professional Development Sequence
(PDS) Lab ..................................... 0 |
| Total .................................................. 0 |

*This fee is a 2018–2019 fee. New tuition and fee charges for 2019–2020 will be announced in the spring of 2019. Please check with the Office of Enrollment Services for current charges.
**Must be a 6-credit sequence.
### Individualized Studies

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

<table>
<thead>
<tr>
<th>7th Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRTM2500 Professional Development Sequence (PDS) Lab</td>
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<tr>
<td>HRTM4107 Concepts in Transportation and Travel</td>
<td>2</td>
</tr>
<tr>
<td>HRTM4108 Global Issues in Hospitality Management (seminar abroad)</td>
<td>2</td>
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<tr>
<td>Hotel, Restaurant and Tourism</td>
<td></td>
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<tr>
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<table>
<thead>
<tr>
<th>8th Semester</th>
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</thead>
<tbody>
<tr>
<td>HRTM2500 Professional Development Sequence (PDS) Lab</td>
<td>0</td>
</tr>
<tr>
<td>HRTM4109 Hotel Operations Tactics and Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
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</tr>
<tr>
<td>Laboratory Science Elective</td>
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</tr>
<tr>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>

Total Credits: 120

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### Combined Degree Program

**B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies**

The International School of Hospitality and Tourism Management offers a B.S. in hotel and restaurant management/M.S. in hospitality management studies program. For more information, see page 242.

### Individualized Studies Major (B.A.)

The Bachelor of Arts degree in individualized studies is a baccalaureate-degree program structured to meet the educational needs of adult learners. It provides nontraditional students with a variety of options in meeting University requirements for an undergraduate degree grounded in the liberal arts. It recognizes the value of life/work experience and affords students the opportunity to receive advanced standing through portfolio assessment. Students may choose to pursue a single area of study in depth or design a program of study by combining liberal arts courses with career-related concentrations. The result is a degree program that will be immediately appealing to mature adults who bring to FDU traditional course work completed over a period of years at a number of institutions, a history of work and life experiences that can be equated with credit-bearing courses, and the desire, commitment and self-discipline to complete the degree requirements.

Students completing the requirements for the Bachelor of Arts degree in individualized studies will be required to demonstrate proficiency in a number of subject areas and related skills. They include the following:

A. The use of basic intellectual tools, specifically to communicate effectively, both orally and in writing; to use mathematical reasoning; and to comprehend the nature, techniques and limits of the humanities, natural or physical sciences and the social and behavioral sciences.

B. The ability to learn and apply learning to the graduate's career and life experience, requiring the capability to define problems; to use information resources such as libraries and computers; and to analyze, synthesize and integrate knowledge, perspectives and techniques. Information literacy is an important component of the B.A. in individualized studies program.

C. An understanding of the historic and global context of events and achievements over time as treated in subjects such as history, the arts and humanities.

D. Mastery of a considerable body of knowledge in one subject area or a group of related subjects.

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<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPCH1107 Fundamentals of Speech</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002 Global Issues</td>
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<tr>
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<table>
<thead>
<tr>
<th>5th Semester</th>
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<tbody>
<tr>
<td>HRTM2210 Sales and Marketing for Hospitality Managers</td>
<td>3</td>
</tr>
<tr>
<td>HRTM2500 Professional Development Sequence (PDS) Lab</td>
<td>0</td>
</tr>
<tr>
<td>HRTM3105 Managerial Challenges in the Workplace</td>
<td>1</td>
</tr>
<tr>
<td>HRTM3208 Financial Management in the Hospitality Industry</td>
<td>3</td>
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<tr>
<td>HRTM3209 Human Resource Management</td>
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<tr>
<td>Free Elective</td>
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<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>HRTM3100 Professional Development Sequence (PDS) Work Experience</td>
<td>1</td>
</tr>
<tr>
<td>HRTM3106 The Manager and the Group: Work Experience</td>
<td>1</td>
</tr>
<tr>
<td>HRTM3203 Food and Beverage Management</td>
<td>3</td>
</tr>
<tr>
<td>HRTM3207 Lodging Operations and Revenue Management</td>
<td>3</td>
</tr>
<tr>
<td>HRTM4280 Domestic and International Tourism</td>
<td>3</td>
</tr>
<tr>
<td>MIS2001 Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>Hotel, Restaurant and Tourism Management Elective</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>
Requirements for the Bachelor of Arts Degree

The minimum requirements for the baccalaureate degree are as follows:
1. completion of a minimum of 120 credits;
2. cumulative grade point ratio of 2.00;
3. cumulative grade point ratio of 2.00 in the upper-level courses completed at FDU;
4. upper-level credit courses: of the courses completed at FDU 24 credits (eight courses) must be upper-level;
5. at least 30 credits, normally the last 30, must be completed at FDU; and
6. residency requirement/time limit on degree completion as explained below.

A transfer student may transfer credit achieved through either formal course work or through proficiency examination to the extent that the credits transferred do not circumvent existing University policy requiring a minimum of 30 credits in residence, including at least 50 percent of the credits required for upper-level course selections to be taken at FDU.

Any course work completed more than 10 years before the projected date of awarding the degree (including work for which credit is transferred from another college) shall be evaluated for its currency by the appropriate department. Where it is deemed appropriate, the department will recommend courses to familiarize the student with more recent developments.

Communication, Mathematics and Computer Requirements: 18 Credits (6 Courses)
The ability to use the English language orally and in writing, the ability to understand and use basic mathematical symbols and the mastery of basic computer skills are required of all students in the Bachelor of Arts in individualized studies program.

Requirements
• Writing: minimum 9 credits (3 courses) — Any combination of freshman writing and advanced-level writing courses or their equivalents at other institutions. At least one advanced-level writing course must be taken at FDU. (Courses labeled Fundamentals of Composition are considered precollege level and do not count toward meeting degree requirements.)
• Oral Communication: 3 credits (1 course) — Public Speaking
• Mathematics: 6 credits (2 courses) — At least two college-level math courses, finite math or a more advanced course.

Liberal Arts and Sciences Requirements: 27 Credits (9 Courses)
A breadth and depth of study in the following areas is required of all degree candidates: 1) humanities, 2) social sciences and 3) natural sciences. Students will be exposed to social, scientific, aesthetic, moral and religious ideas, the purpose of which is to gain insight into how the concerns of people are interrelated, how knowledge has been accumulated and how unsolved problems remain a challenge to humanity.

Requirements
• Humanities: 6 credits (2 courses) — Six credits from at least two of the following areas:
  - Art History/Appreciation
  - Foreign Language
  - History
  - Literature
  - Music History/Appreciation
  - Philosophy
  - Theater History
• Social Sciences: 6 credits (2 courses) — Six credits from at least two of the following areas:
  - Anthropology
  - Economics
  - Geography
  - Political Science
  - Psychology
  - Sociology
• Scientific Analysis: 6 credits (2 courses) — Six credits selected from the following areas. At least one must be a laboratory science course. A first-year science course for majors may be substituted for any of the recommended courses listed below:
  - Chemistry
  - Earth and Planetary Sciences (Geology, Physical Science)
  - Life Sciences (Biology)
  - Physics
• Ethical and Moral Analysis: 3 credits (1 course) — Three credits from the following areas:
  - Ethics
  - Philosophy
• Art and Culture: 6 credits (2 courses) — Six credits from at least two of the following areas:
  - Art
  - Literature
  - Film
  - Theater

University Core Requirement: 8 Credits (4 Courses)
Fairleigh Dickinson University requires all students to complete a common University Core curriculum consisting of four integrated courses with a strong emphasis on the liberal arts.

Required courses:
UNIV 1001 Transitioning to University Life
UNIV 1002 Preparing for Professional Life
UNIV 2001 Cross-cultural Perspectives
UNIV 2002 Global Issues
UNIV 1001 Transitioning to University Life and UNIV 1002 Preparing for Professional Life will be waived for students entering with 30 or more credits.

International Perspective Requirement: 3 Credits (1 Course)
The world is no longer composed of countries that are isolated from each other. Economic, political and cultural independence have been replaced by interdependence. In the 21st century, knowledge of other countries is essential. This requirement may be met through one of a variety of designated courses from the following disciplines: anthropology, business, economics, fine arts, history, literature, music, philosophy, political science and sociology.

Specialized Studies Requirement: 18 Credits
The Bachelor of Arts in individualized studies, in addition to providing certain skills and broad exposure to the major bodies of knowledge, also allows the opportunity to pursue a single area of study in depth or any other combination of courses that fit into an individualized cohesive course of study, including appropriate certificate programs. Undergraduate certificate programs are offered in business and applied technology, business and communications, contemporary cyber communication, global transportation studies, health and human services administration, hospitality management*, leadership administration, public service

*21 credits required under the specialized area in addition to 18 hotel/restaurant/tourism management credits required in the free elective section, only leaving 24 free elective credits to complete the degree.
Interdisciplinary Studies
Anthony J. Petrocelli College of Continuing Studies
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administration, security and terrorism studies, stewardship and sustainability and transit safety and security. A specialization in hospitality management through the Bachelor of Arts in individualized studies program is also offered on the Metropolitan Campus and at the Florham Campus. It is required that a minimum of 18 credits be completed in a single discipline or recognized concentration. Certain limitations apply, including a restriction on the number of courses offered by the Silberman College of Business that can be completed and applied toward the degree.

For more information, contact the Anthony J. Petrocelli College of Continuing Studies, Fairleigh Dickinson University, 150 Kotte Place, H-EWC-01, Hackensack, New Jersey 07601; (201) 692-2749.

Global Gaming Management Specialization
A new specialization in global gaming management began in the fall 2015 semester. According to the American Gaming Association, the U.S. casino gaming industry generated $81 billion in total revenue in 2014. Students are required to successfully complete 18 credits from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRTM2250</td>
<td>Casino Management</td>
</tr>
<tr>
<td>HRTM3233</td>
<td>Casino Games Operations</td>
</tr>
<tr>
<td>HRTM3253</td>
<td>Guest Service Strategies</td>
</tr>
<tr>
<td>HRTM4232</td>
<td>Mathematics of Casino Games</td>
</tr>
<tr>
<td>HRTM4238</td>
<td>Gaming Regulations and Control</td>
</tr>
<tr>
<td>HRTM4239</td>
<td>Gaming Analytics</td>
</tr>
</tbody>
</table>

*21 credits required under the specialized area in addition to 18 hotel/restaurant/tourism management credits required in the free elective section, only leaving 24 free elective credits to complete the degree.

Interdisciplinary Studies Major (B.A.)
The Bachelor of Arts in interdisciplinary studies, based at the Metropolitan Campus, Teaneck, New Jersey, and at the Florham Campus, Madison, New Jersey, is designed to fundamentally change the way students are taught and the way they learn by shifting the emphasis from the traditional, discipline-based approach to a more comprehensive, integrative approach to the understanding of real-world problems, topics and issues.

The B.A. in interdisciplinary studies will prepare students with the skills, attitudes and flexibility of mind needed to be competitive in a global marketplace. Such students — indeed all students — can expect to live in a dynamic world where a series of career changes over a lifetime is most probable and where change and the unknown are inevitable. In such a world, proficiency in a number of related disciplines becomes a survival tool.

It is apparent that creativity is enhanced by knowledge of related disciplines and that new insights are gained by applying the methods of one discipline to that of another. The purpose of this program is to provide today’s students and tomorrow’s citizens with the academic tools and interdisciplinary perspective that will allow them to prosper in such an environment.

The curriculum draws upon the historic strengths of the faculty of Petrocelli College in scholarship, academic flexibility and innovative teaching techniques and on the wealth of knowledge and experience of the faculties of University College: Arts • Sciences • Professional Studies, the Maxwell Becton College of Arts and Sciences and the Silberman College of Business. Some of the special features of this program include individualized and predesignated concentrations, faculty mentoring and interdisciplinary seminars and capstone experience.

Individualized and Predesigned Concentrations
In consultation with his or her mentor and on petition and approval, the student may construct an interdisciplinary concentration that is not already offered, but which best fits his or her needs. Although the College begins with a sample list of four concentrations in leadership in a global society, sustainability, technology and society and women’s leadership, others will be developed as needed between each student and his or her faculty adviser. It is likely that many other concentrations will be constructed based on the goals of individual students, and it is even possible that every student in the program will create a different concentration. See pages 120–121.

Faculty Mentoring
A central part of the program involves close faculty-student interaction through mentoring. The student, in direct consultation with his or her mentor, will design a curriculum, including an interdisciplinary area of concentration, or choose from a concentration already designed. There will be a close academic relationship developed between each student and his or her mentor involving ongoing meetings to discuss progress and academic issues in each class and to plan and/or revise a curriculum. The mentor is to remain with the student for the full four years, if possible.

Interdisciplinary Seminars and Capstone Experience
All interdisciplinary courses are seminars designed to provide students with knowledge of the methods and perspectives of the natural sciences, social sciences, humanities and the arts needed to understand and solve specific real-world problems. The seminars also will provide the framework for giving coherence to the interdisciplinary concentrations that will be selected by the student. In their senior year, students will pursue an individual or group capstone project in collaboration with a faculty mentor in which they will apply an interdisciplinary approach to a topic of their choice.

Requirements for the Bachelor of Arts Degree

University Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTER1009</td>
<td>Perspectives on the Individual</td>
</tr>
<tr>
<td>INTER2013</td>
<td>The American Experience</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
</tr>
</tbody>
</table>

Credits
Interdisciplinary Studies
Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

Sustainability Concentration
A new undergraduate concentration in sustainability began in the fall 2014 semester. Students will benefit from the knowledge and experience of an extremely important area of study.

Courses for 2014–2015 include SUST1000 Introduction to Sustainability, SUST1001 Environmental Science, SUST2000 Environmental Economics and SUST4000 Environmental Policy/Law/Ethics. Future courses will include Ecology and the Environment, Cost Benefits of Being Green, the Green Supply Chain, Introduction to Environmental Planning, Ecology and the City, Climate and Global Warming, Rethinking Global Development and Building Sustainable Environments.

Technology and Society Concentration
The concentration in technology and society is an interdisciplinary program for students who are interested in the impact technology and technological change have on societies across the globe and in the social forces that lead to technological change. It will provide students with the basic skills that will enhance their ability to pursue careers in the computer and telecommunications industries (exclusive of computer programming), the business and sociological aspects of the environmental sciences and other related pursuits. It also will prepare students for graduate-degree programs that touch on the concentration.

Recommended Courses
(24 credits)

24 credits from the following:

- COMM1101 Mass Media: Image, Sound and Text
- COMM2140 New Technologies in Communication
- COMM3801 Community, Computers and Cyberspace
- CRIM3301 Computer Technology in the Criminal Justice System
- HIST2297 History of Science and Technology
- HUMN2211 Technology and Literature
- INTER3041 Technology and Values
- MIS2111 The Internet, E-commerce and Technology

With the permission of the student's faculty mentor and program director, other courses may be substituted.

Women’s Leadership Concentration
A new undergraduate concentration in women’s leadership began in the fall 2015 semester. There is a growing awareness of the role and the force of women in the professional world. The concentration in women’s leadership explores these roles women fill and the forces they exert. This concentration emphasizes power of the example of women in leadership roles as both educational and paradigmatic. Three-credit courses for the 2018–2019 academic year include:

- INTER1007 Gender and Identity
- INTER1008 Women and Leadership
- INTER1015 Women and Culture
- INTER2016 Studies in Women’s Leadership
- INTER2017 Cultural Difference
- INTER3015 Legal Issues in Gender Studies
- INTER3016 Women and Power
- INTER3017 Leadership Development
- INTER3018 Career Planning for Women in Leadership
- INTER3100 Introduction to Organizational Development
- INTER4015 Generational Leadership
- INTER4016 Business Leadership

Individualized Concentrations
(35 credits)
Students may define their own areas of concentration with the help and approval of their faculty mentor and the program director. The minimum number of credits for a concentration is 18.
Liberal Arts

Major (A.A.)

Requirements for the Associate in Arts Degree
Candidates for an Associate in Arts degree must complete 60 credits of acceptable college work, including 46 credits of required core courses with a minimum grade point ratio of 2.00. Up to 64 credits can be earned in the Associate in Arts degree prior to transfer to an upper-division program.

Freshman Basic Courses (29 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1061</td>
<td>Cultural Arts (1st or 2nd semester)</td>
</tr>
<tr>
<td>ENGL1111</td>
<td>Literature and Composition I (1st semester)</td>
</tr>
<tr>
<td>ENGL1112</td>
<td>Literature and Composition II (2nd semester)</td>
</tr>
<tr>
<td>HIST2231</td>
<td>The Heritage of the Past I (1st semester)</td>
</tr>
<tr>
<td>HIST2232</td>
<td>The Heritage of the Past II (2nd semester)</td>
</tr>
<tr>
<td>PHYS1126</td>
<td>Earth Physics (1st or 2nd semester)</td>
</tr>
<tr>
<td>PSYC1141</td>
<td>Psychology I (1st or 2nd semester)</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
</tr>
</tbody>
</table>

6 credits to be selected from the following course selections dependent on major:

MATH1131
- College Mathematics I* (1st semester) (mathematics required)
  or
MATH1141
- Introduction to Mathematical Methods* (mathematics required) ............ 3

Sophomore Basic Courses (18 Credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1142</td>
<td>Introduction to Statistics* (2nd semester)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>PHIL1101</td>
<td>Introduction to Logic* (2nd semester)</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>MIS1155</td>
<td>Introduction to Computers* (1st or 2nd semester)</td>
</tr>
</tbody>
</table>

Electives (15–19 Credits)

Students at Petrocelli College are permitted to take selected electives from the many and varied course offerings of the University College: Arts • Sciences • Professional Studies, including the Peter Sammartino School of Education and the Henry P. Becton School of Nursing and Allied Health; from the Silberman College of Business; and from the Maxwell Becton College of Arts and Sciences.

Certain elective courses critical in the development of an upper-division major are offered at Petrocelli College as part of the regular College program. A student is, therefore, able to build toward a major in a bachelor's degree through the use of a carefully selected elective program.

In addition to the wide variety of University electives, the College offers certain courses designed to complement the basic College program. These courses are reviewed regularly, and changes are effected to suit the needs of the student.

*Course selection dependent upon major.

Tuition
Tuition for academic year: new and continuing students — $38,418.00.*

Program for Adult Learners
Leading to the Associate in Arts (A.A.) in liberal arts, degree studies in this program are offered on the Metropolitan Campus, Teaneck, New Jersey. Nearly all classes are held in the evening, including Fridays and on Saturdays. The College emphasizes small and informal classes, strong academic counseling and close student-faculty relationships.

Students in the program can earn their A.A. degrees in as little as two years. The overwhelming majority of students in the program go on to pursue baccalaureate degrees in liberal arts, science or business administration. In 2009, a completely online A.A. degree program became available.

For more information, contact the Anthony J. Petrocelli College of Continuing Studies at (201) 692-2746.

Gateway to the Future (MiraeRo) Program
Designed for recent immigrants from South Korea, the MiraeRo Gateway Program is a Korean-to-English transition program with credit courses offered in Korean and English, leading to an associate's or bachelor's degree.

By attending the Korean Program, students can develop their English skills through a professional and structured program of study on the Metropolitan Campus in Teaneck, New Jersey. Students complete an assessment of written and verbal English skills at the conclusion of the associate's degree program and enroll in baccalaureate classes that are in English. To learn more about the opportunities offered, contact (201) 692-7178 or visit https://petrocelli.fdu.edu/complete.

Gateway to the Future® (Puerta al Futuro®) Program
This 60-credit program, which began in the fall of 2003, enables Spanish-speaking adults to learn English and earn an Associate in Arts degree through progressive all-Spanish to all-English course work.

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

Anthony J. Petrocelli College of Continuing Studies
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By attending evening and Saturday classes as a cohort, participants in the Gateway to the Future (Puerta al Futuro®) program develop their English writing and speaking skills through a professional and structured program of study — plus earn their A.A. degrees — in just three years.

Extensive English language instruction is provided during the first two years of the program.

The program is offered on the Metropolitan Campus, Teaneck, New Jersey, and at several off-campus locations. The Puerta al Futuro® program combines proven quality language training with the invaluable professional skills acquired through college-level studies. These skills include the ability to communicate effectively, think critically and work as a member of a team. Upon successful completion of the program, students will have the credentials needed to transfer into a baccalaureate program at the University.

For more information, contact Petrocelli College at (201) 692-2625.

Latino Promise® Program

Petrocelli College has established the Latino Promise® Program. Designed for traditional-age students who are attending the Metropolitan Campus, Latino Promise® provides support through Petrocelli College academic degree programs, scholarships and financial aid; a seminar program offered by successful Latino leaders; a personalized academic advisement program; and the Puerta al Futuro® Language Laboratory.

For information, contact (201) 692-2676.

### Sports Administration Major (B.A.)

The goal of the bachelor of arts in sports administration is to provide undergraduate-level studies for the traditional student seeking a career in sports administration including the areas of: recreation, youth, collegiate and professional leagues.

#### Requirements for the Bachelor of Arts Degree – Metropolitan Campus

**First Year**

**1st Semester**

- ENVR1001 Composition I: Rhetoric and Inquiry 3
- MATH1101 Comprehensive Mathematics or
  - MATH1131 College Mathematics I 3
- SPAD2004 Introduction to Sports Administration 3
- UNIV1001 Transitioning to University Life 1

*Humanities Course* 3

*Social and Behavioral Sciences Course* 3

**Total** 16

**2nd Semester**

- ENVR1002 Composition II: Research and Argument 3
- MIS1135 Introduction to Computers or
  - MIS1045 Information Technology for Business 3
- SPAD2014 Ethical Issues in Sports 3
- UNIV1002 Preparing for Professional Life 1

*Humanities Course* 3

*Social and Behavioral Sciences Course* 3

**Total** 16

**Second Year**

**3rd Semester**

- COMM Communication Course 2000 or above 3
- ECON2001 Introduction to Microeconomics 3
- SPAD3010 Job Search Strategies 1

**Total** 9

**4th Semester**

- ECON2102 Introduction to Macroeconomics 3
- SPAD Job Search Strategies 1
- UNIV2001 Cross-cultural Perspectives 3

**Total** 3

**5th Semester**

- BIO1105 The Human Environment or
  - BIO1180 Climate Change Biology

- SPAD4000 International Sports Administration 3

*Humanities Course* 3

*Social and Behavioral Sciences Course* 3

**Total** 15

**6th Semester**

- BIOL1105 The Human Environment or
  - BIOL1180 Climate Change Biology

- SPAD4000 International Sports Administration 3

*Humanities Course* 3

*Social and Behavioral Sciences Course* 3

**Total** 15

**Fourth Year**

**7th Semester**

- ART
  - ART1103 Principles of Art Appreciation or
  - ART1177 Introduction to Digital Media

**Total** 3

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*See Section B page 124.
**See Section C page 125.
### Sports Administration

Anthony J. Petrocelli College of Continuing Studies  
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

<table>
<thead>
<tr>
<th><strong>Second Year</strong></th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Semester</td>
<td></td>
</tr>
<tr>
<td>SPAD</td>
<td>3</td>
</tr>
<tr>
<td>Section B* Course</td>
<td>3</td>
</tr>
<tr>
<td>COMM</td>
<td>3</td>
</tr>
<tr>
<td>Communication Course 2000 or above</td>
<td>3</td>
</tr>
<tr>
<td>ECON2001</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>SPAD3010</td>
<td>1</td>
</tr>
<tr>
<td>Job-search Strategies</td>
<td>1</td>
</tr>
<tr>
<td>SPAD</td>
<td>3</td>
</tr>
<tr>
<td>Section B* Course</td>
<td>3</td>
</tr>
<tr>
<td>SPAD</td>
<td>3</td>
</tr>
<tr>
<td>Section C** Course</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>3</td>
</tr>
<tr>
<td>Cross-cultural Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

### 8th Semester

| SPAD2018       | 3       |
| Sports Internship |       |
| SPAD           | 3       |
| Section B* Course | 3 |
| Free Electives | 6       |
| Total            | 15     |

### Requirements for the Bachelor of Arts Degree – Florham Campus

#### First Year

<table>
<thead>
<tr>
<th>1st Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGW1101</td>
<td>3</td>
</tr>
<tr>
<td>College Writing</td>
<td></td>
</tr>
<tr>
<td>MATH1126</td>
<td>3</td>
</tr>
<tr>
<td>Contemporary Mathematics</td>
<td></td>
</tr>
<tr>
<td>or MATH1128</td>
<td>3</td>
</tr>
<tr>
<td>Mathematical Methods</td>
<td>3</td>
</tr>
<tr>
<td>SPAD2004</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Sports Administration</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>1</td>
</tr>
<tr>
<td>Transitioning to University Life</td>
<td>1</td>
</tr>
<tr>
<td>Humanities Course</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Course</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

#### 2nd Semester

| ENGW1102 | 3 |
| Research Writing Workshop | 3 |
| MIS1045  | 3 |
| Information Technology for Business | 3 |
| SPAD2014 | 3 |
| Ethical Issues in Sports | 3 |
| UNIV1002 | 1 |
| Preparing for Professional Life | 1 |
| Humanities Course | 3 |
| Social and Behavioral Sciences Course | 3 |
| Total            | 16     |

#### 3rd Semester

<table>
<thead>
<tr>
<th>5th Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAD2024</td>
<td>3</td>
</tr>
<tr>
<td>Section B* Courses</td>
<td>6</td>
</tr>
<tr>
<td>SPAD</td>
<td>3</td>
</tr>
<tr>
<td>Section C** Course</td>
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</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

#### 6th Semester

<table>
<thead>
<tr>
<th>BOL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1005</td>
<td>3</td>
</tr>
<tr>
<td>Current Topics in Biology</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL1010</td>
<td>3</td>
</tr>
<tr>
<td>Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL1080</td>
<td>3</td>
</tr>
<tr>
<td>Structure and Function of the Human Body</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL1090</td>
<td>3</td>
</tr>
<tr>
<td>Human Biology and Health</td>
<td>3</td>
</tr>
<tr>
<td>Approval by academic adviser</td>
<td>3</td>
</tr>
<tr>
<td>SPAD4000</td>
<td>3</td>
</tr>
<tr>
<td>International Sports Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

### Fourth Year

<table>
<thead>
<tr>
<th>7th Semester</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAD2018</td>
<td>3</td>
</tr>
<tr>
<td>Sports Internship</td>
<td>3</td>
</tr>
<tr>
<td>SPAD</td>
<td>3</td>
</tr>
<tr>
<td>Section B* Course</td>
<td>3</td>
</tr>
<tr>
<td>Free Electives</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>

Students will be required to complete the following:

**Section B (18 credits)**

| SPAD2010       | 3 |
| Legal Aspects in Sports Administration | 3 |
| SPAD2015       | 3 |
| Team Development |     |
| SPAD2019       | 3 |
| Sports, Marketing, Public Relations | 3 |
| SPAD2020       | 3 |
| Fundraising in Sports |     |
| SPAD2022       | 3 |
| Facility Management |     |
| SPAD2025       | 3 |
| Global Perspectives in Sports |     |
| SPAD3000       | 3 |
| Fiscal Concept in Sports |     |
| SPAD3003       | 3 |
| Sports and Society |     |
| SPAD3024       | 3 |
| Special Topics in Sports Industries |     |
| SPAD3030       | 3 |
| Human Resource Administration in Sports |     |
| SPAD4001       | 3 |
| Sports Internship II |     |

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*See Section B this page.  **See Section C page 125.

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**Section C (18 credits for the Metropolitan Campus, 16 credits for the Florham Campus)**

- **ACCT2021** Introductory Financial Accounting
- **ACCT2022** Introductory Managerial Accounting
- **COMM** 200-level course or above
- **LAW2276** Business and the Law
- **SPAD2012** Nutrition and Wellness
- **SPAD2013** Exercise Science for the Sports Administration Professional
- **SPAD2016** Stress Management
- **SPAD2017** Safety, First Aid and Prevention of Injury
- **SPAD2021** Strength and Conditioning
- **SPAD2025** Global Perspectives in Sports
- **SPAD3001** Theory, Philosophy and Principles of Coaching
- **SPAD3002** Human Kinesiology
- **SPAD3004** Youth Program Administration
- **SPAD3005** Management in Athletic Training, Athletics and Health
- **SPCH1107** Fundamentals of Speech

Courses approved by academic adviser – allowed up to 16 credits (Florham Campus)/18 credits (Metropolitan Campus)

**Combined B.A./M.S.A**
For information go to page 225.

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**Faculty & Staff**

**Administration**
- L.R. Braverman, Dean
- J. Tormey, Director, International School of Hospitality and Tourism Management
- D.A. Fredericks, Associate Dean of Continuing Education Operations and College Learning Assessments
- K.H. Zatz, Assistant Dean of Administrative Science
- J. Steiner, Director of Online Programs
- F. Pantaleo, Coordinator and Adviser for Undergraduate Off-campus Programs
- M. Edwards, Director, Bachelor of Arts in Interdisciplinary Studies Program
- M. Haines, Director of Student Support Services
- F. Parra, Assistant Director and Adviser of Undergraduate Programs
- F. Alonso, Director, Puerta al Futuro® Program and Latino Promise® Program
- J.C. Kim, Co-director, Sports Administration Program
- R. Lubisco, Co-director, Sports Administration Program

**Faculty**
University College: 
Arts • Sciences • Professional Studies

Majors

Allied Health Technologies (B.S.A.H.T.)
Concentration: health science completion degree

Art (B.A.)
Concentrations: arts management, computer art and design, graphic art and design, painting/drawing
Minors: computer animation, computer graphics, digital media for advertising, digital tools for social media, fine art techniques, generalist art, printmaking

Biochemistry (B.S.)

Biology (B.S.)
Concentrations: biotechnology, chemistry, environmental science, human physiology
Minors: biology, environmental science

Chemistry (B.S.)
Concentration: prepharmacy program

Civil Engineering (B.S.C.E.)

Civil Engineering Technology (B.S.Civ.E.T.)

Clinical Laboratory Sciences (B.S.C.L.S.)
Concentration: medical laboratory sciences

Communication (B.A.)
Concentrations: broadcasting, convergent journalism, radio management, TV/digital editing and production
Minors: advertising, communication, convergent journalism, speech, sports media studies

Computer Science (B.S.)
Concentrations: cybersecurity and information assurance, database management, game and mobile application development, information security administration
Minor: computer science

Construction Engineering Technology (B.S.Con.E.T.)

Criminal Justice (B.A.)
Minors: computer forensics, criminal justice, legal studies, social justice advocacy

Electrical Engineering (B.S.E.E.)
Minor: electrical engineering

Electrical Engineering Technology (B.S.E.E.T.)
Minor: electrical engineering technology

English Language and Literature (B.A.)
Minors: creative writing, English language and literature

Fine Arts (B.A.)
Minor: theater

Health Information Management (B.S.H.I.M.)

Health Studies (B.S.H.S.)
Concentrations (Tracks): general, science

History (B.A.)
Minor: history

Humanities (B.A.)
Concentrations: American studies, British studies, digital humanities, global and cultural studies, liberal studies, sustainability
Minors: American studies, British studies, digital humanities, gender and sexuality studies, global and cultural studies, sustainability

Information Technology (B.S.)
Concentrations: network and system administration, security and forensics, web-development technology
Minors: computer forensics, information technology, website design and development
Certificate: website design and development

International Affairs (B.A.)
Minor: international affairs

Marine Biology (B.S.)
Concentration: environmental science
Minor: marine biology

Mathematics (B.A.)
Minor: specific discipline

Mathematics (B.S.)
Concentrations: applied mathematics, pharmaceutical biostatistics, pure mathematics
Minor: mathematics

Mechanical Engineering (B.S.M.E.)

Mechanical Engineering Technology (B.S.M.E.T.)
Minor: mechanical engineering technology

Medical Imaging Sciences (B.S.M.I.S.)
Concentrations: cardiovascular sonography, diagnostic medical sonography

Medical Technology (B.S.)

Nursing (B.S.N.)

Political Science (B.A.)
Concentrations: American government and politics, comparative government and politics, international relations, political thought and theory
Minors: legal studies, political science

Psychology (B.A.)
Concentrations: clinical social work, consumer psychology, forensic psychology, mental health, organizational behavior/human resources
Minors: clinical social work, forensic psychology, psychology

Radiography (A.S.)
Certificate: radiography

Radiologic Technology (B.S.) Completion Degree

Science (B.S.)
Minor: science

Spanish Language and Culture (B.A)
Minor: Spanish language and culture

Multidisciplinary Minors
African studies, American studies, British studies, computer forensics, creative writing, digital humanities, English language and literature, gender and sexuality studies, global and cultural studies, legal studies, philosophy, religion and society, romance languages, sports media studies, sustainability

Education/Teacher Certification
(see QUEST Program)
Metroplitan Campus, Teaneck, New Jersey, and Vancouver Campus, British Columbia, Canada

Vicki L. Cohen Interim Dean

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

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

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

Several accelerated programs are available for exceptional students — **Baccalaureate/Master**: Bachelor of Arts/Master of Public Administration (page 207); Bachelor of Arts or Science/Master of Arts in Teaching (page 208); Bachelor of Arts in criminal justice/Master of Arts in criminal justice (page 215); Bachelor of Arts in political science/Master of Arts in criminal justice (page 218); Bachelor of Arts in political science/Master of Arts in political science (page 219); Bachelor of Arts in political science/Master of Public Administration (page 220); Bachelor of Arts in psychology/Master of Arts in forensic psychology (page 221); Bachelor of Arts in psychology/Master of Arts in general/theoretical psychology (page 222); Bachelor of Arts/Master of Social Work with New York University (page 224); Bachelor of Science in biochemistry/Master of Science in applied clinical nutrition with School of Applied Clinical Nutrition, New York Chiropractic College (page 228); Bachelor of Science in biochemistry/Master of Science in cosmetic science (page 230); Bachelor of Science in biochemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (page 229); Bachelor of Science in biology/Master of Science in acupuncture and oriental medicine with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College (page 232); Bachelor of Science in chemistry/Master of Science in cosmetic science (page 237); Bachelor of Science in chemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (page 235); Bachelor of Science in biology/Master of Science in biology (page 233); Bachelor of Science in computer science/Master of Science in computer science (page 238); Bachelor of Science in computer science/Master of Science in management information systems (page 239); Bachelor of Science in Electrical Engineering/Master of Science in computer engineering (page 240); Bachelor of Science in Electrical Engineering/Master of Science in Electrical Engineering (page 241); Bachelor of Science in information technology/Master of Science in computer science (page 243).

**Baccalaureate/Doctorate**: Bachelor of Science in biology/Doctor of Dental Medicine with Rutgers School of Dental Medicine (page 252); Bachelor of Science in biochemistry or biology or chemistry/Doctor of Dental Medicine with Lake Erie School of Osteopathic Medicine School of Dental Medicine (page 251); Bachelor of Science in biology/Doctor of Physical Therapy with Rutgers School of Health Professions, Newark (page 262); Bachelor of Science/Medical Doctor with Ross University, School of Medicine (page 253); Bachelor of Science/Medical Doctor with Universidad Autónoma de Guadalajara (page 255); Bachelor of Science in biology/Doctor of Chiropractic with New York Chiropractic College, Life Chiropractic College West Logan Chiropractic College, Palmer College of Chiropractic and Western States Chiropractic College (page 249); Bachelor of Science in biochemistry or biology or chemistry/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (pages 244, 257, 266); Bachelor of Science in biology/Doctor of Osteopathy with Lake Erie College of Osteopathic Medicine (page 255); Bachelor of Science in biology/Doctor of Podiatric Medicine with New York College of Podiatric Medicine (page 263); Bachelor of Science in biology/Doctor of Veterinary Medicine with Ross University, School of Veterinary Medicine (page 264).

Liberal Arts

University College: Arts • Sciences • Professional Studies

Metropolitan Campus and Vancouver Campus

Liberal Arts • Professional Studies Curricular Requirements
A Bachelor of Arts at Fairleigh Dickinson University prepares students to be well-rounded liberal arts and science graduates regardless of their major area of studies. The general education courses offer students a common ground of skills and knowledge and a wide array of subjects from which to choose in order to have a solid foundation as they develop their specialized interests. Fulfilling the University’s mission to educate global citizens with a strong liberal arts education, students take courses in humanities and sciences to broaden their cultural literacy in all fields of study. General education courses strive to provide students with written and oral communication skills; analytical, critical and ethical thinking; quantitative and scientific reasoning; and global and cultural understanding of complex issues (quantitative, scientific and literary).
General Education Requirements (53 credits)

I. College Competencies (24 credits)

Written Communication Courses

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Rhetoric and Inquiry/ENWR1002 Composition I: Rhetoric and Inquiry</td>
</tr>
<tr>
<td>3</td>
<td>Composition II: Research and Argument</td>
</tr>
</tbody>
</table>

Oral Communication Course............................................. 6

Quantitative Analysis Course....................................... 3

Mathematics or Technology or Statistics Course................. 3

Ethical and Moral Analysis Course................................. 3

Scientific Analysis Courses........................................... 6

II. Liberal Arts Distribution (21 credits)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Language Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Social and Behavioral Sciences Courses</td>
</tr>
<tr>
<td>6</td>
<td>Arts and Culture Courses</td>
</tr>
<tr>
<td>6</td>
<td>Humanities Courses</td>
</tr>
</tbody>
</table>

III. University Requirements (8 credits)

UNIV1001 Transitioning to University Life.............1

UNIV2001 Cross-cultural Perspectives................3

UNIV2002 Global Issues.............................................. 3

General Education Requirements (53 credits)

I. College Competencies (24 credits)

A. Written Communication (6 credits)

This requirement consists of 3 credits in ENWR1001 Composition I: Rhetoric and Inquiry and 3 credits in ENWR1002 Composition II: Research and Argument. An additional 6 writing-intensive credits in the major or other writing-intensive courses designated by the major program are required.

B. Oral Communication (3 credits)

Requirements consist of a 3-credit course that is substantially concerned with public speaking and oral presentations, typically a course in speech.

C. Quantitative Analysis (3 credits)

Students will take 3 credits of MATH1101 Comprehensive Mathematics, MATH1105 College Algebra, MATH1107 Precalculus or MATH1201 Calculus I to satisfy this requirement; upper-level MATH-prefix courses may be substituted with prior approval.

D. Mathematics, Technology or Statistics (3 credits)

Students will take 3 credits of an upper-level mathematics course at a level higher than the course fulfilled in Quantitative Analysis: either MATH1105 College Algebra, MATH1107 Precalculus, MATH1201 Calculus I, MATH2202 Calculus II, MATH2243 Statistical Programming or MATH2337 Applied Statistics I; or one of the following courses: ENGR1501 Engineering Practices, Graphics and Design; ENGR2286 Digital System Design; ENGR3000 Modern Technologies: Principles, Applications and Impacts; CEN1205/EGTC1205 Surveying I; CEN1243/EGTC1245 Construction Materials and Systems; EGT3261 Estimating I; EGMT2252 Mechanical Measurement and Devices; EGMT2255 Manufacturing Processes; CSC1105 Survey of Computers and Computer Software; CSC1201 Computer Programming I; any CSCI course above 2101; any INFO-prefix course; or PSYC2201 Statistics. Students must fulfill all applicable prerequisites for a course before taking it. In addition, they may take either MATH2337 Applied Statistics I or PSYC2201 Statistics, but not both in their course of study since MATH2337 and PSYC2201 cover many similar topics.

E. Ethical and Moral Analysis (3 credits)

Requirements consist of a 3-credit course that is substantially concerned with ethical theories and questions. Choose a course from Philosophy (PHIL), Religion (RELI), a course that has “ethics” in its title or a course designated as meeting the requirement within a major program.

F. Scientific Analysis (6 credits)

Requirements consist of a minimum of 6 credits of laboratory science from Biology (BIO1), Chemistry (CHEM), Environmental Science (ENV), Marine Biology (MBIO) or Physics (PHYS).

II. Liberal Arts Distribution (21 credits)

A. Language (3 credits)

If a student is beginning a new language, Elementary II (1102) is required to fulfill the 3-credit language requirement. If the student is taking a language previously studied, successful completion of Intermediate I (2103) fulfills the requirement. The student taking a previously studied language must take the placement test. If the placement score is above the Intermediate I level, the student is excused from the language requirement and will need to replace those 3 language credits with a free elective.

B. Social and Behavioral Sciences (6 credits)

This requirement can be satisfied by 6 credits of course work in Communication (COMM), Criminal Justice (CRIM), Political Science (POLI), Psychology (PSY), Sociology (SOCI). Courses may be within the same discipline or different disciplines, but either way at least one course must be at the 2000 level or above.

C. Arts and Culture (6 credits)

This requirement can be satisfied by 6 credits of course work in Dance (DAN), Music (MUSIC), Theater (THEA), Language (LANG) or any adviser-approved foreign language; or ART1141 Two-dimensional Design; ART1142 Three-dimensional Design; ART1144 Color Theory I; ART1151 General Drawing I; ART1153 Life Drawing I; ART1157 Printmaking I; ART1158 Silk-screen Printing I; ART1159 Monotype Printmaking; ART1161 Painting I; ART1167 College and Mixed Media; ART1169 Watercolor Painting I; ART1181 Sculpture I; ART1187 Ceramics I; ART1189 Jewelry I; ART1852 Alternative Art I; ART1841 Pastel Drawing I; COMM2105 Culture and Communication in Film; COMM2104 Language, Culture and Communication; COMM2210 Popular Culture and the Media; COMM2415 Sports and Popular Culture; COMM2743 History of Film: Special Topics; COMM2745 Introduction to Film; or EPS1201 English for Professional Success: Global Exchange — New York City as a Classroom.

D. Humanities (6 credits)

This requirement can be satisfied by 6 credits of any course that has the prefix ENGL, HIST, HUMN, LANG, PHIL or RELI. Courses may be within the same discipline or different disciplines, but either way at least one course must be at the 2000 level or above.

III. University Requirements (8 credits)

Science and Engineering • Professional Studies
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Up to 6 credits from the major and 6 credits from the minor may be applied toward the General Education requirements.

It is strongly recommended that the College's General Education Requirements should be completed within the first two years for students pursuing the Bachelor of Arts degree.

The Major
Each student must officially declare a major before entering the sixth semester. The courses in a major vary from a minimum of 30 credits above the introductory level to not more than 42. Details and explanations of the various Bachelor of Arts major programs are set out in the following pages. Dual majors are permitted providing requirements are met.

Mandatory Minor
Students pursuing Bachelor of Arts degrees are required to complete a minor of at least 15 credits or second major in a specific discipline. Minors are specializations that supplement majors and contribute to general education in that they provide the student with an element of breadth. The requirements for minors and concentrations are provided in the section describing the major requirements.

Science and Engineering • Professional Studies
Curricular Requirements
Candidates for all baccalaureate degrees must complete at least 120–131 credits of course work. Certain programs require more than 120 credits for the degree. See each major for specific requirements. No student in University College may receive credit for graduation for any mathematics course that is a prerequisite to start a particular curriculum.

Science Programs
University College offers programs leading to the Bachelor of Science degree in biochemistry, biology, chemistry, clinical laboratory sciences, computer science, health information management, information technology, marine biology, mathematics, medical imaging sciences, medical technology, nursing, radiologic technology and science. A prepharmacy program provides the first two years of instruction of the normal five-year B.S. degree in pharmacy. (See page 147.) Two programs (seven- and eight-year) with Lake Erie College of Osteopathic Medicine lead to a B.S. in biology and a D.O. (doctor of osteopathy). A seven-year B.S. in biochemistry/biology/chemistry Pharm.D. joint program is offered with the FDU School of Pharmacy and Health Sciences. A seven-year joint program is offered with New York College of Podiatric Medicine leads to a B.S. in biology and a D.P.M. (doctor of podiatric medicine). A seven-year joint program with the Rutgers School of Dental Medicine leads to a B.S. in biology and a D.M.D. (doctor of dental medicine). An eight-year joint program with Lake Erie College of Osteopathic Medicine School of Dental Medicine leads to a B.S. in biochemistry or biology or chemistry and a D.M.D. (doctor of dental medicine). A seven-year B.S. in biology and a D.V.M. in veterinary medicine is offered with Ross University, St. Kitts. An eight-year B.S. in biology/Medical Doctor program is offered with Ross University School of Medicine, Commonwealth of Dominica. A seven-year B.S. in biology/Medical Doctor program is offered with Universidad Autónoma de Guadalajara, Mexico, and a B.S./Doctor of Chiropractic degree can be completed in six years, four months with selected Council on Chiropractic Education Colleges of Chiropractic. A B.S. in biology/Doctor of Physical Therapy (DPT) can be completed in six years with Rutgers School of Health Professions. (For more information on these programs, see pages 244–271.)

Engineering and Engineering Technology Programs
The following degree programs are offered: Bachelor of Science in Civil Engineering, Bachelor of Science in Civil Engineering Technology, Bachelor of Science in Construction Engineering Technology, Bachelor of Science in Electrical Engineering, Bachelor of Science in Electrical Engineering Technology, Bachelor of Science in Mechanical Engineering and Bachelor of Science in Mechanical Engineering Technology.

Course Numbering System
0000 — Developmental Level: remedial or developmental courses intended to prepare students for entry into the curriculum or to remove a deficiency, no degree credit.
1000 — Freshman Level: a lower-division course having no formal prerequisites beyond admission into the curricula or intended for freshmen or lower-division students.
2000 — Sophomore Level: a lower-division course having a 1000-level prerequisite or intended for sophomores.
3000 — Junior Level: an upper-division course having a 2000-level prerequisite or intended for juniors or upper-division students.
4000 — Senior Level: an upper-division course or thesis having a 3000-level prerequisite or intended for seniors.
5000–9000 — Graduate Level: a graduate course.

Other College Options
Areas of Minor Study
Students must develop a second area of study to complement the major study. A minimum of 15 credits will be required. Areas of concentration may be chosen from among those offered as multidisciplinary minors or in departments/schools of the University College: Arts • Sciences • Professional Studies or other University colleges.

Electives
Adviser-approved electives may be chosen from regular courses offered in any of the baccalaureate programs of the other colleges or Wroxton College if prerequisites are met. Usually, elective courses are taken in the last two years. Courses that are used to explore major fields of interest also can be used as electives.

Independent Study
In accord with school criteria, students may take individual intensive study under the direction of a specific faculty member. Approvals of the instructor, appropriate school director(s) and College dean are required. A total of 12 credits of independent study toward completion of requirements for the degree is permitted; any exceptions must be approved by the school director and the College dean.

Prelaw
The minimum legal requirement for admission to a law school in New Jersey is the completion of three-fourths of a program leading to a bachelor’s degree. Some law schools require the baccalaureate degree for admission.
Students may select a QUEST program in general education (regular classroom teacher) at the P–3, elementary or secondary level or in English as a Second Language (ESL). QUEST also offers the opportunity to select a dual certification program in early childhood (P–3), elementary education (K–6) or secondary education (7–12) with a second certification as Teacher of Students with Disabilities (TSD). Students desiring the dual certification program in P–3, elementary or secondary education need to join QUEST in their freshman year. QUEST also offers the opportunity to select a dual certification program in elementary education (K–6) or secondary education (7–12) with a second certification in English as a Second Language (ESL). Students desiring the dual certification program in elementary or secondary education and ESL need to join QUEST in their freshman year. These students will need to complete three courses after their fifth year in the program to finish the ESL certification.

**Admission to and Matriculation into QUEST Program**

Freshmen entering the QUEST program are required to have a high school grade point average (GPA) of 3.00 or greater and a minimum of 1,080 on the SAT (combined verbal and mathematics) or a 21 composite on the ACT. Sophomores and juniors requesting admission to the QUEST program must have a college/university cumulative grade point ratio (CGPR) of 3.00 or greater. Students entering the QUEST program are not formally matriculated into QUEST until they have 60 credits and have met the following requirements:

- 60 earned credits;
- CGPR of 3.00 or greater; and
- Pass the new Praxis I – CORE Battery, which consists of three tests in basic skills as follows:
  1. Core Academic Skills for Educators: Reading
  2. Core Academic Skills for Educators: Writing
  3. Core Academic Skills for Educators: Mathematics

Students are required to take and pass the CORE Battery by the end of their sophomore year to continue in the QUEST program. Juniors seeking admission to QUEST must take and pass the CORE Battery during their first semester in the program. All three exams must be passed.
to become matriculated. Students who do not pass all three exams may be restricted from taking education (EDUC) courses. Students may be exempted from the CORE Battery if they meet one of the following alternatives:

- SAT (if taken between April 1, 1995, to February 28, 2016): Reading 560; Mathematics 540
- SAT (if taken on or after March 1, 2016): Reading 610; Mathematics 570
- ACT (if taken on or after August 28, 1989): English 23; Mathematics 23
- If a candidate completed and passed the Pre-Professional Skills Test (PPST/Praxis I) prior to June 2014, the School of Education will accept passing scores on those exams to satisfy the basic skills requirement (passing scores on the PPST are as follows: Reading 175, Mathematics 174, Writing 173.

**Teacher Certification Requirements**

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

In New Jersey, the State Department of Education grants approval for teacher certification based upon the following:

- A bachelor's degree from an accredited institution which includes 60 credits in liberal arts and science courses for elementary education, including at least 3 credits in physiology, biology or health;
- For middle-school candidates, a course in adolescent development and 15 or more credits in the content area for their certification (e.g., mathematics, English, etc.);
- For secondary candidates, a major in the subject area to be taught or 30 credits of a coherent sequence of courses in the subject area (e.g., mathematics, biology, etc.) where half of the courses are at an upper level (3000 and above);
- Completion of appropriate education courses, field experiences and student teaching;
- Full matriculation into the QUEST program as described above;
- A minimum cumulative grade point ratio (CGPR) of 3.00; and
- A passing score on the state-required Praxis II Test appropriate for the area of certification.

**Students must major in liberal arts or a science. In New Jersey, a student cannot major in education.** Individuals preparing for subject-area certification to teach at the secondary level (e.g., science, foreign languages, etc.) must major in the field they are planning to teach. Students interested in early childhood or elementary education may major in select liberal arts/science fields of interest or major in the humanities with a prescribed concentration of courses in a specific content area. Professional or “technical” majors (e.g., marketing, journalism, accounting, etc.) do not satisfy the state requirement for a B.A. or B.S. in a liberal arts/science specialization. Those individuals must present a transcript including 60 credits in the liberal arts or pure sciences in order to qualify for elementary certification.

Students seeking certification must complete the required courses of their liberal arts/science major, courses in “general education” and specific courses in the behavioral sciences (sociology, anthropology or psychology) that are related to teaching and learning. Together these areas must total a minimum of 60 course credits. The total of 60 “general education” credits must be distributed among the following areas: mathematics, science, American and English literature, American history and American studies, non-Western studies, Western history, art history or music, philosophy, technology, foreign language and psychology.

Students majoring in psychology are required to take 15 or more credits in a content area (English, history, mathematics or science).

Those individuals desiring to teach on the middle-school level (5th, 6th, 7th, 8th) must qualify for elementary school certification with subject-matter specialization endorsement. In order to do so, the following requirements must be met, according to N.J.A.C. 6A:9-8.1:

1. Hold a Certificate of Eligibility (CE) or Certificate of Eligibility with Advanced Standing (CEAS) or standard certificate;
2. Complete study in the characteristics of children and young adolescents (adolescent psychology or development psychology);
3. Pass the appropriate state test in content-area specialization for middle school;
4. Complete a prescribed coherent sequence of courses in, but not limited to, one of the following specializations: 15 credits in a single CCCS subject field (mathematics, English, history, etc.);

Prospective teachers in the QUEST (B.A. or B.S./M.A.T.) program follow the traditional route to teacher certification, which requires the candidate to hold a bachelor’s degree from an accredited college or university; to have completed at least 30 credit hours in courses appropriate to the instructional field of certification; and to pass the state-required Praxis II Test. In the traditional route, the professional development requirement is met by completing an approved teacher-education program (which includes course work in education and three levels of practical [field-based] experience — initial exposure in the classroom followed by a more intensive field experience and culminating with a supervised student teaching experience). All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experiences (field experiences) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school with at least 175 hours prior to the final, full-time semester of student teaching. If students have met all of the requirements and have completed an approved student-teaching experience, they may be recommended for a “Certificate of Eligibility with Advanced Standing,” which qualifies them to be hired as first-year teachers with a provisional certificate to satisfy the state’s “Induction Year” requirement for standard certification. The hiring school district is required: 1) to provide the new teacher with a mentor and special on-the-job support and 2) to evaluate the new teacher’s performance and make a recommendation on the issuance (or nonissuance) of a standard certificate at the end of the year.

Regarding teacher certification in other states, New Jersey has “reciprocity” with a number of other states and the District of Columbia. Persons seeking employment in another state should write to that state’s office of teacher certification for information.

*This requirement does not apply to those who teach in a self-contained classroom.*
Programs in Language, Culture and Professional Advancement (PLCPA)

PLCPA offers courses in English for Specific Purposes (ESP) for international students and any interested domestic students. These courses are called English for Professional Success (EPS), and they took the place of English as a Second Language (ESL) courses starting in fall 2006. The EPS courses have a dual purpose: to ensure the academic as well as professional success of the international students. Students will be exposed to the different genres of academic and professional discourse in their different fields of study.

Placement Testing

While students may have achieved the TOEFL or other proof of English-proficiency score required for admission, further development in English proficiency may be necessary to support academic achievement and to ensure effective progress in the student’s chosen academic program. All incoming graduate and undergraduate international students, unless exempt from testing, must be tested for placement during the orientation session. New international students should not assume that they are exempt from this English test even though they have had many years of English education in their home countries or abroad. Students will be placed into or exempted from taking an EPS course based on the result of their placement test.

Pre-University Program

Effective spring 2013, the FDU Pre-University Program (PUP) provides opportunities for international students with intermediate English skills who meet the University’s academic admission standards but require additional support in academic English to take highly specialized English language support courses in the first semester while they study and earn academic credit toward their bachelor’s degree. Although the bulk of the courses are English for Professional (EPS) courses, students may earn up to 11 credits toward their undergraduate degree. Matriculated undergraduate students may be placed into this PUP EPS course based on their placement test.

Matriculated Program

Undergraduate students who are placed into an EPS course must take the class and corequisite lab and will be charged tuition upon registration.

EPS Courses

Students will take an EPS course that is relevant to their program of study. The courses offered are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS0099</td>
<td></td>
</tr>
<tr>
<td>Academic Writing Skills</td>
<td>4.5</td>
</tr>
<tr>
<td>EPS1008</td>
<td></td>
</tr>
<tr>
<td>Academic Writing Skills</td>
<td>4.5</td>
</tr>
<tr>
<td>(for Metropolitan Campus only)</td>
<td></td>
</tr>
<tr>
<td>EPS1109</td>
<td></td>
</tr>
<tr>
<td>English for Occupational Purposes</td>
<td>3</td>
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<tr>
<td>EPS1201</td>
<td></td>
</tr>
<tr>
<td>English for Professional Success: Global Exchange — New York City as a Classroom</td>
<td>3</td>
</tr>
</tbody>
</table>

Each EPS course except for EPS1201 English for Professional Success: Global Exchange — New York City as a Classroom has a corequisite lab. Students will take only one EPS course (unless required or placed into two sets of EPS courses). However, to exit the program, a student must meet the learning objectives set by the curriculum. Students who fail to meet the minimum standards required to pass the course will have to repeat the course. Upon exiting the program, undergraduate students will take the Composition I: Rhetoric and Inquiry (ENWR1001) course.

Application of Credits for EPS Courses

International undergraduate students can fulfill a free elective credit (upon approval of individual academic departments) or partially fulfill the Language and Culture Liberal Arts requirement upon the successful completion of the EPS course:

- Silberman College of Business: 3 credits may be applied as a free elective.
- Other Metropolitan Campus programs: 3 credits may be applied to meet foreign-language requirements.

Multidisciplinary Minors

15 credits total

Africana Studies Minor

The Africana studies minor is a multidisciplinary program that provides students with opportunities to widen their perspectives and understanding of Africa’s social, political and economic systems and also to deepen their insights into the profound impact of African societies on countries throughout the world.

The program enables students to acquire the skills needed to engage successfully in a postgraduate degree in African studies. It also prepares them to lead academic and nonacademic organizations (such as NGOs, etc.) in an ever-changing global society and particularly in Africa.

With the experience, students should be able to secure employment with institutions, governmental and nongovernmental organizations where their knowledge of Africa may be required to travel to Africa with a sense of appreciation for the changing situation and diverse but dynamic nature of the continent.

Students are required to complete 15 credits of course work including the following:

- 6 credits of foundational courses, including AFST1101 Africa and Africans I: History and Traditions and AFST1102 Africa and Africans II: Communities and Culture.
- 9 credits of electives from a list of courses divided into three main themes: Africa centered; Africa diaspora (including African-American studies); and Africa in the global context.

Questions about advising, inclusion of courses in the concentration may be directed to the School of Criminal Justice, Political Science and International Studies at (201) 692-2465.

American Studies Minor

This 15-credit minor explores the culture, history, literature and politics of the United States. In addition, through this minor, students develop a deeper understanding of the status of the contemporary United States and its place in the world today. The following courses count toward this minor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL2140 African-American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3369 American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3370 American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3383 Ethnic Literature in the United States</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3409 Glory and Shame: America on Film</td>
<td>3</td>
</tr>
<tr>
<td>HIST1114 U.S. History to 1865</td>
<td>3</td>
</tr>
</tbody>
</table>
Multidisciplinary Minors

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Metropolitan Campus and Vancouver Campus

HIST1115
U.S. History Since 1865.........................3
HIST2102
Sports in America..................................3
HIST2104
United States Social and Cultural History........3
HIST2107
U.S. Economic History...........................3
HIST2108
The American Presidency..........................3
HIST3101
American Immigration................................3
HIST3102
Race in America....................................3
HIST3104
U.S. Diplomatic History.............................3
HIST3105
U.S. Environmental History........................3
HIST3106
Culutre and Technology in American History.........3
HIST3107
U.S. Constitutional History........................3
HIST3120
Colonial and Revolutionary America................3
HIST3123
The U.S. Civil War and Reconstruction........3
HUMN2443/PHIL2443
African-American Political Thought..............3
HUMN3221
Coming of Age in America..........................3
MUSIC1108
From Elvis to J. Lo: Pop Music of the Past 50 Years........3
PHIL1105/RELI1105
World Religions in America........................3
POLS2251
Foreign Policy of the United States........3
POLS2253
American Government................................3
POLS3312
The American Congress................................3
POLS3349
African-American Politics.........................3

Credits

British Studies Minor
This 15-credit minor is ideal for students who wish to or have already spent time at FDU’s Wroxton College in England. Specifically, the British studies minor offers students knowledge and insight into the culture, history, literature and politics of England. In addition, through this minor, students develop a deeper understanding of the status of contemporary England and its place in the world today. The following courses count toward this minor:

ART3415
The Development of British Painting in Britain and North America*........................3
COMM3026
Communication: Culture and the Media in Britain*..................................3
ENGL2203
British Literature I.................................3
ENGL2204
British Literature II..................................3
ENGL3351
Medieval Literature................................3
ENGL3353
Chaucer................................................3
ENGL3355
Renaissance Literature..........................3
ENGL3357
Shakespeare I.........................................3
ENGL3358
Shakespeare II........................................3
ENGL3359
17th-century Literature..........................3
ENGL3361
Milton..................................................3
ENGL3363
18th-century Literature..........................3
ENGL3365
The Romantic Era I...............................3
ENGL3366
The Romantic Era II.................................3
ENGL3367
The Victorian Era I................................3
ENGL3368
The Victorian Era II..............................3
ENGL3421
"Not of an Age...But for All Time"*.................3
ENGL3422
"The Play’s the Thing"*..........................3
ENGL3463
England’s Green and Pleasant Land*.............3
ENGL3466
Three 19th-century Writers*........................3
ENGL3467
18th-century Literature*..........................3
ENGL4447
“The Tempest:” Music Rich and Strange............3
HIST3422
Britain in the Modern Era*........................3
HUMN4409
The British Imagination: From King Arthur to Harry Potter*..........................3

Credits

INTER3430
The Anatomy of Contemporary Britain*......................3
POL3450
British Government and Politics*...................3
POL3454
Descent from Power: British Foreign Policy Since 1900*...........3
POL3456
The Power and Personality of the British Prime Minister*........3
SOC3440
Women and Race in Modern Britain*........3
SOC3445
Social Policy in Contemporary Britain*........3

Other selected classes may be approved by a humanities faculty advisor. For information contact the School of the Humanities.

Computer Forensics Minor
The computer forensics minor involves the identification, preservation, extraction, interpretation and documentation of digital evidence in criminal and civil investigations. It is an interdisciplinary minor developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. This 15-credit minor will provide students with a strong foundation in the knowledge, understanding and competencies sought by prospective employers in the area of computer forensics.

Required Courses (12 credits)
CRIM2218
Computer Technologies and Cyber Crime......................3
CRIM3327
File System Forensic Analysis and Investigation........3
INFO1101
Computer Concepts and Technology..................3
INFO4101
Data Communications and Computer Networks I........3

Elective (3 credits)
CRIM4200
Computer Forensic, Software and Hardware Applications
INFO4410
Foundations of Cybersecurity..........................3

Credits

*Offered at Wroxton College, England
Creative Writing Minor
This 15-credit minor enables students to express themselves by writing scripts, fiction, poetry and nonfiction. Since creative writing improves writing skills in general, all students will benefit from the minor in creative writing. Students in the minor will study works of literature to understand the expectations of the genres. Additionally, by writing in workshop settings, students will learn what makes fiction, poetry, scriptwriting and creative nonfiction both distinctive and unique. All students selecting the creative writing minor must take at least nine credits of creative writing courses from the following list. The remaining six credits can be fulfilled with any additional creative writing courses or any literature courses offered in the School of the Humanities:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL325 Creative Writing I (Fiction)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL326 Creative Writing II (Fiction)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL327 Creative Writing I (Poetry)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL328 Creative Writing II (Poetry)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL333 Creative Writing I (Nonfiction)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL334 Creative Writing II (Nonfiction)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL335 Creative Writing I (Scriptwriting)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL336 Creative Writing II (Scriptwriting)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL337 Creative Writing I (Cross-genre)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL338 Creative Writing II (Cross-genre)</td>
<td>3</td>
</tr>
</tbody>
</table>

Digital Humanities Minor
This 15-credit minor is designed for students interested in learning the essentials of digital production (e.g., graphic design, web design, photography and film) as well as digital studies (media studies, the impact of technology on society). As technology becomes increasingly intertwined with everyone’s lives, it has become more important to possess not only an understanding of computing but to learn how to effectively utilize computer technologies in professional and personal lives as well as to understand how these same technologies can help shape lives for better or worse. With a growing number of positions in the field of information technology and projected shortage of information technologists, a digital humanities minor can help students become more competitive in the job market. The following courses count toward this minor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1174 Desktop Publishing I</td>
<td>3</td>
</tr>
<tr>
<td>ART1177/COMM1177 Introduction to Digital Media</td>
<td>3</td>
</tr>
<tr>
<td>ART1178 Multimedia on the Internet</td>
<td>3</td>
</tr>
<tr>
<td>ART1179 Digital Illustration and Design</td>
<td>3</td>
</tr>
<tr>
<td>ART1192 Digital Photography I</td>
<td>3</td>
</tr>
<tr>
<td>ART1843 Design for the Web</td>
<td>3</td>
</tr>
<tr>
<td>ART2275 Computer Animation II</td>
<td>3</td>
</tr>
<tr>
<td>ART2294 Two-dimensional Computer Animation</td>
<td>3</td>
</tr>
<tr>
<td>CRIM225 Cyber Crime</td>
<td>3</td>
</tr>
<tr>
<td>CSC1105 Survey of Computers and Computer Software</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3000 Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2444/PHIL2444 Technology and Its Critics</td>
<td>3</td>
</tr>
<tr>
<td>HUMN3041/INTER3041 Technology and Values</td>
<td>3</td>
</tr>
<tr>
<td>HUMN3350 Social Life On and Off the Internet</td>
<td>3</td>
</tr>
<tr>
<td>INFO1101 Computer Concepts and Technology</td>
<td>3</td>
</tr>
<tr>
<td>INFO1201 Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>INFO2105 Internet and Web Applications</td>
<td>3</td>
</tr>
<tr>
<td>INFO3205 Digital Media Publishing</td>
<td>3</td>
</tr>
<tr>
<td>PHIL3110 Human Perspectives in a Computerized Society</td>
<td>3</td>
</tr>
</tbody>
</table>

Other selected classes may be approved by a humanities faculty adviser. For information contact the School of the Humanities.

English Language and Literature Minor
The minor in English language and literature invites students to explore the literatures of the world and offers students opportunities to increase their critical and creative writing skills. A minor in English also will help students cultivate the critical thinking and reading skills needed for many professions. Students choose 15 credits of English courses.

Suggested courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Literature Course</td>
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</tr>
<tr>
<td>American Literature Course</td>
<td>3</td>
</tr>
<tr>
<td>World Literature Course</td>
<td>3</td>
</tr>
<tr>
<td>English Literature Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Gender and Sexuality Studies Minor
This interdisciplinary minor is for students who wish to explore gender and its relation to other axes of power: race, class, ethnicity and sexuality. These concepts will be used to analyze human experience in its bodily, political, economic and culture dimensions.

The minor consists of five elective courses to be chosen from the following list; no more than two courses can be taken in the same discipline:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM1112 Minority, Women and the Criminal Justice System</td>
<td>3</td>
</tr>
<tr>
<td>CRIM1135 Social Justice and Structural Inequality</td>
<td>3</td>
</tr>
<tr>
<td>CRIM2216 Sex, Deviance and the Law</td>
<td>3</td>
</tr>
<tr>
<td>CRIM3507 Domestic Violence</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3324 Women in Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3396 South-African Literature, Sex, Politics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3399/HUMN3399 Continental Drift: Sex, Gender and Family in the South Asian Diaspora</td>
<td>3</td>
</tr>
<tr>
<td>HIST3105 Gender in U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2255/RELI2255 Person, Gender and Sexuality: Judaism, Christianity and Islam</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2439 Radical Political Thought</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2440/PHIL2440 Human Rights</td>
<td>3</td>
</tr>
<tr>
<td>HUMN3307/PHIL3307 Slavery and Global Ethics</td>
<td>3</td>
</tr>
<tr>
<td>LANG3322/HUMN3322 Latin-American Women Authors</td>
<td>3</td>
</tr>
<tr>
<td>PHIL2105 Current Moral and Social Issues</td>
<td>3</td>
</tr>
</tbody>
</table>
Multidisciplinary Minors

University College: Arts • Sciences • Professional Studies
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**Global and Cultural Studies Minor**

This 15-credit minor is designed for students who have an interest in global or popular cultures. As the workplace has become increasingly globalized, it has become especially important for professionals, regardless of the career they enter, to gain a developed understanding and knowledge of diverse cultures, nations and people. Students who select this minor will be able to choose from courses that emphasize a deeper understanding of media and popular culture (e.g., Mass Media: Image, Sound and Text; Popular Culture and the Media; Sports and Popular Culture, etc.) and courses that investigate international cultures and communities (Bollywood and Beyond: India in Film, Middle East Politics, Africa in World Affairs, etc.). The following courses count toward this minor:

- AFST1101
  - Africa and Africans I: History and Traditions..............................3
- AFST1102
  - Africa and Africans II: Communities and Culture..........................3
- COMM1101
  - Mass Media: Image, Sound and Text........................................3
- COMM1105
  - Intercultural Communication..................................................3
- COMM2102
  - International Communication..................................................3
- COMM2104
  - Language, Culture and Communication.......................................3

- COM M2210
  - Popular Culture and the Media..............................................3
- COM M2415
  - Sports and Popular Culture..................................................3
- COM M3102
  - Media, History and Society..................................................3
- COM M4468/HUMN4468
  - Bollywood and Beyond: India in Film.................................3
- ENGL3381
  - Popular Fiction........................................................................3
- ENGL3382
  - Special Topics in Black Literature...........................................3
- ENGL3383
  - Ethnic Literature in the United States...................................3
- ENGL3384
  - Postcolonial Literature........................................................3
- ENGL3389
  - The Global Novel.....................................................................3
- ENGL3392
  - International Literature........................................................3
- ENGL3396
  - South-African Literature, Sex, Politics.....................................3
- ENGL3399/HUMN3399
  - Continental Drift: Sex, Gender and Family in the South Asian Diaspora..................................................3
- ENGL3430
  - Contemporary African Literature.............................................3
- ENGL4445
  - Caribbean Literature................................................................3
- HIST1215
  - World History Since 1500.........................................................3
- HIST2245
  - Islamic History........................................................................3
- HIST3102
  - Race in America.........................................................................3
- HIST3202
  - Middle East................................................................................3
- HIST3360
  - Modern African History..........................................................3
- HUMN2440/PHIL2440
  - Human Rights.............................................................................3
- HUMN2443/PHIL2443
  - African-American Political Thought.........................................3
- HUMN2448/PHIL2448
  - Comparative Religions..............................................................3
- HUMN2454
  - Music, Power and Freedom..........................................................3
- HUMN2456
  - Dissent in Popular Culture: From Inception to Iraq....................3
- HUMN3220
  - Political and Social History of Music.....................................3
- HUMN3221
  - Coming of Age in America.........................................................3
- HUMN3307
  - Slavery and Global Ethics...........................................................3
- HUMN3316/RELI3316
  - Babylon the Great: Culture, Religion and Conflict in Iraq...........3
- HUMN3396
  - South-African Literature..........................................................3
- LANG2201
  - Cultural Awareness and Languages...........................................3
- PHIL2321
  - African Philosophy.................................................................3
- POLS2206
  - American Minority Politics........................................................3
- POLS3324
  - American Minority Groups.........................................................3
- POLS3349
  - African-American Politics..........................................................3
- POLS3363
  - Middle East Politics................................................................3
- POLS3364
  - Middle East in World Affairs......................................................3
- POLS3367
  - Africa in World Affairs I............................................................3
- POLS3368
  - Africa in World Affairs II...........................................................3
- POLS4463
  - Political and Economic Challenges in Africa................................3
- P O LS1101
  - Introduction to Political Science...............................................3

Other selected courses may be approved by a humanities faculty adviser. For information contact the School of the Humanities.

**Legal Studies Minor**

The minor in legal studies is designed to provide students with advanced knowledge and understanding in the field of jurisprudence. The minor critically examines the historical and philosophical nature of civil and criminal law, legal reasoning and various legal systems and institutions. By also focusing on developing analytical and critical-thinking skills, the program helps to prepare students who are interested in working within some aspect of the legal system and/or attending law school. The minor is open to all students within University College: Arts • Sciences • Professional Studies.

The legal studies minor consists of 15 credits: four required courses and one elective course.

**Required Courses (12 credits)**

- CRIM1120
  - Introduction to Jurisprudence................................................3
- CRIM3519
  - Courts and the Judicial Process.................................................3
- CRIM3890
  - Legal and Analytical Reasoning.................................................3
- POLS1101
  - Introduction to Political Science..............................................3
Philosophy Minor

The interdisciplinary minor in philosophy invites students to explore the life of the mind in greater depth by investigating world philosophy, political philosophy, ethics, logic, aesthetics and the philosophy of science. This minor is ideally suited for students seeking to enhance their critical-thinking skills in preparation for further academic study or for careers in law and many other professions.

Students choose 15 credits of philosophy courses in approved courses in biology, communications, criminal justice, history, humanities, philosophy, political science, psychology and/or religion. Students should see page 137 or go to http://view2.fdu.edu/academics/university-college/university-college-minors/philosophy/ for a full list of courses that count toward the minor in philosophy.

Suggested courses:
- Applied Ethics Course
- Comparative Philosophy Course
- Logic/Critical Thinking Course
- Philosophy Electives

Applied Ethics Courses
- BIOL4405 Ethics in Science
- COMM2443 Ethics in Media
- CRIM3204 Criminal Justice Ethics
- CRIM3254 Ethical Issues in History
- HUMN3204 Slavery and Global Ethics
- PHIL3434 Ethics and Public Affairs
- PHIL4438 Bioethics
- PHIL1003 Ethics
- PHIL3300 Business Ethics
- PHIL3310 Human Perspectives in a Computerized Society
- PHIL3311 The Ethics of Food
- POLS2606 Ethics and Politics
- RELI3325 The Ethics of Jesus

Comparative Philosophy and Religion Courses
- HUMN2254 War and Peace in Christianity, Judaism and Islam
- HUMN2440 Human Rights
- HUMN2446 Religion and Human Rights
- HUMN2448 Comparative Religions
- HUMN3316 Babylon the Great: Culture, Religion and Conflict in Iraq
- PHIL1105 World Religions in America
- PHIL2105 Current Moral and Social Issues
- PHIL2256 Fundamentalism in Religious Practice
- PHIL2521 African Philosophy
- PHIL2543 Radical Political Thought
- PHIL2545 Ancient Political Thought
- PHIL4310 Modern Political Thought
- POLS3011 Human Rights in Global Environment
- RELI2107 One God, Three Paths
- RELI2255 Person, Gender and Sexuality: Judaism, Christianity and Islam
- RELI2273 The Battle Over the Book
- RELI3324 Islamic Religion — Past and Present
- RELI3334 Religion and Politics

Law, Logic and Critical Thinking Courses
- CRIM1101 Introduction to Criminal Justice
- CRIM1103 Criminal Law
- CRIM1112 Minorities, Women and the Criminal Justice System
- CRIM1120 Introduction to Jurisprudence
- CRIM2214 Criminal Procedure Law
- CRIM2216 Sex, Deviance and the Law
- CRIM2250 Emerging Issues in Crime and Justice
- CRIM3321 Drugs, Addictions and the Law
- CRIM3380 Legal and Analytical Reasoning
- PHIL1101 Introduction to Logic
- PHIL2000 Logical Thinking
- PHIL3302 Symbolic Logic
- POLS2205 Comparative Legal Systems
- POLS2212 International Law
- POLS3355 American Constitutional Law I
- POLS3356 American Constitutional Law II
- PSYC3317 Psychology and the Law

Religion and Society Minor

This 15-credit interdisciplinary minor embraces religion, philosophy of religion and the history/politics/sociology/psychology of religion. This minor would be ideally suited for any student interested in exploring the multifaceted significance of religion in the modern world. Students should see page 137 or go to http://view2.fdu.edu/academics/university-college/university-college-minors/religion-and-society/ for a full list of courses that count toward the minor.

Suggested program:
- Interdisciplinary Course in Religion and Society
- Comparative Religion or Philosophy of Religion Course
- History/Politics/Sociology/Psychology of Religion Course
- Religion and Society Electives

*Students can take other courses with departmental approval
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Religion and Society Courses
ENGL3377/ HUMAN3042
HUMAN2253/ PHIL2253
HUMAN2254/ PHIL2254
HUMAN2446/ PHIL2446
HUMAN3316/ RELI3316
RELI4431

Comparative Religion or Philosophy of Religion Courses
HUMAN2254/ PHIL2254
PHIL2248
HUMAN3315/ HUMAN3317
RELJ3321
RELJ3321
PHIL1105/ RELI1105
PHIL2251/ PHIL2252
RELJ2107
RELJ2207/ PHIL2207

History, Politics, Sociology or Psychology of Religion Courses
HIST3342
HUMAN3318
HUMAN4439/ PHIL4439
PSYC3332
RELJ2273
RELJ3323
RELJ3324
RELJ3334

Two Electives
Choose any two of the interdisciplinary courses approved for the minor

Romance Languages Minor
A minor for students interested in the interrelationship of romance languages. Spanish language and culture majors are not eligible for this minor. This minor requires 15 credits.

Required Course (3 credits)

Languages: Origin of Languages
Credits
LANG3321

Select 12 credits from

ITAL1101, ITAL1102
SPAN1101, SPAN1102

Other Courses (12 credits)

BIOL1001, BIOL1115
The Human Environment
(lecture and laboratory)..............3

ENGL3044
The Environment in Literature
and Culture..........................3

ENGL3047
American Nature Writers..............3

ENVR1001, ENVR1002
Introduction to Environmental Science (lecture and laboratory)....3

ENVR1101, ENVR1102
Physical Geology
(lecture and laboratory)..............3

ENVR1115
Weather and Climate..................3

ENVR1111, ENVR1112
Oceanography (lecture and laboratory)...............................4

SPCH4430
Selected Studies: Sportscasting......3

For information contact the School of Art and Media Studies.

*Course is acceptable if the topic is sports related (e.g., Sports in the American Film or Sports in American Cinema).

**Course offered through Maxwell Becton College of Arts and Sciences.

Sustainability Minor
This 15-credit minor provides students with a solid foundation in the growing field of sustainability, which includes the impact and long-term viability of environmental, social justice, ecology, health sciences, marine biology and food production, among other areas. As an increasing number of businesses, nonprofit organizations and educational institutions commit to “green” lifestyles and practices, FDU humanities graduates who choose this minor place themselves in a particularly competitive position in the job market. This minor is also augmented by the Career Development Center, which can help students get internships with various local environmental and sustainability-focused groups. The following courses count toward this minor:

Required Course (3 credits)

BIOI1001, BIOI1115
Principles of Modern Biology
(lecture and laboratory)..............3

Other Courses (12 credits)

BIOI1105
The Human Environment
(lecture and laboratory)..............3

ENVR1101, ENVR1102
Introduction to Environmental Science (lecture and laboratory)....3

ENVR1115
Physical Geology
(lecture and laboratory)..............3

ENVR1111, ENVR1112
Oceanography (lecture and laboratory)...............................4

ENVR1125
Natural Hazards..........................3
Allied Health Technologies

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ENVR1205, ENVR1215
The Great Pacific Northwest: Environmental Issues and Cultural Perspectives
(Lecture and Laboratory).........................3

HIST3105
U.S. Environmental History.................... 3

HUMN2447
Ecology for Life: Building a Lifestyle for a Sustainable Planet...........3

MBIO1118, MBIO1128
Beach Ecology
(Lecture and Laboratory).........................3

MBIO1209, MBIO1219
Introduction to Marine Biology
(Lecture and Laboratory).........................4

PHIL3311
The Ethics of Food................................3

POLS3011
Human Rights in Global Environment.................3

SOCI3318
Health and Society: Access and Issues.... 3

Other selected classes may be approved by a humanities faculty adviser. For information contact the School of the Humanities.

**Allied Health Technologies Major (B.S.A.H.T.)**

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

The Bachelor of Science degree in Allied Health Technologies with a health science concentration is an advanced standing/completion-degree program designed for allied health practitioners. The program’s objectives are to provide educational opportunities for allied health practitioners who have graduated from an accredited program and are certified to practice and to provide career mobility and educational articulation for these students. Graduates must hold appropriate certification/licensure in their respective disciplines.

Registered/certified/licensed allied health graduates from an accredited hospital-based program receive up to 30 transfer credits toward the Bachelor of Science degree, depending on the evaluation of the hospital-training certificate. Additional transfer credits may be granted for courses that are taken at accredited institutions. Associate-degree applicants may receive up to 60 transfer credits.

The program is offered on a part-time or full-time basis. The curriculum is interdisciplinary in structure, with courses in the liberal arts and sciences.

**Requirements for the Bachelor of Science in Allied Health Technologies Degree – Health Science Concentration**

**Graduates of Hospital-based Program**

**General Education Requirements (47 credits)**

**College Competencies (24 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL.2203, BIOL.2223</td>
<td>4</td>
</tr>
<tr>
<td>Human Anatomy and Physiology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL.2204, BIOL.2224</td>
<td>4</td>
</tr>
<tr>
<td>Human Anatomy and Physiology II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>3</td>
</tr>
<tr>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
</tbody>
</table>

**Liberal Arts Distribution (15 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART</td>
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</tr>
<tr>
<td>Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>ENGL</td>
<td>3</td>
</tr>
<tr>
<td>English Literature Elective</td>
<td>3</td>
</tr>
<tr>
<td>HIST</td>
<td>3</td>
</tr>
<tr>
<td>History Elective</td>
<td>3</td>
</tr>
<tr>
<td>PSYC1103</td>
<td>3</td>
</tr>
<tr>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPAN1111</td>
<td>3</td>
</tr>
<tr>
<td>Spanish for Health Personnel</td>
<td>3</td>
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</tbody>
</table>

**University Requirements (8 credits)**

<table>
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<th>Course</th>
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<td>UNIV1001</td>
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</tr>
<tr>
<td>Transitioning to University Life</td>
<td>1</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>1</td>
</tr>
<tr>
<td>Preparing for Professional Life</td>
<td>1</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>3</td>
</tr>
<tr>
<td>Cross-cultural Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>3</td>
</tr>
<tr>
<td>Global Issues</td>
<td>3</td>
</tr>
</tbody>
</table>

**Additional Core Requirements (13 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL.2125, BIOL.2126</td>
<td>4</td>
</tr>
<tr>
<td>Microbiology for the Health Sciences (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CSCI1105</td>
<td>3</td>
</tr>
<tr>
<td>Survey of Computers and Computer Software</td>
<td>3</td>
</tr>
<tr>
<td>EGTC2210</td>
<td>3</td>
</tr>
<tr>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>PSYC2201</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major Requirements (60 credits)**

**Required Major Courses (30 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDT4301</td>
<td>3</td>
</tr>
<tr>
<td>American Health Care Systems</td>
<td>3</td>
</tr>
<tr>
<td>MDT4302</td>
<td>3</td>
</tr>
<tr>
<td>Health Care Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>MDT4305</td>
<td>3</td>
</tr>
<tr>
<td>Current Topics in Health Science I</td>
<td>3</td>
</tr>
<tr>
<td>MDT4306</td>
<td>3</td>
</tr>
<tr>
<td>Current Topics in Health Science II</td>
<td>3</td>
</tr>
<tr>
<td>MGMT2600</td>
<td>3</td>
</tr>
<tr>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MGMT3700</td>
<td>3</td>
</tr>
<tr>
<td>Human Resources Management</td>
<td>3</td>
</tr>
</tbody>
</table>
Credits
NURS2210  Pathophysiology .....................................3
NURS3208  Introduction to Health Care Economics ..................3
NURS4420  Health Care Management ..................................3
NURS4430  Nursing Research ........................................3

Hospital-based Program (30 credits)
Upon the completion of a hospital-based program and passing the licensure/credentialing examination as an allied health practitioner, Fairleigh Dickinson University will award a minimum of 30 credits toward the Bachelor of Science in Allied Health Technologies degree with a concentration in health science.

Students with an Associate Degree
Upon the completion of an associate degree and passing a licensure/credentialing examination as an allied health practitioner, Fairleigh Dickinson University will award up to 60 credits toward a Bachelor of Science in Allied Health Technologies. These transfer credits will satisfy the lower division B.S. degree requirements. The remaining credits needed for the B.S. in Allied Health Technologies are listed below.

Core Requirements (28 credits)
General Education Courses (22 credits)
CSCI1105  Survey of Computers and Computer Software ..........3
ENGL  English Literature Elective ..................................3
MATH1107  Precalculus ..............................................4
PSYC1103  General Psychology ..................................3
PSYC2201  Statistics ....................................................3
SPAN1111  Spanish for Health Personnel ..................3
SPCH  Oral Communication ........................................3

University Requirements (6 credits)
UNIV2001  Cross-cultural Perspectives ..................3
UNIV2002  Global Issues ...............................................3

Major Requirements (33 credits)
Credit
MEDT1130  Bioethics ................................................3
MEDT4301  American Health Care Systems ..................3
MEDT4302  Health Care Law and Policy ..................5
MEDT4305  Current Topics in Health Science I .........3
MEDT4306  Current Topics in Health Science II .........3
MGMT2600  Organizational Behavior ..........................3
MGMT3700  Human Resources Management ................3
NURS2210  Pathophysiology .....................................3
NURS4420  Health Care Management ..................................3
NURS4430  Nursing Research ........................................3

Art
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Art Major (B.A.)
School of Art and Media Studies
The school offers a major in art with concentrations in arts management, computer art and design, graphic art and design and painting/drawing.

Minors for non-fine arts majors are offered in art (computer animation, computer graphics, digital media for advertising, digital tools for social media, fine arts techniques, generalist art (any 15 hours) and printmaking and theater (see B.A. in fine arts for theater minor).

Requirements for the Bachelor of Arts Degree
Students majoring in art must complete 42 credits of course work in art, 52 credits of liberal arts core requirements and a 15-credit minor concentration. Each of the separate concentrations has groups of required courses in its areas of specialization. Guidance by the students’ individual advisers is essential in guiding them through each specialization.

The required courses in art are designed to provide students interested in the visual arts with a strong foundation program of 24 credits in drawing, design, color and art history. Additionally, in the senior year, a 6-credit senior project and seminar are required for the degree.

The remaining 15 credits (for a total of 42) may be taken in a variety of art electives, as well as required courses for the concentrations in arts management, computer art and design, graphic art and design and painting/drawing.

Outline of Program
Except for the freshman foundation courses (which must be scheduled in the first and second semesters as indicated below), the semester assignment of courses in this outline is only suggested. Students have the option of distributing the electives, with the approval of a faculty adviser, among the semesters as they deem appropriate.
### Freshman Foundation

**Required Art Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1107</td>
<td>Development of Art I</td>
</tr>
<tr>
<td>ART1108</td>
<td>Development of Art II</td>
</tr>
<tr>
<td>ART1141</td>
<td>Two-dimensional Design</td>
</tr>
<tr>
<td>or</td>
<td>Three-dimensional Design</td>
</tr>
<tr>
<td>ART1142</td>
<td>Color Theory I</td>
</tr>
<tr>
<td>ART1144</td>
<td>General Drawing I</td>
</tr>
<tr>
<td>or</td>
<td>Painting I</td>
</tr>
<tr>
<td>ART1151</td>
<td>Life Drawing I</td>
</tr>
<tr>
<td>ART1161</td>
<td>Life Drawing I</td>
</tr>
<tr>
<td>ART4821</td>
<td>Portfolio</td>
</tr>
</tbody>
</table>

**General Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1107</td>
<td>Development of Art I and II</td>
</tr>
<tr>
<td>ART1108</td>
<td>Development of Art II</td>
</tr>
<tr>
<td>ART1120</td>
<td>Modern Art to Mid-century</td>
</tr>
<tr>
<td>ART4821</td>
<td>Portfolio</td>
</tr>
</tbody>
</table>

**Arts Management Concentration**

The concentration in arts management is designed to provide undergraduate students with the background to work in gallery, museum and corporate-collection industries.

Candidates for this concentration must complete the following 3-credit courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1107</td>
<td>Development of Art I</td>
</tr>
<tr>
<td>ART1108</td>
<td>Development of Art II</td>
</tr>
<tr>
<td>ART1120</td>
<td>Modern Art to Mid-century</td>
</tr>
<tr>
<td>ART1141</td>
<td>Two-dimensional Design</td>
</tr>
<tr>
<td>ART1144</td>
<td>Color Theory I</td>
</tr>
<tr>
<td>ART1151</td>
<td>General Drawing I</td>
</tr>
<tr>
<td>ART1177</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>ART4458</td>
<td>Selected Studies: Arts Management Internship</td>
</tr>
<tr>
<td>ART4439</td>
<td>Selected Studies: Arts Management Internship</td>
</tr>
</tbody>
</table>

Students are strongly encouraged to complete the secondary area of concentration in business administration for non-College of Business students listed under the Silberman College of Business section.

### Computer Art and Design Concentration

The computer art and design concentration focuses on the interactive world of broadcast, 3D, gaming and animation. Students learn principles of 3D modeling, animation and interactivity including texture, lighting and camera action.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1141</td>
<td>Two-dimensional Design</td>
</tr>
<tr>
<td>ART1167</td>
<td>Collage and Mixed Media</td>
</tr>
<tr>
<td>ART1174</td>
<td>Desktop Publishing I</td>
</tr>
<tr>
<td>ART1177</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>ART1179</td>
<td>Digital Illustration and Design</td>
</tr>
<tr>
<td>ART1192</td>
<td>Digital Photography I</td>
</tr>
<tr>
<td>ART2215</td>
<td>Photoshop® for Advertisement and Illustration</td>
</tr>
</tbody>
</table>

**Major Requirements (18 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1107</td>
<td>Development of Art I</td>
</tr>
<tr>
<td>ART1108</td>
<td>Development of Art II</td>
</tr>
<tr>
<td>ART1141</td>
<td>Two-dimensional Design</td>
</tr>
<tr>
<td>ART1142</td>
<td>Three-dimensional Design</td>
</tr>
<tr>
<td>ART1144</td>
<td>Color Theory I</td>
</tr>
<tr>
<td>ART1151</td>
<td>General Drawing I</td>
</tr>
<tr>
<td>or</td>
<td>Painting I</td>
</tr>
<tr>
<td>ART1161</td>
<td>Life Drawing I</td>
</tr>
<tr>
<td>ART4821</td>
<td>Portfolio</td>
</tr>
</tbody>
</table>

**Painting/Drawing Concentration**

In addition to basic and advanced levels of painting and drawing courses, courses in color theory, two- and three-dimensional design, life drawing, watercolor, pastels, sculpture, ceramics, jewelry making and printmaking are offered.

**Major Requirements (42 credits)**

**Visual Arts Foundation (24 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1107</td>
<td>Development of Art I</td>
</tr>
<tr>
<td>ART1108</td>
<td>Development of Art II</td>
</tr>
<tr>
<td>ART1141</td>
<td>Two-dimensional Design</td>
</tr>
<tr>
<td>ART1144</td>
<td>Color Theory I</td>
</tr>
<tr>
<td>ART1151</td>
<td>General Drawing I</td>
</tr>
<tr>
<td>ART1153</td>
<td>Life Drawing I</td>
</tr>
<tr>
<td>ART4821</td>
<td>Portfolio</td>
</tr>
</tbody>
</table>

**Major Concentration (18 credits)**

**Art Minors**

(For Non-Fine Arts and Non-Art Majors)

Students who desire a minor in art, and who are not majoring in fine arts, may enroll in this program. A selection of courses totaling at least 15 credits, and arranged with the guidance of a fine arts adviser, is required for a generalist. Other minors are below.

**Computer Animation Minor**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1153</td>
<td>Life Drawing I</td>
</tr>
<tr>
<td>ART2271</td>
<td>Adobe® After Effects: Broadcast Graphics</td>
</tr>
<tr>
<td>ART2274</td>
<td>Computer 3-Dimensional Modeling</td>
</tr>
<tr>
<td>ART2294</td>
<td>2-D Computer Animation</td>
</tr>
<tr>
<td>ART2295</td>
<td>3D Computer Animation</td>
</tr>
</tbody>
</table>

**Computer Graphics Minor**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1177</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>ART1178</td>
<td>Multimedia on the Internet</td>
</tr>
<tr>
<td>ART1192</td>
<td>Digital Photography I</td>
</tr>
<tr>
<td>or</td>
<td>Adobe® After Effects: Broadcast Graphics</td>
</tr>
<tr>
<td>ART2274</td>
<td>Computer 3-Dimensional Modeling</td>
</tr>
<tr>
<td>or</td>
<td>3D Computer Animation</td>
</tr>
</tbody>
</table>

**Graphic Art and Design Concentration**

The graphic art and design concentration exposes students to all aspects of graphic design and data visualization with outputs to print, web and smart devices.

**Major Requirements (18 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1107</td>
<td>Development of Art I</td>
</tr>
<tr>
<td>ART1108</td>
<td>Development of Art II</td>
</tr>
<tr>
<td>ART1131</td>
<td>History of Graphic Design and Illustration</td>
</tr>
<tr>
<td>ART1144</td>
<td>Color Theory I</td>
</tr>
<tr>
<td>ART1151</td>
<td>General Drawing I</td>
</tr>
<tr>
<td>or</td>
<td>Painting I</td>
</tr>
<tr>
<td>ART4821</td>
<td>Portfolio</td>
</tr>
</tbody>
</table>

**Computer Graphics Minor**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1177</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>ART1178</td>
<td>Multimedia on the Internet</td>
</tr>
<tr>
<td>ART1179</td>
<td>Digital Illustration and Design</td>
</tr>
<tr>
<td>ART1843</td>
<td>Design for the Web</td>
</tr>
<tr>
<td>ART2295</td>
<td>3D Computer Animation</td>
</tr>
</tbody>
</table>

**Major Concentration (15 credits)**

Choose five from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1117</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>ART1178</td>
<td>Multimedia on the Internet</td>
</tr>
<tr>
<td>ART1192</td>
<td>Digital Photography I</td>
</tr>
<tr>
<td>or</td>
<td>Adobe® After Effects: Broadcast Graphics</td>
</tr>
<tr>
<td>ART2271</td>
<td>Computer 3-Dimensional Modeling</td>
</tr>
<tr>
<td>ART2294</td>
<td>2-D Computer Animation</td>
</tr>
<tr>
<td>ART2295</td>
<td>3D Computer Animation</td>
</tr>
</tbody>
</table>

**General Requirem ents (4 credits)**

<table>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CO M M 1000</td>
<td>Digital Storytelling</td>
</tr>
<tr>
<td>CO M M 2321</td>
<td>Advertising Principles</td>
</tr>
<tr>
<td>CO M M 3345</td>
<td>Advertising Copywriting and Layout</td>
</tr>
</tbody>
</table>

**Art Concentrations**

*For Non-Fine Arts and Non-Art Majors*

Students who desire a minor in art, and who are not majoring in fine arts, may enroll in this program. A selection of courses totaling at least 15 credits, and arranged with the guidance of a fine arts adviser, is required for a generalist. Other minors are below.

**Computer Animation Minor**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1153</td>
<td>Life Drawing I</td>
</tr>
<tr>
<td>ART2271</td>
<td>Adobe® After Effects: Broadcast Graphics</td>
</tr>
<tr>
<td>ART2274</td>
<td>Computer 3-Dimensional Modeling</td>
</tr>
<tr>
<td>ART2294</td>
<td>2-D Computer Animation</td>
</tr>
<tr>
<td>ART2295</td>
<td>3D Computer Animation</td>
</tr>
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</table>

**Computer Graphics Minor**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1177</td>
<td>Introduction to Digital Media</td>
</tr>
<tr>
<td>ART1178</td>
<td>Multimedia on the Internet</td>
</tr>
<tr>
<td>ART1179</td>
<td>Digital Illustration and Design</td>
</tr>
<tr>
<td>ART1843</td>
<td>Design for the Web</td>
</tr>
<tr>
<td>ART2295</td>
<td>3D Computer Animation</td>
</tr>
<tr>
<td>or</td>
<td>Adobe® After Effects: Broadcast Graphics</td>
</tr>
</tbody>
</table>
## Biochemistry Major (B.S.)

### School of Natural Sciences

The emphasis of the biochemistry curriculum is at the chemical and molecular level and is strongly based on a chemistry foundation. It is designed for meeting the entrance requirements for medical and dental schools, and to prepare the students for careers in biochemistry and for graduate study in this important area.

CHEM1201 General Chemistry I and CHEM1203 General Chemistry Laboratory I will be waived for students who achieve a satisfactory score on the Advanced Placement Chemistry Test. Students must have a grade of C- or higher in all major courses.

The School of Natural Sciences has a strict “C-gate” policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and one unit each of chemistry and physics.

### Requirements for the Bachelor of Science Degree

#### 1st Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1251, BIOL1253</td>
<td>4</td>
</tr>
<tr>
<td>General Biology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1201</td>
<td>3</td>
</tr>
<tr>
<td>General Chemistry I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1203</td>
<td>1</td>
</tr>
<tr>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>3</td>
</tr>
<tr>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>MATH1201</td>
<td>4</td>
</tr>
<tr>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1001</td>
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</tr>
<tr>
<td>Transitioning to University Life</td>
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</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

#### 2nd Semester

<table>
<thead>
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<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1252, BIOL1254</td>
<td>4</td>
</tr>
<tr>
<td>General Biology II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1202</td>
<td>3</td>
</tr>
<tr>
<td>General Chemistry II (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>1</td>
</tr>
<tr>
<td>General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>ENWR1002</td>
<td>3</td>
</tr>
<tr>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>MATH2202</td>
<td>4</td>
</tr>
<tr>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>1</td>
</tr>
<tr>
<td>Preparing for Professional Life</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>

#### 3rd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM2261</td>
<td>3</td>
</tr>
<tr>
<td>Organic Chemistry I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2263</td>
<td>2</td>
</tr>
<tr>
<td>Organic Chemistry Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>PHYS2201</td>
<td>1</td>
</tr>
<tr>
<td>Physics Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS2203</td>
<td>3</td>
</tr>
<tr>
<td>University Physics I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>3</td>
</tr>
<tr>
<td>Cross-cultural Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Course</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
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</tbody>
</table>

#### 4th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM2262</td>
<td>3</td>
</tr>
<tr>
<td>Organic Chemistry II (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2264</td>
<td>2</td>
</tr>
<tr>
<td>Organic Chemistry Laboratory II</td>
<td>2</td>
</tr>
<tr>
<td>PHYS2202</td>
<td>1</td>
</tr>
<tr>
<td>Physics Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS2204</td>
<td>3</td>
</tr>
<tr>
<td>University Physics II (Lecture)</td>
<td>3</td>
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<td>UNIV2002</td>
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<tr>
<td>Global Issues</td>
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<tr>
<td>Humanities Course</td>
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*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses, or take ART1105 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1135 History of Photography, ART1135 Cinema I: The Director’s Vision, ART1136 Cinema II: Themes in Films, ART1137 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2258 The Global Art World.**

**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
5th Semester

<table>
<thead>
<tr>
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<tr>
<td>CHEM3241 Physical Chemistry I (Lecture)</td>
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<td>CHEM3243 Physical Chemistry Laboratory I</td>
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<tr>
<td>CHM3281 Biochemistry I</td>
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<td>Social and Behavioral Sciences</td>
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<td>Elective</td>
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<tr>
<td>Advanced Mathematics Course**</td>
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6th Semester

<table>
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<tr>
<td>BIOL6733 Enzymology</td>
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<td>CHEM3242 Physical Chemistry II (Lecture)</td>
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7th Semester

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<td>BIOL4405 Ethics in Science</td>
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<td>CHEM2211 Inorganic Chemistry I</td>
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<tr>
<td>CHEM3231, CHEM3232 Analytical Chemistry</td>
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<tr>
<td>Science Elective***</td>
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8th Semester

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<tr>
<td>CHEM4233 Instrumental Analysis (Lecture)</td>
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<td>CHEM4234 Instrumental Analysis Laboratory</td>
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<tr>
<td>CHEM4314, CHEM5314 Inorganic Chemistry II</td>
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<tr>
<td>(Lecture and Laboratory)</td>
<td>3</td>
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<tr>
<td>SPCH1155 Public Speaking</td>
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B.S. in Biochemistry/M.S. in Applied Clinical Nutrition
(with School of Applied Clinical Nutrition, New York Chiropractic College)

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in applied clinical nutrition. For details see page 228.

B.S. in Biochemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration. For details see page 229.

B.S. in Biochemistry/M.S. in Cosmetic Science

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in cosmetic science. For details see page 230. This program is designed for students who plan a career in the cosmetic, toiletries or fragrance industries.

Combined B.S./M.S. in Biology:

Qualified biology majors in the fifth semester, with departmental approval and a grade point ratio of 3.00 or higher, may plan a program to complete the requirements for a Master of Science degree in one additional year beyond their bachelor’s program. See page 233 for details.

Biology Major

(B.S.)

School of Natural Sciences

This curriculum is designed for students who plan to attend graduate school and for students who wish to prepare for admission to a school of medicine, dentistry, pharmacy, osteopathy, podiatry, veterinary medicine or chiropractic, as well as those not planning to take an advanced degree in biology. Students should consult the catalog of the school they plan to attend in order to include in their undergraduate programs any special prerequisites not included in the biology curriculum. The preprofessional adviser helps students prepare for entrance into their desired professions.

Premedical Students: Entrance credits vary, but most medical schools require three or four years of college. The biological sciences curriculum fulfills the basic requirements for admission to medical school. The Medical College Admission Test of American Medical Colleges also is required by medical schools. See page 281 for “Premedical Degree Option.”

Predental Students: The majority of the students accepted into dental school have completed at least three years of undergraduate work. The college study must include, as a minimum, at least two semesters’ credit in each of the following: English, biology, physics, inorganic/general chemistry and organic chemistry. Lectures and laboratory work are required in the science courses. The rest of the work may be in the liberal arts electives such as history, philosophy, psychology, economics, English, foreign languages, mathematics and sociology. See page 281 for “Predental Degree Option.”

The “Preprofessional Degree Option” may be considered by students accepted into any medical or dental school after completion of three years of college; consult the index for requirements. Preprofessional advisement is done by the school director, faculty and the preprofessional adviser.
Accelerated Programs with Professional Schools
University College has combined degree programs with professional schools for its exceptional students. In these programs, students earn both their B.S. degree and professional degree in one year less time than the two degrees normally would require separately. These programs include:

- B.S./D.M.D. (Doctor of Dental Medicine) with Lake Erie College of Osteopathic Medicine School of Dental Medicine, Erie, Pa.
- B.S./D.M.D. with the Rutgers School of Dental Medicine, Newark, N.J.
- B.S./M.D. with Ross University School of Medicine, Portsmouth, Dominica, West Indies
- B.S./M.D. with Universidad Autónoma de Guadalajara, Mexico
- B.S./D.C. with Life Chiropractic College West, San Lorenzo, Calif.
- B.S./D.C. with Logan University, Chesterfield, Mo.
- B.S./D.C. with New York Chiropractic College, Seneca Falls, N.Y.
- B.S./D.C. with Palmer College of Chiropractic, Davenport, Iowa
- B.S./D.C. with University of Western States, Portland, Ore.
- B.S./D.V.M. (Doctor of Veterinary Medicine) with Ross University, School of Veterinary Medicine, St. Kitts
- B.S./Pharm.D. (Doctor of Pharmacy) with FDU School of Pharmacy and Health Sciences, Florham Park, N.J.
- B.S./D.O. (Doctor of Osteopathy) with Lake Erie College of Osteopathic Medicine, Erie, Pa.
- B.S./D.P.T. (Doctor of Physical Therapy) with Rutgers School of Health Professions, Newark (only offered through the Henry P. Becton School of Nursing and Allied Health)
- B.S./D.P.M. (Doctor of Podiatric Medicine) with New York College of Podiatric Medicine, New York City
- B.S./M.S. with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College, Seneca Falls, N.Y.

See pages 244–271 for details.

Requirements for the Bachelor of Science Degree
For matriculation in the biology major curriculum, successful completion of secondary-school courses in elementary algebra and plane geometry and a year of science are required.

Candidates for the Bachelor of Science degree must complete the following courses and earn a grade of C- or higher in the course work.

Students must have a C- or higher in BIOL1251, BIOL1253 General Biology I; BIOL1252, BIOL1254 General Biology II; ENVR1111, ENVR1112 Oceanography; and M BIO1209 Introduction to Marine Biology to take a 2000- or higher-level science course.

The School of Natural Sciences has a strict “C-gate” policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

Recommended Course Sequence

1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL1251</td>
<td>General Biology I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL1253</td>
<td>Laboratory: General Biology I</td>
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</tr>
<tr>
<td>CHEM1201</td>
<td>General Chemistry I (Lecture)</td>
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<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>ENVR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
<td>1</td>
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2nd Semester

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<tr>
<td>BIOL1252</td>
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<tr>
<td>BIOL1254</td>
<td>Laboratory: General Biology II</td>
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<tr>
<td>CHEM1202</td>
<td>General Chemistry II (Lecture)</td>
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*In the freshman year, students are required to take either MATH1107 Precalculus or MATH1201 Calculus I. The first-year course must be followed by a second mathematics course in sequence (Math1201 Calculus I or MATH2202 Calculus II).


***Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
### 5th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BIOL2210, BIOL2211</td>
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<tr>
<td>Genetcs (Lecture and Laboratory)</td>
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<td>BIOL3225, BIOL3226</td>
<td>4</td>
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<tr>
<td>General Microbiology (Lecture and Laboratory)</td>
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<tr>
<td>PHYS2201</td>
<td>4</td>
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<tr>
<td>Physics Laboratory I</td>
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<tr>
<td>PHYS2203</td>
<td>4</td>
</tr>
<tr>
<td>University Physics I (Lecture)</td>
<td>3</td>
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<td>UNIV2001</td>
<td>3</td>
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<td>Cross-cultural Perspectives</td>
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### 6th Semester

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<td>BIOL3345</td>
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<tr>
<td>Molecular Genetics</td>
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<td>CHEM3281</td>
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<td>Biochemistry I</td>
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<td>PHYS2202</td>
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<td>PHYS2204</td>
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<td>SPCH</td>
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<tr>
<td>Social and Behavioral Sciences Elective*</td>
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### 7th Semester

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<td>Molecular Genetics</td>
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</tr>
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<td>BIOL4855</td>
<td>4</td>
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<tr>
<td>Molecular Biology Techniques</td>
<td>4</td>
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<tr>
<td>BIOL4900</td>
<td>3</td>
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<td>Biology Seminar I</td>
<td>3</td>
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<td>UNIV2002</td>
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<td>Global Issues</td>
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<td>Free Elective**</td>
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### 8th Semester

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<tr>
<td>BIOL4405</td>
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<tr>
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<td>1</td>
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<td>Biology Seminar II</td>
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<tr>
<td>BIOL5306</td>
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<tr>
<td>Immunology</td>
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</tr>
<tr>
<td>BIOL6840</td>
<td>3</td>
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<tr>
<td>Cell Culture</td>
<td>3</td>
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<tr>
<td>Oral Communication Elective</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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### Biotechnology Concentration

The concentration in biotechnology is designed to provide the undergraduate student with a thorough background in molecular and cellular biology, with emphasis on current developments in areas including genetics, immunology, microbiology, cell physiology, recombinant DNA techniques and cell and tissue culture. This program prepares students for careers in research or the health care professions, as well as careers in business, law and scientific writing.

### Chemistry Concentration

This concentration is designed for students who plan to attend graduate school or who wish to prepare for admission to a school of medicine, dentistry, chiropractic, etc., as well as those who are interested in entering directly into the workforce.

### 6th Semester

<table>
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<td>PHYS2202</td>
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### 7th Semester

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<tr>
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<td>Inorganic Chemistry I</td>
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<td>CHEM3241, CHEM3243</td>
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<td>CHEM3281</td>
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### 8th Semester

<table>
<thead>
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<td>BIOL4405</td>
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<tr>
<td>Ethics in Science</td>
<td>3</td>
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<tr>
<td>BIOL4901</td>
<td>1</td>
</tr>
<tr>
<td>Biology Seminar II</td>
<td>1</td>
</tr>
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<td>BIOL5306</td>
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<td>Immunology</td>
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<td>BIOL6840</td>
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<td>Cell Culture</td>
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<td>Oral Communication Elective</td>
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*5 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
**Free Electives: any course offered at the University after consultation with an adviser, but may include no more than 6 credits of 1000-level biology courses.
Physical education is recommended for students intending to attend schools of veterinary medicine.

*Free Electives: any course offered at the University after consultation with an adviser, but may include no more than 6 credits of 1000-level biology courses.
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*5 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
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Physical education is recommended for students intending to attend schools of veterinary medicine.

*Free Electives: any course offered at the University after consultation with an adviser, but may include no more than 6 credits of 1000-level biology courses.
Physical education is recommended for students intending to attend schools of veterinary medicine.
Environmental Science Concentration
This concentration is designed for students who plan to attend graduate school as well as those who are interested in entering directly into the workforce.

Candidates for a concentration in environmental science must complete the first five semesters of the biology major sequence, followed by the courses outlined below.

6th Semester
BIOL4240, BIOI4241
Molecular Cell Biology (Lecture and Laboratory)...............4
PHYS2202
Physics Laboratory II..................................1
PHYS2204
University Physics II (Lecture)..........................3
Free Elective..................................................3
Social and Behavioral Sciences Electives*...6
Total......17

7th Semester
BIOI4900
Biology Seminar I......................................1
BIOI6771
Behavioral Ecology.....................................3
BIOI6772
Ecotoxicology.............................................3
BIOI6775
Physiological Ecology.................................3
UNIV2002
Global Issues...............................................3
Free Elective..................................................3
Total......16

8th Semester
BIOI4405
Ethics in Science.......................................3
BIOI4414, BIOI4415
Animal Behavior (Lecture and Laboratory)....................4
BIOI4420
Evolution....................................................3
BIOI4901
Biology Seminar II......................................1
Oral Communication Elective...............................1
Total......14

Human Physiology Concentration
This concentration is designed for students who plan to attend graduate school or who wish to prepare for admission to a school of medicine, dentistry, chiropractic, etc.

Candidates for a concentration in human physiology must complete the first four semesters of biology major sequence followed by the courses outlined below.

5th Semester
BIOI2257, BIOI2259
Human Structure and Function I (Lecture and Laboratory)........4
BIOI3225, BIOI3226
General Microbiology (Lecture and Laboratory)...............4
PHYS2201
Physics Laboratory I....................................1
PHYS2203
University Physics I (Lecture).............................3
UNIV2001
Cross-cultural Perspectives................................3
Total......15

6th Semester
BIOI3537, BIOI3558
Human Structure and Function II (Lecture and Laboratory)......4
BIOI4240, BIOI4241
Molecular Cell Biology (Lecture and Laboratory)...............4
PHYS2202
Physics Laboratory II....................................1
PHYS2204
University Physics II (Lecture).............................3
Social and Behavioral Sciences Electives*...6
Total......18

7th Semester
BIOI4900
Biology Seminar I......................................1
BIOI6745
Endocrinology.............................................3
BIOI6888
Physiology of Disease....................................3
BIOI6890
Neuroscience..............................................3
BIOI6892
Human Physiology.......................................3
UNIV2002
Global Issues...............................................3
Total......16

8th Semester
BIOI4420
Evolution....................................................3
BIOI4901
Biology Seminar II......................................1
Free Electives...............................................6
Total......10

Biology Minor
(For Non-Science Majors)
Required credits of 15-credit minor.

BIOI1001, BIOI1011
Principles of Modern Biology (Lecture and Laboratory).......3
BIOI1060, BIOI1061
Genetics and Society (Lecture and Laboratory)................3
BIOI1105, BIOI1115
The Human Environment (Lecture and Laboratory)............3
BIOI1106, BIOI1116
Over-the-Counter Drugs (Lecture and Laboratory).............3
CHEM1118, CHEM1119
Forensic Science (Lecture and Laboratory)....................3

Environmental Science Minor
(For Non-Science Majors)
BIOI1105, BIOI1115
The Human Environment (Lecture and Laboratory)............3
ENVR1101, ENVR1102
Physical Geology (Lecture and Laboratory)....................3
ENVR1111, ENVR1112
Oceanography (Lecture and Laboratory).........................4
PHYS1125, PHYS1025
Astronomy (Lecture and Laboratory)........................3
PHYS1126, PHYS1026
Earth Physics (Lecture and Laboratory).........................3

B.S. in Biology/M.S. in Acupuncture and Oriental Medicine
(with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College)
The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biology and a Master of Science degree in acupuncture and oriental medicine. For details see page 232.

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*5 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

---

145
Chemistry

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Chemistry

Major (B.S.)

School of Natural Sciences

The Bachelor of Science with a major in chemistry program is designed for students who plan to enter graduate school or the chemical industry and for preprofessional students preparing for admission to a school of medicine, dentistry or veterinary medicine.

The Bachelor of Science with a major in chemistry program is particularly well suited to premedical students. Entrance requirements for most medical schools require an undergraduate program to include a general course in biology, general physics, English composition, a modern language and some calculus, in addition to a strong chemistry background. Premedical students should add to the Bachelor of Science with a major in chemistry program two semesters of general biology (botany and zoology) and, perhaps, one advanced biology course as electives. Preprofessional counseling for science and health careers is available on campus.

CHEM1201, CHEM1202 General Chemistry I, II and CHEM1203, CHEM1204 General Chemistry Laboratory I, II will be waived for students who achieve a satisfactory score on the Advanced Placement Chemistry Test. These students will register for CHEM2261, CHEM2262 Organic Chemistry I, II and CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II and will elect a two-semester sequence in advanced chemistry electives in their seventh and eighth semesters. Students must have a grade of C- or higher in major courses.

The School of Natural Sciences has a strict “C-gate” policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2205 University Physics I and PHYS2204 University Physics II.

Requirements for the Bachelor of Science Degree

Chemistry Core Curriculum

1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>BIOL1251, BIOL1253</td>
<td>General Biology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1201</td>
<td>General Chemistry I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1202</td>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>ENVWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>MATH1201</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1001</td>
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Total: 16

2nd Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL1252, BIOL1254</td>
<td>General Biology II (Lecture and Laboratory)</td>
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<tr>
<td>CHEM1202</td>
<td>General Chemistry II (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>ENVWR1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>MATH2202</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
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Total: 16

3rd Semester

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CHEM2261</td>
<td>Organic Chemistry I (Lecture)</td>
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<td>CHEM2263</td>
<td>Organic Chemistry Laboratory I</td>
<td>2</td>
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<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
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<tr>
<td>PHYS2203</td>
<td>University Physics I (Lecture)</td>
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<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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Total: 15

4th Semester

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<tbody>
<tr>
<td>CHEM2262</td>
<td>Organic Chemistry II (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2264</td>
<td>Organic Chemistry Laboratory II</td>
<td>2</td>
</tr>
<tr>
<td>PHYS2202</td>
<td>Physics Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS2204</td>
<td>University Physics II (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002</td>
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<td>3</td>
</tr>
<tr>
<td>Humanities Course*</td>
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Total: 15

5th Semester

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<tbody>
<tr>
<td>CHEM3241</td>
<td>Physical Chemistry I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM3243</td>
<td>Physical Chemistry Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>CHEM3281</td>
<td>Biochemistry I</td>
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<tr>
<td>Free Elective</td>
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Total: 14

6th Semester

<table>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CHEM4254</td>
<td>Physical Chemistry Laboratory II</td>
<td>2</td>
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<tr>
<td>Free Electives</td>
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<td>6</td>
</tr>
<tr>
<td>Science Elective***</td>
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Total: 14

7th Semester

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM2261</td>
<td>Organic Chemistry I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2263</td>
<td>Organic Chemistry Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
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</tr>
<tr>
<td>PHYS2203</td>
<td>University Physics I (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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Total: 14

8th Semester

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM4254</td>
<td>Instrumental Analysis (Lecture)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM4314</td>
<td>Instrumental Analysis Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHEM3261</td>
<td>Instrumental Analysis Laboratory</td>
<td>2</td>
</tr>
</tbody>
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Total: 15


**Selected from MATH2203 Calculus III or MATH2337 Applied Statistics.

***Science Elective: Any upper-level (3000 or 4000) undergraduate or graduate science course or independent study.

****3 credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
Civil Engineering

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Prepharmacy Program
Fairleigh Dickinson University offers the prerequisite courses for admission to most pharmacy schools. FDU students who complete the prepharmacy program must apply for admission to and meet the entrance requirements of the pharmacy school of their choice.

1st Semester
BIO1251, BIO1253
  General Biology I
  (Lectures and Laboratory).............4
CHEM1201
  General Chemistry I....................3
CHEM1203
  General Chemistry Laboratory I.......1
ENWR1001
  Composition I: Rhetoric and Inquiry....3
MATH1201
  Calculus I.....................................4
UNIV1001
  Transitioning to University Life.......1
Total......16

2nd Semester
BIO1252, BIO1254
  General Biology II
  (Lectures and Laboratory).............4
CHEM1202
  General Chemistry II....................3
CHEM1204
  General Chemistry Laboratory II.......1
ENWR1002
  Composition II: Research and Argument..3
MATH2202
  Calculus II....................................4
UNIV1002
  Preparing for Professional Life.........1
Total......16

3rd Semester
BIO4405
  Ethics in Science..........................3
CHEM2261
  Organic Chemistry I........................3
CHEM2263
  Organic Chemistry Laboratory I .......2
PHYS2201
  Physics Laboratory I........................1
PHYS2203
  University Physics I (Lecture).........3

4th Semester
CHEM2262
  Organic Chemistry II.....................3
CHEM2264
  Organic Chemistry Laboratory II .......2
PHYS2202
  Physics Laboratory II .................1
PHYS2204
  University Physics II (Lecture) .......3
UNIV2002
  Global Issues.................................3
Humanities Course**..........................3
Speech Course....................................3
Total......18

The curriculum outlined above satisfies most of the first two years' requirements for majors in biochemistry and chemistry and also provides a convenient entry to other degree programs in the University. This means that prepharmacy students will have built-in lateral mobility if their interests change. It also provides an alternative to premedical students in a profession that is also oriented to health care.

B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration
The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration. For details see page 235.

B.S. in Chemistry/M.S. in Cosmetic Science
The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science degree in cosmetic science. For details see page 237.

*Science Elective: Any upper-level (3000 or 4000) undergraduate or graduate science course or independent study.

**Take 5 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above. The Global Art World.

Civil Engineering Major (B.S.C.E.)
Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

The Bachelor of Science in Civil Engineering (B.S.C.E.) degree program prepares graduates for entrance into the profession of civil engineering or graduate study. Civil engineering graduates work in the industry as civil engineers, typically specializing as construction, geotechnical, structural or transportation engineers. They also hold other job titles, including field supervisors, project managers, job superintendents, contractors, estimators, safety specialists, schedulers, examiners or surveyors.

As the nation's infrastructure ages, more civil engineers will be needed to supervise projects that maintain, repair, rebuild or upgrade highways, bridges, dams, waste-treatment plants and water systems. Civil engineers are also needed to design and build new houses, buildings, highways and various components of infrastructure as the population continues to grow. Moreover, they will contribute to energy conservation, environmental sustainability and environmental protection by building and maintaining smart green buildings and cities, as well as managing renewable-energy projects, including building structures to support solar arrays and wind turbines in addition to dams and geothermal plants. The civil engineering program and profession will be very attractive to prospective students because of its excellent career opportunities, outstanding average starting salary, excellent median long-term salary, good job-growth projection and great career fulfillment.

The B.S.C.E. curriculum provides students with a varied and balanced educational experience through an appropriate combination of theoretical concepts and practical applications. It also provides them with an engineering-design experience that expands in breadth and depth as they progress through their studies. A stimulating course of study is maintained by offering students a variety of contemporary courses. The engineering laboratory experience is fully integrated with course work. Students work in state-of-the-art laboratories.

The program focuses on three key areas of civil engineering: structural, geotechni-
Civil Engineering

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Educational Objectives
The educational objectives of the B.S.C.E. program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S.C.E. program will produce graduates who:

1. Enter into and advance in the profession of civil engineering, particularly in the areas of structural, geotechnical or environmental engineering.
2. Continue their formal education and obtain advanced degrees in civil engineering or other related fields.
3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of the program constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

Student Outcomes
The B.S.C.E. program has adopted the Student Outcomes of the Engineering Accreditation Commission (EAC) of ABET as its own learning outcomes, which define the attributes, skills and knowledge that the graduates are expected to possess upon or before graduation. Each civil engineering graduate will demonstrate the following attributes and achievements as required by the EAC of ABET upon or before graduation:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.
2. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic and other factors as appropriate to the discipline.
3. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.
4. An ability to communicate effectively with a range of audiences.
5. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
6. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies and to apply this knowledge.
7. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines and creates a collaborative and inclusive environment.

The B.S.C.E. program plans to apply for an accreditation review from the EAC of ABET upon the degree completion of its first graduating class.

Cooperative Education Option
Students in the B.S.C.E. program have the option to undertake a cooperative education experience and earn a total of 6 academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared students with real and relevant work experience — saving time and money by reducing the training period for new employees.

Requirements for the Bachelor of Science Degree

1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ENGR1301</td>
<td>Engineering Practices, Graphics and Design</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry...</td>
<td>3</td>
</tr>
<tr>
<td>MATH1201</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS2203</td>
<td>University Physics I</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Credits
## Civil Engineering Technology Major (B.S.Civ.E.T.)

Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

See “Engineering Technology Majors,” page 162.

### 2nd Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGR1223</td>
<td>Introduction to CAD</td>
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</tr>
<tr>
<td>ENGR3000</td>
<td>Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>MATH2202</td>
<td>Calculus II</td>
<td>4</td>
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<tr>
<td>PHYS2020</td>
<td>Physics Laboratory II</td>
<td>1</td>
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<tr>
<td>PHYS204</td>
<td>University Physics II</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
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**Total:** 17

### 3rd Semester

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<tbody>
<tr>
<td>CENG1205</td>
<td>Surveying I</td>
<td>3</td>
</tr>
<tr>
<td>CENG1245</td>
<td>Construction Materials and Systems</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
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<tr>
<td>ENGR2221</td>
<td>Statics</td>
<td>3</td>
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<tr>
<td>MATH2210</td>
<td>Differential Equations</td>
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**Total:** 17

### 4th Semester

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<tbody>
<tr>
<td>ENGR1204</td>
<td>Programming Languages in Engineering</td>
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<tr>
<td>ENGR2210</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>ENGR2228</td>
<td>Strength of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3241</td>
<td>Dynamics</td>
<td>3</td>
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<td>MATH3220</td>
<td>Linear Algebra</td>
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<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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**Total:** 16

### 5th Semester

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<tr>
<td>CENG3230</td>
<td>Structural Analysis</td>
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</tr>
<tr>
<td>CENG3237</td>
<td>Concrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>CENG4241</td>
<td>Soil Mechanics</td>
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</tr>
<tr>
<td>ENGR4254</td>
<td>Fluid Mechanics</td>
<td>3</td>
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<tr>
<td>MATH2203</td>
<td>Calculus III</td>
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**Total:** 15

### 6th Semester

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<tbody>
<tr>
<td>CENG4242</td>
<td>Foundations</td>
<td>3</td>
</tr>
<tr>
<td>CENG4276</td>
<td>Advanced Concrete Design</td>
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</tr>
<tr>
<td>CENG4320</td>
<td>Transportation Engineering</td>
<td>3</td>
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<tr>
<td>ENGR3551</td>
<td>Applied Thermodynamics</td>
<td>3</td>
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<tr>
<td>ENGR4221</td>
<td>Engineering Statistics and Reliability</td>
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<td>Science Elective*</td>
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**Total:** 18

### 7th Semester

<table>
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<tbody>
<tr>
<td>CENG5256</td>
<td>Steel Structures</td>
<td>3</td>
</tr>
<tr>
<td>ENGR4210</td>
<td>Managerial and Engineering Economic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENGR4263</td>
<td>Project Management in Engineering and Technology</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>Technical Elective**</td>
<td>3</td>
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**Total:** 15

### 8th Semester

<table>
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<tbody>
<tr>
<td>CENG5260</td>
<td>Environmental Engineering</td>
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</tr>
<tr>
<td>CENG5270</td>
<td>Environmental and Land-use Planning</td>
<td>3</td>
</tr>
<tr>
<td>CENG4272</td>
<td>Advanced Steel Design</td>
<td>3</td>
</tr>
<tr>
<td>CENG4385</td>
<td>Senior Design Project</td>
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<tr>
<td>Technical Elective**</td>
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**Total:** 15

*Science Electives include BIOL1001, BIOL1011 Principles of Modern Biology (Lecture and Laboratory); BIOL1105, BIOL1115 The Human Environment (Lecture and Laboratory); ENV1001, ENV1002 Introduction to Environmental Science (Lecture and Laboratory); and ENV1101, ENV1102 Physical Geology (Lecture and Laboratory). Other science electives other than chemistry and physics may be taken with prior approval from a program adviser.

Clinical Laboratory Sciences Major (B.S.C.L.S.)

Henry P. Becton School of Nursing and Allied Health
(In partnership with FDU and the Rutgers School of Health Professions [Rutgers SHP])

Completion of this program will result in a B.S. in Clinical Laboratory Sciences (B.S.C.L.S.) with a concentration in medical laboratory sciences awarded jointly by FDU and the Rutgers School of Health Professions (Rutgers SHP). Students will complete 94 credits during their first three years at FDU before applying for acceptance to the professional component at Rutgers SHP.

Admission Requirements
Admission to the professional component at Rutgers SHP requires:
• A separate application in the fall semester of the student’s junior year.
• Admission decisions for the professional component are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status and cannot be guaranteed by FDU.
• Students admitted to the B.S. in Clinical Laboratory Sciences major must maintain a minimum grade point ratio of 2.85 in their preprofessional course work.

Upon successful completion of all course work, graduates will receive a Bachelor of Science in Clinical Laboratory Sciences (B.S.C.L.S.) with eligibility for national certification and state licensure, where applicable.

Recommended Course Sequence

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Semester</td>
<td>BOL1251</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BOL1255</td>
<td>Laboratory: General Biology I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM1201</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM203</td>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
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<tr>
<td></td>
<td>MATH1107</td>
<td>Pre-calculus</td>
<td>4</td>
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<tr>
<td></td>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
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<td><strong>Total</strong></td>
<td><strong>16</strong></td>
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<tr>
<td>2nd Semester</td>
<td>BOL1252</td>
<td>General Biology II</td>
<td>3</td>
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<tr>
<td></td>
<td>BOL1254</td>
<td>Laboratory: General Biology II</td>
<td>1</td>
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<tr>
<td></td>
<td>CHEM1202</td>
<td>General Chemistry II</td>
<td>3</td>
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<tr>
<td></td>
<td>CHEM204</td>
<td>General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CSC1105</td>
<td>Survey of Computers and Computer Software</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH1201</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd Semester</td>
<td>BOL2237, BOL2239</td>
<td>Human Structure and Function I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHEM2261</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CHEM2263</td>
<td>Organic Chemistry Laboratory I</td>
<td>2</td>
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<td></td>
<td>PSYC1105</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
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<td></td>
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</table>

4th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOL4240, BOL4241</td>
<td>Molecular Cell Biology (Lecture and Laboratory)</td>
</tr>
<tr>
<td>CHEM2262</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM2264</td>
<td>Organic Chemistry Laboratory II</td>
</tr>
<tr>
<td>PSYC2201</td>
<td>Statistics</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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<td><strong>Total</strong></td>
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5th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOL2210, BOL2211</td>
<td>Genetics (Lecture and Laboratory)</td>
</tr>
<tr>
<td>BOL3225, BOL3226</td>
<td>General Microbiology (Lecture and Laboratory)</td>
</tr>
<tr>
<td>CHEM3281</td>
<td>Biochemistry I</td>
</tr>
<tr>
<td>MEDIT1130</td>
<td>Bioethics</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

6th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BOL5306</td>
<td>Immunology</td>
</tr>
<tr>
<td>MEDIT1201</td>
<td>Introduction to Medical Technology</td>
</tr>
<tr>
<td>NURS4420</td>
<td>Health Care Management</td>
</tr>
<tr>
<td>NURS4430</td>
<td>Nursing Research</td>
</tr>
<tr>
<td>SPCH1155</td>
<td>Public Speaking</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

After completion of three years of study (a minimum of 94 credits) at FDU, the program is completed in 12-15 months at the Rutgers School of Health Professions. With successful completion of the program at Rutgers SHP, the student will earn the Bachelor of Science in Clinical Laboratory Sciences (B.S.C.L.S.).
Requirements for the Bachelor of Science Degree

Biology Requirements

- BIOL1251, BIOL1253  General Biology I  (Lecture and Laboratory) 4
- BIOL1252, BIOL1254  General Biology II  (Lecture and Laboratory) 4
- BIOL2210, BIOL2211  Genetics (Lecture and Laboratory) 4
- BIOL2237, BIOL2239  Human Structure and Function I  (Lecture and Laboratory) 4
- BIOL3225, BIOL3226  General Microbiology  (Lecture and Laboratory) 4
- BIOL4240, BIOL4241  Molecular Cell Biology  (Lecture and Laboratory) 4
- BIOL5306  Immunology 3

Total...27

Science Requirements

- CHEM1201  General Chemistry I 3
- CHEM1202  General Chemistry II 3
- CHEM1204  General Chemistry Laboratory I 1
- CHEM1206  General Chemistry Laboratory II 1
- CHEM2261  Organic Chemistry I 3
- CHEM2262  Organic Chemistry II 3
- CHEM2263  Organic Chemistry Laboratory I 2
- CHEM2264  Organic Chemistry Laboratory II 2
- CHEM3281  Biochemistry I 3

Total...11

Mathematics and Computing

Science Requirements

- CSCI1105  Survey of Computers and Computer Software 3
- MATH1107  Precalculus 4
- MATH1201  Calculus I 4

Total...11

Liberal Arts Requirements

- ENWR1001  Composition I: Rhetoric and Inquiry 3
- ENWR1002  Composition II: Research and Argument 3
- PSYC1103  General Psychology 3
- PSYC2201  Statistics 3
- Speech Course 3

Total...15

Clinical Laboratory Sciences Requirements

- MEDT1130  Bioethics 3
- MEDT1201  Introduction to Medical Technology 3
- NURS4420  Health Care Management 3
- NURS4430  Nursing Research 3

Total...12

University Requirements

- UNIV1001  Transitioning to University Life 1
- UNIV1002  Preparing for Professional Life 1
- UNIV2001  Cross-cultural Perspectives 3
- UNIV2002  Global Issues 3

Total...8

Total...94

Clinical Professional Courses (45 credits)

Fifteen months at the Rutgers School of Health Professions (Rutgers SHP).

Communication Major (B.A.)

School of Art and Media Studies

The communication program offers a wide range of media-centered courses designed to equip students with the oral, written and technical skills required for careers in such fields as advertising, public relations, print and broadcast journalism, video/media production and writing for both the screen and television. Through the internship program, communication majors gain first-hand experience in their fields. Internships are available in all areas of communication, including print journalism, broadcast journalism, cable and network television, talent representation, advertising and public relations.

Requirements for the Bachelor of Arts Degree

In addition to the course requirements of the liberal arts core curriculum of University College, students majoring in communication must complete 36 credits, including the following four required 3-credit courses:

- COMM1000  Digital Storytelling
- COMM2025  Communication Theory
- COMM2101  Professional Communication
- COMM3101  Investigating Communication: Research Methods
- COMM3500  Senior Communication Seminar

In addition, students must select one 3-credit course from each of the four theme groups (theory; writing; advertising/public relations; and broadcast, film and video) and four 3-credit communication electives.

The school offers opportunities for independent study and internships in communication. Program facilities and equipment include:

- FDU’s radio station, WFDU-FM (with Pro-Tools)
- FDU’s student radio station, WFDU-HD3
- FDU’s digital video cameras and production equipment
- FDU’s digital nonlinear video editing lab (with Avid)
- The students’ award-winning campus newspaper (The Equinox).
## Broadcasting Concentration

The concentration in broadcasting is recommended for students who are planning a career in broadcasting.

Students must choose 18 credits from the following 3-credit courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2537</td>
<td>Radio Broadcast Workshop</td>
<td></td>
</tr>
<tr>
<td>COMM2558</td>
<td>Basic Radio Station Engineering</td>
<td></td>
</tr>
<tr>
<td>COMM2648</td>
<td>Basic Video Editing</td>
<td></td>
</tr>
<tr>
<td>COMM2659</td>
<td>Broadcast News</td>
<td></td>
</tr>
<tr>
<td>COMM2673</td>
<td>Basic Video Production</td>
<td></td>
</tr>
<tr>
<td>COMM3295</td>
<td>Theories of the Press</td>
<td></td>
</tr>
<tr>
<td>COMM3360</td>
<td>Digital Audio Editing</td>
<td></td>
</tr>
<tr>
<td>COMM3558</td>
<td>Advanced Radio Broadcast Workshop</td>
<td></td>
</tr>
<tr>
<td>COMM3665</td>
<td>International News: The Views Beyond Our Borders</td>
<td></td>
</tr>
<tr>
<td>COMM3668</td>
<td>Television News: The Big Issues</td>
<td></td>
</tr>
<tr>
<td>COMM3834</td>
<td>Advanced News Reporting</td>
<td></td>
</tr>
<tr>
<td>COMM4470</td>
<td>The Television Newsroom</td>
<td></td>
</tr>
</tbody>
</table>

## Radio Management Concentration

The concentration in radio management is designed to provide undergraduate students with the experience necessary to assume managerial careers in the radio industry.

Candidates for this concentration must complete the courses required for the major in communication and include the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2521</td>
<td>Advertising Principles</td>
<td></td>
</tr>
<tr>
<td>COMM2557</td>
<td>Radio Broadcast Workshop</td>
<td></td>
</tr>
<tr>
<td>COMM2558</td>
<td>Basic Radio Station Engineering</td>
<td></td>
</tr>
<tr>
<td>COMM3560</td>
<td>Digital Audio Editing</td>
<td></td>
</tr>
<tr>
<td>COMM3558</td>
<td>Advanced Radio Broadcast Workshop</td>
<td></td>
</tr>
<tr>
<td>COMM3597</td>
<td>Internship in Communication</td>
<td></td>
</tr>
</tbody>
</table>

Students are strongly encouraged to complete the secondary area of specialization in communication courses including:

- Internship in Communication

## TV/Digital Editing and Production Concentration

The concentration in TV/digital editing and production is designed to provide undergraduate students with the professional experience and hands-on training for careers in the video/broadcast and cable workplace.

The following courses must be taken for the 18-credit concentration.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2648</td>
<td>Basic Video Editing</td>
<td></td>
</tr>
<tr>
<td>COMM2673</td>
<td>Basic Video Production</td>
<td></td>
</tr>
<tr>
<td>COMM3565</td>
<td>International News: The Views Beyond Our Borders</td>
<td></td>
</tr>
<tr>
<td>COMM3668</td>
<td>Television News: The Big Issues</td>
<td></td>
</tr>
<tr>
<td>COMM3834</td>
<td>Advanced News Reporting</td>
<td></td>
</tr>
<tr>
<td>COMM3749</td>
<td>Advanced Video Editing</td>
<td></td>
</tr>
<tr>
<td>COMM4470</td>
<td>The Television Newsroom</td>
<td></td>
</tr>
<tr>
<td>COMM4800</td>
<td>Independent Study in Communication</td>
<td></td>
</tr>
</tbody>
</table>

## Advertising Minor

(For Non-Communication Majors)

The following courses must be taken for the 15-credit minor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2321</td>
<td>Advertising Principles</td>
<td></td>
</tr>
<tr>
<td>COMM3345</td>
<td>Advertising Copywriting and Layout</td>
<td></td>
</tr>
<tr>
<td>COMM3362</td>
<td>Advertising Campaigns</td>
<td></td>
</tr>
<tr>
<td>COMM3444</td>
<td>Public Relations</td>
<td></td>
</tr>
<tr>
<td>COMM3597</td>
<td>Internship in Communication</td>
<td></td>
</tr>
<tr>
<td>MKTG2120</td>
<td>Principles of Marketing</td>
<td></td>
</tr>
</tbody>
</table>

## Communication Minor

(For Non-Communication Majors)

Non-communication majors interested in a secondary area of specialization in communication must complete 15 credits of communication courses including:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM</td>
<td>Theory Group Elective</td>
<td></td>
</tr>
<tr>
<td>COMM</td>
<td>Advertising/Public Relations Elective</td>
<td></td>
</tr>
<tr>
<td>COMM</td>
<td>Broadcast, Film and Video Group Elective</td>
<td></td>
</tr>
<tr>
<td>COMM</td>
<td>Communication Group Elective</td>
<td></td>
</tr>
<tr>
<td>SPCH</td>
<td>Speech Group Elective</td>
<td></td>
</tr>
</tbody>
</table>

Interested students should consult with the school director for further information.

## Convergent Journalism Minor

The minor in convergent journalism is designed to provide undergraduate students with the requisite skills for today's media marketplace. This 15-credit minor builds on a foundation of basic skills in the three primary platforms of the modern media industry — print, broadcast and the internet — and offers a range of free electives that allows the students to further explore areas of specific interest.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1178</td>
<td>Multimedia on the Internet</td>
<td></td>
</tr>
<tr>
<td>COMM/ART1177</td>
<td>Introduction to Digital Media</td>
<td></td>
</tr>
<tr>
<td>COMM2445</td>
<td>Ethics in Media</td>
<td></td>
</tr>
<tr>
<td>COMM2835</td>
<td>Feature Article Writing</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- Students are strongly encouraged to complete the secondary area of specialization in communication courses including:
- The concentration in broadcasting is recommended for students who are planning a career in broadcasting.
- The concentration in radio management is designed to provide undergraduate students with the experience necessary to assume managerial careers in the radio industry.
- The concentration in TV/digital editing and production is designed to provide undergraduate students with the professional experience and hands-on training for careers in the video/broadcast and cable workplace.
- Non-communication majors interested in a secondary area of specialization in communication must complete 15 credits of communication courses including:
- Interested students should consult with the school director for further information.
**Required Courses (9 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM1174/ART1174</td>
<td>Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>COMM1177/ART1177</td>
<td>Introduction to Digital Media</td>
<td>3</td>
</tr>
<tr>
<td>COMM2833</td>
<td>News Reporting</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses (6 credits)**

Choose one course from the following:

- ART1178 Multimedia on the Internet
- COMM2558 Basic Radio Station Engineering
- COMM2648 Basic Video Editing
- COMM2835 Feature Article Writing

Choose one course from the following:

- COMM3665 International News: The Views Beyond Our Borders
- COMM3668 Television News: The Big Issues
- COMM3834 Advanced News Reporting
- COMM4470 The Television Newsroom

**Speech Minor**

The minor in speech offers students interested in improving their oral communication skills to choose from a wide range of offerings — from courses in articulation and diction to those requiring the use of audiovisual aids for professional presentations. The minor would be especially useful for students planning careers in which effective oral communication is essential, such as law, teaching, broadcasting, the performing arts, hotel management, tourism, advertising, and public relations. For international students it would be an ideal minor, since it would enable them to enhance their speaking facility.

Students interested in this minor must complete 15 credits from the following 3-credit courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM1106</td>
<td>Interpersonal Communication</td>
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<tr>
<td>COMM2557</td>
<td>Radio Broadcast Workshop</td>
</tr>
<tr>
<td>SPCH1105</td>
<td>Voice Production and Articulation</td>
</tr>
<tr>
<td>SPCH1155</td>
<td>Public Speaking</td>
</tr>
</tbody>
</table>

**Sports Media Studies Minor**

Students must complete 15 credits from the courses listed below with no more than three courses from one discipline. Appropriate courses used to fulfill the minor for sports media studies are as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM2415</td>
<td>Sports and Popular Culture</td>
</tr>
<tr>
<td>COMM2743</td>
<td>Special Topics: Sports in American Cinema</td>
</tr>
<tr>
<td>COMM3431</td>
<td>Sports Information Writing</td>
</tr>
<tr>
<td>COMM3432</td>
<td>Sports in Society</td>
</tr>
<tr>
<td>COMM4930</td>
<td>Selected Studies:</td>
</tr>
<tr>
<td>COMM4933</td>
<td>Leadership, Communication and Sport</td>
</tr>
<tr>
<td>HIST2102</td>
<td>Sports in America</td>
</tr>
<tr>
<td>PHED2422</td>
<td>Health and Nutrition</td>
</tr>
<tr>
<td>PHED4460</td>
<td>National Coaching Certification*</td>
</tr>
<tr>
<td>PSYC3359</td>
<td>Sport Psychology</td>
</tr>
<tr>
<td>SPCH4430</td>
<td>Selected Studies:</td>
</tr>
</tbody>
</table>

**Computer Science Major (B.S.)**

Lee Gildart and Oswald Haase

School of Computer Sciences and Engineering

The Bachelor of Science degree program in computer science provides a theoretically based education in computer science, coupled with real-world applications. Students are exposed to a broad range of fundamental concepts in such areas as software engineering, computer organization, database systems, management information systems and operating systems, as well as to a wide variety of computer applications. The computer science core requirements are supplemented by four highly in-demand concentrations: cybersecurity and information assurance, database management, game and mobile application development and information security administration. Students must complete two of the four concentrations. The program requires the successful completion of at least 120 credits of course work.

Graduates of the program, many of whom enter the industry, are prepared to function well in most computing environments. They are familiar with a spectrum of fundamental principles and have been encouraged to approach problems with creativity.

This program is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org. 415 North Charles Street, Baltimore, Maryland 21201, telephone (410) 347-7700. This accreditation applies only to the Bachelor of Science in computer science program offered by University College at the Metropolitan Campus, Teaneck, New Jersey.

Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and two units of science.

**Educational Objectives**

The educational objectives of the B.S. in computer science program define the career and professional accomplishments that the graduates are being prepared to
produce computing-based solutions. Software development fundamentals to appropriate to the program’s discipline.

2. Build on educational knowledge and experience to continue formal education and obtain advanced degrees in the fields of computer science, management information systems, business administration or computer engineering.

3. Continue to develop as responsible professionals and global citizens who are mindful of ethical issues, societal needs and problems inherent in the computing field.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituents, which include students, alumni, employers, faculty and the Industrial Advisory Board.

**Student Outcomes**

Each computer science graduate will demonstrate the following attributes and achievements as required by the Computing Accreditation Commission of ABET by the time of graduation:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.

3. Communicate effectively in a variety of professional contexts.

4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

5. Function effectively as a member of a team engaged in activities appropriate to the program’s discipline.

6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

## Requirements for the Bachelor of Science Degree

### Computer Science Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI1201</td>
<td>Computer Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CSCI1202</td>
<td>Computer Programming II</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2215</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2232</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2247</td>
<td>Assembly Language Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3240</td>
<td>Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3249</td>
<td>Computer Organization</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3251</td>
<td>Design of Software Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3255</td>
<td>Mathematical Foundations of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3268</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3278</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENGR2286</td>
<td>Digital System Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Total.......36

### Mathematics Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1201</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH2202</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH2255</td>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>MATH3220</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH3237</td>
<td>Probability and Statistics I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total.......17

### Science Requirements

Two full-year sequences with laboratories totaling 16 credits or more to be chosen from:

- BIOL1251, BIOL1252: General Biology I, II...............................................6
- BIOL1253, BIOL1254: Laboratory: General Biology I, II..........................2
- CHEM1201, CHEM1202: General Chemistry I, II.........................................6
- CHEM1203, CHEM1204: General Chemistry Laboratory I, II........................2

### Credits

- PHYS2203, PHYS2204: University Physics I, II........................................6
- PHYS2201, PHYS2202: Physics Laboratory I, II.......................................2

Total.......16

### Humanities Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
</tr>
<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
</tr>
<tr>
<td>ENGR2210</td>
<td>Technical Communications</td>
</tr>
<tr>
<td>ENGR3000</td>
<td>Modern Technologies: Principles, Applications and Impacts</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
</tr>
<tr>
<td>Elective...</td>
<td></td>
</tr>
</tbody>
</table>

Total.......23

### Concentration Requirements

Students must complete any two of the four concentrations offered: cybersecurity and information assurance, database management, game and mobile application development and information security administration.

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are to be taken as prescribed under the specific concentrations: cybersecurity and information assurance, database management, game and mobile application development concentration, see pages 155–156; and information security administration concentration, see page 156.

### Free Electives*

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics courses below MATH1201 Calculus I may not be used as free electives.</td>
<td></td>
</tr>
</tbody>
</table>

* 10
With the approval of their adviser, upper-division students may use the following graduate courses as substitutes for their undergraduate counterparts:

Sample Course Sequence
1st Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI1201 Computer Programming I</td>
<td>3</td>
</tr>
<tr>
<td>ENGR2286 Digital System Design</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1001 Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>MATH1201 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1001 Transitioning to University Life</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

2nd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI1202 Computer Programming II</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2215 Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1002 Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>MATH2202 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1002 Preparing for Professional Life</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

3rd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI2232 Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2247 Assembly Language Programming</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2001 Cross-cultural Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective and Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>Free Elective</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

4th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI3251 Design of Software Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3268 Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>MATH3237 Probability and Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002 Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective and Laboratory</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

5th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI3240 Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>MATH2255 Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>Concentration Courses</td>
<td>6</td>
</tr>
<tr>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

6th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI3255 Mathematical Foundations of Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3278 Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3000 Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>Concentration Course</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

7th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI3249 Computer Organization</td>
<td>3</td>
</tr>
<tr>
<td>ENGR2210 Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>MATH3220 Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Concentration Course</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective and Laboratory</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

8th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration Courses</td>
<td>6</td>
</tr>
<tr>
<td>Free Elective</td>
<td>6</td>
</tr>
<tr>
<td>Science Elective and Laboratory</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Concentrations

Students must complete any two of the following concentrations: cybersecurity and information assurance, database management, game and mobile application development and information security administration.

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are to be taken as prescribed on this page and page 156.

Cybersecurity and Information Assurance Concentration

<table>
<thead>
<tr>
<th>Required Courses (18 credits)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI2215 Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3240 Computer Networks</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3278 Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3280 Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3345 Firewalls and Intrusion Detection System</td>
<td>3</td>
</tr>
<tr>
<td>CSCI4310 Foundations of Cybersecurity</td>
<td>3</td>
</tr>
<tr>
<td>CSCI4320 Cryptography</td>
<td>3</td>
</tr>
</tbody>
</table>

Database Management Concentration

<table>
<thead>
<tr>
<th>Required Courses (9 credits)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI2215 Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2232 Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CSCI3268 Database Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (9 credits)

Select three from the following courses:
CSCI3331 Advanced Database       | 3 |
CSCI3460 Data Warehouse and Database Mining | 3 |
CSCI3470 Enterprise Computing for the IBM zSeries | 3 |
CSCI4373 Distributed Database Systems | 3 |

Game and Mobile Application Development Concentration

<table>
<thead>
<tr>
<th>Required Courses (15 credits)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI2215 Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2232 Data Structures</td>
<td>3</td>
</tr>
</tbody>
</table>

*These courses are already included in the computer science core requirements.*
**Computer Science**

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

---

### Required Courses (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC11201</td>
<td>3</td>
</tr>
<tr>
<td>CSC12215</td>
<td>3</td>
</tr>
<tr>
<td>CSC12268</td>
<td>3</td>
</tr>
</tbody>
</table>

### Elective (3 credits)

Select one from the following courses:

- CSC13380
- UNIX Shell Programming
- CSC3444
- Programming for the Internet
- CSC4580
- Systems Development with Java

Students pursuing this concentration are recommended to take three computer animation courses from the School of Art and Media Studies as free electives in the B.S. in computer science curriculum.

### Information Security Administration Concentration

#### Required Courses (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC12215</td>
<td>3</td>
</tr>
<tr>
<td>CSC12232</td>
<td>3</td>
</tr>
<tr>
<td>CSC12235</td>
<td>3</td>
</tr>
<tr>
<td>CSC13255</td>
<td>3</td>
</tr>
<tr>
<td>CSC13268</td>
<td>3</td>
</tr>
<tr>
<td>CSC13274</td>
<td>3</td>
</tr>
<tr>
<td>CSC13783</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Electives* (6 credits)

Two courses must be chosen from the following:

- CSC1202
- CSC12232
- CSC12447
- CSC13240
- CSC13249
- CSC13278

### Computer Science Minor

(For Non-Computer Science Majors)

The minor in computer science consists of 15 credits and is available to qualified students. This minor provides students with a basic foundation in computer science that complements their majors and enhances their employment opportunities and career options. The problem-solving and critical-thinking skills acquired through this minor are essential skills needed to be successful in life and in the workplace. The courses for a minor in computer science within University College are as follows:

- CSC1201
- CSC12215
- CSC13268

### B.S. in Computer Science/M.S. in Management Information Systems

#### Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in management information systems (MIS) with a combined course load of 141 credits, which is 9 credits less than that for the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and achieving a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degree, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate MIS program. See page 239 for details.

*With the approval of the academic adviser, students may take other higher-level CSCI courses as electives. Students intending to pursue an M.S. in computer science or an M.S. in management information systems must see an adviser for the proper selection of electives.*

---

*These courses are already included in the computer science core requirements.*
Construction Engineering Technology • Criminal Justice
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

**Construction Engineering Technology Major (B.S.Con.E.T.)**
Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

See “Engineering Technology Majors,” page 162.

---

**Criminal Justice Major (B.A.)**

*School of Criminal Justice, Political Science and International Studies*

The Bachelor of Arts degree in criminal justice skillfully integrates theory and application into a holistic and interdisciplinary course of study that prepares its graduates for wide-ranging career opportunities upon graduation. Its interdisciplinary curriculum is specially designed to help prepare its graduates for the complex and dynamic challenges of the country’s legal and criminal justice system and the field of private security administration. As part of its curricular design, the program prepares graduates for:

- Entry-level positions within all levels of the United States criminal justice system
- Graduate studies, law school and other professional and advanced degree programs
- Diverse career opportunities in professional private security administration
- Enhancing the careers of practicing professionals within the field of criminal justice, private security and other governmental and nonprofit organizations

Incorporated within and outside of the classroom, Fairleigh Dickinson University’s distinguished faculty skillfully integrate theory and academic constructs in direct relationship with the legal and operational realities that influence and shape the ever-changing nature and composite of the United States criminal justice system.

Given the challenges and demands of an ever-changing society, the curriculum is by design — holistic, engaging and highly interactive — one that integrates and develops independent and collaborative research skills, critical thinking, problem-solving and effective communication skills.

The curriculum is fundamentally interdisciplinary and closely examines: the nature and incidence of crime; law; theories of criminality and punishment; the independent operation of the criminal justice system, involving the police and law enforcement, the courts and adjudication process and corrections; organizational and personnel management theories relevant to criminal justice management and administration; the use and application of the state-of-the-art computer technologies; forensic psychology; the forensic sciences; and the impact of major social problems on crime and the criminal justice system.

Opportunities for students to gain practical experience in various criminal justice agencies are available through the school’s internship program (CRIM3303 Criminal Justice Internship).

For more information, contact Dr. Samuel Raphalides, director of the School of Criminal Justice, Political Science and International Studies, University College: Arts • Sciences • Professional Studies, Fairleigh Dickinson University, 1000 River Road, T-RA2-01, Teaneck, New Jersey 07666; telephone: (201) 692-2465/2413; fax (201) 692-2578; email: samuel_j_raphalides@fdu.edu.

**Requirements for the Bachelor of Arts Degree**

Students enrolled in the Bachelor of Arts in criminal justice program must complete a total of 120 credits, which include 47 credits of required core curriculum, 33 credits of required courses in criminal justice, 12 credits of criminal justice electives, 13 credits of free elective courses and 15 credits in a minor.

Course selections for the program meet the Minimum Standards for Criminal Justice Programs adopted by the Northeastern Association of Criminal Justice Sciences. Students must maintain a minimum grade point ratio of at least 2.50 in the major after the first 12 credits.

**Major Required Courses (33 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM1101 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRIM1102 Criminology and Social Theory</td>
<td>3</td>
</tr>
<tr>
<td>CRIM1103 Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRIM2100 Professional and Legal Writing</td>
<td>3</td>
</tr>
<tr>
<td>CRIM2201 Police and Society</td>
<td>3</td>
</tr>
<tr>
<td>CRIM2202 Corrections, Parole and Probation</td>
<td>3</td>
</tr>
<tr>
<td>CRIM2204 Juvenile Justice and Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>CRIM2205 Criminal Justice Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>CRIM2208 Victimology</td>
<td>3</td>
</tr>
</tbody>
</table>
Criminal Justice

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM3319</td>
<td>Courts and Judicial Process</td>
<td>3</td>
</tr>
<tr>
<td>CRIM4405</td>
<td>Criminal Justice Capstone Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total...33 Credits**

### Criminal Justice and Legal Studies

**Elective Courses (12 credits)**

To be selected from the following:

- CRIM1112 Minority, Women and the Criminal Justice System...3
- CRIM1120 Introduction to Jurisprudence                                  3
- CRIM1700 Introduction to Security Operations...3
- CRIM2206 Criminal Investigation...3
- CRIM2207 Community Policing...3
- CRIM2211 School and Workplace Violence...3
- CRIM2212 Terrorism, Intelligence, and Justice...3
- CRIM2214 Criminal Procedure Law...3
- CRIM2215 Crime and Forensics...3
- CRIM2216 Sex, Deviance and the Law...3
- CRIM2230 The Death Penalty...3
- CRIM2231 The Art and Science of Homicide Investigation...3
- CRIM2235 Cyber Crime...3
- CRIM2240 Criminal Profiling...3
- CRIM2250 Emerging Issues in Crime and Justice...3
- CRIM2700 Security Investigations and Case Management...3
- CRIM3301 Computer Technology in the Criminal Justice System...3
- CRIM3302 Criminal Justice Management and Administration...3
- CRIM3303 Criminal Justice Internship...3
- CRIM3304 Criminal Justice Ethics...3
- CRIM3305 Interviewing and Interrogation...3
- CRIM3306 White-collar Crime...3
- CRIM3307 Domestic Violence...3
- CRIM3308 The Politics of Crime...3
- CRIM3309 Introduction to Homeland Security...3
- CRIM3310 Criminal Justice Professional Lecture Series...3
- CRIM3311 Organized Crime...3
- CRIM3312 Comparative Criminal Justice Systems: United States and Great Britain...3
- CRIM3313 Analysis of Serial Killers...3
- CRIM3314 Comparative International Criminal Justice Systems...3
- CRIM3315 Advanced Internship...3
- CRIM3316 Global Terrorism...3
- CRIM3317 Fraud Investigation...3
- CRIM3320 Interviewing and Counseling Strategies...3
- CRIM3321 Drugs, Addictions and the Law...3
- CRIM3322 Negotiation and Conflict Management...3
- CRIM3324 Community Resource Management...3
- CRIM3325 Traumatic Injuries and Death Investigation...3
- CRIM3326 Rehabilitative Strategies...3
- CRIM3330 Dynamics of Leadership...3
- CRIM3700 Asset Protection, Vulnerabilities and Technologies...3
- CRIM3890 Legal and Analytical Reasoning...3
- CRIM4430 Selected Studies in Criminal Justice and Legal Studies...3–1
- CRIM4700 Security and Personnel Management and Administration...3
- CRIM4800 Independent Study...3–1

### Computer Forensics Minor

The computer forensics minor involves the identification, preservation, extraction, interpretation and documentation of digital evidence in criminal and civil investigations. It is an interdisciplinary minor developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. This 15-credit minor will provide students with a strong foundation in the knowledge, understanding and competencies sought by prospective employers in the area of computer forensics.

**Required Courses (12 credits)**

- CRIM2218 Computer Technologies and Cyber Crime...3
- CRIM3327 File System Forensic Analysis and Investigation...3
- INFO1101 Computer Concepts and Technology...3
- INFO4101 Data Communications and Computer Networks...3

**Elective (3 credits)**

- CRIM4010 Computer Forensic, Software and Hardware Applications or INFO4410 Foundations of Cybersecurity...3

### Criminal Justice Minor

(For Non-Criminal Justice Majors)

**Requirements (15 credits)**

Non-criminal justice majors may complete a minor in criminal justice by completing the following 15 credits:

- CRIM1101 Introduction to Criminal Justice...3
- CRIM1102 Criminology and Social Theory...3
- CRIM2201 Police and Society...3
- CRIM2202 Corrections, Parole and Probation...3
- CRIM3519 Courts and Judicial Process...3
Legal Studies Minor
The School of Criminal Justice, Political Science and International Studies offers a course of study for students who are interested in the field of jurisprudence and the legal profession. The legal studies program critically examines the historical and philosophical nature of civil and criminal law, legal reasoning and various legal systems and institutions. The minor offers students a selection of specifically designed courses, academic advisement, testing strategies and preparation and support services designed to assist students who anticipate applying to law school or graduate school. The program places a strong emphasis on the importance of the undergraduate student’s course of study, grade point ratio (GPR) and performance on the Law School Admission Test (LSAT) — all of which play important factors for acceptance to law school. Emphasis is placed on reading comprehension, writing, critical thinking, deduction and analytical reasoning. The course CRIM3890 Legal and Analytical Reasoning places emphasis on these skill sets, which also provides students the opportunity to take practice LSAT exams. The legal studies minor requires the student to successfully complete 15 credits of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM1120</td>
<td>Introduction to Jurisprudence</td>
</tr>
<tr>
<td>CRIM3319</td>
<td>Courts and Judicial Process</td>
</tr>
<tr>
<td>CRIM3890</td>
<td>Legal and Analytical Reasoning</td>
</tr>
<tr>
<td>POLS2253</td>
<td>American Government</td>
</tr>
<tr>
<td>POLS3355</td>
<td>American Constitutional Law</td>
</tr>
</tbody>
</table>

Substitutions are permitted upon approval of the school director.

Social Justice Advocacy Minor
One of the most important tasks in the criminal justice system is concerned with ensuring that clients and offenders are able to identify and receive necessary services. At various points in their official duties, police officers, probation officers, children’s services workers, social workers and victim advocates are all faced with the responsibility to make the connection between people in need and community services.

This minor is designed to provide students interested in the helping aspects of the criminal justice system to obtain the tools for doing the job of helping, reintegrating and rehabilitating victims, offenders, releases and other people who might otherwise be left behind. The minor may be aimed towards specific career goals in community corrections, children’s services, victim advocacy or a more general social-work orientation.

Required Courses (6 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM1125</td>
<td>Introduction to Social Service Advocacy</td>
</tr>
<tr>
<td>SOCI3316</td>
<td>The Family: Stability and Dysfunction</td>
</tr>
</tbody>
</table>

Students may select any three courses (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM1130</td>
<td>Working with Children and Families</td>
</tr>
<tr>
<td>CRIM1135</td>
<td>Social Justice and Structural Inequality</td>
</tr>
<tr>
<td>CRIM2208</td>
<td>Victimology</td>
</tr>
<tr>
<td>CRIM3320</td>
<td>Interviewing and Counseling Strategies</td>
</tr>
<tr>
<td>CRIM3324</td>
<td>Community Resource Management</td>
</tr>
<tr>
<td>CRIM3326</td>
<td>Rehabilitative Strategies</td>
</tr>
<tr>
<td>SOCI2805</td>
<td>Contemporary Social Issues</td>
</tr>
<tr>
<td>SOCI3201</td>
<td>Methods in Social Research</td>
</tr>
<tr>
<td>SOCI3318</td>
<td>Health and Society: Access and Issues</td>
</tr>
<tr>
<td>SOCI3320</td>
<td>Race, Generation and Immigration</td>
</tr>
</tbody>
</table>

B.A. in Political Science/M.A. in Criminal Justice
The University offers a combined degree program to earn a Bachelor of Arts in political science and a Master of Arts in criminal justice. Students must declare their candidacy upon entering their junior year and/or upon successful completion of 64 credits, but no later than the completion of 90 undergraduate credits. Students who are considering this program should meet with their advisers to discuss their options and correctly select the appropriate courses. See page 218 for details.

B.A./M.A. in Criminal Justice
The University offers students the opportunity to earn a combined Bachelor of Arts in criminal justice and a Master of Arts in criminal justice. It is recommended that the students interested in the combined degree program declare their candidacy upon successful completion of 64 credits and/or upon entering their junior year; however, no later than having completed 90 undergraduate credits. This affords students the opportunity to collaborate with their adviser in the timely and appropriate selection of undergraduate courses. See page 215 for details.
Electrical Engineering

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Electrical Engineering Major (B.S.E.E.)

Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

The Bachelor of Science in Electrical Engineering degree curriculum prepares graduates for entrance into the profession of electrical engineering by providing them a varied and balanced educational experience with an appropriate combination of theoretical concepts and practical applications. A stimulating course of study is maintained by offering students a reasonable variety of required contemporary courses and electives. The engineering laboratory experience is fully integrated with course work.

Educational Objectives

The educational objectives of the Bachelor of Science in Electrical Engineering program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The Bachelor of Science in Electrical Engineering program will produce graduates who:

1. Enter into and advance in the profession of electrical engineering, particularly in the areas of systems and devices, computers and communications.

2. Continue their formal education and obtain advanced degrees in electrical engineering or other related fields.

3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituents, which include students, alumni, employees, faculty and the Industrial Advisory Board.

Student Outcomes

Each electrical engineering graduate will demonstrate the following attributes and achievements as required by the EAC of ABET upon or before graduation:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.

2. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic and other factors as appropriate to the discipline.

3. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.

4. An ability to communicate effectively with a range of audiences.

5. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.

6. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies and to apply this knowledge.

7. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines and creates a collaborative and inclusive environment.

The curriculum provides students with an engineering design experience that expands in breadth and depth as they progress through their studies. This experience is introduced early in the curriculum. Simple design examples are presented in ENGR1301 Engineering Practices, Graphics and Design. Students begin to learn basic AC and DC circuits, operational amplifiers, three-phase circuits, two-port networks, filters and system analysis in a three-course sequence in circuit theory and systems. This allows them to design complex linear and nonlinear analog electronic circuits and devices in a three-course sequence in electronics. Students also design digital systems involving logic gates, counters, shift registers, multiplexers, demultiplexers, encoders and decoders and advance to the design of microprocessor- and microcontroller-embedded systems in a three-course sequence in digital logic and system design. The design of digital filters is conducted in EENG3224 Digital Signal Processing.

Substantial engineering design experience is obtained from the integrated laboratory experience throughout the curriculum. Advanced courses help students acquire experimental, design and computer simulation skills and integrate theory with practice. As a culmination of their design experience, senior students are required to successfully design a component or system in the EENG4268 Electrical Engineering Project by utilizing their past course work, by following professional practice and by exercising sound engineering judgment.

Because of the importance of modern telecommunications and control technology, courses in communication systems, data communications and computer networks, wireless communications and control are required. Course work in computer hardware and software has been expanded.

Electives allow the student to develop design skills in various technical areas. Students follow a curriculum that is tailored to their professional interests in consultation with the electrical engineering faculty.

The B.S. in Electrical Engineering Program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org, 415 North Charles Street, Baltimore, Maryland 21201; telephone: (410) 347-7700.

Cooperative Education Option

Students in the B.S.E.E. program have the option to undertake a cooperative education experience and earn a total of 6 academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences, and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared students with real and relevant work experience — saving time and money by reducing the training period for new employees.

Requirements for the Bachelor of Science in Electrical Engineering Degree

First Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR1301 Engineering Practices, Graphics and Design</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1001 Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
</tbody>
</table>

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### Electrical Engineering

#### University College: Arts • Sciences • Professional Studies

#### Metropolitan Campus and Vancouver Campus

### Business Administration Minor

The minor in business administration consists of 16 credits, and it is relevant to students with appropriate mathematics and science backgrounds. This minor provides students in other fields of study with a basic foundation in business administration, and it can bring them additional employment opportunities and career options.

The courses for a minor in business administration within University College are as follows:

#### Required Courses (16 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EENG2221</td>
<td>Signals and Systems I</td>
<td>4</td>
</tr>
<tr>
<td>EENG2222</td>
<td>Signals and Systems II</td>
<td>3</td>
</tr>
<tr>
<td>EENG2223</td>
<td>Electronic Engineering</td>
<td>3</td>
</tr>
<tr>
<td>EENG2266</td>
<td>Business Information and Communication</td>
<td>3</td>
</tr>
<tr>
<td>EENG2287</td>
<td>Microprocessor System Design I</td>
<td>3</td>
</tr>
<tr>
<td>EENG3266</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3000</td>
<td>Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3241</td>
<td>Advanced Engineering Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Total Credits: 16

*Electives to be taken with approval of the faculty adviser.*

### Electrical Engineering Minor

(For Non-Electrical Engineering Majors)

The minor in electrical engineering consists of 16 credits, and it is relevant to students with appropriate mathematics and science backgrounds. This minor provides students in other fields of study with a basic foundation in electrical engineering, and it can bring them additional employment opportunities and career options.

The courses for a minor in electrical engineering within University College are as follows:

#### Required Courses (16 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EENG2221</td>
<td>Signals and Systems I</td>
<td>4</td>
</tr>
<tr>
<td>EENG2222</td>
<td>Signals and Systems II</td>
<td>3</td>
</tr>
<tr>
<td>EENG2223</td>
<td>Electronic Engineering</td>
<td>3</td>
</tr>
<tr>
<td>EENG2266</td>
<td>Business Information and Communication</td>
<td>3</td>
</tr>
<tr>
<td>EENG2287</td>
<td>Microprocessor System Design I</td>
<td>3</td>
</tr>
<tr>
<td>EENG3266</td>
<td>Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3000</td>
<td>Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3241</td>
<td>Advanced Engineering Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Total Credits: 16

*Electives to be taken with approval of the faculty adviser.*

### Bachelor of Science in Electrical Engineering Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) and a Master of Science (M.S.) degree in computer engineering with a combined degree load that is 9 credits less than that for the separate degrees. Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 2.75. See page 240 for details.

### Bachelor of Science in Electrical Engineering/Master of Science in Electrical Engineering Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) and a Master of Science in Electrical Engineering (M.S.E.E.) with a combined degree load that is 9 credits less than that for the separate degrees. Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 2.75. See page 241 for details.
Electrical Engineering Technology • Engineering Tech.
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Electrical Engineering Technology Major
(B.S.E.E.T.)
Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering
See “Engineering Technology Majors,” this page.

Engineering Technology Majors

Civil Engineering Technology
(B.S.Civ.E.T.)
Program Co-Coordinators:
Vahid Alizadeh, Ph.D.
Marzieh Azarderakhsh, Ph.D.

Construction Engineering Technology
(B.S.Con.E.T.)
Program Co-Coordinators:
Vahid Alizadeh, Ph.D.
Marzieh Azarderakhsh, Ph.D.

Electrical Engineering Technology
(B.S.E.E.T.)
Program Coordinator:
Sameh Abdelazim, Ph.D.

Mechanical Engineering Technology
(B.S.M.E.T.)
Program Coordinator:
Bernard Lefkowitz, Ph.D.

Engineering Technology (Bachelor of Science Degree) Programs
The Bachelor of Science degree programs in civil engineering technology, construction engineering technology, electrical engineering technology and mechanical engineering technology are designed to serve the needs of students and industry. These curricula consist of an integrated sequence of undergraduate courses emphasizing the application of engineering and scientific knowledge, methods, technology and technical skills appropriate to each discipline.

These four Bachelor of Science degree programs also provide an opportunity to graduates of two-year programs in technology with an A.A.S. or the equivalent in the appropriate discipline to continue their studies.

Transfer credits for associate degree programs will be evaluated independently for each applicant.

Prerequisites: three units of college preparatory mathematics (including algebra, trigonometry and plane geometry) and two units of a laboratory science.

Professional Accreditation
The Bachelor of Science programs in civil engineering technology, construction engineering technology, electrical engineering technology and mechanical engineering technology are accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org, 415 North Charles Street, Baltimore, Maryland 21201; telephone: (410) 347-7700.

Engineering Technology Majors

The engineering technology curricula have been designed to educate and train individuals for industrial positions requiring a sophisticated, but applied technical orientation. Graduates will be capable of solving design and applied engineering problems, as well as performing managerial, business and sales functions.

These baccalaureate degree programs are offered by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering in University College, full and part time, and on a day and evening basis.

Students must consult with their advisors every semester prior to registration. Most offerings have specific courses as prerequisites or corequisites. Students should ensure that these requirements are met before completing a registration for a given semester.

The engineering technology faculty maintain excellent communication with industry and encourage students to gain industrial experience. Laboratory and industrial-oriented project assignments complement the lectures and recitations throughout the program to provide those learning opportunities necessary for the contemporary engineering technologist. A capstone project based on an approved written proposal is required in the eighth semester for all students in all programs. A cooperative education option is available.

Technical Electives
The only technical electives accepted to the engineering technology programs are those offered by University College. The technical elective must be either a junior or senior course, recommended by the student’s adviser and approved by the coordinator of engineering technology programs. It is the student’s responsibility to meet the technical elective’s co- and prerequisites.
Work Experience
Up to 6 credits may be earned for appropriate documented industrial experience and used in lieu of technical electives. Industry experience may not be substituted for any required course work.

Students must have successfully completed the course EGTG2210 Technical Communications before the application for “Work Experience” credits can be considered. The application form and directions for submission of necessary documents in support of the application may be obtained from the engineering technology office.

Cooperative Education Option
Students in the four B.S. programs in engineering technology have the option to undertake a cooperative education experience and earn a total of 6 academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences, and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared graduates with real and relevant work experience, saving time and money by reducing the training period for new employees.

Civil Engineering Technology (B.S.Civ.E.T.) Program
Program Co-Coordinators: Vahid Alizadeh, Ph.D., and Marzieh Azaderakhsh, Ph.D.
The Bachelor of Science in Civil Engineering Technology program prepares students in planning, designing and building infrastructure and facilities. Civil engineering technologists work in areas such as transportation, water systems, utilities, structures, pollution control, surveying, soil mechanics and foundations.

Educational Objectives
The educational objectives of the B.S. in Civil Engineering Technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S. in Civil Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in the planning, design, construction, operation or maintenance of buildings and infrastructures utilizing their theoretical knowledge and practical skills in analyzing and designing systems or structures, specifying construction methods and materials, performing cost estimates and analyses and inspecting and managing civil projects.
2. Continue their formal education and obtain advanced degrees such as M.S. in construction management, M.B.A. (industrial management), M.S. in environmental studies, M.S. in technology management or other related fields.
3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

Requirements for the Bachelor of Science in Civil Engineering Technology Degree (B.S.Civ.E.T.)

1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGR1501</td>
<td>Engineering Practices, Graphics and Design</td>
<td>3</td>
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<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>MATH1107</td>
<td>Precalculus</td>
<td>4</td>
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<tr>
<td>PHYS2101</td>
<td>General Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
<td>1</td>
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2nd Semester

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<tbody>
<tr>
<td>EGTG1225</td>
<td>Introduction to CAD</td>
<td>2</td>
</tr>
<tr>
<td>ENGR3000</td>
<td>Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>MATH1201</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2102</td>
<td>General Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS2202</td>
<td>Physics Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>UNIV1002</td>
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<td>1</td>
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3rd Semester

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<th>Course Name</th>
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<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
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<td>CHEM1205</td>
<td>General Chemistry Laboratory I</td>
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<tr>
<td>EGTG2210</td>
<td>Surveying I</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2245</td>
<td>Construction Materials and Systems</td>
<td>3</td>
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<tr>
<td>EGTG2221</td>
<td>Statics</td>
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<tr>
<td>MATH2202</td>
<td>Calculus II</td>
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4th Semester

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<tbody>
<tr>
<td>EGTG2210</td>
<td>Surveying II</td>
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<tr>
<td>EGTG2254</td>
<td>Fluid Mechanics</td>
<td>3</td>
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5th Semester

<table>
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<th>Course Name</th>
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<tbody>
<tr>
<td>EGTG2544</td>
<td>Structural Analysis</td>
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<tr>
<td>EGTG2357</td>
<td>Concrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2361</td>
<td>Estimating I</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2441</td>
<td>Soil Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2454</td>
<td>Advanced Concrete Design</td>
<td>3</td>
</tr>
<tr>
<td>EGTG3331</td>
<td>Applied Thermodynamics</td>
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6th Semester

<table>
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<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EGTG2422</td>
<td>Engineering Technology</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2476</td>
<td>Advanced Concrete Design</td>
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</tr>
<tr>
<td>EGTG3331</td>
<td>Applied Thermodynamics</td>
<td>3</td>
</tr>
</tbody>
</table>
Construction Engineering Technology (B.S.Con.E.T.)

Program Co-Coordinators: Vahid Alizadeh, Ph.D., and Marzieh Azardarakhsh, Ph.D.

The Bachelor of Science in Construction Engineering Technology program educates and trains students in the areas of building construction, including construction project design, development and management. The graduates of this program work in the construction industry as contractors, field supervisors, project managers, job superintendents, estimators, safety specialists, schedulers and examiners.

Educational Objectives

The educational objectives of the B.S. in Construction Engineering Technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S. in Construction Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in construction, operation and/or maintenance of buildings and infrastructures using their theoretical knowledge and practical skills in managing and inspecting construction projects, analyzing and estimating cost and specifying construction methods and materials.

2. Continue their formal education and obtain advanced degrees such as M.S. in construction management, M.B.A. (industrial management), M.S. in environmental studies, M.S. in technology management or other related fields.

3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

Requirements for the Bachelor of Science in Construction Engineering Technology Degree (B.S.Con.E.T.)

1st Semester

<table>
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<tr>
<th>Course Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGR1301</td>
<td>Engineering Practices, Graphics and Design</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
</tr>
<tr>
<td>MATH1107</td>
<td>Precalculus</td>
</tr>
<tr>
<td>PHYS2101</td>
<td>General Physics I</td>
</tr>
<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
</tr>
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</table>

2nd Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGTC1223</td>
<td>Introduction to CAD</td>
</tr>
<tr>
<td>ENGR3000</td>
<td>Modern Technologies: Principles, Applications and Impacts</td>
</tr>
<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
</tr>
<tr>
<td>MATH1201</td>
<td>Calculus I</td>
</tr>
<tr>
<td>PHYS2102</td>
<td>General Physics II</td>
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<td>PHYS2202</td>
<td>Physics Laboratory II</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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3rd Semester

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<tbody>
<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
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<tr>
<td>EGTC1205</td>
<td>Surveying I</td>
</tr>
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<td>EGTC1245</td>
<td>Construction Materials and Systems</td>
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<tr>
<td>EGTG2221</td>
<td>Statics</td>
</tr>
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<td>MATH2202</td>
<td>Calculus II</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
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</tbody>
</table>

*Up to 6 credits of work experience may be used in place of technical electives.*
### 4th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>EGTC2210</td>
<td>Technical Communications</td>
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<td>Engineering Statistics and Reliability</td>
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<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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Total: 18

### 5th Semester

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<th>Course Title</th>
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<tbody>
<tr>
<td>EGTC3250</td>
<td>Structural Analysis</td>
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<td>EGTC3257</td>
<td>Concrete Structures</td>
<td></td>
</tr>
<tr>
<td>EGTC3261</td>
<td>Estimating I</td>
<td></td>
</tr>
<tr>
<td>EGTC4241</td>
<td>Soil Mechanics</td>
<td></td>
</tr>
<tr>
<td>EGTC4254</td>
<td>Fluid Mechanics</td>
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</tr>
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Total: 15

### 6th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>EGTC2246</td>
<td>Timber Structures and General Building Systems</td>
<td></td>
</tr>
<tr>
<td>EGTC3262</td>
<td>Estimating II</td>
<td></td>
</tr>
<tr>
<td>EGTC4242</td>
<td>Foundations</td>
<td></td>
</tr>
<tr>
<td>EGTC3351</td>
<td>Applied Thermodynamics</td>
<td></td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
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</tbody>
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Total: 15

### 8th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EGTC3270</td>
<td>Environmental and Land-use Planning</td>
<td></td>
</tr>
<tr>
<td>EGTC4260</td>
<td>Contracts and Specifications</td>
<td></td>
</tr>
<tr>
<td>EGTC4264</td>
<td>Project Management and Control II</td>
<td></td>
</tr>
<tr>
<td>EGTC4384</td>
<td>Construction Technology Design Project</td>
<td>1</td>
</tr>
<tr>
<td>Technical Electives*</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Total: 16

### Construction Engineering Technology Electives*

The student must take 6 credits of technical electives from the following list:

- CHEM1202 General Chemistry II with CHEM1204 General Chemistry Laboratory II
- EGTC3271 Construction Labor
- EGTC4320 Highway Design
- EGTC4321 Bridge Design
- EGTC4322 Hydraulic Design
- EGTC4323 Seismic Design
- EGTC3211 Materials Technology I
- EGTC3431 Dynamics
- EGTM4040 Heating, Ventilation and Air Conditioning
- EGTM4041 Heating, Ventilation and Air Conditioning and Refrigeration Controls

Other technical electives may be taken with prior approval from a program advisor. The only courses eligible are junior- and senior-level courses in University College.

### Educational Objectives

The educational objectives of the B.S. in Electrical Engineering Technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S. in Electrical Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in the analysis, design, development, application, implementation, building, manufacturing, installation, testing, operation and/or maintenance of electrical and electronic systems, including those used in control, instrumentation, communications, computer or power.

2. Continue their education to obtain advanced degrees, licenses or certifications.

3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

### Requirements for the Bachelor of Science in Electrical Engineering Technology Degree (B.S.E.E.T.)

#### 1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGR1301</td>
<td>Engineering Practices, Graphics and Design</td>
<td></td>
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<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td></td>
</tr>
<tr>
<td>MATH1107</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>PHYS2101</td>
<td>General Physics I</td>
<td></td>
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<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
<td></td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
<td></td>
</tr>
</tbody>
</table>

Total: 15

### Engineering Technology

University College: Arts • Sciences • Professional Studies

Metropolitan Campus and Vancouver Campus

*Up to 6 credits of work experience may be used in place of technical electives.
Engineering Technology
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

2nd Semester
EGTC1223
Introduction to CAD..........................2
ENWR1002
Composition II: Research and
Argument.........................................3
MATH1201
Calculus I.........................................4
PHYS2102
General Physics II.............................3
PHYS2202
Physics Laboratory II........................1
UNIV1002
Preparing for Professional Life............1
Total..........................14

3rd Semester
CHEM1201
General Chemistry I..........................3
CHEM1203
General Chemistry Laboratory I...........1
EGTG2210
Technical Communications..................3
EGTG2215
Circuits I.........................................3
EGTG2221
Statics............................................3
MATH2202
Calculus II.......................................4
Total..........................17

4th Semester
EGTE2216
Circuits II.........................................3
EGTG2228
Strength of Materials........................3
EGTG2286
Digital System Design.........................3
EGTG4221
Engineering Statistics and Reliability.....3
ENGR1204
Programming Languages in
Engineering....................................3
UNIV2001
Cross-cultural Perspectives..................3
Total..........................18

5th Semester
EENG4375
Electrical Energy Conversion...............3
EGTE2287
Microprocessor System Design I...........3
EGTG2265
Electronics I....................................3
EGTG3211
Materials Technology I.......................3
EGTG4254
Fluid Mechanics................................3
ENGR3200
Advanced Engineering Programming.......3
Total..........................18

6th Semester
EGTE3266
Electronics II...................................3
EGTE3288
Microprocessor System Design II..........3
EGTG3223
Instrumentation................................3
EGTG3531
Applied Thermodynamics....................3
ENGR3000
Modern Technologies: Principles,
Applications and Impacts....................3
Total..........................15

7th Semester
EGTC4265
Project Management and Control I.........3
EGTE3267
Electronics III.................................3
EGTE4342
Data Communications and
Computer Networks..........................3
EGTG4224
Process and Electro/Mechanical
Control Systems Technology................3
EGTG4269
Management and Engineering
Economics......................................3
Total..........................15

8th Semester
EGTE4381
Computer-aided Analysis and Design......3
EGTE4387
Electrical Technology Design Project.....1
EGTG4225
Industrial Automation.......................3
UNIV2002
Global Issues..................................3
Technical Electives*.............................6
Total..........................16

Electrical Engineering Technology
Electives*
The student must take 6 credits of technical
electives from the following list:
CHEM1202 General Chemistry II with
CHEM1204 General Chemistry
Laboratory II
EGTE3049 Fiber Optics Technology
EGTE3051 Laser Technology
EGTE4047 Optical Technology I
EGTE4049 Optical Technology II
EGTE4052 Optical Measurements and
Test Equipment I

EGTE4054 Optical Measurements and
Test Equipment II
EGTE4345 Microwave Technology
EGTG4351 Dynamics
EGTG4340 Manufacturing Systems
EGTM4040 Heating, Ventilation and
Air Conditioning
EGTM4041 Heating, Ventilation and
Air Conditioning and Refrigeration Controls

Other technical electives may be taken
with prior approval from a program advis-
er. The only courses eligible are junior- and
senior-level courses in University College.

Electrical Engineering Technology Minor*
(For Non-Electrical Engineering Technology
and Non-Electrical Engineering Majors)
The minor in electrical engineering tech-
nology consists of 15 credits and is avail-
able to qualified students. This minor pro-
vides students with a foundation in
electrical engineering technology, and it
can enhance their employment opportuni-
ities and career options. The courses for the
electrical engineering technology minor
within University College: Arts • Sciences
• Professional Studies are as follows:

Required Courses (9 credits)
EGTE2216
Circuits II.........................................3
EGTG2215
Circuits I.........................................3
EGTG2286
Digital System Design.........................3

Electives** (6 credits)
Two courses must be chosen from the fol-
lowing:
EGTE2287
Microprocessor System Design I..........3
EGTE3266
Electronics II....................................3
EGTE3288
Microprocessor System Design II........3
EGTE4381
Computer-aided Analysis and Design....3
EGTG2265
Electronics I....................................3
EGTG3223
Instrumentation................................3

*To take any course in the minor, a student must
meet all prerequisites for that course.
**With the approval of the academic adviser, stu-
dents may take higher-level EGTE courses as elec-
tives.
Mechanical Engineering Technology (B.S.M.E.T.)

Program Coordinator: Bernard Lefkowitz, Ph.D.

The Bachelor of Science in Mechanical Engineering Technology program prepares students to apply the principles of mechanics and energy to the design, manufacturing and operation of machinery and other mechanical devices. Employment opportunities for mechanical engineering technologists are in power generation, process control, production supervision, plant operation, manufacturing, quality assurance and reliability testing, test and field services, the automotive industry, heating, ventilating and air conditioning.

Educational Objectives

The educational objectives of the B.S. in Mechanical Engineering Technology program define the career and professional accomplishments that the students are being prepared to achieve three to four years after graduation. The B.S. in Mechanical Engineering Technology program will produce graduates who:

1. Enter into and advance their careers in the analysis, applied design, development, implementation and management of mechanical systems and processes, including those used in fields such as mechanical design, electromechanical devices and controls, manufacturing processes or applied thermal sciences.

2. Continue their formal education leading to professional licensures or advanced degrees in science, technology or business.

3. Continue to conduct themselves as both responsible professionals and global citizens who are aware of and who understand ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

Requirements for the Bachelor of Science in Mechanical Engineering Technology Degree (B.S.M.E.T.)

1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGR1301</td>
<td>Engineering Practices, Graphics and Design</td>
<td>3</td>
</tr>
<tr>
<td>ENVR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>MATH1107</td>
<td>Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2101</td>
<td>General Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
<td>1</td>
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<td>Transitioning to University Life</td>
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Total: 15

2nd Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>EGTC1223</td>
<td>Introduction to CAD</td>
<td>2</td>
</tr>
<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>MATH1201</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2102</td>
<td>General Physics II</td>
<td>3</td>
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<tr>
<td>PHYS2202</td>
<td>Physics Laboratory II</td>
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<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
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Total: 14

3rd Semester

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
<td>3</td>
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<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>EGTG2210</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2215</td>
<td>Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2221</td>
<td>Statics</td>
<td>3</td>
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<tr>
<td>MATH2202</td>
<td>Calculus II</td>
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Total: 17

4th Semester

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<tbody>
<tr>
<td>EGTG2216</td>
<td>Circuits II</td>
<td>3</td>
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<tr>
<td>EGTG2228</td>
<td>Strength of Materials</td>
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Total: 15

5th Semester

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<tbody>
<tr>
<td>EENG4375</td>
<td>Electrical Energy Conversion</td>
<td>3</td>
</tr>
<tr>
<td>EGTG3561</td>
<td>Estimating I</td>
<td>3</td>
</tr>
<tr>
<td>EGTG2265</td>
<td>Electronics I</td>
<td>3</td>
</tr>
<tr>
<td>EGTG3211</td>
<td>Materials Technology I</td>
<td>3</td>
</tr>
<tr>
<td>EGTG4254</td>
<td>Fluid Mechanics</td>
<td>3</td>
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<tr>
<td>EGTM2252</td>
<td>Mechanical Measurement and Devices</td>
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Total: 18

6th Semester

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<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>EGTG3223</td>
<td>Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>EGTG3531</td>
<td>Applied Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>EGTG3451</td>
<td>Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>EGTM2255</td>
<td>Manufacturing Processes</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3000</td>
<td>Modern Technologies: Principles, Applications and Impacts</td>
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Total: 15

7th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>EGTC4263</td>
<td>Project Management and Control I</td>
<td>3</td>
</tr>
<tr>
<td>EGTG4224</td>
<td>Process and Electro/Mechanical Control Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>EGTG4269</td>
<td>Management and Engineering Economics</td>
<td>3</td>
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<tr>
<td>EGTM3248</td>
<td>Mechanical Technology Design I</td>
<td>3</td>
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<tr>
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<td>Global Issues</td>
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Total: 15
8th Semester

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>EGTG4225</td>
<td>Industrial Automation</td>
<td>3</td>
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<tr>
<td>EGMT3250</td>
<td>Mechanical Technology Design II</td>
<td>3</td>
</tr>
<tr>
<td>EGMT4356</td>
<td>Stress and Vibration Analyses</td>
<td>3</td>
</tr>
<tr>
<td>EGMT4386</td>
<td>Mechanical Technology Design Project</td>
<td>1</td>
</tr>
<tr>
<td>Technical Electives*</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>16</td>
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</table>

**Mechanical Engineering Technology Electives**

CHEM1202 General Chemistry II with CHEM1204 General Chemistry Laboratory II
EGTC3262 Estimating II
EGTC4260 Contracts and Specifications
EGTC4264 Project Management and Control II
EGTE4047 Optical Technology I
EGTE4049 Optical Technology II
EGTG4340 Manufacturing Systems
EGTM4040 Heating, Ventilation and Air Conditioning
EGTM4041 Heating, Ventilation and Air Conditioning and Refrigeration Controls

Other technical electives may be taken with prior approval from a program adviser. The only courses eligible are junior- and senior-level courses in University College.

**Mechanical Engineering Technology Minor**

(For Non-Mechanical Engineering Technology Majors)

The minor in mechanical engineering technology consists of 15 credits, and it is relevant to students with appropriate mathematics and science backgrounds. This minor provides students in other fields of study with the fundamental aspects of mechanical engineering technology, and it can bring them additional employment opportunities and career options. The courses for a minor in mechanical engineering technology within University College are as follows:

**Required Courses (12 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGTG2221</td>
<td>Statics</td>
<td>3</td>
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<tr>
<td>EGTG2228</td>
<td>Strength of Materials</td>
<td>3</td>
</tr>
<tr>
<td>EGTG3351</td>
<td>Applied Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>EGTG3431</td>
<td>Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>EGTG4224</td>
<td>Process and Electro/Mechanical Control Systems Technology</td>
<td>3</td>
</tr>
<tr>
<td>EGTG4225</td>
<td>Industrial Automation</td>
<td>3</td>
</tr>
<tr>
<td>EGTG4254</td>
<td>Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>EGMT4356</td>
<td>Stress and Vibration Analyses</td>
<td>3</td>
</tr>
</tbody>
</table>

To take any course in the minor, a student must meet all the prerequisites for that course.

**Elective* (3 credits)**

One course must be chosen from the following:

EGTG2221 Statics
EGTG2228 Strength of Materials
EGTG3351 Applied Thermodynamics
EGTG3431 Dynamics
EGTG4224 Process and Electro/Mechanical Control Systems Technology
EGTG4225 Industrial Automation
EGTG4254 Fluid Mechanics
EGTM4356 Stress and Vibration Analyses

**English Language and Literature Major (B.A.)**

School of the Humanities

**Requirements for the Bachelor of Arts Degree**

The school offers a major in English language and literature. The University’s basic core curriculum normally requires two semesters of English (writing) of all students, including ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument. Competency in reading, writing and speaking is expected in courses throughout the University. Students revealing serious deficiencies will be assigned to appropriate courses. Students planning to major in English language and literature are required to complete 36 credits in either literature or creative writing. Qualified students may complete part of their undergraduate degree requirements at Wroxton College in England.

**Required Major Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL2000</td>
<td>Literary Analysis*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL2203</td>
<td>British Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL2204</td>
<td>British Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3357</td>
<td>Shakespeare I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3358</td>
<td>Shakespeare II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3369</td>
<td>American Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3370</td>
<td>American Literature II</td>
<td>3</td>
</tr>
</tbody>
</table>

*Ideally, ENGL2000 Literary Analysis should be taken during the sophomore year or in the fifth semester at the latest.

*Up to 6 credits of work experience may be used in place of technical electives.

*With the approval of an academic adviser, students may take other high-level, relevant technical courses as elective.
### One Global/World Literature Class
(Choose one course from the list below.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL2201</td>
<td>Masterpieces of World Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL2202</td>
<td>Masterpieces of World Literature II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3384</td>
<td>Postcolonial Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3387</td>
<td>Special Topics in World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3389</td>
<td>The Global Novel</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3392</td>
<td>International Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3396</td>
<td>South-African Literature, Sex, Politics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3399</td>
<td>Continental Drift: Sex, Gender and Family in the South Asian Diaspora</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3430</td>
<td>Contemporary African Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL4436</td>
<td>Nobel Prize: Authors</td>
<td>3</td>
</tr>
<tr>
<td>ENGL4445</td>
<td>Caribbean Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

### One Pre-1800 Literature Class
(Choose one course from the list below.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL3351</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3353</td>
<td>Chaucer</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3355</td>
<td>Renaissance Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3359</td>
<td>17th-century Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3361</td>
<td>Milton</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3363</td>
<td>18th-century Literature I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3364</td>
<td>18th-century Literature II</td>
<td>3</td>
</tr>
</tbody>
</table>

### Major Elective Courses (18 credits)
To be taken from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL1103</td>
<td>English Masters</td>
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<td>American Masters</td>
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<tr>
<td>ENGL2004</td>
<td>Introduction to Fiction</td>
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<tr>
<td>ENGL2005</td>
<td>Introduction to the Short Story</td>
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<tr>
<td>ENGL2140</td>
<td>African-American Literature</td>
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<tr>
<td>ENGL2205</td>
<td>Introduction to Critical Writing I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL2206</td>
<td>Introduction to Critical Writing II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL2207</td>
<td>Oral and Written Reports</td>
<td>3</td>
</tr>
<tr>
<td>ENGL2357</td>
<td>Introduction to Irish Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3007</td>
<td>Major British Writers I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3008</td>
<td>Major British Writers II</td>
<td>3</td>
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<tr>
<td>ENGL3024</td>
<td>Studies in Poetry</td>
<td>3</td>
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<tr>
<td>ENGL3044</td>
<td>The Environment in Literature and Culture</td>
<td>3</td>
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<tr>
<td>ENGL3047</td>
<td>American Nature Writers</td>
<td>3</td>
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<td>ENGL3049</td>
<td>Major American Writers I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3050</td>
<td>Major American Writers II</td>
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<td>ENGL3053</td>
<td>Shakespeare and Film</td>
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<td>ENGL3056</td>
<td>Modernism</td>
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<td>ENGL3060</td>
<td>Post-modern Literature</td>
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<td>ENGL3076</td>
<td>Special Stories — Super Cinema</td>
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<td>ENGL3131</td>
<td>20th-century American Worker in Literature</td>
<td>3</td>
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<td>ENGL3200</td>
<td>English Grammar</td>
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<td>ENGL3307</td>
<td>20th-century Literature</td>
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<td>ENGL3315</td>
<td>American Jewish Novel</td>
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<td>ENGL3321</td>
<td>Psychological Fiction</td>
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<td>ENGL3322</td>
<td>Psychological Novel II</td>
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<tr>
<td>ENGL3323</td>
<td>Advanced Composition</td>
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<td>ENGL3324</td>
<td>Women in Literature</td>
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<tr>
<td>ENGL3326</td>
<td>Creative Writing II (Fiction)</td>
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<tr>
<td>ENGL3327</td>
<td>Creative Writing I (Poetry)</td>
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<td>ENGL3328</td>
<td>Creative Writing II (Poetry)</td>
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<td>ENGL3329</td>
<td>Advanced English Grammar</td>
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<td>ENGL3333</td>
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<td>Creative Writing II (Nonfiction)</td>
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<tr>
<td>ENGL3335</td>
<td>Creative Writing I (Scriptwriting)</td>
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<td>ENGL3336</td>
<td>Creative Writing II (Scriptwriting)</td>
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<tr>
<td>ENGL3337</td>
<td>Creative Writing I (Cross-genre)</td>
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<td>ENGL3338</td>
<td>Creative Writing II (Cross-genre)</td>
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<tr>
<td>ENGL3365</td>
<td>The Romantic Era I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3366</td>
<td>The Romantic Era II</td>
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<tr>
<td>ENGL3367</td>
<td>The Victorian Era I</td>
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<tr>
<td>ENGL3368</td>
<td>The Victorian Era II</td>
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<tr>
<td>ENGL3371</td>
<td>Modern Novel I</td>
<td>3</td>
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<tr>
<td>ENGL3372</td>
<td>Modern Novel II</td>
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<tr>
<td>ENGL3373</td>
<td>Modern Poetry I</td>
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<td>ENGL3374</td>
<td>Modern Poetry II</td>
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<td>ENGL3375</td>
<td>Modern Drama I</td>
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<td>ENGL3376</td>
<td>Modern Drama II</td>
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<tr>
<td>ENGL3377</td>
<td>The Bible and Its Influence</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3380</td>
<td>Literature of War</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3381</td>
<td>Popular Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3382</td>
<td>Special Topics in Black Literature</td>
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<tr>
<td>ENGL3383</td>
<td>Ethnic Literature in the United States</td>
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</tr>
<tr>
<td>ENGL3386</td>
<td>Special Topics in British or American Literature</td>
<td>3</td>
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<td>ENGL3388</td>
<td>Regionalism in American Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3390</td>
<td>Contemporary Fiction I</td>
<td>3</td>
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<tr>
<td>ENGL3391</td>
<td>Contemporary Fiction II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3394</td>
<td>Travel Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3409</td>
<td>Glory and Shame: America on Film</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3410</td>
<td>Modern Novels on the Screen</td>
<td>3</td>
</tr>
</tbody>
</table>
Creative Writing Minor
This 15-credit minor enables students to express themselves by writing scripts, fiction, poetry and nonfiction. Since creative writing improves writing skills in general, all students will benefit from the minor in creative writing. Students in the minor will study works of literature to understand the expectations of the genres. Additionally, by writing in workshop settings, students will learn what makes fiction, poetry, scriptwriting and creative nonfiction both distinctive and unique. All students selecting the creative writing minor must take at least nine credits of creative writing courses from the following list. The remaining six credits can be fulfilled with any additional creative writing courses or any literature course offered in the School of the Humanities:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Creative Writing I (Fiction)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing II (Fiction)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing I (Poetry)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing II (Poetry)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing I (Nonfiction)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing II (Nonfiction)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing I (Scriptwriting)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing II (Scriptwriting)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing I (Cross-genre)</td>
</tr>
<tr>
<td>3</td>
<td>Creative Writing II (Cross-genre)</td>
</tr>
</tbody>
</table>

English Language and Literature Minor
The minor in English language and literature invites students to explore the literatures of the world and offers students opportunities to increase their critical and creative writing skills. A minor in English language and literature also will help students cultivate the critical thinking and reading skills needed for many professions. Students choose 15 credits of English courses.

Suggested courses:
- British Literature Course
- American Literature Course
- World Literature Course
- English Literature Electives

Credits

Creative Writing I*...3
Creative Writing II*...3
Creative Writing I (Poetry)*...3
Creative Writing II (Poetry)*...3
Creative Writing I (Nonfiction)*...3
Creative Writing II (Nonfiction)*...3
Creative Writing I (Scriptwriting)*...3
Creative Writing II (Scriptwriting)*...3
Creative Writing I (Cross-genre)*...3
Creative Writing II (Cross-genre)*...3

*Offered at Wroxton College, England.
Health Information Management

Major (B.S.H.I.M.)

Henry P. Becton School of Nursing and Allied Health
(In partnership with FDU and the Rutgers School of Health Professions [Rutgers SHP])

Completion of this program will result in a Bachelor of Science in Health Information Management (B.S.H.I.M.) with eligibility for national certification and state licensure, where applicable.

Requirements for the Bachelor of Science in Health Information Management Degree

1st Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM1107, CHEM1117 Chemistry for Health Sciences (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CSCI1105 Survey of Computers and Computer Software</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1001 Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>MATH1105 College Algebra</td>
<td>4</td>
</tr>
<tr>
<td>PSYC1103 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001 Transitioning to University Life</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
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2nd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACCT2021 Introductory Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BIOL2125, BIOL2126 Microbiology for the Health Sciences (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>ENWR1002 Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>PSYC2201 Statistics</td>
<td>3</td>
</tr>
<tr>
<td>SPC11155 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1002 Preparing for Professional Life</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
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3rd Semester

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL2203, BIOL2223 Human Anatomy and Physiology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>MEDT4301 American Health Care</td>
<td>3</td>
</tr>
<tr>
<td>NURS3208 Introduction to Health Care Economics</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2001 Cross-cultural Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science/Management Information Systems Elective</td>
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<td><strong>Total</strong></td>
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4th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL2204, BIOL2224 Human Anatomy and Physiology II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>MEDT1130 Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>MEDT4302 Health Care Law and Policy</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002 Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science/Management Information Systems Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

After completion of 67 credits at FDU, the program is completed at the Rutgers School of Health Professions (Rutgers SHP) (61 credits). With successful completion of the program at Rutgers SHP, the student will earn the B.S. in Health Information Management.
The Bachelor of Science in Health Studies (B.S.H.S.) program is designed to prepare graduates with an understanding of a wide range of health-related concepts including: diseases and their causes, distributions of diseases, risk factors and prevention, behavior-change theory and application and evidence-based practice. The health science program is unique in that it offers a strong emphasis on problem-solving skills and critical thinking while providing a solid foundation of general education, health-related science and in-depth perspectives in health and health care delivery.

The program offers a comprehensive curriculum with two tracks designed to educate students in health, wellness and the prevention of disease leading to entry-level positions in diverse health-care agency settings. The program will prepare graduates for future graduate study.

Curriculum
The B.S. in Health Studies program has two tracks: a general track for those students who plan to work in a health care field and are not interested in pursuing advanced degrees that require more intensive science prerequisites; and a science track for students who plan to go on for graduate studies in medicine, dentistry, physical therapy, occupational therapy, physician assistant, health administration or other graduate programs.

General Track

**1st Semester**
- BIOL2205, BIOL2225
  - Human Anatomy and Physiology I (Lecture and Laboratory) ............. 4
- CHEM1107, CHEM1117
  - Chemistry for Health Sciences (Lecture and Laboratory) ............. 4
- CSCI1105
  - Survey of Computers and Computer Software ................................ 3
- ENWR1001
  - Composition I: Rhetoric and Inquiry........................................... 3

**2nd Semester**
- BIOL2125, BIOL2126
  - Microbiology for the Health Sciences (Lecture and Laboratory) ....... 4
- BIOL2204, BIOL2224
  - Human Anatomy and Physiology II (Lecture and Laboratory) ........... 4
- ENWR1002
  - Composition II: Research and Argument ..................................... 3
- MATH1105
  - College Algebra ............................................................................. 4
- UNIV1002
  - Preparing for Professional Life .................................................. 1

**3rd Semester**

**4th Semester**

**5th Semester**

**6th Semester**

**7th Semester**

**8th Semester**

**Science Track**

**1st Semester**

**2nd Semester**

**3rd Semester**

**4th Semester**

**5th Semester**

**6th Semester**

**7th Semester**

**8th Semester**

**Total Credits**

152
History

School of the Humanities

Requirements for the Bachelor of Arts Degree

Undergraduate history majors must complete 36 credits of history course work. No more than 6 credits can be taken at the 1000 level, at least 9 credits must be at the HIST3000 level and 3 credits must be for either HIST4400 Senior Research Seminar or HIST4401 Honors History.

History Minor

(For Non-History Majors)

Undergraduate students who take a major in something other than history may take a minor in history. The minor requires 15 credits of history course work. No more than 6 credits may be at the 1000 level and at least 6 credits must be at either the 3000 level or the 4000 level. History courses taken to satisfy general education requirements may count toward the history minor as well. The total number of credits required for the B.A., however, remains 120.

Combined Five-year B.A./M.P.A. Program

For the combined B.A. in history/M.P.A. degree program, see page 218.
Humanities

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Humanities Major (B.A.)

School of the Humanities

The Bachelor of Arts (B.A.) in humanities is an innovative major that allows students to explore the perspectives of and connections among multiple disciplines, including history, philosophy, literature, art and the humanistic social and behavioral sciences.

The humanities major offers more flexibility and choice in course selection than most other majors, allowing students to explore a wide range of subjects while developing crucial skills. Through studies in the humanities major, students will be helped to think clearly and critically about issues that confront human beings throughout the course of their personal and professional lives. The study of humanities encourages students to be intellectually curious and courageous, to work both cooperatively and independently, to form new connections and to master the skills of analysis, problem solving, interpretation, research methodology, effective communication and imagination.

The humanities major provides an interdisciplinary learning experience with career orientation as its main focus. This program allows students through their self-designed curriculum to gain the skills and knowledge needed to attain their educational goals within a liberal arts framework.

A humanities major must choose a 24-credit “primary concentration” in a broad interdisciplinary area such as American studies, British studies, digital humanities, global and cultural studies, liberal studies or sustainability.

Requirements for the Bachelor of Arts Degree

The degree requirements include:

- 3 credits PHIL1000 The Life of the Mind;
- 6 credits of humanities courses (HUMN2000 and above);
- 24 credits in a concentration; and
- 3 credits of a humanities capstone seminar (HUMN3000 and above).

Primary Concentrations

Each student chooses a primary concentration.

American Studies Concentration

This 24-credit concentration explores the culture, history, literature and politics of the United States. In addition, through this concentration, students develop a deeper understanding of the status of the contemporary United States and its place in the world today. The following courses count toward this concentration:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ENGL2140 African-American Literature</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3369 American Literature I</td>
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<td>ENGL3370 American Literature II</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3383 Ethnic Literature in the United States</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3409 Glory and Shame: America on Film</td>
</tr>
<tr>
<td>3</td>
<td>HIST1114 U.S. History to 1865</td>
</tr>
<tr>
<td>3</td>
<td>HIST1115 U.S. History Since 1865</td>
</tr>
<tr>
<td>3</td>
<td>HIST2102 Sports in America</td>
</tr>
<tr>
<td>3</td>
<td>HIST2104 United States Social and Cultural History</td>
</tr>
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<td>3</td>
<td>HIST2107 U.S. Economic History</td>
</tr>
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<td>3</td>
<td>HIST3101 American Immigration</td>
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<td>HIST3102 Race in America</td>
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<td>HIST3104 U.S. Diplomatic History</td>
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<td>HIST3105 U.S. Environmental History</td>
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<td>3</td>
<td>HIST3106 Culture and Technology in American History</td>
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<td>3</td>
<td>HIST3107 U.S. Constitutional History</td>
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<td>3</td>
<td>HIST3120 Colonial and Revolutionary America</td>
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<td>3</td>
<td>HIST3123 The U.S. Civil War and Reconstruction</td>
</tr>
<tr>
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<td>HIST3129 U.S. History 1890–1945</td>
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<tr>
<td>3</td>
<td>HIST3130 U.S. History Since 1945</td>
</tr>
<tr>
<td>3</td>
<td>HUMN2445/PHIL2445 African-American Political Thought</td>
</tr>
<tr>
<td>3</td>
<td>HUMN3221 Coming of Age in America</td>
</tr>
</tbody>
</table>

British Studies Concentration

This 24-credit concentration is ideal for students who wish to or have already spent time at FDU’s Wroxton College in England. Specifically, the British studies concentration offers students knowledge and insight into the culture, history, literature and politics of England. In addition, through this concentration, students develop a deeper understanding of the status of contemporary England and its place in the world today. The following courses count toward this concentration:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ART3415 The Development of British Painting in Britain and North America</td>
</tr>
<tr>
<td>3</td>
<td>COMM3026 Communication: Culture and the Media in Britain</td>
</tr>
<tr>
<td>3</td>
<td>ENGL2203 British Literature I</td>
</tr>
<tr>
<td>3</td>
<td>ENGL2204 British Literature II</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3351 Medieval Literature</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3353 Chaucer</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3355 Renaissance Literature</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3357 Shakespeare I</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3358 Shakespeare II</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3359 17th-century Literature</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3361 Milton</td>
</tr>
<tr>
<td>3</td>
<td>ENGL3363 18th-century Literature</td>
</tr>
</tbody>
</table>

*Offered at Wroxton College, England.
better or worse. With a growing number of positions in the field of information technology and projected shortage of information technologists, a digital humanities concentration can help students become more competitive in the job market. The following courses count toward this concentration:

- ART1174
  - Desktop Publishing I..................................................3

- ART1177/COMM1177
  - Introduction to Digital Media........................................3

- ART1178
  - Multimedia on the Internet.........................................3

- ART1179
  - Digital Illustration and Design....................................3

- ART1192
  - Digital Photography I................................................3

- ART1843
  - Design for the Web....................................................3

- ART2275
  - Computer Animation II................................................3

- ART2294
  - 2-D Computer Animation..............................................3

- ART2295
  - 3D Computer Animation...............................................3

- CRIM2235
  - Cyber Crime.....................................................................3

- CSC1105
  - Survey of Computers and Computer Software........................3

- ENGR3000
  - Modern Technologies: Principles, Applications and Impacts......3

- HUMN2444/PHIL2444
  - Technology and Its Critics..............................................3

- HUMN3041/INTER3041
  - Technology and Values..................................................3

- HUMN3350
  - Social Life On and Off the Internet................................3

- INFO1101
  - Computer Concepts and Technology....................................3

- INFO1101
  - Information Technology................................................3

- INFO3205
  - Digital Media Publishing..............................................3

- PHIL3310
  - Human Perspectives in a Computerized Society....................3

Other selected classes may be approved by the school director.

Digital Humanities Concentration

This 24-credit concentration is designed for students interested in learning the essentials of digital production (e.g., graphic design, web design, photography and film) as well as digital studies (media studies, the impact of technology on society). As technology becomes increasingly intertwined with everyone’s lives, it has become more important to possess not only an understanding of computing but to learn how to effectively utilize computer technologies in professional and personal lives as well as to understand how these same technologies can help shape lives for better or worse. With a growing number of positions in the field of information technology and projected shortage of information technologists, a digital humanities concentration can help students become more competitive in the job market. The following courses count toward this concentration:

- ART1174
  - Desktop Publishing I..................................................3

- ART1177/COMM1177
  - Introduction to Digital Media........................................3

- ART1178
  - Multimedia on the Internet.........................................3

- ART1179
  - Digital Illustration and Design....................................3

- ART1192
  - Digital Photography I................................................3

- ART1843
  - Design for the Web....................................................3

- ART2275
  - Computer Animation II................................................3

- ART2294
  - 2-D Computer Animation..............................................3

- ART2295
  - 3D Computer Animation...............................................3

- CRIM2235
  - Cyber Crime.....................................................................3

- CSC1105
  - Survey of Computers and Computer Software........................3

- ENGR3000
  - Modern Technologies: Principles, Applications and Impacts......3

- HUMN2444/PHIL2444
  - Technology and Its Critics..............................................3

- HUMN3041/INTER3041
  - Technology and Values..................................................3

- HUMN3350
  - Social Life On and Off the Internet................................3

- INFO1101
  - Computer Concepts and Technology....................................3

- INFO1101
  - Information Technology................................................3

- INFO3205
  - Digital Media Publishing..............................................3

- PHIL3310
  - Human Perspectives in a Computerized Society....................3

Other selected classes may be approved by the school director.

Global and Cultural Studies Concentration

This 24-credit concentration is designed for students who have an interest in global or popular cultures. As the workplace has become increasingly globalized, it has become especially important for professionals, regardless of the career they enter, to gain a developed understanding and knowledge of diverse cultures, nations and people. Students who choose this concentration will be able to choose from courses that emphasize a deeper understanding of media and popular culture and courses that investigate international cultures and communities. The following courses count toward this concentration:

- AFST1101
  - Africa and Africans I: History and Traditions............................3

- AFST1102
  - Africa and Africans II: Communities and Culture........................3

- COMM1101
  - Mass Media: Image, Sound and Text....................................3

- COMM1105
  - Intercultural Communication.............................................3

- COMM2102
  - International Communication.............................................3

- COMM2104
  - Language, Culture and Communication..................................3

- COMM2210
  - Popular Culture and the Media.........................................3

- COMM2415
  - Sports and Popular Culture.............................................3

- COMM3102
  - Media, History and Society.............................................3

- COMM4468/HUMN4468
  - Bollywood and Beyond: India in Film..................................3

- ENGL3307/HUMN3307
  - Slavery and Global Ethics.................................................3

- ENGL3361
  - Popular Fiction...................................................................3

- ENGL3382
  - Special Topics in Black Literature.....................................3

- ENGL3383
  - Ethnic Literature in the United States................................3

- ENGL3384
  - Postcolonial Literature..................................................3

- ENGL3389
  - The Global Novel................................................................3

- ENGL3392
  - International Literature..................................................3

- ENGL3396
  - South-African Literature, Sex, Politics..................................3

- ENGL3399/HUMN3399
  - Continental Drift: Sex, Gender and Family in the South Asian Diaspora..................................................3

- ENGL3430
  - Contemporary African Literature........................................3

*Offered at Wroxton College, England.


### Humanities

**University College: Arts • Sciences • Professional Studies**

Metropolitan Campus and Vancouver Campus

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**Liberal Studies Concentration**

This 24-credit concentration offers the maximum amount of choice and variety for students seeking a solid academic grounding in multiple disciplines. As such, it is particularly suited for adult learners or for students pursuing careers in elementary education who can benefit from a broad background in multiple disciplines within the humanities and humanistic social sciences fields such as art history, communications, English, history, music, philosophy, political science, religion, sociology, and theater. The following courses count toward this concentration:

<table>
<thead>
<tr>
<th>Art History Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1120 Modern Art to Mid-century</td>
</tr>
<tr>
<td>ART1131 History of Graphic Design and Illustration</td>
</tr>
<tr>
<td>ART1133 History of Photography</td>
</tr>
<tr>
<td>ART2238 The Global Art World</td>
</tr>
</tbody>
</table>

### Other Courses (21 credits)

| BIOL1001, BIOL1011 Principles of Modern Biology (Lecture and Laboratory) |
| BIOL1103, BIOL1115 The Human Environment (Lecture and Laboratory) |
| BIOL2250, BIOL2150 Ecology and Field Biology (Lecture and Laboratory) |
| ENGL3044 The Environment in Literature and Culture |

**Credits**

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**Sustainability Concentration**

This 24-credit concentration provides students with a solid foundation in the growing field of sustainability, which includes the impact and long-term viability of environmentalism, social justice, ecology, health sciences, marine biology and food production, among other areas. As an increasing number of businesses, nonprofit organizations and educational institutions commit to “green” lifestyles and practices, FDU humanities graduates who choose this concentration place themselves in a particularly competitive position in the job market. This concentration is also augmented by the Career Development Center, which can help students get internships with various local environmental and sustainability-focused groups. The following courses count toward this concentration:

| Health and Society: Access and Issues |
| Other selected classes may be approved by the school director |

**Minors (For Non-majors)**

**American Studies Minor**

This 15-credit minor explores the culture, history, literature and politics of the United States. In addition, through this minor, students develop a deeper understanding of the status of the contemporary United States and its place in the world today. The following courses count toward this minor:

| BIOL1118, BIOL1128 Beach Ecology (Lecture and Laboratory) |
| MBIO1209, MBIO1219 Introduction to Marine Biology (Lecture and Laboratory) |
| PHIL3311 The Ethics of Food |
| POLS3011 Human Rights in Global Environment |
| SOC13518 Health and Society: Access and Issues |

Other selected classes may be approved by the school director.
### British Studies Minor

This 15-credit minor is ideal for students who wish to or have already spent time at FDU’s Wroxton College in England. Specifically, the British studies minor offers students knowledge and insight into the culture, history, literature and politics of England. In addition, through this minor, students develop a deeper understanding of the status of contemporary England and its place in the world today. The following courses count toward this minor:

**Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGL2203 British Literature I</td>
<td>3</td>
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<tr>
<td>ENGL2204 British Literature II</td>
<td>3</td>
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<tr>
<td>ENGL3351 Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3353 Chaucer</td>
<td></td>
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<tr>
<td>ENGL3355 Renaissance Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3357 Shakespeare I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3358 Shakespeare II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3359 17th-century Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3361 Milton</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3363 18th-century Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3365 The Romantic Era I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3367 The Victorian Era I</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3421 Not of an Age … But for All Time*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3422 “The Play’s the Thing”*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3463 England’s Green and Pleasant Land*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3466 Three 19th-century Writers*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3467 18th-century Literature*</td>
<td>3</td>
</tr>
<tr>
<td>ENGL4447 &quot;The Tempest:&quot; Music Rich and Strange</td>
<td>3</td>
</tr>
<tr>
<td>HIST3422 Britain in the Modern Era*</td>
<td>3</td>
</tr>
</tbody>
</table>

*Offered at Wroxton College, England.

### Digital Humanities Minor

This 15-credit minor is designed for students interested in learning the essentials of digital production (e.g., graphic design, web design, photography and film) as well as digital studies (media studies, the impact of technology on society). As technology becomes increasingly intertwined with everyone’s lives, it has become more important to possess not only an understanding of computing but to learn how to effectively utilize computer technologies in professional and personal lives as well as to understand how these same technologies can help shape lives for better or worse. With a growing number of positions in the field of information technology and projected shortage of information technologists, a digital humanities minor can help students become more competitive in the job market. The following courses count toward this minor:

**Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1174 Desktop Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ART1177/COM1177 Introduction to Digital Media</td>
<td>3</td>
</tr>
<tr>
<td>ART1178 Multimedia on the Internet</td>
<td>3</td>
</tr>
<tr>
<td>ART1179 Digital Illustration and Design</td>
<td>3</td>
</tr>
<tr>
<td>ART1192 Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>ART1843 Design for the Web</td>
<td>3</td>
</tr>
<tr>
<td>HUMN4409 The British Imagination: From</td>
<td>3</td>
</tr>
<tr>
<td>King Arthur to Harry Potter</td>
<td>3</td>
</tr>
<tr>
<td>INTER3430 The Anatomy of Contemporary Britain*</td>
<td>3</td>
</tr>
<tr>
<td>POLS3450 British Government and Politics*</td>
<td>3</td>
</tr>
<tr>
<td>POLS3454 Descent from Power: British</td>
<td></td>
</tr>
<tr>
<td>Foreign Policy Since 1900*</td>
<td>3</td>
</tr>
<tr>
<td>POLS3456 The Power and Personality of the</td>
<td>3</td>
</tr>
<tr>
<td>British Prime Minister*</td>
<td></td>
</tr>
<tr>
<td>SOC13440 Women and Race in Modern Britain*</td>
<td>3</td>
</tr>
<tr>
<td>SOC13445 Social Policy in Contemporary Britann*</td>
<td>3</td>
</tr>
</tbody>
</table>

Other selected classes may be approved by the school director.
### Gender and Sexuality Studies Minor

This interdisciplinary minor is for students who wish to explore gender and its relation to other axes of power: race, class, ethnicity and sexuality. These concepts will be used to analyze human experience in its bodily, political, economic and culture dimensions.

The minor consists of five elective courses to be chosen from the following list; no more than two courses can be taken in the same discipline:

- CRIM1112: Minorities, Women and the Criminal Justice System
- CRIM1135: Social Justice and Structural Inequality
- CRIM2216: Sex, Deviance and the Law
- CRIM3307: Domestic Violence
- ENGL3324: Women in Literature

### Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL3396</td>
<td>South-African Literature, Sex, Politics</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3399/HUMN3399</td>
<td>Continental Drift: Sex, Gender and Family in the South Asian Diaspora</td>
<td>3</td>
</tr>
<tr>
<td>HIST3105</td>
<td>Gender in U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2255/RELI2255</td>
<td>Person, Gender and Sexuality: Judaism, Christianity and Islam</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2439</td>
<td>Radical Political Thought</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2440/PHIL2440</td>
<td>Human Rights</td>
<td>3</td>
</tr>
<tr>
<td>HUMN3307/PHIL3307</td>
<td>Slavery and Global Ethics</td>
<td>3</td>
</tr>
<tr>
<td>LANG3322/HUMN3322</td>
<td>Latin-American Women Authors</td>
<td>3</td>
</tr>
<tr>
<td>PHIL2105</td>
<td>Current Moral and Social Issues</td>
<td>3</td>
</tr>
<tr>
<td>POLS2206</td>
<td>American Minority Politics</td>
<td>3</td>
</tr>
<tr>
<td>POLS3011</td>
<td>Human Rights in Global Environment</td>
<td>3</td>
</tr>
<tr>
<td>POLS3327</td>
<td>Civil Rights and Liberties</td>
<td>3</td>
</tr>
<tr>
<td>POLS4320</td>
<td>Women’s America</td>
<td>3</td>
</tr>
<tr>
<td>PSYC3311</td>
<td>Psychology of Love and Interpersonal Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSYC3325</td>
<td>Psychology of Women</td>
<td>3</td>
</tr>
<tr>
<td>PSYC3370</td>
<td>Psychology of Men</td>
<td>3</td>
</tr>
<tr>
<td>PSYC3584</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
</tbody>
</table>
| Other selected courses may be approved by the school director.

### Global and Cultural Studies Minor

This 15-credit minor is designed for students who have an interest in global or popular cultures. As the workplace has become increasingly globalized, it has become especially important for professionals, regardless of the career they enter, to gain a developed understanding and knowledge of diverse cultures, nations and people. Students who choose this minor will be able to choose from courses that emphasize a deeper understanding of media and popular culture and courses that investigate international cultures and communities. The following courses count toward this minor:

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<tr>
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</thead>
<tbody>
<tr>
<td>AFST1101</td>
<td>Africa and Africans I: History and Traditions</td>
<td>3</td>
</tr>
<tr>
<td>AFST1102</td>
<td>Africa and Africans II: Communities and Culture</td>
<td>3</td>
</tr>
<tr>
<td>COMM1101</td>
<td>Mass Media: Image, Sound and Text</td>
<td>3</td>
</tr>
<tr>
<td>COMM1105</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM2102</td>
<td>International Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM2104</td>
<td>Language, Culture and Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM2210</td>
<td>Popular Culture and the Media</td>
<td>3</td>
</tr>
<tr>
<td>COMM2415</td>
<td>Sports and Popular Culture</td>
<td>3</td>
</tr>
<tr>
<td>COMM3102</td>
<td>Media, History and Society</td>
<td>3</td>
</tr>
<tr>
<td>COMM4468/HUMN4468</td>
<td>Bollywood and Beyond: India in Film</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3381</td>
<td>Popular Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3382</td>
<td>Special Topics in Black Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3383</td>
<td>Ethnic Literature in the United States</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3384</td>
<td>Postcolonial Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3389</td>
<td>The Global Novel</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3392</td>
<td>International Literature</td>
<td>3</td>
</tr>
<tr>
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<td>South-African Literature, Sex, Politics</td>
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<td>ENGL3399/HUMN3399</td>
<td>Continental Drift: Sex, Gender and Family in the South Asian Diaspora</td>
<td>3</td>
</tr>
<tr>
<td>ENGL3430</td>
<td>Contemporary African Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENGL4445</td>
<td>Caribbean Literature</td>
<td>3</td>
</tr>
<tr>
<td>HIST2245</td>
<td>Islamic History</td>
<td>3</td>
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<tr>
<td>HIST3102</td>
<td>Race in America</td>
<td>3</td>
</tr>
<tr>
<td>HIST3202</td>
<td>Middle East</td>
<td>3</td>
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<tr>
<td>HIST3360</td>
<td>Modern African History</td>
<td>3</td>
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<tr>
<td>HUMN2440/PHIL2440</td>
<td>Human Rights</td>
<td>3</td>
</tr>
<tr>
<td>HUMN2443/PHIL2443</td>
<td>African-American Political Thought</td>
<td>3</td>
</tr>
</tbody>
</table>
| Other selected courses may be approved by the school director.
Information Technology

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Required Course (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1001, BIOL1115</td>
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</table>

Other Courses (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL2250, BIOL2150</td>
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</tr>
<tr>
<td>ENGL3044</td>
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</tr>
<tr>
<td>ENGL3047</td>
<td></td>
</tr>
<tr>
<td>BIOL1105, BIOL1115</td>
<td></td>
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<tr>
<td>ENV1001, ENV1205, ENV1215</td>
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<tr>
<td>HIST3105</td>
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<tr>
<td>HUMN2447</td>
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<tr>
<td>MBI01118, MBI01128</td>
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<tr>
<td>MBI01209, MBI01219</td>
<td></td>
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<tr>
<td>PHIL3311</td>
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</tbody>
</table>

Sustainability Minor

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Required Course (3 credits)

<table>
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<tr>
<th>Course</th>
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<td>MBI01209, MBI01219</td>
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<tr>
<td>PHIL3311</td>
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</tbody>
</table>

Other selected classes may be approved by the school director.
Information Technology
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

tion experience that provides a paid professional salary, invaluable on-the-job work experience and a maximum of 6 credits earned toward the degree.

The mathematics, science and programming courses provide students with a strong analytical and scientific foundation. The students receive a well-rounded education and a strong foundation for thoughtful global citizenship from the liberal arts courses. The development of strong oral and written communication skills is emphasized throughout the curriculum.

The program enables students to take at least one out of three primary concentrations. The program also allows students sufficient flexibility to concentrate in a secondary area of information technology or to undertake a minor in another discipline. An adviser is assigned to each student in the first year and guides him or her throughout the program. Any concentration areas or minors undertaken by the students must be approved first by the adviser.

Educational Objectives
The educational objectives of the B.S. in information technology program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The program will produce graduates who:

1. Enter into and advance in the profession of information technology, computer science, management information systems, business administration or other related fields.

2. Continue their education by obtaining professional certificates or advanced degrees in information technology, computer science, management information systems, business administration or other related fields.

3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies, which include students, alumni, employers, faculty, staff and the Industrial Advisory Board.

Student Outcomes
The B.S. in information technology program has adopted the Student Outcomes of the Computing Accreditation Commission (CAC) of ABET as its own learning outcomes, which define the attributes, skills and knowledge that the graduates are expected to possess upon or before graduation. Each IT graduate will demonstrate the following attributes and achievements as required by the CAC of ABET by the time of graduation:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.

3. Communicate effectively in a variety of professional contexts.

4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

5. Function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.

6. Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation and administration of computing-based systems.

The program plans to apply for an accreditation review from the CAC of ABET.

Requirements for the Bachelor of Science Degree

1st Semester
Credits
CSCI1105
Survey of Computers and Computer Software.................................3
ENWR1001
Composition I: Rhetoric and Inquiry.................................................3
INFO1101
Computer Concepts and Technology.................................................3
MATH1105
College Algebra..........................................................4
UNIV1001
Transcending to University Life.................................................1
Total...............14

2nd Semester
Credits
ART1177
Introduction to Digital Media..............................................3
ENWR1002
Composition II: Research and Argument........................................3
INFO1201
Information Technology..................................................3
MATH1107
Precalculus..........................................................4
UNIV1002
Preparing for Professional Life.................................................1
Total...............14

3rd Semester
Credits
EGTG2210
Technical Communications.................................................3
INFO2101
Computer Programming for Information Technologists I...............3
INFO2105
Internet and Web Applications..............................................3
UNIV2001
Cross-cultural Perspectives................................................3
Laboratory Science Elective................................................4
Total...............16

4th Semester
Credits
ENGR2286
Digital System Design..................................................3
INFO2102
Computer Programming for Information Technologists II...............3
INFO2106
Website Design and Management............................................3
UNIV2002
Global Issues..........................................................3
Laboratory Science Elective................................................4
Total...............16

5th Semester
Credits
CSCI2232
Data Structures.....................................................3
ENGR3000
Modern Technologies: Principles, Applications and Impacts............3
MATH2537
Applied Statistics I....................................................3
Minor or Concentration Courses.............................................6
Total...............15
6th Semester

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CSCI3268</td>
<td></td>
</tr>
<tr>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>INFO3201</td>
<td></td>
</tr>
<tr>
<td>Human Computer Interface</td>
<td>3</td>
</tr>
<tr>
<td>INFO3205</td>
<td></td>
</tr>
<tr>
<td>Digital Media Publishing</td>
<td>3</td>
</tr>
<tr>
<td>INFO4278</td>
<td></td>
</tr>
<tr>
<td>Operating Systems* or Minor or Concentration Course*</td>
<td>3</td>
</tr>
<tr>
<td>Information Technology Elective*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

7th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR4210</td>
<td></td>
</tr>
<tr>
<td>Managerial and Engineering Economic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>INFO4101</td>
<td></td>
</tr>
<tr>
<td>Data Communications and Computer Networks I</td>
<td>3</td>
</tr>
<tr>
<td>INFO4201</td>
<td></td>
</tr>
<tr>
<td>Information Technology Needs Assessment and Management</td>
<td>3</td>
</tr>
<tr>
<td>MATH2255</td>
<td></td>
</tr>
<tr>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>Minor or Concentration Course*</td>
<td>3</td>
</tr>
<tr>
<td>Information Technology Elective*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

8th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI3274</td>
<td></td>
</tr>
<tr>
<td>Linux System Administration</td>
<td>3</td>
</tr>
<tr>
<td>INFO4205</td>
<td></td>
</tr>
<tr>
<td>Information Technology Capstone Project</td>
<td>3</td>
</tr>
<tr>
<td>INFO4410</td>
<td></td>
</tr>
<tr>
<td>Foundations of Cybersecurity*</td>
<td>3</td>
</tr>
<tr>
<td>INFO4844</td>
<td></td>
</tr>
<tr>
<td>Programming for the Internet* or Minor or Concentration Course*</td>
<td>3</td>
</tr>
<tr>
<td>Minor or Concentration Course*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Science Electives**

One full-year sequence with laboratories totaling 8 credits to be chosen from:

- BIOL1251, BIOL1252
- General Biology I, II......................6
- BIOL1253, BIOL1254
- Laboratory: General Biology I, II........2
- CHEM1201, CHEM1202
- General Chemistry I, II...................6
- CHEM1203, CHEM1204
- General Chemistry Laboratory I, II.......2
- PHYS2101, PHYS2102
- General Physics I, II.....................6
- PHYS2201, PHYS2202
- Physics Laboratory I, II..................2

**Primary Concentrations**

Students must complete at least one of the three primary concentration areas: web-development technology, network and system administration and security and forensics. Web-development technology requires students to take INFO4844 Programming for the Internet, while network and system administration requires students to take INFO4278 Operating Systems. All other courses required for each of these two primary concentrations are already included in the BS in information technology curriculum and are listed below. All courses for the security and forensics concentration are also listed below.

**Web-development Technology Concentration**

The courses for the area of concentration in web-development technology are designed to prepare students in planning and developing professional websites and/or managing an existing website for businesses and e-commerce. Apart from gaining fundamentals of website development, students learn the applications of digital media, effective user-interface design and internet programming. Employment opportunities in business and industries dealing with website design and maintenance abound in the tri-state area. Students must complete 15 credits of required courses and one 3-credit elective to be eligible for a certificate in this area. To take any course in the concentration, a student must meet all the prerequisites for that course.

**Required Courses (15 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1177</td>
<td></td>
</tr>
<tr>
<td>Introduction to Digital Media</td>
<td>3</td>
</tr>
<tr>
<td>INFO2105</td>
<td></td>
</tr>
<tr>
<td>Internet and Web Applications</td>
<td>3</td>
</tr>
<tr>
<td>INFO2106</td>
<td></td>
</tr>
<tr>
<td>Website Design and Management</td>
<td>3</td>
</tr>
<tr>
<td>INFO3201</td>
<td></td>
</tr>
<tr>
<td>Human Computer Interface</td>
<td>3</td>
</tr>
<tr>
<td>INFO3205</td>
<td></td>
</tr>
<tr>
<td>Digital Media Publishing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective (3 credits)**

INFO4844
- Programming for the Internet........3

**Network and System Administration Concentration**

The courses for the area of concentration in network and system administration are designed to prepare students to assume responsibilities involving IT system planning, installation and maintenance in business and industries. Students learn the fundamentals of operating systems, networking and information security and obtain hands-on laboratory experience in these subjects. Looking ahead, employment opportunities in network administration are expected to be above average in the overall IT sector. Students must complete 15 credits of required courses and one 3-credit elective to be eligible for a certificate in this area. Moreover, students are encouraged to obtain professional certifications to enhance their career objectives. A number of courses in this concentration may help lead to professional certification in Network+ or Security+. To take any course in the concentration, a student must meet all the prerequisites for that course.

**Required Courses (15 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI3274</td>
<td></td>
</tr>
<tr>
<td>Linux System Administration</td>
<td>3</td>
</tr>
<tr>
<td>INFO2101</td>
<td></td>
</tr>
<tr>
<td>Computer Programming for Information Technologists I...........3</td>
<td></td>
</tr>
<tr>
<td>INFO4101</td>
<td></td>
</tr>
<tr>
<td>Data Communications and Computer Networks I...........3</td>
<td></td>
</tr>
<tr>
<td>INFO4201</td>
<td></td>
</tr>
<tr>
<td>Information Technology Needs Assessment and Management........3</td>
<td></td>
</tr>
<tr>
<td>INFO4410</td>
<td></td>
</tr>
<tr>
<td>Foundations of Cybersecurity........................3</td>
<td></td>
</tr>
</tbody>
</table>

*Students take either INFO4278 Operating Systems or INFO4844 Programming for the Internet to fulfill the concentration in network and system administration or the concentration in web-development technology, respectively, and a minor. Alternatively, they can take the concentration in security and forensics and another CSCI or INFO course as approved by an academic adviser.
## Information Technology

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus and Vancouver Campus

### Elective (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFO4278</td>
<td></td>
</tr>
<tr>
<td>Operating Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

### Security and Forensics Concentration

The courses for the area of concentration in security and forensics are designed to prepare students in assessing vulnerabilities and risks, cyber defense and gathering digital evidence in case of a cybercrime. The courses in this concentration are developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. Fairleigh Dickinson University is designated as a Center of Academic Excellence in Cyber Defense Education (CAE-CDE) by the National Security Agency and Department of Homeland Security. As such, the B.S. degree program with security and forensics concentration satisfies all knowledge unit requirements set forth towards this designation. Students must complete 18 credits of required courses to be eligible for a CAE-CDE-designated program-completion certificate. To take any course in the concentration, a student must meet the prerequisite for that course.

### Required Courses (18 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM2218</td>
<td></td>
</tr>
<tr>
<td>Computer Technologies and Cyber Crime</td>
<td>3</td>
</tr>
<tr>
<td>CRIM3327</td>
<td></td>
</tr>
<tr>
<td>File System Forensic Analysis and Investigation</td>
<td>3</td>
</tr>
<tr>
<td>CRIM4010</td>
<td></td>
</tr>
<tr>
<td>Computer Forensic, Software and Hardware Applications</td>
<td>3</td>
</tr>
<tr>
<td>CSC12255</td>
<td></td>
</tr>
<tr>
<td>Survey of Computing Security</td>
<td>3</td>
</tr>
<tr>
<td>CSC12274</td>
<td></td>
</tr>
<tr>
<td>Linux System Administration*</td>
<td>3</td>
</tr>
<tr>
<td>CSC13785</td>
<td></td>
</tr>
<tr>
<td>Information Security</td>
<td>3</td>
</tr>
</tbody>
</table>

### Computer Forensics Minor

*(For All Majors)*

Computer forensics involves the identification, preservation, extraction, interpretation and the documentation of digital evidence in criminal and civil investigations. It is an interdisciplinary minor developed and administered jointly by the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering and the School of Criminal Justice, Political Science and International Studies. The minor, consisting of 15 credits, will provide students with a strong foundation in the knowledge, understanding and competencies sought by prospective employers in the area of computer forensics.

### Required Courses (12 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM2218</td>
<td></td>
</tr>
<tr>
<td>Computer Technologies and Cyber Crime</td>
<td>3</td>
</tr>
<tr>
<td>CRIM3327</td>
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</tr>
<tr>
<td>File System Forensic Analysis and Investigation</td>
<td>3</td>
</tr>
<tr>
<td>INFO1101</td>
<td></td>
</tr>
<tr>
<td>Computer Concepts and Technology</td>
<td>3</td>
</tr>
<tr>
<td>INFO4101</td>
<td></td>
</tr>
<tr>
<td>Data Communications and Computer Networks I</td>
<td>3</td>
</tr>
</tbody>
</table>

### Elective (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM4010</td>
<td></td>
</tr>
<tr>
<td>Computer Forensic, Software and Hardware Applications</td>
<td>3</td>
</tr>
<tr>
<td>or INFO410</td>
<td></td>
</tr>
<tr>
<td>Foundations of Cybersecurity</td>
<td>3</td>
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</tbody>
</table>

### Information Technology Minor

*(For Non-Information Technology Majors)*

The minor in information technology consists of 15 credits. It is relevant for students of all majors, and it will help them gain an advantage in the ever-increasing technological demands required for a variety of professions. Students who complete this minor will learn the fundamental aspects of practical applications of information technology. The courses for the minor are as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC13268</td>
<td></td>
</tr>
<tr>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>INFO1101</td>
<td></td>
</tr>
<tr>
<td>Computer Concepts and Technology</td>
<td>3</td>
</tr>
<tr>
<td>INFO2101</td>
<td></td>
</tr>
<tr>
<td>Computer Programming for Information Technologists I</td>
<td>3</td>
</tr>
<tr>
<td>INFO2105</td>
<td></td>
</tr>
<tr>
<td>Internet and Web Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

### Elective* (3 credits)

One course must be chosen from the following:

- ENGR2286    
  Digital System Design | 3 |
- INFO2102    
  Computer Programming for Information Technologists II | 3 |
- INFO3201    
  Human Computer Interface | 3 |
- INFO4101    
  Data Communications and Computer Networks I | 3 |
- INFO4201    
  Information Technology Needs Assessment and Management | 3 |

To take any course in the minor, a student must meet all the prerequisites for that course.

### Website Design and Development Minor/ Certificate

*(For Non-Information Technology Majors)*

Liberal arts students wishing to pursue a minor and/or a certificate in website design and development must complete 15 credits of courses. Students who complete this minor and/or certificate program will have hands-on learning in social, corporate or individual website design and maintenance. Additionally, such knowledge will be readily applicable to showcase major findings, events and educational materials in any liberal arts and humanities discipline. The courses for the minor and/or certificate in website design and development within University College are as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
</table>
| *Part of B.S. in information technology curriculum.*

*With the approval of an academic adviser, students may take other higher-level INFO or CSCI courses as electives.*
Required Courses (12 credits)

ART1177  Introduction to Digital Media .......................... 3
CSCI1105  Survey of Computers and Computer Software ........................................ 3
INFO1101  Computer Concepts and Technology .......................... 3
INFO2105  Internet and Web Applications ........................................ 3

Elective Course* (3 credits)

One course must be chosen from the following:

INFO2106  Website Design and Management ........................................ 3
INFO3201  Human Computer Interface ........................................ 3
INFO3205  Digital Media Publishing ........................................ 3

To take any course in the minor and/or a certificate program, a student must meet all the prerequisites for that course.

B.S. in Information Technology/M.S. in Computer Science

Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science (B.S.) in information technology and a Master of Science (M.S.) degree in computer science with a combined degree load that is 9 credits less than that for the separate degrees. Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 3.00. See page 245 for details.

International Affairs Major

(B.A.)

School of Criminal Justice, Political Science and International Studies

Requirements for the Bachelor of Arts Degree

In addition to meeting the course requirements of the liberal arts core curriculum of University College, students majoring in international affairs should fulfill the ethical and moral analysis core competency with POLS2606 Ethics and Politics.

Course Requirements

POLS1102  Geography and World Issues
POLS2204  International Relations
POLS2212  International Law
POLS2231  Comparative Government and Politics
POLS3313  Problems in International Politics
or
POLS4875  Honors in Political Science

International Affairs Minor

(For Non-International Affairs or Non-Political Science Majors)

The minor in international affairs requires 15 credits of course work.

POLS1102  Geography and World Issues
POLS2204  International Relations
POLS2211  International Organization
POLS2212  International Law
POLS2231  Comparative Government and Politics

If taken as a general education course, POLS1102 Geography and World Issues will also count toward the minor in international affairs. The total number of credits required for the B.A., however, remains 120.

Marine Biology Major

(B.S.)

School of Natural Sciences

The marine biology curriculum fulfills basic requirements for admission into graduate and professional schools. It also may serve as a terminal degree.

The program includes a laboratory field experience where students could have a full semester of warm-water Caribbean field experience. It will consist of three 4-credit marine biology courses and a 3-credit marine biology course for a total of 15 credits. Each of the marine biology courses consists of a lecture and field-based component; the field component is supported by laboratory studies. Typically, a 3-credit, field-based course consists of a one-hour lecture component and an equivalent of four hours of laboratory work. Fieldwork study sites will include reefs, mangroves, sea grass beds and salt marshes. To participate in any field experience, a student must have earned a minimum grade point ratio of 2.25 in biology course work and be in good academic standing with a grade of C- or higher in course work. Further information can be obtained from the school’s director.

Students must have a C- or higher in BIOI 1251, BIOI 1253 General Biology I; BIOI 1252, BIOI 1254 General Biology II; MBIO 1209 Introduction to Marine Biology; and ENVRI 1111, ENVRI 1112 Oceanography to take a 2000- or higher-level science course.

The School of Natural Sciences has a strict “C-gate” policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequences must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM 1201 General Chemistry I, CHEM 1202 General Chemistry II, CHEM 2261 Organic Chemistry I, CHEM 2262 Organic Chemistry II, PHYS 2203 University Physics I and PHYS 2204 University Physics II.

*With the approval of an academic adviser, students may take other higher-level INFO or CSCI courses as electives.
Marine Biology
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Requirements for the Bachelor of Science Degree
For matriculation in the marine biology curriculum, successful completion of secondary school courses in elementary algebra and plane geometry and a year of science are required. Candidates for the Bachelor of Science degree with a major in marine biology must complete the courses outlined below:

1st Semester

CHEM1201 General Chemistry I.....................3
CHEM1203 General Chemistry Laboratory I........1
ENWR1001 Composition I: Rhetoric and Inquiry.... 3
MBIO1209, MBIO1219 Introduction to Marine Biology (Lecture and Laboratory).....4
UNIV1001 Transitioning to University Life........1
Total........12

2nd Semester

CHEM1202 General Chemistry II...................3
CHEM1204 General Chemistry Laboratory II........1
ENWR1002 Composition II: Research and Argument........3
ENVR1111, ENVR1112 Oceanography (Lecture and Laboratory)................4
MATH1107 Precalculus................................4
MATH1201 Calculus I................................3
or
MATH2202 Calculus II.................................4
Humanities Course*.................................3
Total........16

3rd Semester

BIOL1251, BIOL1253 General Biology I (Lecture and Laboratory).................4
CHEM2261 Organic Chemistry I....................3
CHEM2263 Organic Chemistry Laboratory I........2
MATH1201 Calculus I................................3

4th Semester

BIOL1252, BIOL1254 General Biology II (Lecture and Laboratory).............4
BIOL2300 Experimental Design.....................3
CHEM2262 Organic Chemistry II..................3
CHEM2264 Organic Chemistry Laboratory II......2
Humanities Course**...............................3
Total........15

5th Semester

BIOL2210, BIOL2211 Genetics (Lecture and Laboratory)..................4
MBIO3650, MBIO3651 Physiology of Marine Animals (Lecture and Laboratory)....4
SPCH Oral Communication Elective................3
UNIV2001 Cross-cultural Perspectives.............3
Social and Behavioral Sciences Elective**........3
Total........17

6th Semester

MBIO1118, MBIO1128 Beach Ecology (Lecture and Laboratory)................4
MBIO3200 Tropical Marine Vegetation..............4
MBIO3400 Tropical Marine Invertebrates...........4
MBIO3900 Tropical Marine Vertebrates..............4
Total........15

7th Semester

BIOL3225, BIOL3226 General Microbiology (Lecture and Laboratory)........4
BIOL4405 Ethics in Science.........................3
PHYS2201 Physics Laboratory I....................1
PHYS2203 University Physics I (Lecture)...........3
UNIV2002 Global Issues..............................3
Total........14

8th Semester

BIOL4414, BIOL4415 Animal Behavior (Lecture and Laboratory)...............4
CHEM3281 Biochemistry I...........................3
ENVR6706 Applied Principles of Geographic Information Systems...........3
PHYS2202 Physics Laboratory II....................1
PHYS2204 University Physics II (Lecture)............3
Total........14
Total........121

Environmental Science Concentration
Follow the semesters outlined above and continue with the following:

5th Semester

MBIO3650, MBIO3651 Physiology of Marine Animals (Lecture and Laboratory)....4
UNIV2001 Cross-cultural Perspectives.............3
Environmental Science Course.....................3
Oral Communication Elective......................3
Social and Behavioral Sciences Elective*........3
Total........16


**Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
Mathematics
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

6th Semester
MBIO1118, MBIO1128
Beach Ecology (Lecture and Laboratory)........................3
MBIO3200
Tropical Marine Vegetation.................................4
MBIO3400
Tropical Marine Invertebrates...............................4
MBIO3900
Tropical Marine Vertebrates.................................4
Total........8

7th Semester
BIOL4405
Ethics in Science...........................................3
PHYS2201
Physics Laboratory I........................................1
PHYS2203
University Physics I (Lecture).............................3
UNIV2002
Global Issues................................................3
Environmental Science Courses.............................6
Total........13

Marine Biology Minor
(For Non-Science Majors)
Required 15-credit minor. Students must take these courses (no substitute courses allowed) and must study abroad.

Required Courses
MBIO1118, MBIO1128
Beach Ecology (Lecture and Laboratory).......................3
MBIO3200
Tropical Marine Vegetation....................................4
MBIO3400
Tropical Marine Invertebrates...............................4
MBIO3900
Tropical Marine Vertebrates.................................4
Total........4

Mathematics Major (B.A.)
Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

Requirements for the Bachelor of Arts Degree
The Lee Gildart and Oswald Haase School of Computer Sciences and Engineering offers a Bachelor of Arts in mathematics and a Bachelor of Science in mathematics (see page 186).

Educational Objectives
The educational objectives of the B.A. in mathematics program define the skills, knowledge and attributes that will be needed and achieved by the graduates for a successful career and professional accomplishments three to four years after graduation. The program will produce graduates who:
1. Have an appropriate combination of theoretical knowledge and practical skills in mathematics to enter into and advance professionally in mathematics and related fields.
2. Have a well-rounded education with a strong liberal arts foundation that encourages and supports meaningful dialogue with individuals from other disciplines.
3. Are able to adapt to and succeed in a dynamic global environment.
4. Can engage effectively in oral, written and graphical communications in both interpersonal and public settings.
5. Are prepared to participate in lifelong learning opportunities.
6. Are prepared to continue formal education and obtain advanced degrees in mathematics or related fields.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies.

The educational objectives of the B.A. and B.S. in mathematics programs are fundamentally the same except that the B.A. in mathematics program is built on a liberal arts foundation. The requirements for the two programs are different.

Students seeking the B.A. in mathematics will complete the liberal arts core requirements of University College. The mathematics requirement in the core curriculum is fulfilled by MATH1201, MATH2201, MATH2202 Calculus I, II. The science requirement in the core curriculum is fulfilled by PHYS2203, PHYS2204 University Physics I, II with corresponding laboratories. Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and two units of science.

The program requires the successful completion of 120 credits. The mathematics major will take 35 credits in mathematics distributed as follows:

Mathematics Requirements (35 credits)

Credits
MATH1201
Calculus I......................................................4
MATH2202
Calculus II.....................................................4
MATH2203
Calculus III....................................................3
MATH2210
Differential Equations........................................3
MATH2255
Discrete Structures..........................................3
MATH3220
Linear Algebra...............................................3
MATH3225
Abstract Algebra.............................................3
MATH3230
Analysis........................................................3
MATH3237
Probability and Statistics I.............................3
MATH3341
Advanced Engineering Mathematics..................3
Mathematics Elective*........................................3
Total........35

Computer Science Requirements (9 credits)

Credits
CSCI1201
Computer Programming I................................3
CSCI1202
Computer Programming II................................3
CSCI2232
Data Structures.............................................3
Total........9

Science Requirements (8 credits)

Credits
PHYS2201
Physics Laboratory I......................................1
PHYS2202
Physics Laboratory II......................................1
PHYS2203
University Physics I.......................................3
PHYS2204
University Physics II......................................3
Total........8

*It must be a 3000- or higher-level mathematics course.
Mathematics

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

**Electives**

<table>
<thead>
<tr>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Electives...................................12*</td>
</tr>
</tbody>
</table>

**General Education Requirements**

(38 credits)

I. **College Competencies**

(12 credits)

- ENGR2210 Technical Communications....................3
- ENGR3000 Modern Technologies: Principles, Applications and Impacts.............3
- ENWR1001 Composition I: Rhetoric and Inquiry.... 3
- ENWR1002 Composition II: Research and Argument.......................... 3

II. **Liberal Arts Distribution**

(21 credits)

- Language Course.........................................3
- Social and Behavioral Sciences Courses......6
- Art and Culture Courses...............................6
- Humanities Courses..................................6

III. **University Requirements**

(8 credits)

- UNIV1001 Transitioning to University Life..............1
- UNIV1002 Preparing for Professional Life.............1
- UNIV2001 Cross-cultural Perspectives...............3
- UNIV2002 Global Issues..................................3

For further information please consult with the Lee Gildart and Oswald Haase School of Computer Sciences and Engineering.

**Mandatory Minor (15 credits)**

Students pursuing Bachelor of Arts degrees are required to complete a minor of at least 15 credits in a specific discipline. Minors are specializations that supplement majors and contribute to general education in that they provide the student with an element of breadth. The requirements for minors and concentrations are provided in the section describing the major requirements.

**Mathematics Major (B.S.)**

Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

The Bachelor of Science degree with a major in mathematics offers concentrations in applied mathematics, pure mathematics or pharmaceutical biostatistics. Each program requires successful completion of 120 credits.

- Prerequisites: elementary and intermediate algebra, plane geometry, trigonometry and two units of science including one unit of physics.

**Educational Objectives**

The educational objectives of the B.S. in mathematics program define the skills, knowledge and attributes that will be needed and achieved by the graduates for a successful career and professional accomplishments three to four years after graduation. The program will produce graduates who:

1. Have an appropriate combination of theoretical knowledge and practical skills in mathematics to enter into and advance professionally in mathematics and related fields.
2. Have a well-rounded education that encourages and supports meaningful dialogue with individuals from other disciplines.
3. Are able to adapt to and succeed in a dynamic global environment.
4. Can engage effectively in oral, written and graphical communications in both interpersonal and public settings.
5. Are prepared to participate in lifelong learning opportunities.
6. Are prepared to continue formal education and obtain advanced degrees in mathematics or related fields.

These objectives are consistent with the mission of Fairleigh Dickinson University to educate and prepare students as world citizens through global education. They also fulfill the needs of our constituencies.

**Requirements for the Bachelor of Science Degree**

Students must choose a concentration in applied mathematics, pure mathematics or pharmaceutical biostatistics.

---

*Students must take 12 credits of technical electives, which will include courses in computer science, engineering technology, information technology and/or mathematics at the appropriate levels based on their interest. Mathematics courses must be 3000- or higher-level. A 3-credit course in a related discipline can be substituted for a 3-credit technical elective.

Internship credits and honors courses can be used as technical electives. Students must obtain prior approval from the GHSCSE academic adviser for all course selections and substitutions.

**MATH1201 Calculus I, a quantitative analysis course, and PHYS2203 University Physics I and PHYS2204 University Physics II, scientific analysis courses, satisfying college competencies are also included in the Mathematics Requirements and Science Requirements, respectively.
Applied Mathematics or Pure Mathematics Concentration

The following is for a Bachelor of Science in mathematics with either an applied mathematics or pure mathematics concentration. Students must meet with their advisers to discuss the course sequence for the concentration.

**Required Mathematics Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1201</td>
<td></td>
</tr>
<tr>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH2202</td>
<td></td>
</tr>
<tr>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH2203</td>
<td></td>
</tr>
<tr>
<td>Calculus III</td>
<td>3</td>
</tr>
<tr>
<td>MATH2210</td>
<td></td>
</tr>
<tr>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH2255</td>
<td></td>
</tr>
<tr>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>MATH3220</td>
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</tr>
<tr>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH3225</td>
<td></td>
</tr>
<tr>
<td>Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH3230</td>
<td></td>
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<tr>
<td>Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH3237</td>
<td></td>
</tr>
<tr>
<td>Probability and Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MATH3341</td>
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<tr>
<td>Advanced Engineering Mathematics</td>
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**Required Computer Science Courses**

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
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<tr>
<td>Computer Programming I</td>
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</tr>
<tr>
<td>CSCI1202</td>
<td></td>
</tr>
<tr>
<td>Computer Programming II</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2232</td>
<td></td>
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<tr>
<td>Data Structures</td>
<td>3</td>
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<td>Total</td>
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**Required Liberal Arts Courses**

<table>
<thead>
<tr>
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<tr>
<td>ENWR1001</td>
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<tr>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1002</td>
<td></td>
</tr>
<tr>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>ENGR2210</td>
<td></td>
</tr>
<tr>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3000</td>
<td></td>
</tr>
<tr>
<td>Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

**Electives**

*Science Electives* ........................................... 11

Eight credits of science electives must be a one-year sequence with laboratory; the remaining 3 credits must be a 2000- or higher-level course in electrical engineering, computer science, chemistry or biology.

*Humanities Elective* ........................................... 3

Students planning to do graduate work should take a 3-credit course in French, German or Russian.

*Social and Behavioral Sciences Elective* ........... 3

*Technical Electives* ........................................... 16

Students must take 16 credits of technical electives, which will include courses in computer science, engineering, engineering technology, information technology and/or mathematics at the appropriate levels based on their interest. Mathematics courses must be 3000- or higher-level. A 1-credit free elective can be substituted for the 1-credit technical elective. Also, a 3-credit course in a related discipline can be substituted for a 3-credit technical elective. Internship credits and honors courses can be used as technical electives. Students must obtain prior ap-proval from the Gildart Haase School of Computer Sciences and Engineering academic adviser for all course selections and substitutions.

*Minor Sequence*  
A minor sequence of 15 credits is required in an area related to mathematics. An adviser will assist students in selecting the proper courses.

*It must be a 3000- or higher-level mathematics course.*

**Pharmaceutical Biostatistics Concentration**

The following is for a Bachelor of Science in mathematics with a pharmaceutical biostatistics concentration.

**Required Mathematics Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH1201</td>
<td></td>
</tr>
<tr>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH2202</td>
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</tr>
<tr>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH2203</td>
<td></td>
</tr>
<tr>
<td>Calculus III</td>
<td>3</td>
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<tr>
<td>MATH2243</td>
<td></td>
</tr>
<tr>
<td>Statistical Programming</td>
<td>3</td>
</tr>
<tr>
<td>MATH2253</td>
<td></td>
</tr>
<tr>
<td>Discrete Structures</td>
<td>3</td>
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<tr>
<td>MATH2337</td>
<td></td>
</tr>
<tr>
<td>Applied Statistics I</td>
<td>3</td>
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<td>MATH2338</td>
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<tr>
<td>Applied Statistics II</td>
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<tr>
<td>Linear Algebra</td>
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<td>MATH3237</td>
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<td>Probability and Statistics I</td>
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<td>MATH3238</td>
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<tr>
<td>Probability and Statistics II</td>
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<td>Mathematics Elective*</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
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</tbody>
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**Required Computer Science Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CSCI1101</td>
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<tr>
<td>Computer Programming I</td>
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<td>CSCI1102</td>
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<td>Computer Programming II</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2215</td>
<td></td>
</tr>
<tr>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSCI2232</td>
<td></td>
</tr>
<tr>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
</tr>
</tbody>
</table>

**Required Liberal Arts Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR2210</td>
<td></td>
</tr>
<tr>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>ENGR3000</td>
<td></td>
</tr>
<tr>
<td>Modern Technologies: Principles, Applications and Impacts</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1001</td>
<td></td>
</tr>
<tr>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1002</td>
<td></td>
</tr>
<tr>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001</td>
<td></td>
</tr>
<tr>
<td>Transitioning to University Life</td>
<td>1</td>
</tr>
<tr>
<td>UNIV1002</td>
<td></td>
</tr>
<tr>
<td>Preparing for Professional Life</td>
<td>1</td>
</tr>
</tbody>
</table>

*It must be a 3000- or higher-level mathematics course.*
Mechanical Engineering

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td><strong>UNIV2001</strong></td>
<td>3</td>
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<tr>
<td>Cross-cultural Perspectives</td>
<td></td>
</tr>
<tr>
<td><strong>UNIV2002</strong></td>
<td>3</td>
</tr>
<tr>
<td>Global Issues</td>
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<tr>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
</tr>
</tbody>
</table>

**Required Science Courses**

- BIOL 1251, BIOL 1253
  - General Biology I (Lecture and Laboratory) | 4 |
- BIOL 1252, BIOL 1254
  - General Biology II (Lecture and Laboratory) | 4 |
- CHEM 1201, CHEM 1203
  - General Chemistry I (Lecture and Laboratory) | 4 |
- CHEM 1202, CHEM 1204
  - General Chemistry II (Lecture and Laboratory) | 4 |

**Electives**

- Science Electives | 8 |
- Technical Electives | 8 |

Students must take 8 credits of technical electives which will include courses in computer science; engineering; engineering technology; information technology; mathematics; and/or pharmaceutical industry. Regulations and management at the appropriate levels based on their interest. Mathematics courses must be 3000- or higher-level. A 2-credit free elective can be substituted for the 2-credit technical elective. Also, a 3-credit course in a related discipline can be substituted for a 3-credit technical elective. Internship credits and honors courses can be used as technical electives. Students must obtain prior approval from the GHSCSE academic adviser for all course selections and substitutions.

**Minor Sequence**

A minor sequence of 15 credits is required in an area related to mathematics. An adviser will assist students in selecting the proper courses.

### Mathematics Minor
*(For Non-Mathematics Majors)*

The minor in mathematics consists of 17 credits and it is relevant to students in all majors. Mathematics is needed in every aspect of one’s daily life and in every profession. Students who complete this minor will possess strong mathematical knowledge and problem-solving skills that are useful in the contemporary workplace and in graduate studies, including those in business, natural sciences, computer science, education, engineering, and technology. The courses for a minor in mathematics within University College are as follows:

**Required Courses (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1201</td>
<td>4</td>
</tr>
<tr>
<td>MATH 2202</td>
<td>4</td>
</tr>
</tbody>
</table>

**Electives** *(9 credits)*

Three courses must be chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2203</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2210</td>
<td>3</td>
</tr>
<tr>
<td>MATH 2255</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3220</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3237</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3238</td>
<td>3</td>
</tr>
<tr>
<td>MATH 3341</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** | **16**

### Mechanical Engineering (B.S.M.E.)

Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

Mechanical engineering is one of the largest, broadest and most diverse engineering disciplines. Mechanical engineers are employed in practically all the sectors of the engineering industry, including manufacturing, power, automotive, aerospace, rail, marine, utilities, materials, defense, HVAC and construction. Mechanical engineers account for many engineering jobs.

The Bachelor of Science in Mechanical Engineering (B.S.M.E.) degree program prepares graduates for entrance into the profession of mechanical engineering or graduate study. The program graduates will work in industry as mechanical engineers, typically specializing as machine design engineers, manufacturing engineers, power engineers, electromechanical engineers or automotive engineers. They may also hold other job titles, including, marine engineers, acoustics and vibration engineers, HVAC engineers, facilities engineers, robotics engineers, tool engineers, piping engineers, rubber engineers, project engineers, and systems engineers.

As the nation’s infrastructure ages and its population continues to grow, more mechanical engineers will be needed to maintain, repair, upgrade or expand utility infrastructure, transportation systems and public and private facilities, as well as to build new ones. Contributing to energy conservation, environmental sustainability and protection, mechanical engineers help build and maintain green transportation, buildings and cities, as well as manage renewable-energy projects, including building solar farms, wind turbines and wave-energy converters, in addition to hydroelectric and geothermal plants. They also develop cutting-edge technologies such as autonomous vehicles, electric cars, hybrid cars, unmanned aerial vehicles, autonomous underwater vehicles, robots, advanced manufacturing, prostheses and nanotechnology. Moreover, mechanical engineers will help revive the advanced, domestic manufacturing industry as promoted by the federal and state governments. The mechanical engineering

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*With the approval of an academic adviser, students may take other higher-level MATH courses as electives.*
program and profession will be very attractive to prospective students because of its excellent career opportunities, outstanding average starting salary, excellent median long-term salary, projected job growth and great career fulfillment.

The B.S.M.E. curriculum provides students with a varied and balanced educational experience through an appropriate combination of theoretical concepts and practical applications. It also provides them with an engineering design experience that expands in breadth and depth as they progress through their studies. A stimulating course of study is maintained by offering students a reasonable variety of contemporary courses. The engineering laboratory experience is fully integrated with course work. Students work in state-of-the-art laboratories.

The program focuses on four key areas of mechanical engineering: mechanical design, electromechanical devices and controls, advanced manufacturing and thermal sciences. Students will learn to analyze, design, build, test, operate and maintain mechanical components, devices, systems, processes and facilities; estimate costs; and manage projects. Working on alternative energy training systems, students will also learn to utilize renewable-energy sources and technologies, energy-saving materials and devices, thereby protecting the environment and sustaining scarce resources. Moreover, through courses in process control, industrial automation, manufacturing processes and trainers such as reconfigurable manufacturing systems, industrial robots, computer numerical control (CNC) machines, 3-D printers and programmable-logic-controller-based systems, they will be trained to develop, configure and program manufacturing and electromechanical systems. Students will be able to intern or find employment with mechanical engineering, mechanical contracting and manufacturing companies; public utilities; municipalities; and other government agencies within the state and nearby states.

The program requires the successful completion of 131 credits with a minimum cumulative grade point ratio of 2.00. The credit distribution is as follows:  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics and Science Requirements</td>
<td>36</td>
</tr>
<tr>
<td>Liberal Arts Requirements</td>
<td>20</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td></td>
</tr>
<tr>
<td>Core Requirements</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>131</td>
</tr>
</tbody>
</table>

The mathematics and science requirements provide students with the needed foundation in these areas while the liberal arts requirements provide them with a well-rounded education and a strong foundation for thoughtful global citizenship. The mechanical engineering core requirements provide students with the comprehensive knowledge, skills and training needed for professional success in the field of mechanical engineering, bridging the mathematics and basic sciences to engineering sciences, design and applications. Nine credits of elective courses in the mechanical core allow students to focus further on one particular area of mechanical engineering. Alternatively, 6 credits of the electives may be used to undertake cooperative educational experience to obtain practical work experience.

In addition to mathematics and science courses, students study foundational engineering courses such as engineering practices, computer-aided drafting, circuits, statics, strength of materials, dynamics, thermodynamics, fluid mechanics, computer programming and management and engineering economics. With these courses as foundation, they begin to take courses in four complementary areas of mechanical engineering: mechanical design, advanced manufacturing, electromechanical devices and control and thermal sciences.

**Mechanical Design:** Students learn to analyze, design, build and test mechanical components, devices, systems and processes in a mechanical engineering design course; a computer-aided design and manufacturing course; a two-course sequence in senior project design; and a course in stress and vibration analyses.

**Advanced Manufacturing:** In this area, students take four courses: mechanical measurement and devices, manufacturing processes, computer-aided design and manufacturing and industrial automation. Aside from acquiring knowledge in industrial automation and manufacturing concepts, processes and planning, they learn to use, set up, configure and program 3-D printers, CNC machines, configurable (flexible) manufacturing systems, robotic arms and programmable-logic-controller-based systems.

**Electromechanical Devices and Controls:** Students study the theory and applications of electromechanical devices in four courses: circuits, which is one of the foundational courses; electrical energy conversion; analog and digital control; and industrial automation. In particular, students learn about basic circuit theory and building circuits; motors and generators with actual hands-on applications; renewable-energy sources and technologies; automatic feedback control systems; and programmable-logic-controller-based systems.

**Thermal Sciences:** A three-course sequence in thermal sciences: thermodynamics, which is one of the foundational courses; thermal systems analysis and design; and heat transfer, is taken by students. They learn to analyze and design thermal systems.

The computer-aided design and manufacturing course is listed under the two areas of mechanical design and advanced manufacturing since it is applicable to both. Similarly, the industrial automation course is listed under the two areas of electromechanical devices and control as well as advanced manufacturing.

Substantial engineering design experience is obtained from the integrated laboratory experience throughout the curriculum. Advanced courses help students acquire experimental, design and computer simulation skills and integrate theory with practice. As a culmination of their design experience, senior students are required to successfully conceptualize, design and build a mechanical component, system or process in a two-course sequence in senior design project, by utilizing their past course work, following professional practice, and exercising sound engineering judgment.

**Educational Objectives**

The educational objectives of the B.S.M.E. program define the career and professional accomplishments that the graduates are being prepared to achieve three to four years after graduation. The B.S.M.E. program will produce graduates who:

1. Enter into and advance in the profession of mechanical engineering, particularly in the areas of mechanical design, electromechanical devices and controls, advanced manufacturing and thermal sciences.

2. Continue their formal education and obtain advanced degrees such as M.S. degree in mechanical engineering or other related fields.

3. Become responsible professionals and global citizens who are aware of ethical issues and societal needs and problems.
The educational objectives of the B.S.M.E. program are compatible with the University, college and school missions. They also fulfill the needs of the program constituencies, which include students, alumni, employers, faculty and the Industrial Advisory Board.

**Student Outcomes**

The B.S.M.E. program has adopted the Student Outcomes of the Engineering Accreditation Commission (EAC) of ABET as its own learning outcomes, which define the attributes, skills and knowledge that the graduates are expected to possess upon or before graduation. Each mechanical engineering graduate will demonstrate the following attributes and achievements as required by the EAC of ABET upon or before graduation:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.
2. An ability to apply the engineering design process to produce solutions that meet specified needs with consideration for public health and safety, and global, cultural, social, environmental, economic and other factors as appropriate to the discipline.
3. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.
4. An ability to communicate effectively with a range of audiences.
5. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
6. An ability to recognize the ongoing need to acquire new knowledge, to choose appropriate learning strategies and to apply this knowledge.
7. An ability to function effectively as a member or leader of a team that establishes goals, plans tasks, meets deadlines and creates a collaborative and inclusive environment.

The B.S.M.E. program plans to apply for an accreditation review from the EAC of ABET upon the degree completion of its first graduating class.

**Cooperative Education Option**

Students in the B.S.M.E. program have the option to undertake a cooperative education experience and earn a total of six academic credits toward their degrees. The co-op experience provides students a real-world grounding, linking theory and practice, academic and industrial experiences and college education and lifelong learning. It better prepares students for jobs, gives them a competitive edge in the job market, helps them develop networking skills and professional contacts and allows them to experience career fields before graduation. Industry benefits from better-prepared students with real and relevant work experience — saving time and money by reducing the training period for new employees.

**Requirements for the Bachelor of Science in Mechanical Engineering Degree**

**1st Semester**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGR1501 Engineering Practices, Graphics and Design</td>
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<tr>
<td>ENWR1001 Composition I: Rhetoric and Inquiry</td>
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</tr>
<tr>
<td>MATH1201 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2201 Physics Laboratory I</td>
<td>1</td>
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<td>PHYS2203 University Physics I</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001 Transitioning to University Life</td>
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Total: 15

**2nd Semester**

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<th>Course</th>
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<td>ENGR1225 Introduction to CAD</td>
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<tr>
<td>ENGR3000 Modern Technologies: Principles, Applications and Impacts</td>
<td>5</td>
</tr>
<tr>
<td>ENWR1002 Composition II: Research and Argument</td>
<td>5</td>
</tr>
<tr>
<td>MATH2202 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS2202 Physics Laboratory II</td>
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<tr>
<td>PHYS2204 University Physics II</td>
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<tr>
<td>UNIV1002 Preparing for Professional Life</td>
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Total: 17

**3rd Semester**

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<tbody>
<tr>
<td>CHEM1201 General Chemistry I</td>
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<td>CHEM1203 General Chemistry Laboratory I</td>
<td>1</td>
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<tr>
<td>ENGR2221 Statics</td>
<td>3</td>
</tr>
<tr>
<td>MATH2210 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MENG2232 Mechanical Measurement and Devices</td>
<td>3</td>
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Total: 16

**4th Semester**

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<td>ENGR2228 Strength of Materials</td>
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<td>ENGR3351 Applied Thermodynamics</td>
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<td>MATH3412 Dynamics</td>
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Total: 18

**5th Semester**

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Total: 17

*Science Elective includes CHEM1202/CHEM1204 General Chemistry II Lecture (5 credits) and Laboratory (1 credit); BIOL1231/BIOL1233 General Biology I (5 credits) and Laboratory (1 credit); BIOL2205/ BIOL2235 Human Anatomy and Physiology I Lecture (5 credits) and Laboratory (1 credit); and PHYS2205 Modern Physics (5 credits) and PHYS4450 Selected Studies in Physics (1 credit).
### Mechanical Engineering Technology (B.S.M.E.T.)

**6th Semester**

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<td>ENGR4210</td>
<td>Managerial and Engineering Economic Analysis</td>
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<td>ENGR4221</td>
<td>Engineering Statistics and Reliability</td>
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<td>MENG3155</td>
<td>Heat Transfer</td>
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<td>Computer-aided Design and Manufacturing</td>
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**Total:** 18

**7th Semester**

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<td>MENG4248</td>
<td>Mechanical Engineering Design I</td>
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<tr>
<td>MENG4355</td>
<td>Analog and Digital Control</td>
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<td>MENG4375</td>
<td>Electrical Energy Conversion</td>
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<td>MENG4384</td>
<td>Preparation for Senior Design Project</td>
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**Total:** 16

**8th Semester**

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<td>MENG4360</td>
<td>Industrial Automation</td>
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<td>MENG4386</td>
<td>Senior Design Project</td>
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**Total:** 14

**Total:** 131

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### Medical Imaging Sciences Major (B.S.M.I.S.)

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

*(In partnership with FDU and the Rutgers School of Health Professions [Rutgers SHP]*)

Completion of this program will result in a Bachelor of Science in Medical Imaging Sciences with a concentration in cardiovascular sonography or diagnostic medical sonography awarded jointly between FDU and the Rutgers School of Health Professions (Rutgers SHP). Students must complete 92 preprofessional credits during their first three years at FDU before applying for acceptance to the professional component at Rutgers SHP for their senior year.

**Admission Requirements**

Admission to the professional component at Rutgers SHP requires:

- A separate application in the fall of the junior year.
- Admission decisions for the professional component are made in accordance with criteria, policies and procedures established by a joint Committee on Admissions and Academic Status and cannot be guaranteed by FDU.
- Students admitted to the B.S. in Medical Imaging Sciences major must maintain a minimum grade point ratio of 2.85 in their preprofessional course work.

Upon successful completion of all course work, graduates will receive a B.S. in Medical Imaging Sciences (B.S.M.I.S.), with eligibility for national certification and state licensure, where applicable.

Students must choose from one of the two areas of concentration (see page 192).

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*Technical Electives include CENG5261 Estimating I; EENG2222 Signals and Systems II; EENG5265 Electronics I; ENGR2208 Digital System Design; ENGR4001, ENGR4002 FE/EIT Exam Preparation I and II; ENGR4263 Project Management in Engineering and Technology; MENG3288 Microcontroller System Design; MENG4040 Heating, Ventilation and Air Conditioning (HVAC); MENG4041 HVAC and Refrigeration Controls; MENG4250 Mechanical Engineering Design II; and MENG4365 Advanced Fluid Mechanics.*
**Requirements for the Bachelor of Science in Medical Imaging Sciences Degree**

**1st Semester**
- **BIOL1251** General Biology I ...................................3
- **BIOL1253** Laboratory: General Biology I ................1
- **CHEM1201** General Chemistry I ......................................3
- **CHEM1203** General Chemistry Laboratory I ............1
- **ENWR1001** Composition I: Rhetoric and Inquiry.... 3
- **MATH1107** Precalculus..................................................4
- **UNIV1001** Transitioning to University Life.............1

Total......16

**2nd Semester**
- **BIOL1252** General Biology II .....................................3
- **BIOL1254** Laboratory: General Biology II ..............1
- **CHEM1202** General Chemistry II .................................3
- **CHEM1204** General Chemistry Laboratory II ...........1
- **ENWR1002** Composition II: Research and Argument........3
- **MATH1201** Calculus I ......................................................4
- **UNIV1002** Preparing for Professional Life...............1

Total......16

**3rd Semester**
- **BIOL2203, BIOL2223** Human Anatomy and Physiology I (Lecture and Laboratory).........4
- **CHEM2261** Organic Chemistry I ....................................3
- **CHEM2263** Organic Chemistry Laboratory I ...........2
- **CSCI1105** Survey of Computers and Computer Software......3
- **SPCH1155** Public Speaking ............................................3
- **UNIV2001** Cross-cultural Perspectives........................3

Total......18

**4th Semester**
- **BIOL2125, BIOL2126** Microbiology for the Health Sciences (Lecture and Laboratory)....4
- **BIOL2204, BIOL2224** Human Anatomy and Physiology II (Lecture and Laboratory) .......4
- **CHEM2262** Organic Chemistry II .................................3
- **CHEM2264** Organic Chemistry Laboratory II ..........2
- **UNIV2002** Global Issues..................................................3

Total......16

**5th Semester**
- **CHEM3281** Biochemistry I ..........................................3
- **MEDT1130** Bioethics .....................................................3
- **PHYS2201** Physics Laboratory I ......................................1
- **PHYS2203** University Physics I .................................3
- **PSYC1103** General Psychology.......................................3

Total......13

**6th Semester**
- **NURS4420** Health Care Management..........................3
- **PHIL1000** The Life of the Mind ....................................3
- **PHYS2202** Physics Laboratory II ....................................1
- **PHYS2204** University Physics II ...............................3
- **PSYC2201** Statistics.....................................................3

Total......13

After completion of three years of study (a minimum of 92 credits) at FDU, the program is completed in 12-15 months at the Rutgers School of Health Professions (Rutgers SHP). With the successful completion of the program at Rutgers SHP, the student will earn the Bachelor of Science in Medical Imaging Sciences.

**Concentrations**

**Cardiovascular Sonography Concentration**
Cardiovascular sonography prepares individuals to perform cardiovascular sonography of the cardiovascular system at the request of physicians to aid in diagnosis, therapeutic treatments and cardiovascular-disease management.

The program includes instruction in reviewing patient histories and clinical data, patient care, investigative and examination procedures, diagnostic procedures data analysis and documentation, physician consultation, equipment monitoring and professional standards and ethics.

**Diagnostic Medical Sonography Concentration**
Diagnostic medical sonographers provide patient services using diagnostic ultrasound under the supervision of a licensed physician. Sonographers look for subtle differences between health and pathological areas and decide what images to include in their report. The sonographer may provide this service in a variety of medical settings when the physician is responsible for the use and interpretation of ultrasound procedures.
Medical Technology
Henry P. Becton School of Nursing and Allied Health

The courses prescribed by the American Society for Clinical Pathology are completed in the first three years. Following this, application must be made to an approved program for a 12- to 15-month training period, which qualifies a student for admittance to the examination of the Board of Registry. The Bachelor of Science degree is awarded upon the completion of the clinical program.

Candidates for the degree must complete the course of study outlined.

**Recommended Course Sequence**

**1st Semester**
- BIOL1251 General Biology I .................. 3
- BIOL1253 Laboratory: General Biology I .... 1
- CHEM1201 General Chemistry I ............. 3
- CHEM1203 General Chemistry Laboratory I .1
- ENWR1001 Composition I: Rhetoric and Inquiry... 3
- MATH1107 Precalculus.......................... 4
- UNIV1001 Transitioning to University Life .... 1

**Total........16**

**2nd Semester**
- BIOL1252 General Biology II................ 3
- BIOL1254 Laboratory: General Biology II .... 1
- CHEM1202 General Chemistry II ........... 3
- CHEM1204 General Chemistry Laboratory II .. 1
- CSCI1105 Survey of Computers and Computer Software......... 3
- ENWR1002 Composition II: Research and Argument........ 3
- MATH1201 Calculus I .......................... 4

**Total........18**

**3rd Semester**
- BIOL2237, BIOL2239
  - Human Structure and Function I
    (Lecture and Laboratory)...............4
- CHEM2261 Organic Chemistry I .............. 3
- CHEM2263 Organic Chemistry Laboratory I .. 2
- PSYC1103 General Psychology................. 3
- UNIV1002 Preparing for Professional Life......1

**Total........13**

**4th Semester**
- BIOL4240, BIOL4241
  - Molecular Cell Biology
    (Lecture and Laboratory)...............4
- CHEM2262 Organic Chemistry II ............. 3
- CHEM2264 Organic Chemistry Laboratory II .. 2
- PSYC2201 Statistics.......................... 3
- UNIV2001 Cross-cultural Perspectives........ 3

**Total........15**

**5th Semester**
- BIOL2210, BIOL2211
  - Genetics (Lecture and Laboratory).........4
- BIOL3225, BIOL3226
  - General Microbiology
    (Lecture and Laboratory)...............4
- CHEM3281 Biochemistry I ................... 3
- MEDT1130 Bioethics.......................... 3
- UNIV2002 Global Issues........................3

**Total........17**

**6th Semester**
- BIOL5306 Immunology.......................... 3
- MEDT1201 Introduction to Medical Technology...3
- NURS4420 Health Care Management............ 3
- NURS4430 Nursing Research ....................3
- SPCH1155 Public Speaking .....................3

**Total........15**

**7th and 8th Semesters**
- 12 months at an approved hospital
- MEDI4205 Clinical Laboratory Education I .... 16
- MEDI4206 Clinical Laboratory Education II .... 16

**Total........32**

**Total........126**

**Requirements for the Bachelor of Science Degree**

**Biology Requirements**
- BIOL1251, BIOL1253
  - General Biology I
    (Lecture and Laboratory)...............4
- BIOL1252, BIOL1254
  - General Biology II
    (Lecture and Laboratory)...............4
- BIOL2203, BIOL2223
  - Human Anatomy and Physiology I
    (Lecture and Laboratory)...............4
- BIOL2204, BIOL2224
  - Human Anatomy and Physiology II
    (Lecture and Laboratory)...............4
- BIOL2210, BIOL2211
  - Genetics (Lecture and Laboratory) .......4
- BIOL3225, BIOL3226
  - General Microbiology
    (Lecture and Laboratory)...............4
- BIOL4240, BIOL4241
  - Molecular Cell Biology
    (Lecture and Laboratory)...............4
- BIOL5306
  - Immunology...............................3

**Total........51**

**Science Requirements**
- CHEM1201 General Chemistry I ............... 3
- CHEM1202 General Chemistry II ............. 3
- CHEM1203 General Chemistry Laboratory I ... 1
- CHEM1204 General Chemistry Laboratory II ... 1
- CHEM2261 Organic Chemistry I ............... 3
- CHEM2262 Organic Chemistry II ............. 3
- CHEM2263 Organic Chemistry Laboratory I ... 2
- CHEM3281
  - Biochemistry I (Lecture).................. 3

**Total........22**

**Mathematics and Computer Science Requirements**
- CSCI1105 Survey of Computers and Computer Software......... 3
- MATH1107 Precalculus.......................... 4
- MATH1201 Calculus I .......................... 4
- PSYC2201 Statistics........................... 3

**Total........14**
Medical Technology Requirements

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Humanities/Social Science Requirements

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<td>PHIL1000</td>
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University Requirements

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<td>Preparing for Professional Life</td>
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Clinical Laboratory Experience

Six semesters of college work are required for admission to this hospital program. At the end of the sixth semester, students may apply to a program of medical technology approved by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Students will select their laboratory affiliations in consultation with the faculty adviser. A clinical training program is required of students who wish to qualify for the examinations given by the Board of Registry of the American Society for Clinical Pathology (A.S.C.P.) for the certification as a medical technologist.

Admission to the schools is clearly competitive. If students are not selected for hospital internship during the fourth year, an option may be chosen to continue for a B.S. in biology. Toward the completion of this degree, students may again apply for hospital internship.

The University now has affiliations with four approved programs of medical technology as listed below. Upon the successful completion of a 12- to 15-month training period, students are eligible to receive 32 credits toward the Bachelor of Science degree. The approved programs offer similar programs of training, although conditions may vary slightly from site to site.

Students report to the laboratory five days a week. A two-week vacation period is suggested by the A.S.C.P. and is customary. Students should expect to work under supervision and to have reference books available. MEDT4205 and MEDT4206 Clinical Laboratory Education I, II carry a course fee for fall and spring.

The affiliated programs of medical technology in New Jersey are as follows:

Affiliated Programs and Officials

Jersey Shore Medical Center, Neptune, New Jersey

Louis J. Zinterhofer, M.D., Director
Rutgers School of Health Professions*

Debra Josko, Ph.D., M.L.T. (A.S.C.P.)
M., S.M., Program Director

Valley Hospital, Ridgewood, New Jersey

Metin Taskin, M.D., Pathologist

Nursing Major

(B.S.N.)

Henry P. Becton School of Nursing and Allied Health

The goal of the nursing program is to prepare a professional nurse to provide comprehensive nursing care to persons and families in all environments where health care is required.

Laboratory experiences are concurrent with nursing theory and begin at the first semester of sophomore-level courses. Beginning at the sophomore level, students are assigned to a variety of clinical laboratory experiences at various locations including hospitals, clinics, nursing homes and community health agencies. The program is reviewed and evaluated periodically by the faculty, students, consumers, community health care agencies and external accrediting bodies to assess quality and relevance.

The Bachelor of Science in Nursing program is open to high school graduates, to college graduates holding a baccalaureate degree in a field other than nursing and to diploma or associate degree R.N.s. College graduates attend an accelerated track that is identical in nursing content to the four-year nursing program. The accelerated nursing program offers two options: a full-time program, beginning each year in May, that can be completed in one calendar year following fulfillment of all prerequisites and a part-time program, beginning each year in September, that can be completed in two calendar years following fulfillment of all prerequisites.

The nursing program is accredited by the Commission on Collegiate Nursing Education and the New Jersey Board of Nursing.

The program is offered at the Metropolitan Campus and the Florham Campus.

Admission Requirements

In addition to the general admission requirements of the University and a recommended minimum combined SAT score of 1,100 (mathematics 500 minimum score), students entering the four-year, generic nursing program must have completed:

- 1 year of chemistry with laboratory
- 1 year of biology with laboratory
- 1 semester of physics is strongly recommended

*This program is part of a joint degree program and is 13 months in duration, see “Clinical Laboratory Sciences,” page 190.
Students entering the accelerated nursing program must have at least a 3.00 cumulative grade point ratio (CGPR) for their undergraduate degree. The following prerequisites also are required for the accelerated tracks (minimum grade of B):

- Anatomy and Physiology (8 credits)
- Chemistry (4 credits)
- Economics (3 credits)
- Bioethics or Medical Ethics (3 credits)
- Microbiology (4 credits)
- Statistics (3 credits)

A score at the 50th percentile or better on a standardized Nursing Admission Test. An interview may be required for admission to the nursing program.

Students applying to the R.N. to B.S.N. to M.S.N. program must have graduated from a regionally accredited diploma or associate degree nursing program with a cumulative grade point ratio of at least 3.00 and be licensed or eligible for licensure as an R.N. in the state of New Jersey. An interview is required to discuss transfer credits and plan each student’s course sequence.

**Admission with Advanced Standing**

Candidates for transfer from regionally accredited institutions may be admitted with advanced standing upon presentation of proper credentials and a conference with the School of Nursing and Allied Health. Candidates must have at least a 3.00 cumulative grade point ratio (CGPR) in their previous college course work. Grades in comparable non-nursing courses must be C or better. Transfer of nursing courses requires grades of B or better and the approval of the nursing faculty.

**Criminal History Record Search and Urine Drug Testing**

Fairleigh Dickinson University has affiliation agreements with health care institutions in the region to provide clinical experiences for students of the Henry P. Becton School of Nursing and Allied Health. These affiliated health care institutions are required by the Joint Commission on Accreditation of Health Care Organizations Standard (HR1.20) to conduct criminal history checks and urine drug testing on all personnel who work in clinical settings, including nursing students. All students must comply with this requirement to evaluate their suitability for placement in a clinical experience. Information obtained may cause affiliated health care institutions to reject a student for a clinical experience.

**Health Clearance for Nursing Students**

As for all University students, nursing students are required to have a full physical examination and health history before beginning classes. A copy of the physical examination and the health history, including a complete immunization record, a record of negative tuberculosis status and a record of two measles immunizations (under age 40), must be on file in the campus Student Health Services Office.

Upon matriculation as a nursing major and before any clinical courses can be taken, nursing students must present documentation of antibody titers for rubella (German measles), rubeola (measles), mumps and varicella (chickenpox) showing immunity. If antibody titers do not demonstrate immunity, vaccine must be administered and antibody titers repeated. The hepatitis B vaccine is strongly recommended. Evidence of a complete hepatitis B vaccine series or a waiver of vaccination must be on file in the campus Student Health Services Office.

A complete health record must be on file for matriculated nursing majors prior to the start of NURS2003, NURS2113 Fundamentals of Nursing I. Students may participate in clinical experiences only if their health file is complete and up-to-date. If students are unable to attend clinical experiences because of incomplete health records, as with all absences, they may be in jeopardy of not meeting course objectives.

**CPR Certification and Student Malpractice Insurance**

Prior to beginning sophomore-level clinical nursing courses, nursing majors must submit to the School of Nursing and Allied Health office documentation of a current cardiopulmonary resuscitation (CPR) card and of current individual student malpractice insurance coverage. Each year thereafter, nursing majors must submit updated documentation of CPR certification and insurance coverage to the School of Nursing and Allied Health.

**Evidence of Car Insurance**

Prior to beginning the senior-level courses NURS4410, NURS4411 Community Health Nursing, nursing majors must submit documentation of current automobile liability insurance to the School of Nursing and Allied Health office, since students are expected to transport themselves to clients’ homes for clinical experiences as part of this course.

**Grading**

Students must earn a B- or better in order to enter the next nursing course. Grades in non-nursing courses must be C or better. Clinical laboratory experience is graded by the use of satisfactory (S) or unsatisfactory (U). The laboratory experience is a vital part of the curriculum; therefore, an unsatisfactory clinical grade will be recorded as an F for the course.

Students must maintain a minimum cumulative grade point ratio of 2.67 to progress to subsequent nursing courses. Nursing courses may be repeated only once.

**Requirements for the Bachelor of Science in Nursing Degree (Generic)**

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| 2nd Semester | |
| BIOL2125, BIOL2126 | 4 |
| Microbiology for the Health Sciences (Lecture and Laboratory) | |
| BIOL2204, BIOL2224 | 4 |
| Human Anatomy and Physiology II (Lecture and Laboratory) | |
| ENWR1002 | 3 |
| Composition II: Research and Argument | |

195
Nursing

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

3rd Semester
NURS2003, NURS2113
Fundamentals of Nursing I
(Lecture and Laboratory)..................3
NURS2200, NURS2201
Health Assessment
(Lecture and Laboratory)..................4
NURS2210
Pathophysiology............................3
PSYC1103
General Psychology..........................3
UNIV2001
Cross-cultural Perspectives.................3
Total......18

4th Semester
NURS2004, NURS2114
Fundamentals of Nursing II
(Lecture and Laboratory)..................3
NURS2005
Professional Communication Skills:
Individual, Family and Groups...........3
NURS2007
Pharmacotherapeutics.......................3
SPAN1111
Spanish for Health Personnel.............3
UNIV2002
Global Issues..................................3
Total......16

5th Semester
NURS3208
Introduction to Health Care Economics..3
NURS3209
Bioethics.......................................3
NURS3300, NURS3301
Medical-Surgical Nursing I
(Lecture and Laboratory)..................5
NURS3310, NURS3311
Psychiatric Nursing
(Lecture and Laboratory)..................5
Total......16

6th Semester
NURS3320, NURS3321
Women’s Health Nursing
(Lecture and Laboratory)...................5
NURS3340, NURS3341
Nursing Care of the Child and Family
(Lecture and Laboratory)...................5
PSYC2201
Statistics.......................................3
SPCH1155
Public Speaking..............................3
Total......16

7th Semester
NURS4410, NURS4411
Community Health Nursing
(Lecture and Laboratory)...................5
NURS4420
Health Care Management....................3
NURS4430
Nursing Research............................3
Physical Education Course................3
Total......12

8th Semester
NURS4440, NURS4441
Medical-Surgical Nursing II
(Lecture and Laboratory)................. 8
NURS4460
Preparation for Success....................1
Free Elective....................................3
Total......12

Requires for the One-Year Accelerated Bachelor of Science in Nursing Degree

Summer Session I
(Freshman-level Courses)
NURS2003, NURS2115
Fundamentals of Nursing I
(Lecture and Laboratory)................. 3
NURS2005
Professional Communication Skills:
Individual, Family and Groups...........3
NURS2007
Pharmacotherapeutics.......................3
NURS2200, NURS2201
Health Assessment
(Lecture and Laboratory)..................4

Summer Session II
(Sophomore-level Courses)
NURS2004, NURS2114
Fundamentals of Nursing II
(Lecture and Laboratory)..................3
NURS2007
Pharmacotherapeutics.......................3
NURS2210
Pathophysiology............................3

Fall Semester
(Junior-level Courses)
NURS3300, NURS3301
Medical-Surgical Nursing I
(Lecture and Laboratory)..................5
NURS3310, NURS3311
Psychiatric Nursing
(Lecture and Laboratory)..................5
NURS3320, NURS3321
Women’s Health Nursing
(Lecture and Laboratory)..................5
NURS3340, NURS3341
Nursing Care of the Child and Family
(Lecture and Laboratory)..................5

Spring Semester
(Junior-level Courses)
NURS4410, NURS4411
Community Health Nursing
(Lecture and Laboratory)..................5
NURS4420
Health Care Management....................3
NURS4430
Nursing Research............................3
NURS4440, NURS4441
Medical-Surgical Nursing II
(Lecture and Laboratory)..................8
NURS4460
Preparation for Success....................1

Requirements for the Two-Year Accelerated Bachelor of Science in Nursing Degree

Fall Semester
(Freshman-level Courses)
NURS2003, NURS2115
Fundamentals of Nursing I
(Lecture and Laboratory)................. 3
NURS2005
Professional Communication Skills:
Individual, Family and Groups...........3
NURS2200, NURS2201
Health Assessment (Lecture and Laboratory).................4

Spring Semester
(Sophomore-level Courses)
NURS2004, NURS2114
Fundamentals of Nursing II
(Lecture and Laboratory)..................3
NURS2210
Pathophysiology............................3
NURS3310, NURS3311
Psychiatric Nursing
(Lecture and Laboratory)..................5
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<th>Semester</th>
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<td>NURS3300, NURS3301</td>
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<td>Nursing Care of the Child</td>
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<td>Fall</td>
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<tr>
<td>(Junior-level Courses)</td>
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<td>NURS3320, NURS3321</td>
<td>Women's Health Nursing</td>
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<td>NURS3340, NURS3341</td>
<td>Nursing Care of the Child and Family</td>
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<td>Spring</td>
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<td>Spring Seminar</td>
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<td>(Senior-level Courses)</td>
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<td>Nursing Research</td>
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<td></td>
<td>NURS4460</td>
<td>Preparation for Success</td>
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</table>

**Bachelor of Science in Nursing Degree (R.N. to B.S.N. to M.S.N.)**

This program is designed to allow R.N.s who have a diploma or associate degree in nursing to earn first a B.S.N. and then an M.S.N. Half of the nursing credits for the B.S.N. will be accepted from the student’s diploma or associate degree program. The other 30 nursing credits are taken at FDU. R.N. students also can transfer up to 35 of the 68 arts and science credits that make up the 120-credit B.S.N. degree.

This B.S.N. includes two advanced-placement courses, giving B.S.N. graduates advanced standing as they begin the M.S.N. portion of this career mobility track.

The R.N. to B.S.N. curriculum is outlined below as a three-year, part-time evening program. It also can be completed full-time in five semesters. Depending on the arts and science courses that were transferred, the non-nursing courses taken at FDU will vary from student to student. See the Graduate Studies Bulletin for the M.S.N. curriculum plan.

**Sample Part-time Sequence**

### First Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CSCI1105</td>
<td>Survey of Computers and Computer Software</td>
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<tr>
<td>NURS3371</td>
<td>The Professional Nurse in the 21st Century</td>
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<td>NURS6620</td>
<td>Advanced Health Assessment Theory</td>
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<td>NURS6621</td>
<td>Advanced Health Assessment Practicum</td>
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<td>NURS7702</td>
<td>Advanced Pathophysiology</td>
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<td>PHED4436</td>
<td>CPR and Emergency First Aid</td>
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<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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<td>Literature Elective</td>
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<tr>
<td>History Elective</td>
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<td>Free Elective</td>
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### Second Year

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<td>Introduction to Health Care Economics</td>
<td>3</td>
</tr>
<tr>
<td>NURS3209</td>
<td>Bioethics</td>
<td>3</td>
</tr>
<tr>
<td>NURS4420</td>
<td>Health Care Management</td>
<td>3</td>
</tr>
<tr>
<td>NURS6600</td>
<td>Introduction to Advanced Nursing: Philosophies and Theories</td>
<td>3</td>
</tr>
<tr>
<td>Art Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>History Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
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<td>3</td>
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</table>

### Third Year

<table>
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<th>Course Code</th>
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<tr>
<td>NURS4410</td>
<td>Community Health Nursing</td>
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<td>NURS4411</td>
<td>Community Health Nursing Laboratory</td>
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<tr>
<td>NURS4430</td>
<td>Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>PSYC2201</td>
<td>Statistics</td>
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</tbody>
</table>

**Accelerated Program with Professional Schools**

University College has combined-degree programs with professional schools for its exceptional students. In these programs, students earn both their B.S. degree and professional degree in one year less time than the two degrees normally would require separately. The program includes the B.S./D.P.T. (Doctor of Physical Therapy) with Rutgers School of Health Professions, Newark (only offered through the Henry P. Becton School of Nursing and Allied Health).
Physical Education and Health • Political Science

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Physical Education and Health

Department of Physical Education

There is no physical education major. The University does encourage student participation in those physical activities that have social significance and allow for lifetime participation and interest. With this philosophy in mind, the emphasis in the physical education courses is on those activities that have enduring value.

All students in the first or second semester in the University College liberal arts curriculum are required to take one semester of physical education for 1 credit. The tuition paid for this credit does not cover special fees for use of outside facilities. Physical education courses may be taken as free electives.

Political Science Major (B.A.)

School of Criminal Justice, Political Science and International Studies

Fairleigh Dickinson University’s New Jersey Metropolitan Campus serves as an excellent venue for students studying political science — an intriguing discipline that dates back to the philosophical reflections of Socrates, Plato and Aristotle who critically examined the role of government, political activity and political behavior within society.

Enjoying partnerships with the United Nations and a wide array of government, public, nonprofit and private sector organizations, the study of political science at the Metropolitan Campus offers students a dynamic, challenging and engaging course of study. Its interdisciplinary curriculum skillfully examines, integrates, analyzes and applies theoretical and philosophical concepts inherent to political systems and behavior that are influenced by an ever-changing, globalized and technologically advanced society. The program places a premium on cultivating student knowledge and understanding, critical thinking and reflection, effective communication, information and technological literacy and ethical and professional behavior.

Specifically, the program examines political systems and behavior from a macro and micro perspective, taking into consideration the impact of globalization and technology that serve to influence political decision-making in areas such as climate change, the environment, migration and immigration, economic policies, economic disparity, hunger, social injustice and inequality, religious extremism, terrorism and exponentially advancing technologies that influence the political landscape, on both the domestic and international stage.

Students studying political science at Fairleigh Dickinson gain valuable knowledge and skills sets that can be applied in a wide range of exciting careers in a wide range of venues, including but not limited to federal, state and local government; law; business; international and nonprofit organizations; education and research; journalism; campaign management and polling; and electoral politics. Other career paths can lead to employment within:

- Government and Military Service
- Intelligence, Information and Analytical Services
- Foreign Service
- Public Relations and Consulting
- Teaching and Research
- International Relations
- Regulatory Agencies
- Nonprofit and Nongovernmental Organizations (NGOs)
- Law and the Administration of Justice
- Journalism and Broadcasting

Requirements for the Bachelor of Arts Degree

Required Courses

In addition to fulfilling the liberal arts course requirements within University College: Arts • Sciences • Professional Studies, political science students complete a total of 33 credits within the discipline.

The program’s core curriculum provides students a foundation in the study of government, political systems and processes; how political behavior influences public policy; and the various methodologies employed by political scientists to inform and expand their knowledge, understanding and decision making.

The core curriculum consists of the following courses:

- POLS1101  Introduction to Political Science
- POLS2231  Comparative Government and Politics
- POLS2232  Political Thought and Theory
- POLS2251  Foreign Policy of the United States
- POLS3313  Problems in International Politics
  or
- POLS4875  Honors in Political Science

Political Science Electives (21 credits)

In addition to fulfilling the requirements for the core curriculum, students are required to complete an additional 21 credits of political science electives. In fulfilling this requirement, students have the opportunity for developing concentrations in the areas of: (1) American Government and Politics, (2) Comparative Government and Politics, (3) International Relations and (4) Political Thought and Theory.

American Government and Politics
- POLS2206  American Minority Politics
- POLS2251  Foreign Policy of the United States
- POLS2253  American Government
- POLS2254  Public Policy
Political Science
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

POLS3311 The American Presidency
POLS3312 The American Congress
POLS3324 American Minority Groups
POLS3331 American Political Thought
POLS3349 African-American Politics
POLS3354 Political Parties and Pressure Groups
POLS4320 Women’s America
Comparative Government and Politics
POLS2205 Comparative Legal Systems
POLS2231 Comparative Government and Politics
POLS3334 The Soviet Union and Russia
POLS3338 India and Its Neighbors
POLS3352 Government and Politics of the Third World
POLS3361 Politics of East Asia I
POLS3362 Politics of East Asia II
POLS3363 Middle East Politics
POLS3364 Middle East in World Affairs
POLS3365 Latin America in World Affairs I
POLS3366 Latin America in World Affairs II
POLS3367 Africa in World Affairs I
POLS3368 Africa in World Affairs II
POLS4460 New Europe
POLS4463 Political and Economic Challenges in Africa

International Relations
POLS2010 Nationalism and Ethnic Violence
POLS2204 International Relations
POLS2211 International Organization
POLS2212 International Law
POLS3010 Nationalism and the Modern State
POLS3313 Problems in International Politics
POLS3301 Globalization and World Citizenship
POLS3302 Politics and the Global Economy
POLS4341 Political Leadership and Changing International Order
POLS4431 Politics of the Environment
POLS4462 Terrorism and Political Violence
POLS4511 U.N. and Human Security

Political Thought and Theory
POLS2232 Political Thought and Theory
POLS2606 Ethics and Politics
POLS3011 Human Rights in Global Environment
POLS3327 Civil Rights and Liberties
POLS3345 Modern Ideologies
POLS3355 American Constitutional Law I
POLS3356 American Constitutional Law II

For further information on the program, please contact Dr. Bamidele A. Ojo, professor of political science, at 201-692-2630; or Dr. Samuel Raphaelides, director, School of Criminal Justice, Political Science and International Studies, and professor of political science and history, at 201-692-2413.

Legal Studies Minor
The School of Criminal Justice, Political Science and International Studies offers a course of study for students who are interested in the field of jurisprudence and the legal profession. The legal studies program critically examines the historical and philosophical nature of civil and criminal law, legal reasoning and various legal systems and institutions. The minor offers students a selection of specifically designed courses, academic advisement, testing strategies and preparation and support services designed to assist students who anticipate applying to law school or graduate school. The program places a strong emphasis on the importance of the undergraduate student’s course of study, grade point ratio (GPR) and performance on the Law School Admission Test (LSAT) — all of which play important factors for acceptance to law school. Emphasis is placed on reading comprehension, writing, critical thinking, deduction and analytical reasoning. The course CRIM3890 Legal and Analytical Reasoning places emphasis on these skill sets, which also provides students the opportunity to take practice LSAT exams.

The legal studies minor requires the student to successfully complete 15 credits of the following courses:
CRIM1120 Introduction to Jurisprudence
CRIM3319 Courts and Judicial Process
CRIM3890 Legal and Analytical Reasoning
POLS1101 Introduction to Political Science
Substitutions are permitted upon approval of the school director.

Political Science Minor
(For Non-Political Science or Non-International Affairs Majors)
The minor in political science provides students with an essential foundation in the study of political science. Barring approved course substitutions, the following courses are required:
POLS1101 Introduction to Political Science
POLS1102 Geography and World Issues
Psychology Major (B.A.)

School of Psychology

Requirements for the Bachelor of Arts Degree

The curriculum and courses, which will serve as preparation for graduate studies required for work in various fields of professional psychology, are designed to help all students develop a scientific understanding of human behavior. This major is particularly useful as an undergraduate background for those who will later enter such professions as law, social work, medicine, nursing and teaching, or for those who will move into managerial positions in industry or government.

The psychology major consists of 39 credits.

The psychology major is required to take the following courses:

- PSYC1103 General Psychology
- PSYC2201 Statistics
- PSYC2204 Child Development
- PSYC2234 Social Psychology
- PSYC3202 Experimental Psychology
- PSYC3315 Abnormal Psychology
- PSYC3384 Theories of Personality
- PSYC4500 Senior Seminar in Psychology

In addition to completing the basic liberal arts curricular requirements, the major also must take a minimum of 15 credits from any courses in the School other than those listed above. Courses above the 1000 level are recommended as electives.

Specialized Tracks Within the Psychology Major

The specialization tracks within psychology consist of 39 credits. Specifically, students must complete the same required courses (24 credits) listed above along with 15 credits in the relevant area of specialization (e.g. social work, criminal justice, management, marketing, etc.). The track-specific requirements are listed on this page and page 201. For further information on these tracks, contact the School of Psychology in Williams Hall on the Metropolitan Campus at (201) 692-2300.

Clinical Social Work

The goal of the clinical social work track is to provide students with specialized course work and practical experience that will give them a competitive advantage when seeking employment in the field of social work following graduation or when applying to graduate programs in social work or related fields. The course work in this track introduces students to the profession of clinical social work, which emphasizes a broader approach to the study and treatment of mental health than do other mental health professions (emphasizing the development of a relationship-centered practice with individuals, groups and families). The track also includes an internship experience in which students will have an opportunity to integrate theory and practice through a practical experience that will help them develop skills and witness the difficulties associated with a range of human and social problems. Graduates of this track may end up working in one of many employment settings (for example, a community mental health center, a child welfare agency, a rape crisis center, a substance-abuse treatment center or a head start program, to mention a few).

Required Track Courses (15 credits)

- PSYC1125 Introduction to Social Service Advocacy*
- PSYC3381 Field Placement
- PSYC4391 Techniques of Psychotherapy
- SOCI3316 The Family: Stability and Dysfunction
- SOCI3318 Health and Society: Access and Issues

Consumer Psychology

The goal of the consumer psychology track is to provide specialized course work related to the understanding of human responses to product- and service-related information and experiences. This interdisciplinary background will prepare students to work in private industry and nonprofit and government agencies in positions related to marketing research, advertising, designing/evaluating community-wide interventions, public health campaigns, social marketing, etc. This track is also ideal for students interested in graduate programs related to social psychology and industrial and organizational psychology.

Required Track Courses (15 credits)

MKTG2120 Principles of Marketing
MKTG3344 Marketing Research
MKTG4272 Consumer Behavior
MKTG4365 Marketing Communications
MKTG4405 Advanced Marketing Management

Forensic Psychology

The goal of the undergraduate track in forensic psychology is to provide students with specialized course work at the interface of psychology with the criminal justice system, hopefully preparing students for employment in some capacity that involves working in corrections facilities or in the community with released offenders on probation or parole. The course work in this track affords students an introduction to the dynamic fields of psychology and criminal justice, highlighting the integration of forensic science disciplines with training in psychological theory, methods and the application of psychological principles to specific areas of the legal system. Students enrolled in this track may receive experience at practicum sites to help facilitate the integration of theory and practice and will come away with an interdisciplinary background appropriate for careers in psychology, social work, law enforcement or other criminal justice professions.

Required Track Courses (15 credits)

CRIM101 Introduction to Criminal Justice
CRIM2204 Juvenile Justice and Delinquency
PSYC3317 Psychology and the Law
PSYC3421 Psychology of Criminal Behavior

Psychology

Field Placement
Elective
Independent Study
Co-op in Psychology

Mental Health

The goal of the mental health track is to provide specialized course work and practical experience that will make students more attractive to employers (e.g., mental health services, child care, agencies, case-work settings) immediately following graduation or give them a competitive edge when seeking admission to graduate school. The course work will afford an in-depth analysis of psychopathology from a

*Cross-listed with CRIM1125 Introduction to Social Service Advocacy.
Organizational Behavior/Human Resources

The goal of the organizational behavior/human resources track is to provide students with specialized course work in organizational processes and decision-making related to personnel selection, training and management. This interdisciplinary background will prepare students to work in private industry, nonprofit and government agencies in positions related to human resources and/or management consulting. This track is also ideal for students interested in graduate programs related to industrial and organizational psychology.

Required Track Courses (15 credits)
MGMT2600 Organizational Behavior
MGMT3700 Human Resources Management
MGMT3710 Strategic Staffing
MGMT3720 Training, Development and Performance Management
MGMT4730 Strategic HRM

Minors

Clinical Social Work Minor
(For Non-Psychology Majors)
A minor in clinical social work for non-psychology majors consists of 15 credits beyond the core.

Required Major Courses (15 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>PSYC1125</td>
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* Cross-listed with CRIM1125 Introduction to Social Service Advocacy.

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<td>Field Placement</td>
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<td>PSYC4391</td>
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<td>Techniques of Psychotherapy</td>
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<td>SOCIO318</td>
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<tr>
<td>Health and Society: Access and Issues</td>
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Students who are majoring in psychology are not permitted to enroll in this minor. Psychology majors may elect to complete the clinical social work track within their major and must complete a minor in another area.

Forensic Psychology Minor
(For Non-Psychology Majors)
A minor in forensic psychology for non-psychology majors consists of 15 credits beyond the core.

One Required Foundation Course

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Two Required Major Courses (6 credits) from the following:

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<td>PSYC2204</td>
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Two Forensic Psychology Track Courses (6 credits) from the following:

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<td>PSYC3317</td>
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<td>Psychology and the Law</td>
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<td>PSYC3319</td>
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<tr>
<td>PSYC3421</td>
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<tr>
<td>Psychology of Criminal Behavior**</td>
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</table>

*Prerequisite: PSYC2201 Statistics or equivalent in major (e.g. DSCI2130 Business Statistics).
**Prerequisite: PSYC3315 Abnormal Psychology.

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Psychology Minor
(For Non-Psychology Majors)
A minor in psychology for non-psychology majors consists of 15 credits beyond the core.

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</table>
## Radiography Major (A.S.)

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

Radiology is a health care discipline that utilizes ionizing radiation for diagnosis of disease. The radiographer, a person who produces images of the human body for diagnostic purposes, is under the supervision of a physician.

The course of study to become a radiographer is an intensive, 24-month education that results in an Associate in Science degree in radiography with a Certificate in Radiography. It is designed for those who wish to learn the basic and specialized area of radiologic technology.

Students must apply to and be accepted by the Valley Hospital School of Radiology, Ridgewood, N.J., before entering the FDU radiology program. The prerequisites for the radiology program are successful completion of Human Anatomy and Physiology I and II with labs (8 credits).

### Requirements for the Associate in Science Degree

#### 1st Semester

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<tr>
<td>RADT1110 Clinical Practicum I</td>
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<td>RADT1151 Principles of Radiographic Exposure I</td>
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<td>RADT1150 Fundamentals of Patient Care</td>
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<td>UNIV1001 Transitioning to University Life</td>
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**Total........15**

#### Winter Session I

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<td>RADT1150 Clinical Practicum III</td>
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<td>PHYS1114 Physics for Radiography</td>
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<td>RADT2250 Clinical Practicum V</td>
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<td>RADT2252 Radiation Biology and Safety</td>
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<td>RADT2255 Radiographic Procedures III</td>
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<td>UNIV2001 Cross-cultural Perspectives</td>
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### 4th Semester

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<td>RADT2254 Radiographic Imaging Equipment and Quality Management</td>
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<td>RADT2270 Clinical Practicum VII</td>
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<td>RADT2271 Radiographic Pathology</td>
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<td>RADT2275 Radiographic Procedures IV</td>
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<td>UNIV2002 Global Issues</td>
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**Total......16**

## Radiologic Technology Major (B.S.)

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

The Bachelor of Science degree in radiologic technology is an advanced standing/completion-degree program designed for the professional development of registered radiographers. The program’s objectives are to provide educational opportunities for radiographers who have graduated from accredited programs with certificates/associate degrees and are certified/licensed to practice. The program also will provide career mobility and educational articulation for these students.

Registered radiographers who are graduates from an accredited two-year, hospital-based program may receive up to 54 transfer credits toward the Bachelor of Science degree, depending on the evaluation of the hospital training transcript. Graduates from an associate degree program may receive up to 60 transfer credits. Additional transfer credits may be granted for courses taken at accredited collegiate institutions.

The curriculum is interdisciplinary in structure and students may take courses on a part-time or full-time basis.

### Requirements for the Bachelor of Science Degree

#### Requirements for the B.S. in Radiologic Technology for Registered Radiographers

In addition to the 54 transfer credits, the following courses need to be completed.

#### Core Requirements (46 credits)

**Foundation Courses (34 credits)**

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<tr>
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<td>MATH1107 Precalculus</td>
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<td>MEDT1130 Bioethics</td>
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Required Courses

PSYC1103 General Psychology .......................... 3
PSYC2201 Statistics ................................. 3
SPAN1111 Spanish for Health Personnel .......... 3
SPCH1155 Public Speaking ........................... 3
English Literature Elective .......................... 3

Major Requirements (33 credits)

MEDT1130 Bioethics ..................................... 3
MEDT4501 American Health Care Systems ......... 3
MEDT4502 Health Care Law and Policy ............... 3
MGMT2600 Organizational Behavior .................. 3
MGMT3700 Human Resources Management ........... 3
NURS2210 Pathophysiology ........................... 3
NURS3208 Introduction to Health Care Economics ... 3
NURS4420 Health Care Management .................. 3
NURS4450 Nursing Research ........................... 3
RADT4002 Advanced Radiological Science I ........... 3
RADT4005 Advanced Radiological Science II ........... 3

University Requirements (6 credits)

UNIV2001 Cross-cultural Perspectives ................ 3
UNIV2002 Global Issues ................................ 3

Science Major (B.S.)

School of Natural Sciences

Students seeking a baccalaureate degree, with a thorough grounding in the sciences, and desiring choice should consider the Bachelor of Science degree in science. The program is multidisciplinary, offering students maximum flexibility. The study of mathematics, for example, may be adjusted to meet the students' academic objectives. The curriculum can meet the entrance requirements for medical or dental school. Students must have a grade of C- or higher in all major course work.

The School of Natural Sciences has a strict “C-gate” policy for a number of its fundamental science classes. This policy is designed to ensure that students are well equipped to do their best in the higher-level courses by first mastering the basics. Students who have not obtained a minimum grade of C- in any course in the following sequence must repeat that course before attempting the next course in that sequence. This applies to both science and non-science majors. The C-gate sequence is CHEM1201 General Chemistry I, CHEM1202 General Chemistry II, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, PHYS2203 University Physics I and PHYS2204 University Physics II.

This applies to both science and non-science majors. Students must have a C- or higher in BIOL1251, BIOL1253 General Biology I, BIOL1252, BIOL1254 General Biology II; ENVR1111, ENVR1112 Oceanography; and MBBIO1209 Introduction to Marine Biology to take a 2000- or higher-level science course.

Requirements for the Bachelor of Science Degree

Required Courses

BIOL1251 General Biology I .......................... 3
BIOL1252 General Biology II .......................... 3
BIOL1253 Laboratory: General Biology I .......... 1
BIOL1254 Laboratory: General Biology II .......... 1
BIOL2300 Experimental Design ....................... 3

Credits
**Spanish Language and Culture**

University College: Arts • Sciences • Professional Studies  
Metropolitan Campus for Professional and International Studies

### Distribution Requirements

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**Science Minor**  
*(For Non-Science Majors)*

Required 16-credit minor.

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<td>CHEM1201, CHEM1203</td>
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<tr>
<td>CHEM1202, CHEM1204</td>
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<tr>
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</tbody>
</table>

Total credits for degree are 120.

### School of the Humanities

**Requirements for the Bachelor of Arts Degree**

The school offers an undergraduate major in Spanish language and culture.

Students must enter the major at the SPAN2103 level or higher (elementary-level Spanish courses count for general education requirements or free electives). Students majoring in Spanish are required to complete 36 credits in a combination of Spanish and culture courses. A minimum of 24 credits chosen from SPAN5000–4000 is required.

Language majors are encouraged to spend a semester or a summer abroad at an institution approved by the University.

The following courses are required for the major.

**Major Requirements (36 credits)**

**Required Major Courses (24 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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<tr>
<td>SPAN3301</td>
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<td>SPAN3345</td>
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<td>SPAN4440</td>
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</tbody>
</table>

### Spanish Language and Culture Major  
*(B.A.)*

#### Education Requirements or Free Electives

Required 16-credit minor.

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses. Or take ART1103 Principles of Art Appreciation, ART1107 Development of Art I, ART1108 Development of Art II, ART1120 Modern Art to Mid-century, ART1131 History of Graphic Design and Illustration, ART1133 History of Photography, ART1155 Cinema I: The Director's Vision, ART1156 Cinema II: Themes in Film, ART1157 History of Fashion Design, ART2137 Global Roots of American Architecture or ART2238 The Global Art World. Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI at the 2000-level or above.*

**Note:** This section provides a detailed breakdown of the Spanish Language and Culture Major requirements, including course codes, credits, and specific courses required. The requirements are designed to provide a comprehensive understanding of the Spanish language and culture, with options for electives to tailor the degree to individual interests. The School of the Humanities offers a structured program to ensure students meet the necessary academic standards and gain a deep understanding of Spanish culture and language. Students are encouraged to engage in cultural exchange programs abroad to enhance their learning experience. The major requirements include core courses in Spanish language and literature, along with electives in related fields to broaden students' knowledge and skills. The degree is designed to prepare students for a variety of careers or further education in Spanish language and culture.
Recommended Electives (12 credits)

| Credits |
|-----------------|-----------------|
| LANG3321        | Linguistics: Origin of Languages..............3 |
| LANG3322        | Latin-American Women Authors.............3 |
| SPAN3304        | Spanish for Careers.........................3 |
| SPAN4235        | Latin-American Media and Film............3 |
| SPAN4259        | Spanish Linguistics..........................3 |

Spanish Language and Culture Minor

(For Non-Spanish Majors)

Non-Spanish majors may complete a minor in Spanish language and culture by completing the following 15 credits:

| Credits |
|-----------------|-----------------|
| SPAN1101, SPAN1102 | Elementary Spanish I, II.................6 |
| SPAN2103, SPAN2104 | Intermediate Spanish I, II...............6 |
| SPAN3301        | Advanced Conversation in Spanish.........3 |

For students entering at the intermediate level, the following courses are recommended to fulfill the language and culture requirement:

| Credits |
|-----------------|-----------------|
| SPAN2103, SPAN2104 | Intermediate Spanish I, II...............6 |
| SPAN3301        | Advanced Conversation in Spanish.........3 |
| SPAN4437        | Advanced Composition in Spanish.........3 |

Language and Culture Studies Course................3

Faculty & Staff

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

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

Lee Gildart and Oswald Haase School of Computer Sciences and Engineering

School of Criminal Justice, Political Science and International Studies
S. Raphaelides, Director; P. Reynolds, Assistant Director; D. Evans, E. Garcia, K. Kattelman, J. Kenny, B. Ojo, E. Panuccio, N. Sachs

Peter Sammartino School of Education
M. Singer, Interim Director; L. Ray, Deputy Director; J. Bornstein, M. Farrell, N. Hansen, E. Hellmann, K. Joshi, C. Karpinski, L. Meskin, T. Montani, L. Sanchez Wall, K. Spence, S. Suh, R. Westbrook

School of the Humanities

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

Henry P. Becton School of Nursing and Allied Health

School of Psychology

Department of Physical Education and Health
C. Liggett, Coordinator

Programs in Language, Culture and Professional Advancement
M. Mohamad, Director

University College: Arts • Sciences • Professional Studies
Metropolitan Campus for Professional and International Studies
Special Programs

A great university must, while retaining the traditional programs at the heart of a modern education, expand beyond them to meet the wide-ranging needs of its students. FDU offers combined degree programs, allowing students to earn undergraduate and graduate degrees in less time than traditional routes; honors programs for students of top academic abilities; overseas campuses where students learn about other cultures while studying their academic disciplines; special degree-granting programs for adult learners; Reserve Officers’ Training Corps programs; preprofessional degree options; and internships and cooperative studies offered in conjunction with business and industry, which offer students experience in the working world of their chosen fields.

Combined Degree Programs

The University, keeping in mind the needs and aspirations of its best students, offers a variety of programs specially tailored to bring out the best in them.

Several programs allow students to combine graduate and undergraduate degrees in less time than it would take if each were to be pursued separately. They include:

Baccalaureate/Master

- Bachelor of Arts/Master of Public Administration (five years), see page 207;
- Bachelor of Arts or Science/Master of Arts in Teaching combined degree (five years), see page 208;
- Bachelor of Arts or Science/Master of Arts in Teaching with a Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education (five years), see page 210;
- Bachelor of Arts or Science/Master of Arts in Teaching with a Dual Certification in Elementary or Secondary Education and English as a Second Language (five years), see page 213;
- Bachelor of Arts in communication studies/Master of Arts in communication, (accelerated) see page 214;
- Bachelor of Arts in creative writing/Master of Fine Arts in creative writing, see page 215;
- Bachelor of Arts in criminal justice/Master of Arts in criminal justice, see page 215;
- Bachelor of Arts in criminology/Master of Arts in criminal justice, see page 215;
- Bachelor of Arts in film and animation/Master of Arts in animation, see page 216;
- Bachelor of Arts in film and animation/Master of Fine Arts in animation, see page 216;
- Bachelor of Arts in film and animation/Master of Public Administration (five years), see page 218;
- Bachelor of Arts in political science/Master of Arts in criminal justice (five years), see page 218;
- Bachelor of Arts in political science/Master of Arts in political science (five years), see page 219;
- Bachelor of Arts in political science/Master of Public Administration (five years), see page 220;
- Bachelor of Arts in psychology/Master of Arts in forensic psychology (five years), see page 221;
- Bachelor of Arts in psychology/Master of Arts in general/theoretical psychology (five years), see page 222;
- Bachelor of Arts in psychology/Master of Arts in industrial/organizational psychology (five years), see page 223;
- Bachelor of Arts in psychology/Master of Social Work with New York University (five years), see page 224;
- Bachelor of Arts in sports administration/Master of Sports Administration (five years), see page 225;
- Bachelor of Science in accounting/Master of Science in accounting (five years), see page 227;
- Bachelor of Science in accounting/Master of Business Administration see page 228;
- Bachelor of Science in biochemistry/Master of Science in applied clinical nutrition with School of Health Sciences and Education, New York Chiropractic College (five years), see page 228;
- Bachelor of Science in biochemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (five years), see page 229;
- Bachelor of Science in biochemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (five years), see page 229;
- Bachelor of Science in biochemistry/Master of Science in cosmetic science (five years), see page 230;
- Bachelor of Science in biochemistry/Master of Science in cosmetic science (five years), see page 230;
- Bachelor of Science in biology/Master of Science in biology (five years), see page 233;
- Bachelor of Science in business administration or entrepreneurship or finance or management or marketing/Master of Business Administration in accounting or business administration or entrepreneurship or finance or information systems or international business or marketing or pharmaceutical management, see page 234;
- Bachelor of Science in business administration or entrepreneurship or finance or management or marketing/Master of Science in accounting or supply chain management or taxation, see page 234;
- Bachelor of Science in chemistry/Master of Science in chemistry with a concentration in pharmaceutical chemistry (five years), see page 235;
- Bachelor of Science in chemistry/Master of Science in cosmetic science (five years), see page 237;
- Bachelor of Science in computer science/Master of Science in computer science (five years), see page 238;
- Bachelor of Science in computer science/Master of Science in management information systems (five years), see page 239;
- Bachelor of Science in Electrical Engineering/Master of Science in computer engineering (five years), see page 240;
- Bachelor of Science in Electrical Engineering/Master of Science in Electrical Engineering (five years), see page 241;
- Bachelor of Science in hotel and restaurant management/Master of Science in hospitality management studies (five years), see page 242;
- Bachelor of Science in information technology/Master of Science in computer science (five years), see page 243.
Combined Degree Programs
B.A./M.P.A.

Baccalaureate/Doctorate

- Bachelor of Science in biochemistry/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 244;
- Bachelor of Science in biology/Doctor of Chiropractic with Life Chiropractic College West, Logan University, New York Chiropractic College, Palmer College of Chiropractic or University of Western States, (six years, four months), see page 249;
- Bachelor of Science in biochemistry or biology or chemistry/Doctor of Dental Medicine with Lake Erie College of Osteopathic Medicine School of Dental Medicine (eight years), see page 251;
- Bachelor of Science in biology/Doctor of Dental Medicine with Rutgers School of Dental Medicine, (seven years), see page 252;
- Bachelor of Science in biology/Doctor of Physical Medicine with Ross University College of Osteopathic Medicine (seven years), see page 255;
- Bachelor of Science in biochemistry or biology or chemistry/Doctor of Osteopathic Medicine with Lake Erie College of Osteopathic Medicine (eight years), see page 255;
- Bachelor of Science in biology/Doctor of Podiatric Medicine with New York College of Podiatric Medicine (seven years), see page 263;
- Bachelor of Science in biology/Doctor of Veterinary Medicine with Ross University School of Veterinary Medicine, (seven years), see page 264;
- Bachelor of Science in chemistry/Doctor of Pharmacy with FDU School of Pharmacy and Health Sciences (seven years), see page 266.

For more information on the array of accelerated programs available at FDU, please contact your college dean or school director.

Students matriculated into the accelerated five-year programs leading to the B.A./M.P.A., the B.A./M.A. and the B.S./M.S. degrees (except in accounting). The students receive their bachelor’s degree upon completion of undergraduate requirements and are moved to a graduate program. Students in these curricula who require matriculation as graduate students may request conferral of the baccalaureate degrees upon completion of 120–123 credits (121 credits for Silberman College of Business) and the B.A. or B.S. requirements. The degree will then be awarded in accordance with normal University procedures. Students electing this option are advised that they may become ineligible for certain benefits upon achieving graduate-student status.

Students matriculated into the five-year programs leading to the M.B.A. (4+1) or M.S. in supply chain management (4+1) or the M.A.T. normally complete their undergraduate programs and receive their baccalaureate degrees before entering the graduate portion of the program.

B.A./M.P.A.
Five-year Program

Undergraduates who take a major either in history or in political science may, during their junior year, apply to the Master of Public Administration program offered by the School of Public and Global Affairs.

Students who apply and gain admission to the M.P.A. program take three M.P.A. courses (PADM6602 Budgeting and Finance, PADM6603 Public Policy Administration and PADM6680 Information Technology Management) as free electives. Besides counting toward the B.A., the credits earned in these three graduate courses will count toward the 39 credits that the M.P.A. requires. For the B.A., all University College general education requirements (pages 128–129) and all requirements pertaining to the undergraduate major (history, page 173; political science, pages 198–199) must be satisfied. For the Metropolitan Campus, go to page 218 for the B.A. in history/M.P.A. combined degree and page 220 for the B.A. in political science/M.P.A. combined degree.
Combined Degree Programs
B.A. or B.S./M.A.T. QUEST Teacher Preparation

B.A. or B.S./M.A.T.
QUEST Teacher Preparation
Five-year Program
The QUEST (QUality in Education, Schools and Teaching) program is offered by the Peter Sammartino School of Education at the Florham Campus, Madison, New Jersey, and the Metropolitan Campus, Teaneck, New Jersey.

The program is open to students who wish to be certified to teach at the early childhood (P–3), elementary or secondary-school level in the area of their liberal arts or science major or in English as a Second Language (ESL). All tracks result in the B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T.) degree. See below and pages 63 and 151 for additional information.

Students may select a QUEST program in general education (regular classroom teacher) at the P–3, elementary or secondary level or in English as a Second Language (ESL). QUEST also offers the opportunity to select a dual certification program in early childhood (P–3), elementary (K–6) or secondary (7–12) and Teacher of Students with Disabilities (TSD). Students desiring the dual certification program need to join QUEST in their freshman year.

QUEST also offers the opportunity to select a dual certification program in elementary education (K–6) or secondary education (7–12) with a second certification in English as a Second Language. Students desiring the dual certification program in elementary or secondary education and ESL need to join QUEST in their freshman year. These students will need to complete three courses after their fifth year in the program to finish the ESL certification.

QUEST Program
Students typically enter the program in their freshman year. FDU students and admitted transfer students may enroll in QUEST in their sophomore or junior years, subject to an interview with the QUEST adviser, a review of transcripts and meeting QUEST program admissions and matriculation requirements.

Admission and matriculation in the QUEST program are as follows:

- 60 earned credits;
- CGPR of 3.00 or greater; and
- Pass the new Praxis I – CORE Battery, which consists of three tests in basic skills as follows:
  1. Core Academic Skills for Educators: Reading
  2. Core Academic Skills for Educators: Writing
  3. Core Academic Skills for Educators: Mathematics

Students are required to take and pass the CORE Battery by the end of their sophomore year to continue in the QUEST program. Juniors seeking admission to QUEST must take and pass the CORE Battery during their first semester in the program. All three exams must be passed for matriculation. Students who do not pass all three exams may be restricted from taking education (EDUC) courses. Students may be exempted from the CORE Battery if they meet one of the following alternatives:

- SAT (if taken between April 1, 1995, to February 28, 2016): Reading 560; Mathematics 540
- SAT (if taken on or after March 1, 2016): Reading 610; Mathematics 570
- ACT (if taken on or after August 28, 1989): English 23; Mathematics 25
- If a candidate completed and passed the Pre-professional Skills Test (PPST/Praxis I) prior to June 2014, the School of Education will accept passing scores on those exams to satisfy the basic skills requirement (passing scores on the PPST are as follows: Reading 175, Mathematics 174, Writing 173).

In addition to the academic study listed below, beginning in the first year, the program offers extensive field experiences in select public schools.

Faculty advisers work closely with students, individually and/or in groups, to provide guidance as students complete their programs of study.

Program Outline
1. Students must satisfy all general education requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization. Students in the QUEST program must major in a liberal arts/science discipline and will take from 30 to 31 credits in education as free electives as undergraduates. These credits satisfy the requirement for a “minor.” All QUEST students majoring in psychology, sociology or humanities are required to have a minor (15–18 credits) in a content area and/or a middle-school content endorsement.

2. Students must continue to meet grade point requirements (3.00) throughout their time in the QUEST program.

3. After 60 earned credit hours, students may be formally matriculated into the QUEST program. To matriculate, a student must have a 3.00 cumulative grade point ratio and a passing score on the CORE Battery exams in reading, writing and mathematics as described on pages 130–131. All three exams must be passed (for all majors and at all grade-certification levels). Students should take the CORE Battery in their freshman or sophomore year. Students who have 60 credits and have not passed all three sections of the CORE Battery will be restricted in the number of education courses they may take until they pass all three exams.

4. Students will be advised when to take their Content Knowledge Praxis II exams. They will also be advised as to the current required exam(s) for the certification sought. The Praxis II exam is needed to obtain New Jersey State certification.

5. At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 graduate credits towards their Master of Arts in Teaching degree (which requires a total of 36 graduate credits — 40 credits for the dual certification program). Students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification and will have at least 23 graduate credits towards the M.A.T. Students may decide to complete the remaining graduate courses leading to an M.A.T. in the fifth year or thereafter or to pursue only graduate-level courses to complete their teaching certification without the master’s degree. (A master’s degree is not required for certification in New Jersey.) A third option would be to not continue in the fifth year in the School of Education.

6. New Jersey teacher certification requires 3 credits in biology, physiology or health. The courses also may be taken to satisfy college core requirements (foundations and disciplinary perspectives) or the liberal arts/science required courses or electives.
Combined Degree Programs
B.A. or B.S./M.A.T. QUEST Teacher Preparation

7. In order to complete the Master of Arts in Teaching program in five years, students may need to take courses in summer and winter sessions in years three through five, depending upon their particular liberal arts/science program requirements.

8. In addition to required courses at the graduate level for the M.A.T. program, students may choose electives from one area of specialization, i.e., English as a Second Language (ESL), special education (up to 6 credits if not in the dual certification program), instructional technology; or they may choose a variety of electives from those available. It is recommended that students seeking two certifications focus their graduate electives in a specific area of certification for their second certificate.

QUEST Program Sequence
(Note: All students follow the course sequence in years one and two and specialize in early childhood (P–3), elementary, ESL or secondary education in years three, four and five.) Registration in all courses and any substitutions require the adviser’s approval. Sequence may vary depending on adviser’s recommendation.

Year 1
EDUC1108 Seminar in Professional Practice I: The Teacher’s Role in School and Community..........................3
EDUC2401 Field Experience I..................................1
Total........4

Year 2
EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders..................3
EDUC2402 Field Experience II.................................1
EDUC3509 Seminar in Professional Practice III: The Functions of Teaching.........................3
Total.........7

Notes: (1) Graduate-level courses, marked with asterisks (*), are taken in years three and four in elementary or secondary specializations for dual undergraduate/graduate credit (maximum 15 credits).
(2) Prerequisites for courses in years three and four: EDUC1108 Seminar in Professional Practice I: The Teacher’s Role in School and Community, EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUC3509 Seminar in Professional Practice III: The Functions of Teaching, EDUC2401 Field Experience I and EDUC2402 Field Experience II.
(3) Refer to Graduate Studies Bulletin for graduate course descriptions.
(4) Basic course sequence in years two, three and four may vary slightly depending upon individual students.

Early Childhood (P–3) Specialization

Year 3
EDUC3403 Field Experience III...............................2
EDUC6818 Language Development and Literacy I*.................................3
EDUC6819 Language Development and Literacy II*.................................3
EDUC6820 Problem-based Strategies for Elementary Mathematics*................3
Total.........11

Year 4
EDUC3404 Field Experience IV: Applied Field Research.................................2
EDUC6852 Curriculum Development and Assessment for the Pre-school to Third-grade Classroom*..................3
EDUC6853 Family and Community in Education*................3
Total.........8

Year 5
EDUC575 Apprentice Teaching*..............................6
EDUC6583 Advanced Clinical Practice*................2
EDUC6584 Computers as a Teacher’s Aid: Curriculum and Instruction*................3
EDUC6740 Introduction to Students with Disabilities and Autistic Spectrum Disorders*................3
EDUC6825 Apprentice Teaching Seminar*................2
EDUC7812 Final Project*.................................2
EDUC Elective*..................................................3
Total..........21

ESL Specialization

Year 3
EDUC3403 Field Experience III...............................2
EDUC6565 Second Language Acquisition: Methods and Curriculum*................3
EDUC6654 Literacy Development for Second-language Learners*................3
Total.........8

Year 4
EDUC3404 Field Experience IV: Applied Field Research.................................2
EDUC6574 Applied Linguistics for Language Teachers*.................................3
EDUC6651 Assessment in the Second-language Classroom*................3

*Graduate education classes.
Combined Degree Programs
B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

**Year 5**

EDUC6575  
Apprenticeship Teaching*.......................... 6  
EDUC6583  
Advanced Clinical Practice*...................... 2  
EDUC6740  
Introduction to Students with Disabilities and Autistic Spectrum Disorders*........ 3  
EDUC6825  
Apprenticeship Teaching Seminar*.............. 2  
EDUC7812  
Final Project*........................................ 2  
EDUC Electives*........................................ 6  
Total........21

**Notes:** 
1. Students who earn their B.A./B.S. degrees at the end of year four are eligible for state teacher certification upon completion of the required 120 credits and the M.A.T. degree upon completion of 36 approved graduate credits.  
2. Students are eligible for: the B.A./B.S. degree upon completion of the required 120 credits and the M.A.T. degree upon completion of 36 approved graduate credits.  
3. All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school, with at least 175 hours prior to the final, full-time semester of student teaching.

### B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

**Five-year Program**

The dual certification in early childhood (P–5), elementary (K–6) or secondary (7–12) and special education is offered by the Peter Sammartino School of Education. The program is offered to students who wish to be certified to teach in early childhood, elementary or secondary and special education. Students will earn a B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T) degree. See below and pages 208–210 for additional information.

**Dual Certification Program**

This program is open to students who enter as freshmen beginning September 2013 and thereafter. Because the dual certification courses begin in the freshman year, students may not be able to join this program as upperclassmen. Such cases will be evaluated on an individual basis with the program director. In addition to the academic study listed below, beginning in the first year, the program offers extensive field experiences in select public schools. Faculty advisers work closely with students, individually and/or in groups, to provide guidance as students complete their programs of study. Students admitted to this select program will function as a cohort for their education courses.

The curriculum is designed to offer the option of discontinuing study in education at any time during the first four years without losing any time or credit toward the liberal arts or science baccalaureate degree.

**Program Outline**

Students must satisfy all college core requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization. Students in the QUEST program must major in a liberal arts/science discipline. Students majoring in psychology, humanities or sociology are required to have a minor in a content area (English, history, mathematics or science).

*Graduate education classes.*

---

**Secondary Specialization**

**Year 3**

EDUC3403  
Field Experience III................................. 2  
EDUC6562, EDUC6563, EDUC6566, EDUC6568, EDUC6567  
Appropriate Methods and Curriculum Courses in Discipline*...3  
EDUC6651  
Effective Reading Instruction*.................... 3  
Total........8

**Year 4**

Credits  
EDUC3404  
Field Experience IV: Applied  
Field Research....................................... 2  
EDUC6584  
Computers as a Teacher’s Aid:  
Curriculum and Instruction*..................... 3  
EDUC6893  
Evaluation and Measurement  
in Education*......................................... 3  
EDUC7765  
Human Relations and Conflict  
Resolution for Educators*......................... 3  
Total........11

*Graduate education classes.*
Admissions and matriculation requirements for the QUEST Dual Certification program are the same as for all QUEST programs (see Admissions and Matriculation requirements, pages 150–151). Students interested in the Dual Certification program must enter as freshmen or first-semester sophomores.

At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 credits toward their Master of Arts in Teaching degree (which requires a total of 40 graduate credits). Typically, students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification (general education – first certificate) and will have at least 26 graduate credits toward the M.A.T. Students may decide to complete the remaining graduate courses leading to a M.A.T. in the fifth year or thereafter or to pursue only graduate-level courses to complete their teaching certification without a master’s degree. Students must complete the entire program to receive their Teacher of Students with Disabilities (TSD) certification. The state of New Jersey will not issue a TSD certificate as a first certificate. (A master’s degree is not required for certification in New Jersey.) A third option would be not to continue in FDU’s School of Education.

New Jersey teacher certification requires that 3 credits be taken in biology, physiology or health. These courses also may be taken to satisfy college core requirements or the liberal arts/science required courses or electives.

Eligibility for graduate courses in education in the third and fourth years will require that a student be fully matriculated in the QUEST program. Students must maintain a cumulative grade point ratio (CGPR) of 3.00 and must pass the required basic skills assessment (Praxis CORE Battery) as described on pages 130–131. Students who do not pass all three CORE Battery exams will be restricted in their education classes until these exams are passed.

In order to complete the Dual Certification program in five years, students may need to take courses in summer or winter sessions in years three through five, depending upon their particular liberal arts/science program requirements.

### Combined Degree Programs

**B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education**

<table>
<thead>
<tr>
<th>Program Sequence</th>
<th>Year 1</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDUCC108</td>
<td>Seminar in Professional Practice I: The Teacher’s Role in School and Community</td>
<td>3</td>
</tr>
<tr>
<td>EDUCC202</td>
<td>Development of Children with and without Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDUCC201</td>
<td>Field Experience I</td>
<td>1</td>
</tr>
<tr>
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<table>
<thead>
<tr>
<th>Year 2</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>EDUCC207</td>
<td>Introduction to Special Education and Students with Disabilities including Autism Spectrum Disorder</td>
</tr>
<tr>
<td>EDUCC208</td>
<td>Classroom Management and Positive Behavioral Supports</td>
</tr>
<tr>
<td>EDUCC209</td>
<td>Seminar in Professional Practice II: Teachers as Educational Leaders</td>
</tr>
<tr>
<td>EDUCC202</td>
<td>Field Experience II (special education setting – resource room or self contained)</td>
</tr>
<tr>
<td>EDUCC209</td>
<td>Seminar in Professional Practice III: The Functions of Teaching</td>
</tr>
<tr>
<td>Total</td>
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</tr>
</tbody>
</table>

**Notes:**

1. Graduate-level courses, marked with two asterisks (**), are taken in years three and four for dual undergraduate/graduate credit (maximum 15 credits).
2. Prerequisites for courses in years three and four are EDUCC108 Seminar in Professional Practice I: The Teacher’s Role in School and Community, EDUCC201 Field Experience I, EDUCC202 Field Experience II, EDUCC209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUCC210 Seminar in Professional Practice III: The Functions of Teaching and prerequisite special-education courses (EDUCC204 Survey of Students with Special Needs, EDUCC205 Classroom Management and EDUCC206 Foundation of Special Education for dual certification program).
3. Refer to the *Graduate Studies Bulletin* for graduate course descriptions.

### Elementary Specialization (Elementary + TSD)

<table>
<thead>
<tr>
<th>Year 3</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDUCC3403</td>
<td>Field Experience III</td>
</tr>
<tr>
<td>EDUCC6818</td>
<td>Language Development and Literacy I**</td>
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<tr>
<td>EDUCC6819</td>
<td>Language Development and Literacy II**</td>
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<tr>
<td>EDUCC7763</td>
<td>Human Relations and Conflict Resolution for Educators**</td>
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<thead>
<tr>
<th>Year 4</th>
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<tbody>
<tr>
<td>EDUCC3404</td>
<td>Field Experience IV: Applied Field Research</td>
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<tr>
<td>EDUCC6792</td>
<td>Assistive Technology for the Inclusive Classroom**</td>
</tr>
<tr>
<td>EDUCC6797</td>
<td>Multisensory Mathematics Instruction for Students with Disabilities**</td>
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<tr>
<td>EDUCC6820</td>
<td>Problem-based Strategies for Elementary Mathematics**</td>
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<tr>
<td>EDUCC6893</td>
<td>Evaluation and Measurement in Education**</td>
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<table>
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<tr>
<th>Year 5</th>
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<tr>
<td>EDUCC6575</td>
<td>Apprenticeship Teaching**</td>
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<td>EDUCC6583</td>
<td>Advanced Clinical Practice**</td>
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<tr>
<td>EDUCC6747</td>
<td>Multisensory Reading Instruction for Students with Reading Disabilities**</td>
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<tr>
<td>EDUCC6750</td>
<td>Teaching in an Inclusive Classroom**</td>
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<td>EDUCC6792</td>
<td>Assistive Technology for the Inclusive Classroom**</td>
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<td>EDUCC6825</td>
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<td>EDUCC7812</td>
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<td>Total</td>
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</tbody>
</table>

**Notes:**

1. Graduate-level courses, marked with two asterisks (**), are taken in years three and four for dual undergraduate/graduate credit (maximum 15 credits).
Combined Degree Programs

B.A. or B.S./M.A.T. Dual Certification in Elementary, Secondary or Early Childhood Education and Special Education

(2) Prerequisites for courses in years three and four are EDUC1108 Seminar in Professional Practice I: The Teacher’s Role in School and Community, EDUC2401 Field Experience I, EDUC2402 Field Experience II, EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUC3309 Seminar in Professional Practice Teaching III: The Functions of Teaching and prerequisite special-education courses (EDUC2204 Survey of Students with Special Needs, EDUC2205 Classroom Management and EDUC2206 Foundation of Special Education for dual certification program).

(3) Refer to Graduate Studies Bulletin for graduate course descriptions.

Secondary Specialization (Secondary + TSD)

**Year 3**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>EDUC3403</td>
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<tr>
<td>Field Experience III</td>
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<tr>
<td>EDUC6651</td>
<td>5</td>
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<tr>
<td>Effective Secondary Methodology Course (EDUC6500 level)</td>
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**Year 4**

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<th>Credits</th>
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<tbody>
<tr>
<td>EDUC3404</td>
<td>11</td>
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<tr>
<td>Field Experience IV: Applied Field Research</td>
<td></td>
</tr>
<tr>
<td>EDUC6792</td>
<td>2</td>
</tr>
<tr>
<td>Assistive Technology for the Inclusive Classroom**</td>
<td></td>
</tr>
<tr>
<td>EDUC6797</td>
<td>3</td>
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<tr>
<td>Multisensory Mathematics Instruction for Students with Disabilities**</td>
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<tr>
<td>EDUC6895</td>
<td>3</td>
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<tr>
<td>Evaluation and Measurement in Education**</td>
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<td>Human Relations and Conflict Resolution for Educators**</td>
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P–3 Early Childhood Specialization (Early Childhood + TSD)

**Year 3**

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<tr>
<td>Language Development and Literacy II**</td>
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<tr>
<td>EDUC6820</td>
<td>2</td>
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<tr>
<td>Problem-based Strategies for Elementary Mathematics**</td>
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**Year 4**

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<tr>
<td>EDUC6792</td>
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<tr>
<td>Assistive Technology for the Inclusive Classroom**</td>
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<tr>
<td>EDUC6797</td>
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<td>EDUC6852</td>
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<td>Curriculum Development and Assessment for the Pre-school to Third-grade Classroom**</td>
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<td>EDUC6853</td>
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<td>Family and Community in Education**</td>
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Year 5 Credits

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<td>Apprenticeship Teaching**</td>
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<td>EDUC6583</td>
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<tr>
<td>Advanced Clinical Practice**</td>
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<td>EDUC6747</td>
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<tr>
<td>Multisensory Reading Instruction for Students with Reading Disabilities**</td>
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<tr>
<td>EDUC6750</td>
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<td>Teaching in an Inclusive Classroom**</td>
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<tr>
<td>EDUC6825</td>
<td>2</td>
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<tr>
<td>Apprenticeship Teaching Seminar**</td>
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<td>EDUC7812</td>
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<td>Final Project**</td>
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<td>Graduate Elective</td>
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</table>

Notes: (1) Students who earn their B.A. or B.S. degrees at the end of year four are eligible for state teacher certification upon completion of EDUC6575 Apprenticeship Teaching and EDUC6825 Apprenticeship Teaching Seminar if all appropriate education prerequisites have been completed (refer to section on certification, pages 63–64 and 131).

(2) Students are eligible for special education certification upon completion of the required 120 credits and the M.A.T. degree upon completion of the required special education courses. In New Jersey, special education certification will not be given without an accompanying general education (elementary, early childhood or secondary) certification.

(3) Students are eligible for B.A. or B.S. degree upon completion of the required 120 credits and the M.A.T. degree upon completion of 40 approved graduate credits. Please note that some undergraduate majors such as mathematics, biology and chemistry may require more than 120 credits for the B.A. or B.S.

(4) All candidates starting clinical practice (student teaching) in academic year 2018–2019 or thereafter must complete at least 50 hours of clinical experience (field experience) in a preschool, elementary, middle and/or secondary school setting prior to clinical practice. Clinical practice will occur over a two-semester period within a single school, with at least 175 hours prior to the final, full-time semester of student teaching.
Combined Degree Programs
B.A. or B.S./M.A.T. Dual Certification in Elementary or Secondary Education and English as a Second Language

B.A. or B.S./M.A.T. Dual Certification in Elementary or Secondary Education and English as a Second Language

Five-year Program
The dual certification in elementary or secondary and English as a Second Language (ESL) is offered by the Peter Sammartino School of Education. The program is offered to students who wish to be certified to teach in elementary or secondary schools and ESL settings. Students will earn a B.A. or B.S. degree in a liberal arts/science major with graduate-level advanced course work toward a Master of Arts in Teaching (M.A.T.) degree. See below and pages 208–210 for additional information.

Program Outline
Students must satisfy all college core requirements and specific departmental requirements for their liberal arts/science major in order to be eligible for a B.A. or B.S. degree in their area of specialization.

Students in the QUEST program must major in a liberal arts/science discipline. Students majoring in psychology, humanities or sociology are required to have a minor in a content area (English, history, mathematics or science).

Admissions and matriculation requirements for the QUEST Dual Certification program are the same as for all QUEST programs (see Admissions and Matriculation requirements, pages 150–151). Students interested in the Dual Certification program must enter as freshmen or first-semester sophomores.

At the end of four years, students who have met all requirements will be eligible for a B.A. or B.S. degree and will have up to 15 credits toward their Master of Arts in Teaching degree (which requires a total of 36 graduate credits). Typically, students will complete their Apprenticeship (student) Teaching in their fifth year. Upon completion of the Apprenticeship Teaching, students will have met eligibility requirements for teacher certification (general education – first certificate) and will have earned at least 36 graduate credits toward the M.A.T., earning the M.A.T. degree. Students must complete the entire program to receive their English as a Second Language (ESL) Certification. This program requires three additional courses to be completed in addition to the M.A.T., outside the five-year sequence, either in summer, winter or the semesters following the completion of the fifth year. The state of New Jersey will not issue an ESL license without completion of the course work.

New Jersey teacher certification requires that 5 credits be taken in biology, physiology or health. These courses also may be taken to satisfy college core requirements or the liberal arts/science required courses or electives.

Eligibility for graduate courses in education in the third and fourth years will require that a student be fully matriculated in the QUEST program. Students must maintain a cumulative grade point ratio (CGPR) of 3.00 and must pass the required basic skills assessment (Praxis CORE Battery) as described on pages 130–131. Students who do not pass all three CORE Battery exams will be restricted in their education classes until these exams are passed.

Elementary or Secondary Education and ESL Program Sequence

<table>
<thead>
<tr>
<th>Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
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</tr>
<tr>
<td>EDUC1108</td>
<td>Seminar in Professional Practice I: The Teacher’s Role in School and Community</td>
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<tr>
<td>EDUC2401</td>
<td>Field Experience I</td>
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<tr>
<td>Year 2</td>
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<tr>
<td>EDUC2209</td>
<td>Seminar in Professional Practice II: Teachers as Educational Leaders</td>
</tr>
<tr>
<td>EDUC2402</td>
<td>Field Experience II</td>
</tr>
<tr>
<td>EDUC3309</td>
<td>Seminar in Professional Practice III: The Functions of Teaching</td>
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<tr>
<td>Year 3</td>
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</tr>
<tr>
<td>EDUC3403</td>
<td>Field Experience III</td>
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<tr>
<td>EDUC6818</td>
<td>Language Development and Literacy I</td>
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<tr>
<td>EDUC6820</td>
<td>Problem-based Strategies for Elementary Mathematics</td>
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Secondary Specialization

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</thead>
<tbody>
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<td></td>
</tr>
<tr>
<td>EDUC3403</td>
<td>Field Experience III</td>
</tr>
<tr>
<td>EDUC6651</td>
<td>Effective Reading Instruction</td>
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<tr>
<td>EDUC6654</td>
<td>Literacy Development for Second-language Learners</td>
</tr>
<tr>
<td>Methods in Respect to Field Course (EDUC6500 level)</td>
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<tr>
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Combined Degree Programs
B.A. in Communication Studies/M.A. in Communication

Year 4
EDUC3404
  Field Experience IV: Applied
  Field Research (ESL setting)..............2
EDUC6565
  Second Language Acquisition:
  Methods and Curriculum....................3
EDUC6693
  Evaluation and Measurement in
  Education......................................3
EDUC7763
  Human Relations and Conflict
  Resolution for Educators....................3
Total:.....11

B.A. in Communication Studies/M.A. in Communication
Accelerated Program

The accelerated Bachelor of Arts in communication studies/Master of Arts in communication program, offered by Maxwell Becton College of Arts and Sciences at the Florham Campus, allows students to complete both B.A. and M.A. with a combined degree load that is 9 credits less than that of the separate degrees.

By the start of their junior year, students are interested in pursuing the five-year B.A. in communication studies/M.A. in communication program must: 1) have completed 64 credits of undergraduate course work including COMM2001 Perspectives on Communication Studies, COMM3018 Mass Communication and COMM3019 Global Communication and 2) have a cumulative grade point ratio of 3.00 or higher.

Transfer students must have completed a minimum of 60 undergraduate credits in an accredited two-year or four-year college or university, with a minimum of 9 credits in communication studies or equivalent courses. An applicant's academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the five-year B.A./M.A. program.

By the end of the junior year, students applying for admission to the five-year B.A. in communication studies/M.A. in communication are expected to submit an application, personal statement, unofficial transcript and two letters of recommendation to the M.A. program director.

Applicants for the accelerated program are interviewed by the director of the graduate program.

Upon completion of their senior year, students will have earned a B.A. in communication studies, in the event they are not accepted or choose not to pursue the accelerated program.

Requirements for the B.A. in Communication Studies/M.A. in Communication

Students will complete a total of 141 credits: 120 credits for the Bachelor of Arts and 21 additional credits for the Master of Arts; 9 graduate credits will have been completed as part of the 120 credits toward the B.A.

Required Course Sequence

Senior Year – Undergraduate (9 credits)
The senior undergraduate year of all B.A./M.A. students is a qualifying year. Students must earn a B grade or better in each of the three required classes in order to qualify for the graduate year. Failure to earn B grades or better in each required class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in communication studies.

Fall of Undergraduate Senior Year
MCOM6001
  Principles and Practices
  of Communication...........................3

Spring of Undergraduate Senior Year
MCOM6005
  Group Communication and
  Leadership.....................................3
MCOM6006
  Research Methods..........................3

Graduate Year (21 credits)
Summer (3 credits)
MCOM7002
  International Communication and
  Culture*........................................3
  or
  MCOM Context Course.......................3

Fall (9 credits)
MCOM6002
  Professional Writing and Editing...........3
MCOM6003
  Presentation Methods.......................3
MCOM Context Course.......................3

Spring (9 credits)
MCOM6004
  Executive Lectures..........................3
MCOM6099
  The Capstone Experience:
  Principles into Practice....................3
MCOM Context Course.......................3

*Offered at FDU’s Wroxton College, United Kingdom campus.
B.A. in Creative Writing/M.F.A. in Creative Writing

The B.A./M.F.A. in creative writing is a uniquely designed accelerated degree that provides outstanding undergraduate students in FDU’s creative writing program the opportunity to begin work on their graduate degree as they enter their senior year. After graduating from the B.A. program, students continue in the low-residency M.F.A. program, and may complete their M.F.A. degree within 18 months.

The accelerated B.A./M.F.A. program offers students both a shorter time frame to earn their M.F.A. degree and significant cost savings by applying 12 credits of graduate course work toward undergraduate degree requirements. Scholarships and financial aid are available to eligible students.

Undergraduate creative writing majors at FDU must apply to the accelerated B.A./M.F.A. program during their junior year by submitting a letter of interest in the program and a writing sample to writingmfa@fdu.edu. Applications will be evaluated on the basis of the writing sample and previous undergraduate work in creative writing.

Once accepted, creative writing students complete 12 credits of graduate course work during the senior year (6 credits in the first semester and 6 credits in the second semester), in the genre of their concentration: fiction, creative nonfiction, poetry, literary translation and writing for young adults and children.

For additional information, please contact René Steinke, director, at 973-443-8632 or writingmfa@fdu.edu.

B.A. in Criminal Justice/M.A. in Criminal Justice

The School of Criminal Justice, Political Science and International Studies offers a combined degree program that affords students the opportunity to combine their undergraduate and graduate studies. With the approval of their academic adviser and the program director, students can take up to three designated graduate courses that fulfill the requirements for both undergraduate and graduate degrees, thus accelerating completion of their Master of Arts in criminal justice.

Students opting for the combined degree program must meet the minimum admission requirements for students applying to the graduate program in criminal justice as set forth in the current issue of the Graduate Studies Bulletin; the only exception of having obtained their baccalaureate degree.

It is recommended that students interested in the combined degree program declare their candidacy upon successful completion of 64 credits and/or upon entering their junior year; however, no later than having completed 90 undergraduate credits. This affords students the opportunity to collaborate with their adviser in the timely and appropriate selection of undergraduate and graduate courses.

To qualify for the combined program in criminal justice, students must possess and maintain a minimum 3.00 overall cumulative grade point ratio (CGPR), and a 3.25 grade point ratio (GPR) within the criminal justice major. Students in the combined degree program must maintain a minimum 3.00 GPR in the graduate courses for which they have been approved.

B.A. in Criminology/M.A. in Criminal Justice

The B.A. in criminology/M.A. in criminal justice combined degree program offers students the opportunity to combine their undergraduate studies in criminology with graduate studies in criminal justice. With the opportunity to take up to three designated graduate courses that fulfill both undergraduate and graduate requirements, students of this program are able to complete a Master of Arts in criminal justice in five years.

To qualify for the combined program, students must possess a 3.00 grade point ratio after earning 60 credits and apply to the combined program prior to earning 90 credits. Students will also need to submit two letters of recommendation to the director of the graduate criminal justice program.

This combined degree offers students the opportunity to partake in an accelerated master's program at a discounted tuition rate. The program combines the best of both criminology and criminal justice to prepare students for supervisory and leadership positions in law enforcement, courts, corrections, social service, private security, teaching and public policy.

Students will be afforded flexible class schedules and networking opportunities with criminal justice and public policy professionals, as well as credits for internships.
Combined Degree Programs

B.A. in Film and Animation/M.A. in Animation

Accelerated Program

The School of the Arts on the Florham Campus offers a combined B.A. in film and animation/M.A. in animation degree that allows students to complete both the bachelor's and master's degrees in animation in five years with a combined load that is 12 credits less than that of separate degrees. Students may apply to this program at any time from their entry into the B.A. in film and animation program until the beginning of their senior year of their undergraduate studies.

During the first three years, students who are interested in the five-year B.A. in film and animation/M.A. in animation program take undergraduate classes that are required of students in the B.A. in film and animation program (3D animation, video game animation or visual effects concentration). In the junior year of undergraduate studies, students in this program are required to submit a portfolio of their best work for review. At that time, the director of the program will notify the student as to whether or not the reviewing committee approves them to continue on in the combined B.A./M.A. degree program.

In the senior year of undergraduate studies, students in this program take 12 graduate-level ANIM credits as well as complete the remainder of their undergraduate courses. To apply graduate credits completed in the undergraduate senior year to the M.A. program, a grade of B or better is required upon which those credits will be applied to both the undergraduate and graduate degrees. If the student receives a grade of B- or less, those credits will only be applied to the undergraduate B.A. degree.

Transfer students must have completed all of the above-mentioned requirements, with no more than 60 credits included from an accredited college or university outside of Fairleigh Dickinson University.

Requirements for the B.A. in Film and Animation/M.A. in Animation

Students will complete a total of 144 credits: 120 credits for the Bachelor of Arts and 24 additional credits for the Master of Arts; 12 graduate credits will have been completed as part of the 120 credits toward the B.A.

Graduate Requirements

Undergraduate Senior Year

ANIM5000 or higher-level courses...........12

The senior undergraduate year of all B.A./M.A. students is a qualifying year. Students must earn a grade of B or better in each of the four graduate-level courses in order to qualify for the graduate year. Failure to earn B grades or better in each graduate-level class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in film and animation.

Graduate Year (3D Animation Concentration) (24 credits)

ANIM5300
Storytelling................................. 3
ANIM5400
Character Design............................ 3
ANIM6100
Digital Sculpting............................. 3
ANIM6150
3D Character Texturing......................3
ANIM6300
3D Character Animation....................3
ANIM7000
Advanced 3D Character Animation......3

Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Year (Visual Effects Concentration) (24 credits)

ANIM5300
Storytelling................................. 3
ANIM5500
Digital 2D Animation.......................3
ANIM5600
Advanced 3D Layers in After Effects®....3
ANIM5700
Dynamic Effects and Particle Systems in After Effects®........3
ANIM5800
Compositing in After Effects®............3
ANIM6350
3D Particle Systems and Effects®........3

Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Year (Video Game Animation Concentration) (24 credits)

ANIM5400
Character Design............................ 3
ANIM5500
Digital 2D Animation.......................3
ANIM6100
Digital Sculpting............................3
ANIM6400
3D Animation for Games...................3
ANIM6600
Game Creation...............................3
ANIM7500
Advanced Game Creation..................3

Major Electives

ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)
Combined Degree Programs
B.A. in Film and Animation/M.F.A. in Animation

B.A. in Film and Animation/ M.F.A. in Animation

Accelerated Program
The School of the Arts on the Florham Campus offers a combined B.A. in film and animation/M.F.A. in animation degree that allows students to complete both the bachelor’s and Master of Fine Arts degrees in animation in six years with a combined load that is 12 credits less than that of separate degrees. Students may apply to this program at any time from their entry into the B.A. in film and animation program up until the beginning of their senior year of their undergraduate studies.

During the first three years, students who are interested in the six-year B.A. in film and animation/M.F.A. in animation program take undergraduate classes that are required of students in the B.A. in film and animation program (3D character animation, video game animation or visual effects concentration). In the junior year of undergraduate studies, students in this program are required to submit a portfolio of their best work for review. At that time, the director of the program will notify the student as to whether or not the reviewing committee approves them to continue on in the combined B.A./M.F.A. degree program.

In the senior year of undergraduate studies, students in this program take 12 graduate-level ANIM credits as well as complete the remainder of their undergraduate courses. To apply graduate credits completed in the undergraduate senior year to the M.F.A. program, a grade of B+ or better is required upon which those credits will be applied to both the undergraduate and graduate degrees. If the student receives a grade of B− or less, those credits will only be applied to the undergraduate B.A. degree.

Transfer students must have completed all of the above-mentioned requirements, with no more than 60 credits included from an accredited college or university outside of Fairleigh Dickinson University.

Requirements for the B.A. in Film and Animation/M.F.A. in Animation

Students will complete a total of 168 credits: 120 credits for the Bachelor of Arts and 48 additional credits for the Master of Fine Arts; 12 graduate credits will have been completed as part of the 120 credits toward the B.A.

Graduate Requirements
Undergraduate Senior Year

ANIM5000 or higher-level courses......12

The senior undergraduate year of all B.A./M.F.A. students is a qualifying year. Students must earn a grade of B+ or better in each of the four graduate-level courses in order to qualify for the graduate year. Failure to earn B grades or better in each graduate-level class means that the student will not be allowed to continue into the graduate year. Instead, the student will graduate at the end of the senior year with a B.A. in film and animation.

Graduate Two Years (3D Character Animation Concentration) (48 credits)

ANIM5300
Storytelling.......................................3
ANIM5400
Character Design.............................3
ANIM6100
Digital Sculpting.............................3
ANIM6150
3D Character Texturing.....................3
ANIM6300
3D Character Animation....................3
ANIM7000
Advanced 3D Character Animation.......3
ANIM7250
Lip-Syncing.....................................3
ANIM7425
Motion Capture................................3
ANIM7650
Thesis I............................................3
ANIM7750
Thesis II.........................................3
ANIM7850
Thesis III........................................3
ANIM7900
Animation Career Preparation...........3

Major Electives
ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Two Years (Visual Effects Concentration) (48 credits)

ANIM5300
Storytelling.......................................3
ANIM5500
Digital 2D Animation.......................3
ANIM5600
Advanced 3D Layers in After Effects®, 3
ANIM5700
Dynamic Effects and Particle Systems in After Effects®, 3
ANIM5800
Compositing in After Effects®.............3
ANIM6350
3D Particle Systems and Effects®........3
ANIM6700
Animating Fluids.............................3
ANIM6805
Motion Tracking..............................3
ANIM7650
Thesis I............................................3
ANIM7750
Thesis II.........................................3
ANIM7850
Thesis III........................................3
ANIM7900
Animation Career Preparation...........3

Major Electives
ANIM5000 or higher-level courses (credit number depends on which dual-credit courses were taken in the undergraduate senior year)

Graduate Two Years (Video Game Animation Concentration) (24 credits)

ANIM5400
Character Design.............................3
ANIM5500
Digital 2D Animation.......................3
ANIM6100
Digital Sculpting.............................3
ANIM6400
3D Animation for Games..................3
Combined Degree Programs

B.A. in History/M.P.A.
B.A. in Political Science/M.A. in Criminal Justice

B.A. in History/M.P.A.
Five-year Program

The B.A. in history/M.P.A. combined degree is offered on the Metropolitan Campus. A total of 150 credits is normally required to complete the B.A./M.P.A. combined degree program. Thirty-nine of these credits must be earned on the graduate level.

Requirements for the B.A. in History/M.P.A.

Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)

General Education Requirements (47 credits)

College Competencies (21 credits)

Written Communication
Six credits in ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument and six credits of writing-intensive courses within the major.

Oral Communication
A three-credit course related to public speaking and oral presentations, typically a course in speech.

Quantitative Analysis
A three-credit course related to mathematics and statistics, with applications to everyday problems.

Ethical and Moral Analysis
A three-credit course that is substantially concerned with ethical theories and questions. For history majors, this course should be HIST2106 Ethical Issues in History.

Scientific Analysis
A minimum of six credits of laboratory science.

Language and Culture
This requirement can be satisfied by one of four options: traditional language courses with significant cultural elements, language (LANG) courses listed under Language and Culture Studies, language-based study abroad or the six highest ESL/ESL credits for nonnative English speakers.

Social and Behavioral Sciences
Six credits of course work in communication, criminal justice, economics, political science, psychology or sociology.

Art and Humanities
Six credits of course work in art (visual or performing arts), English literature, history, humanities, philosophy or religion.

Liberal Arts Distribution (18 credits)

University Requirements (8 credits)

UNIV1001 Transitioning to University Life........1
UNIV1002 Preparing for Professional Life.........1
UNIV2001 Cross-cultural Perspectives..........3
UNIV2002 Global Issues............................3

Major Requirements (36 credits)

At least two 1000-level HIST courses; at least three 3000-level HIST courses; either HIST4400 Senior Research Seminar or HIST4401 Honors History; and as many 2000-level courses as required.

Minor Elective Courses (15 credits)

Free Elective Courses (13 credits)

Additional Graduate Courses Required for the M.P.A. Degree (39 credits)

PADM6600 Public and Nonprofit Management......3
PADM6601 Organization Theory....................3
PADM6602 Budgeting and Finance..................3
PADM6603 Public Policy Administration..........3
PADM6604 Human Resources Management.........3
PADM6610 Quantitative Methods for Administrators...........3
PADM6680 Information Technology Management...3
PADM6821 M.P.A. Project Report..................3
Public Administration Electives.............15

B.A. in Political Science/M.A. in Criminal Justice
Five-year Program

The accelerated Bachelor of Arts in political science/Master of Arts in criminal justice offered by the School of Criminal Justice, Political Science and International Studies allows students to complete and combine their studies in earning both bachelor's and master's degrees. The student is able to take 9 graduate credits during their senior year toward their free electives.

Students opting for the combined degree program must meet the minimum admissions requirements for students applying for the graduate program as set forth in the Graduate Studies Bulletin, the only exception is with those who have obtained their baccalaureate degrees.

It is highly recommended that students expressing interest in the program speak with an adviser in order to maintain proper availability on their check sheets. Students may declare their candidacy toward this program after successfully completing 64 credits but no later than 90 undergraduate credits.

It is imperative for students who plan to declare for this program that they maintain a minimum 3.00 overall cumulative grade point ratio (CGPR) and a 3.25 CGPR within the political science major. Students must maintain a 3.00 GPR in the approved graduate courses.

Com bined Degree Programs

B.A. in History/M.P.A.
B.A. in Political Science/M.A. in Criminal Justice

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# Combined Degree Programs  
**B.A. in Political Science/M.A. in Political Science**

## B.A. in Political Science/ M.A. in Political Science
### Five-year Program
A new program, as of the spring 2018 semester, this accelerated combined degree program offers those majoring in political science with the opportunity to also earn their graduate degree in political science. Students may apply for this program after the successful completion of 64 credits during their junior year. They may begin to take nine graduate credits during their senior year toward their 120-credit requirement for graduation. An additional 24 graduate credits must be taken to complete the program.

Students who plan to declare for this program are required to maintain a minimum 3.00 overall cumulative grade point ratio (CGPR) and a 3.25 CGPR within the program. They must maintain a 3.00 CGPR in their approved graduate courses.

### General Education Requirements (53 credits)
#### College Competencies (24 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
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</tr>
<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
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<tr>
<td>Speech and Professional Communication (3 credits)</td>
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<tr>
<td>Quantitative Analysis (3 credits)</td>
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<tr>
<td>Math or Technology Statistics (3 credits)</td>
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<tr>
<td>Ethical and Moral Analysis</td>
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<tr>
<td>POLS2606</td>
<td>Ethics and Politics</td>
<td>3</td>
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<tr>
<td>Scientific Analysis (6 credits)</td>
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#### Liberal Arts Distribution (21 credits)

<table>
<thead>
<tr>
<th>Language (3 credits)</th>
<th>Social and Behavioral Sciences (6 credits)</th>
<th>POLS1101</th>
<th>Introduction to Political Science</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>POLS2606</td>
<td>Ethics and Politics</td>
<td>3</td>
<td>POLS231</td>
<td>3</td>
</tr>
<tr>
<td>Art and Culture (6 credits)</td>
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<td></td>
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<tr>
<td>Humanities (6 credits)</td>
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#### University Requirements (8 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
<td>1</td>
</tr>
</tbody>
</table>
Combined Degree Programs
B.A. in Political Science/M.P.A.

B.A. in Political Science/M.P.A.
Five-year Program
This is a five-year B.A./master's curriculumcombining undergraduate studies in political science with graduate studies in public administration. It is offered at the Metropolitan Campus, Teaneck, New Jersey. Students will obtain the B.A. at the end of four years of course work and 120 credits. Students can apply to a five-year program (B.A./M.P.A.) as early as their junior year.

A total of 150 credits is normally required to complete the B.A./M.P.A. combined degree program. Thirty-nine of these credits must be earned on the graduate level.

Undergraduate Courses
(A minimum of 120 credits is required for the B.A. degree.)

Requirements for the B.A. in Political Science/M.P.A.
Undergraduate Courses (A minimum of 120 credits is required for the B.A. degree.)

General Education Requirements
(47 credits)

College Competencies (21 credits)
Written Communication
Six credits in ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument and six credits of writing-intensive courses within the major.

Oral Communication
A three-credit course related to public speaking and oral presentations, typically a course in speech.

Quantitative Analysis
A three-credit course related to mathematics and statistics, with applications to everyday problems.

Ethical and Moral Analysis
A three-credit course that is substantially concerned with ethical theories and questions. For political science majors, this course should be POLS2606 Ethics and Politics.

Scientific Analysis
A minimum of six credits of laboratory science.

Language and Culture
This requirement can be satisfied by one of four options: traditional language courses with significant cultural elements, language (LANG) courses listed under Language and Culture Studies, language-based study abroad or the six highest ESL/ESL credits for nonnative English speakers.

Social and Behavioral Sciences
This requirement consists of three credits in political science (POLS1101 Introduction to Political Science) and three credits of course work in communication, criminal justice, economics, political science, psychology or sociology.

Art and Humanities
Six credits of course work in art (visual or performing arts), English literature, humanities, philosophy or religion.

Liberal Arts Distribution (18 credits)

University Requirements (8 credits)

Credits
UNIV1001 Transitioning to University Life..............1
UNIV1002 Preparing for Professional Life...............1
UNIV2001 Cross-cultural Perspectives.....................3
UNIV2002 Global Issues..................................3

Major Requirements (36 credits)

Required Major Courses (15 credits)
POLS2251 Comparative Government and Politics........3
POLS2252 Political Thought and Theory..................3
POLS2251 Foreign Policy of the United States..........3
POLS2253 American Government..........................3
POLS4600 Political Science Seminar
or
POLS4875 Honors in Political Science....................3

Major Elective Courses (21 credits)
A minimum of 21 credits (seven POLS courses).

Minor Elective Courses (15 credits)

Free Elective Courses (13 credits)

Additional Graduate Courses Required for the M.P.A. Degree (39 credits)

Credits
PADM6600 Public and Nonprofit Management..............3
PADM6601 Organization Theory............................3
PADM6602 Budgeting and Finance........................3
PADM6603 Public Policy Administration..................3
PADM6604 Human Resources Management.................3
PADM6610 Quantitative Methods for Administrators........3
PADM6680 Information Technology Management........3
PADM6821 M.P.A. Project Report..........................3
Public Administration Electives..........................15

M.P.A. Requirements
For information contact Dr. Paulette Laubsch, academic coordinator for the M.P.A. program, at pplaubsch@fdu.edu or 201-692-6523.
**Combined Degree Programs**

**B.A. in Psychology/M.A. in Forensic Psychology**

**Five-year Program**

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master’s degree in forensic psychology, general/theoretical psychology or in social work, allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

**Entrance and Curriculum Requirements for the B.A./M.A. in Forensic Psychology Program**

Students can enter the program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Current undergraduate students must first complete a minimum of 12 credits in psychology (including statistics). Students’ academic and work experiences must reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores (for high school students); 2) academic transcripts; 3) a minimum of two letters of recommendation (at least one from a professor/teacher); 4) a personal statement regarding academic and career goals; and 5) for current undergraduate students, a cumulative grade point ratio (GPR) of 3.50. The decision to accept applicants will be made on the basis of the foregoing data and a personal interview.

Students begin taking graduate classes in their junior year and remain on “probationary” status until their senior year, when they are officially accepted into the program. This evaluation will be performed by a committee of psychology faculty at the end of each student’s fourth year. With regard to credits earned in graduate courses, students are required to maintain a minimum overall grade point ratio of 3.00 and must not earn more than one C-level grade throughout their graduate course work. Students receiving two or more grades below a B- in graduate courses will not be permitted to continue in the program. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate’s knowledge of general psychology or a master’s thesis is required at the end of the graduate component of the program. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination may result in dismissal from the program.

**Outline of the Psychology Components of the B.A./M.A. Accelerated Program in Forensic Psychology**

**Psychology (undergraduate) 24 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CRIM1101</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
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<tr>
<td>CRIM2204</td>
<td>Juvenile Justice and Delinquency</td>
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<tr>
<td>PSYC1103</td>
<td>General Psychology</td>
<td>3</td>
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<tr>
<td>PSYC3202</td>
<td>Experimental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC4500</td>
<td>Senior Seminar in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC</td>
<td>Field Placement, Independent Study or Co-op in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY</td>
<td>Psychology or Criminal Justice Elective*</td>
<td>3</td>
</tr>
<tr>
<td>PSYC</td>
<td>Psychology Elective</td>
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</tr>
</tbody>
</table>

**Psychology (graduate) 36 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC6109</td>
<td>Social Psychological Applications</td>
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<tr>
<td>PSYC6111</td>
<td>Theories of Personality</td>
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<tr>
<td>PSYC6114</td>
<td>Psychopathology</td>
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<tr>
<td>PSYC6121</td>
<td>Statistics and Research Methods</td>
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<tr>
<td>PSYC6150</td>
<td>Interviewing Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PSYC6227</td>
<td>Clinical Practice in Forensic Context</td>
<td>3</td>
</tr>
<tr>
<td>PSYC6250</td>
<td>Introduction to Forensic Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

*Psychology/criminal justice elective is satisfied by completion of an approved forensic course. If course was taken at the undergraduate level, the graduate-level course must be substituted by an approved graduate course.
Combined Degree Programs
B.A. in Psychology/M.A. in General/Theoretical Psychology

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

Five-year Program

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, may allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

Entrance and Curriculum Requirements for the B.A./M.A. in General/Theoretical Psychology Program

Students can enter the program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Current undergraduate students must first complete a minimum of 12 credits in psychology. Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores; 2) academic transcripts; 3) a minimum of two letters of recommendation; and 4) a personal statement regarding academic and career goals. The decision to accept applicants will be made on the basis of the foregoing data and a personal interview.

Students will be allowed to continue in the graduate component of the five-year degree program upon evaluation of their performance in the undergraduate component of the program; this evaluation will be performed by a committee of psychology faculty at the end of each student's fourth year. With regard to credits earned in graduate courses, students are required to maintain a minimum overall grade point ratio of 2.75 and must not earn more than two C-level grades throughout their graduate course work. Students receiving two or more grades below a B- in core courses will not be permitted to continue in the program. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology or a master's thesis is required at the end of the graduate component of the program. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination will result in dismissal from the program.

Outline of the Psychology Components of the B.A./M.A. Program in General/Theoretical Psychology

Psychology (undergraduate) 30 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PSYC1103</td>
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<td>PSYC2201</td>
<td>Statistics</td>
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<tr>
<td>PSYC2204</td>
<td>Child Development</td>
<td>3</td>
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<tr>
<td>PSYC2234</td>
<td>Social Psychology</td>
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<tr>
<td>PSYC3202</td>
<td>Experimental Psychology</td>
<td>3</td>
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<tr>
<td>PSYC3315</td>
<td>Abnormal Psychology</td>
<td>3</td>
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<tr>
<td>PSYC4500</td>
<td>Senior Seminar in Psychology</td>
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<tr>
<td></td>
<td>Psychology Electives</td>
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Psychology (graduate) 36 credits

Core Courses (6 credits)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC6121</td>
<td>Statistics and Research Methods</td>
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<tr>
<td>PSYC6129</td>
<td>Research Methods and Psychometrics</td>
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Choose Five Courses From Below (15 credits)

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PSYC6109</td>
<td>Social Psychological Applications</td>
<td>3</td>
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<tr>
<td>PSYC6111</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSYC6114</td>
<td>Psychopathology</td>
<td>3</td>
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<tr>
<td>PSYC6128</td>
<td>Computer Applications and Scientific Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7122</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7133</td>
<td>Learning, Cognition and Emotion</td>
<td>3</td>
</tr>
<tr>
<td>PSYC7130</td>
<td>Biological Bases of Behavior</td>
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Five Psychology Elective Courses (15 credits)

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<tbody>
<tr>
<td>PSYC</td>
<td>Graduate Psychology Electives</td>
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</table>
Combined Degree Programs
B.A. in Psychology/M.A. in Industrial/Organizational Psychology

B.A. in Psychology/M.A. in Industrial/Organizational Psychology
Five-year Program

The University offers separate and distinct accelerated programs for undergraduate psychology majors at its campuses.

At the Florham Campus, Madison, New Jersey, there is a program leading to a master's degree in industrial/organizational psychology (see this page).

The department of psychology and counseling at the Florham Campus, Madison, New Jersey, has a program designed to provide an opportunity for students to accelerate their training in psychology. This program, leading to a master's degree in industrial/organizational psychology, allows students to complete the typical B.A./M.A. course sequence in five years, rather than the usual six years, of full-time study.

Entrance and Curriculum Requirements

To apply, students must have completed a minimum of 60 undergraduate credits in an accredited two-year or four-year college or university, with a minimum of 9 credits in psychology. Courses in statistics and industrial psychology must be completed before applying. If students are transferring to the University, they must complete at least 12 credits at Fairleigh Dickinson University before they can apply to the accelerated program. Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the accelerated B.A./M.A. program. Academic potential will be determined by the graduate Admissions Committee of the department of psychology and counseling on the basis of the following: 1) completed application (available in the department), 2) academic transcripts, 3) a minimum of three letters of recommendation, 4) a résumé indicating prior work and life experience, 5) a personal statement regarding academic and career goals and 6) a personal interview. The decision to accept applicants will be made on the basis of the foregoing data.

Requirements for Successful Completion of Graduate Component of Accelerated Degree Programs

Students will be allowed to continue in the graduate component of the accelerated degree programs upon evaluation of performance in the undergraduate and graduate components of their particular programs. This evaluation will be performed by a committee of psychology faculty at the end of the students' fourth year. With regard to credits earned in graduate courses, students are required to maintain a grade point ratio of 3.00 and to maintain more than one C-level grade throughout graduate course work. Students in this circumstance who are not permitted to continue in the graduate program will receive the B.A. in psychology upon successful completion of their undergraduate curriculum (a total of 120 credits).

A written comprehensive examination of the candidate's knowledge of general psychology as well as his or her field of specialization is required at the end of these graduate psychology programs.

Students are eligible to take this exam during the final semester in which they are enrolled in their graduate courses. The comprehensive examination may be taken only twice. Failure to pass the comprehensive examination will result in dismissal from the graduate program.

Industrial/Organizational Psychology

The specialization in industrial/organizational psychology is designed to equip the student with a working knowledge of practices and procedures in applying psychology in a variety of organizational settings. Accordingly, the emphasis is on those aspects of industrial/organizational psychology that are most immediately useful to the student in a working environment.

Specific Course Requirements for Industrial/Organizational Psychology

Students who complete the combined B.A. and M.A. program must meet all requirements in the following areas: 1) arts and sciences core (48–50 credits); 2) free electives (28–31 credits); 3) psychology, undergraduate, core and electives (26–27 credits); and 4) psychology, graduate, core and electives (36 credits). It is expected that many of the courses in the arts and sciences core and free electives will have been completed by the time students have accumulated the minimum of 60 undergraduate credits needed for admission to the program. Most of the psychology courses, undergraduate and graduate, would be taken in the last three years of the program, with the final year devoted exclusively to graduate courses.

Outline of the Psychology Components of the B.A./M.A. Program in Industrial/Organizational Psychology

<table>
<thead>
<tr>
<th>Psychology (undergraduate)</th>
<th>26 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC1201</td>
<td>General Psychology ................................3</td>
</tr>
<tr>
<td>PSYC2210</td>
<td>Psychological Statistics ..........................4</td>
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<tr>
<td>PSYC2211</td>
<td>Research Methods ..................................4</td>
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<tr>
<td>PSYC3505</td>
<td>Abnormal Psychology ...............................3</td>
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<tr>
<td>PSYC3510</td>
<td>Social Psychology .................................3</td>
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<tr>
<td>PSYC3522</td>
<td>Industrial Psychology .............................3</td>
</tr>
<tr>
<td>PSYC4291</td>
<td>History and Systems of Psychology ................3</td>
</tr>
<tr>
<td>PSYC6300</td>
<td>Psychological Statistics ..........................3</td>
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<tr>
<td>PSYC6301</td>
<td>Group Dynamics and Team Leadership ...............3</td>
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<tr>
<td>PSYC6302</td>
<td>Organizational Psychology ........................3</td>
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<tr>
<td>PSYC6303</td>
<td>Research Methods and Design ........................3</td>
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<tr>
<td>PSYC6304</td>
<td>Personnel Selection ................................3</td>
</tr>
<tr>
<td>PSYC6305</td>
<td>Psychometrics ........................................3</td>
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<tr>
<td>PSYC6306</td>
<td>Behavioral Consulting in Organizations ..........3</td>
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<tr>
<td>PSYC6308</td>
<td>Human Resources Development .......................3</td>
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<tr>
<td>PSYC7700</td>
<td>Industrial/Organizational Internship .............3</td>
</tr>
<tr>
<td>PSYC7803, PSYC7804</td>
<td>Research and Thesis ................................6</td>
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<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>PSYC6307</td>
<td>Techniques of Interviewing ........................3</td>
</tr>
<tr>
<td>PSYC7745</td>
<td>Leadership Studies ..................................3</td>
</tr>
</tbody>
</table>
**Combined Degree Programs**

**B.A. in Psychology/M.S.W.**

**Five-year Program**

The School of Psychology at the Metropolitan Campus, Teaneck, New Jersey, offers three programs that provide an opportunity for students to accelerate their training in psychology. These programs, leading to a master's degree in forensic psychology, general/theoretical psychology or in social work, allow students to complete the typical B.A./M.A. or B.A./M.S.W. course sequence in just five years, rather than the usual six years of full-time study.

**Entrance and Curriculum Requirements for the B.A./M.S.W. Program**

This program is offered in cooperation with the Rockland Branch Campus of the New York University (NYU) Silver School of Social Work, located in Sparkill, N.Y. Students earn their B.A. in psychology from Fairleigh Dickinson University and their Master of Social Work (M.S.W.) from NYU. Students can enter this program as incoming freshmen or as students already enrolled in an undergraduate program at Fairleigh Dickinson University (or as incoming transfer students). Students' academic and work experiences should reflect a strong potential for successfully completing the academic requirements of the B.A./M.S.W. program. Academic potential for either incoming freshmen or current undergraduate students will be determined by the School of Psychology on the basis of the following: 1) SAT scores; 2) academic transcripts; 3) a minimum of two letters of recommendation; and 4) a personal statement regarding academic and career goals. Admission to this program is on the basis of the foregoing data and a personal interview. Current undergraduate students can apply for admission to this program only after completing 64 credits of undergraduate course work, including no less than 18 credits in psychology. In addition, current undergraduate students must have a cumulative grade point ratio (CGPR) of at least 3.00 and a psychology grade point ratio of at least 3.25 in order to be considered for admission to this program (and to maintain matriculation in this program).

Students will be allowed to continue in the graduate portion of this five-year degree program at the Rockland Branch Campus of the NYU Silver School of Social Work upon evaluation of their performance in the undergraduate portion of the program at FDU; this evaluation will be performed by a committee of psychology faculty from FDU and NYU in the middle of each student’s fourth year.

Concerning graduate course work, students will be required to maintain at least a B average with a grade of B or better in each course. Students who fail to maintain at least a B average or better in their graduate course work or who receive a grade below a B in any graduate course may be terminated from the graduate portion of the program. In such cases, students will receive the B.A. in psychology from FDU upon successful completion of their undergraduate curriculum (a total of 120 credits), including up to 15 credits taken at NYU.

**Outline of the Psychology/Social Work Components of the B.A./M.S.W. Program**

**Psychology and Sociology (undergraduate)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSYC1103</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSYC2201</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PSYC2204</td>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>PSYC2234</td>
<td>Social Psychology</td>
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<tr>
<td>PSYC3202</td>
<td>Experimental Psychology</td>
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<td>PSYC3315</td>
<td>Abnormal Psychology</td>
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</tr>
<tr>
<td>PSYC3384</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
<tr>
<td>PSYC4500</td>
<td>Senior Seminar in Psychology</td>
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**New York University Graduate Courses (65 credits)**

<table>
<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>Social Welfare Programs and Policies I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Human Behavior in the Social Environment I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Human Behavior in the Social Environment II</td>
<td>3</td>
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</tr>
<tr>
<td>Human Behavior in the Social Environment III</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Work Research I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social Work Research II</td>
<td>3</td>
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<tr>
<td>Social Work Practice I</td>
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<tr>
<td>Social Work Practice II</td>
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<td>Social Work Practice IV</td>
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<tr>
<td>Clinical Practice with Groups</td>
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</tr>
</tbody>
</table>
## Combined Degree Programs

**B.A. in Sports Administration/Master of Sports Administration**

### Five-year Program

The five-year program allows qualified students to attain a Bachelor of Arts degree in sports administration and a Master of Sports Administration.

Students in the combined B.A. in sports administration/M.S.A. program must have achieved at least a 3.00 cumulative grade point ratio by the conclusion of their junior year.

### Requirements

#### Metropolitan Campus

#### First Year

<table>
<thead>
<tr>
<th>1st Semester</th>
<th>Credits</th>
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<tr>
<td>ENWR1001</td>
<td>3</td>
</tr>
<tr>
<td>INTER1009</td>
<td>3</td>
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<tr>
<td>SOCH1101</td>
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<td>SPAD2004</td>
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<tr>
<td>SUST1000</td>
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**Total...16**

<table>
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<th>2nd Semester</th>
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<td>ENWR1002</td>
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<tr>
<td>MATH1101</td>
<td>3</td>
</tr>
<tr>
<td>MATH1131</td>
<td>3</td>
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<tr>
<td>MATH1141</td>
<td>3</td>
</tr>
<tr>
<td>MIS1135</td>
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<td>SPAD</td>
<td>3</td>
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<td>UNIV1002</td>
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**Total...16**

### Second Year

#### 3rd Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>COMM Communication Course 2000 or above</td>
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<tr>
<td>ECON1122 Microeconomics</td>
</tr>
<tr>
<td>INTER2013 The American Experience</td>
</tr>
<tr>
<td>SPAD Section B* Course</td>
</tr>
<tr>
<td>UNIV2001 Cross-cultural Perspectives</td>
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**Total...15**

### Fourth Year

#### 7th Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BUSI3620 Human Resource Systems</td>
</tr>
<tr>
<td>MSA6701 Legal Issues in the Domestic and International Sports Industry</td>
</tr>
<tr>
<td>MSA6702 Sports Administration Research and Policy Analysis</td>
</tr>
<tr>
<td>MSA Elective</td>
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<td>Free Elective</td>
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**Total...15**

#### 8th Semester

<table>
<thead>
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<th>Course</th>
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<tr>
<td>MSA6602 Facility Development, Administration and Programming</td>
</tr>
<tr>
<td>MSA6603 Sports Marketing and Promotion</td>
</tr>
<tr>
<td>MSA6703 Financial Administration in Sports</td>
</tr>
<tr>
<td>MSA6400 International Sports Administration (every two years)</td>
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<table>
<thead>
<tr>
<th>Course</th>
</tr>
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<tbody>
<tr>
<td>SPAD Section B* Course</td>
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<tr>
<td>Free Elective</td>
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**Total...14**

### Third Year

#### 5th Semester

<table>
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<tr>
<th>Course</th>
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<tr>
<td>PHYS1026, PHYS1126 Earth Physics (Lecture and Laboratory)</td>
</tr>
<tr>
<td>SPAD2022 Facility Management</td>
</tr>
<tr>
<td>SPAD2025 Global Perspectives in Sports</td>
</tr>
<tr>
<td>SPAD Section B* Course</td>
</tr>
<tr>
<td>SPAD Section C** Course</td>
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</table>

**Total...15**

#### 6th Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>SPAD2018 Sports Internship</td>
</tr>
<tr>
<td>SPAD3010 Job-search Strategies</td>
</tr>
<tr>
<td>SPAD Section C** Course</td>
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<tr>
<td>Free Electives</td>
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**Total...13**

### Fifth Year

#### 9th Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MSA6601 Organizational Leadership and Team Development</td>
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<tr>
<td>MSA6607 Human Resource Administration in Sports Organizations</td>
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<tr>
<td>MSA Elective</td>
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**Total...9**

#### 10th Semester

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>MSA6704 Internship I or Individual Job-related Project</td>
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<tr>
<td>MSA6705 Strategic Planning, Implementation and Evaluation</td>
</tr>
<tr>
<td>MSA Elective</td>
</tr>
</tbody>
</table>

**Total...9**

Students will be required to complete the following:

*See Section B page 226.

**See Section C page 226.
# Combined Degree Programs

B.A. in Sports Administration/Master of Sports Administration

## Section B (12 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SPAD2010</td>
<td>Legal Aspects in Sports Administration</td>
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<tr>
<td>SPAD2014</td>
<td>Ethical Issues in Sports</td>
<td></td>
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<tr>
<td>SPAD2015</td>
<td>Team Development</td>
<td></td>
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<tr>
<td>SPAD2017</td>
<td>Safety, First Aid and Prevention of Injury</td>
<td></td>
</tr>
<tr>
<td>SPAD2019</td>
<td>Sports, Marketing, Public Relations</td>
<td></td>
</tr>
<tr>
<td>SPAD2020</td>
<td>Fundraising in Sports</td>
<td></td>
</tr>
<tr>
<td>SPAD3000</td>
<td>Fiscal Concept in Sports</td>
<td></td>
</tr>
<tr>
<td>SPAD4001</td>
<td>Sports Internship II</td>
<td></td>
</tr>
<tr>
<td>SPAD4500</td>
<td>Coaching Certification</td>
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</table>

## Section C (9 credits)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ACCT1131</td>
<td>Accounting I</td>
<td></td>
</tr>
<tr>
<td>ACCT1132</td>
<td>Accounting II</td>
<td></td>
</tr>
<tr>
<td>LAW2276</td>
<td>Business and the Law</td>
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<tr>
<td>SPAD2012</td>
<td>Exercise Science for the Sports Administration</td>
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<tr>
<td>SPAD2016</td>
<td>Stress Management</td>
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<tr>
<td>SPAD2021</td>
<td>Strength and Conditioning</td>
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<tr>
<td>SPAD2030</td>
<td>Ultimate Sports Marketing</td>
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</tr>
<tr>
<td>SPAD3001</td>
<td>Theory, Philosophy and Principles of Coaching</td>
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<tr>
<td>SPAD3002</td>
<td>Human Kinesiology</td>
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</tr>
<tr>
<td>SPAD3005</td>
<td>Sports and Society</td>
<td></td>
</tr>
<tr>
<td>SPAD3004</td>
<td>Youth Program</td>
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</tr>
<tr>
<td>SPAD3005</td>
<td>Management in Athletic Training, Athletics and Health</td>
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## Free Electives (11 credits)

## Florham Campus

### First Year

#### 1st Semester

<table>
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<th>Course Title</th>
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<tr>
<td>ENGL1101</td>
<td>English Composition I</td>
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<tr>
<td>INTER1009</td>
<td>Perspectives on the Individual</td>
<td>3</td>
</tr>
<tr>
<td>PSYC1201</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPAD2004</td>
<td>Introduction to Sports Administration</td>
<td>3</td>
</tr>
<tr>
<td>SUST1000</td>
<td>Introduction to Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
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#### 2nd Semester

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<tbody>
<tr>
<td>ENGL1102</td>
<td>English Composition II</td>
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<tr>
<td>MATH1126</td>
<td>Contemporary Mathematics</td>
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<tr>
<td>MATH1128</td>
<td>Mathematical Methods</td>
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<tr>
<td>MIS1045</td>
<td>Information Technology for Business</td>
<td>3</td>
</tr>
<tr>
<td>SOCI1201</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SPAD2022</td>
<td>Facility Management</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
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#### 3rd Semester

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</tr>
<tr>
<td>ECON2001</td>
<td>Introduction to Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>INTER2013</td>
<td>The American Experience</td>
<td>3</td>
</tr>
<tr>
<td>SPAD</td>
<td>Section B* Course</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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#### 4th Semester

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ECON2102</td>
<td>Introduction to Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>SPAD4000</td>
<td>International Sports Administration (every two years)</td>
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</tr>
<tr>
<td>SPAD</td>
<td>Section B* Course</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language with Lab**</td>
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</tr>
<tr>
<td>Free Elective</td>
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#### 5th Semester

<table>
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<tbody>
<tr>
<td>BIOL1070, BIOL1071</td>
<td>Ecosystem and Environmental Science (Lecture and Laboratory)</td>
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</tr>
<tr>
<td>BUSI3620</td>
<td>Human Resource Systems</td>
<td>3</td>
</tr>
<tr>
<td>SPAD2025</td>
<td>Global Perspectives in Sports</td>
<td>3</td>
</tr>
<tr>
<td>SPAD</td>
<td>Section B* Courses</td>
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<tr>
<td>SPAD</td>
<td>Section C** Course</td>
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#### 6th Semester

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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SPAD2018</td>
<td>Sports Internship</td>
<td>3</td>
</tr>
<tr>
<td>SPAD3010</td>
<td>Job-search Strategies</td>
<td>3</td>
</tr>
<tr>
<td>SPAD</td>
<td>Section C** Course</td>
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</tr>
<tr>
<td>Free Electives</td>
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#### 7th Semester

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<th>Course Title</th>
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<tbody>
<tr>
<td>MSA6608</td>
<td>Sports Risk Assessment</td>
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</tr>
<tr>
<td>MSA6701</td>
<td>Legal Issues in the Domestic and International Sports Industry</td>
<td>3</td>
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<tr>
<td>MSA6702</td>
<td>Sports Administration Research and Policy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>SPAD</td>
<td>Section C** Course</td>
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#### 8th Semester

<table>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>MSA6602</td>
<td>Facility Development, Administration and Programming</td>
<td>3</td>
</tr>
<tr>
<td>MSA6603</td>
<td>Sports Marketing and Promotions</td>
<td>3</td>
</tr>
<tr>
<td>MSA6703</td>
<td>Financial Administration in Sports</td>
<td>3</td>
</tr>
<tr>
<td>SPAD4000</td>
<td>International Sports Administration (every two years)</td>
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</tr>
<tr>
<td>SPAD</td>
<td>Section B* Course</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
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</table>

*See Section B page 227.

**Only Florham Campus students must complete a foreign language requirement (i.e., Spanish, French, German, Italian, Japanese, sign language, etc.).

**See Section C page 227.
Combined Degree Programs
B.S. in Accounting/M.S. in Accounting

Fifth Year

9th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MSA6601 Organizational Leadership and Team Development</td>
<td>3</td>
</tr>
<tr>
<td>MSA6607 Human Resource Administration in Sports Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MSA Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
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10th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MSA6704 Internship I or Individual Job-related Project</td>
<td>3</td>
</tr>
<tr>
<td>MSA6705 Strategic Planning, Implementation and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>MSA Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
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</table>

Students will be required to complete the following:

Section B (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>SPAD2010 Legal Aspects in Sports Administration</td>
<td></td>
</tr>
<tr>
<td>SPAD2014 Ethical Issues in Sports</td>
<td></td>
</tr>
<tr>
<td>SPAD2015 Team Development</td>
<td></td>
</tr>
<tr>
<td>SPAD2017 Safety, First Aid and Prevention of Injury</td>
<td></td>
</tr>
<tr>
<td>SPAD2019 Sports, Marketing, Public Relations</td>
<td></td>
</tr>
<tr>
<td>SPAD2020 Fundraising in Sports</td>
<td></td>
</tr>
<tr>
<td>SPAD3000 Fiscal Concept in Sports</td>
<td></td>
</tr>
<tr>
<td>SPAD4001 Sports Internship II</td>
<td></td>
</tr>
<tr>
<td>SPAD4500 Coaching Certification</td>
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</tr>
</tbody>
</table>

Section C (9 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACCT1131 Accounting I</td>
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</tr>
<tr>
<td>ACCT1132 Accounting II</td>
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</tr>
<tr>
<td>LAW2276 Business and the Law</td>
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</tr>
<tr>
<td>SPAD2012 Nutrition and Wellness</td>
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</tr>
<tr>
<td>SPAD2015 Exercise Science for the Sports Administration Professional</td>
<td></td>
</tr>
<tr>
<td>SPAD2016 Stress Management</td>
<td></td>
</tr>
<tr>
<td>SPAD2021 Strength and Conditioning</td>
<td></td>
</tr>
<tr>
<td>SPAD2030 Ultimate Sports Marketing</td>
<td></td>
</tr>
<tr>
<td>SPAD3001 Theory, Philosophy and Principles of Coaching</td>
<td></td>
</tr>
<tr>
<td>SPAD3002 Human Kinesiology</td>
<td></td>
</tr>
<tr>
<td>SPAD3003 Sports and Society</td>
<td></td>
</tr>
<tr>
<td>SPAD3004 Youth Program Administration</td>
<td></td>
</tr>
<tr>
<td>SPAD3005 Management in Athletic Training, Athletics and Health</td>
<td></td>
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</table>

Free Electives (13 credits)


10th Semester

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>ACCT6682 Advanced Auditing</td>
<td>3</td>
</tr>
<tr>
<td>ACCT6690 Seminar: Accounting and Auditing Case Studies</td>
<td>3</td>
</tr>
<tr>
<td>Graduate Tax/Finance/Accounting Elective</td>
<td>3</td>
</tr>
<tr>
<td>Graduate Business Electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

Entrance and Curriculum Requirements for the B.S./M.S. Program

The B.S./M.S. in accounting program is open to any accounting major admitted to the University. After completing the first 75 credits at the undergraduate level, first semester junior year students are eligible to join the 4+1 in the upper level of the 150-hour B.S./M.S. program if they comply with the requirements for the M.B.A. program.

A personal interview with the director of the program also may be required.

Acceptance into the program takes place in the fifth semester of the undergraduate program. Students will complete the following curriculum requirements, beginning with the sixth semester. During the spring semester following the completion of the undergraduate portion of the program, students commence the graduate portion of the program, which will be completed during the following fall semester.

Admission requirements for the graduate portion of this program apply.

Components of the B.S./M.S. Program in Accounting

9th Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT6606 Federal Tax II: Business Entities</td>
<td>3</td>
</tr>
<tr>
<td>ACCT6680 Selected Accounting Topics</td>
<td>3</td>
</tr>
<tr>
<td>LAW6657 Applied Business Law</td>
<td>3</td>
</tr>
<tr>
<td>Graduate Accounting Elective</td>
<td>3</td>
</tr>
<tr>
<td>Graduate Business Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

*Designates graduate-level course.
Combined Degree Programs

B.S. in Accounting/M.B.A.
B.S. in Biochemistry/M.S. in Applied Clinical Nutrition

B.S. in Accounting/M.B.A.
Fairleigh Dickinson University also offers a combined degree program: B.S. in accounting/M.B.A. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.

B.S. in Biochemistry/M.S. in Applied Clinical Nutrition

Five-year Program
(with School of Health Sciences and Education, New York Chiropractic College)

This accelerated, combined degree program provides qualified students the opportunity to complete the bachelor’s degree and a master’s degree in five years, one year less than the normal span of six years. The bachelor’s degree (B.S. in biochemistry) is awarded by Fairleigh Dickinson University and the master’s degree (M.S.) is offered online by the School of Health Sciences and Education of the New York Chiropractic College (NYCC) in Seneca Falls, N.Y.

The NYCC comprehensive professional education focuses on nutrition and its application in prevention and disease management, preparing graduates to practice in a wide range of clinical, consulting and industry settings. The program emphasizes an integrative approach to health care (www.nycc.edu/AcademicPrograms_MSACNprogram.htm).

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed on pages 235–236, and the first three trimesters at NYCC. A maximum of 32 credits from NYCC may be transferred toward completion of the B.S. degree at FDU.

Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 (at least 600 math and 550 verbal) or 25 on ACT and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio of 3.00 or higher may apply for admission to the combined degree program.

After a preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited to sit for an interview with the FDU/NYCC Joint Admissions Committee. Recommendation from the preprofessional adviser is required.

Combined Degree Program Requirements
While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biochemistry and are expected to maintain a minimum cumulative grade point ratio of 3.00 or higher in all course work and a minimum of C in all science courses.

Qualifying for Enrollment at School of Health Sciences and Education of New York Chiropractic College (NYCC)

Qualified students enrolled in the combined degree program will be guaranteed a seat at NYCC for training in applied clinical nutrition. To qualify, students must meet the following criteria:

• Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at NYCC. Students need to obtain a grade of C or higher in science and math courses;

• A grade point ratio of 3.00 or higher;

• Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at NYCC; and

• Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering NYCC must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at NYCC.

Prenutrition Curriculum

Under the provisions of the prenutrition program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies for a minimum of 98 credits of course work leading to the B.S. in biochemistry (preprofessional option). The curriculum is as follows:
## Combined Degree Programs

**B.S. in Biochemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration**

### 1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1251</td>
<td>General Biology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1203</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM2281</td>
<td>Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>5</td>
</tr>
<tr>
<td>MATH1001</td>
<td>Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 16

### 2nd Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1253</td>
<td>General Biology II (Lecture and Laboratory)</td>
<td>4</td>
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<tr>
<td>CHEM1203</td>
<td>General Chemistry II</td>
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<tr>
<td>CHEM1204</td>
<td>General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>MATH2001</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>Preparing for Professional Life</td>
<td>1</td>
</tr>
</tbody>
</table>

Total: 16

### 3rd Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM1201</td>
<td>Organic Chemistry I</td>
<td>2</td>
</tr>
<tr>
<td>PHYS1001</td>
<td>Physics Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
<td>5</td>
</tr>
<tr>
<td>Humanities Course*</td>
<td>3</td>
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</tbody>
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Total: 15

### 4th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CHEM1201</td>
<td>Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2284</td>
<td>Organic Chemistry Laboratory II</td>
<td>2</td>
</tr>
<tr>
<td>PHYS1002</td>
<td>Physics Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS1004</td>
<td>University Physics II</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Course*</td>
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Total: 15

### 5th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM1201</td>
<td>Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>Physical Chemistry Laboratory II</td>
<td>2</td>
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<tr>
<td>CHEM2281</td>
<td>Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2284</td>
<td>Advanced Mathematics Course**</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>3</td>
<td></td>
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<tr>
<td>Elective***</td>
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Total: 14

### 6th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL1253</td>
<td>Enzymology</td>
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<tr>
<td>CHEM1204</td>
<td>Physical Chemistry II***</td>
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<tr>
<td>CHEM1204</td>
<td>Physical Chemistry Laboratory II****</td>
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</tbody>
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Total: 14


*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

**MATH2203 Calculus III or MATH2337 Applied Statistics I.

***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).

****May be replaced by CHEM3251 Analytical Chemistry.

*****May be replaced by CHEM4234 Instrumental Analysis Laboratory.

### B.S. in Biochemistry/ M.S. in Chemistry with Pharmaceutical Chemistry Concentration

### Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

### Undergraduate Courses

#### 1st Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1251</td>
<td>General Biology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
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</tr>
<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
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<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
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<tr>
<td>MATH1001</td>
<td>Calculus I</td>
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Total: 16

#### 2nd Semester

<table>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL1253</td>
<td>General Biology II (Lecture and Laboratory)</td>
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<tr>
<td>MATH2001</td>
<td>Calculus I</td>
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<tr>
<td>UNIV2001</td>
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Total: 16

#### 3rd Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM1201</td>
<td>Organic Chemistry I</td>
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</tr>
<tr>
<td>PHYS1001</td>
<td>Physics Laboratory I</td>
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<tr>
<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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Total: 15

#### 4th Semester

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<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>CHEM1201</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2284</td>
<td>Organic Chemistry Laboratory II</td>
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</tr>
<tr>
<td>PHYS1002</td>
<td>Physics Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS1004</td>
<td>University Physics I</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Course*</td>
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<td></td>
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Total: 15

#### 5th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHEM1201</td>
<td>Physical Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>Physical Chemistry Laboratory II</td>
<td>2</td>
</tr>
<tr>
<td>CHEM2281</td>
<td>Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM2284</td>
<td>Advanced Mathematics Course**</td>
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</tr>
<tr>
<td>Social and Behavioral Sciences</td>
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<tr>
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Total: 14

#### 6th Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL1253</td>
<td>Enzymology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>Physical Chemistry II***</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>Physical Chemistry Laboratory II****</td>
<td>2</td>
</tr>
<tr>
<td>Concentration Electives</td>
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</table>

Total: 14
Combined Degree Programs

B.S. in Biochemistry/M.S. in Cosmetic Science

4th Semester
CHEM2262
Organic Chemistry II.............................3
CHEM2264
Organic Chemistry Laboratory II..............2
PHYS2202
Physics Laboratory II............................1
PHYS2204
University Physics II............................3
UNIV2001
Global Issues.....................................3
Humanities Course*.................................3
Total........15

5th Semester
CHEM3241
Physical Chemistry I................................3
CHEM3243
Physical Chemistry Laboratory I.............2
CHEM3281
Biochemistry.......................................3
Advanced Mathematics Course***..............3
Social and Behavioral Sciences Elective*****3
Total........15

8th Semester
CHEM4233
Instrumental Analysis...........................3
CHEM4234
Instrumental Analysis Laboratory............3
CHEM4314, CHEM5314
Inorganic Chemistry II (Lecture and Laboratory)..................3
Pharmaceutical Chemistry Requirement......3
Graduate Elective..................................3
Total........14

9th Semester
Pharmaceutical Chemistry Requirements.....9
Graduate Elective..................................3
Total........12

10th Semester
Pharmaceutical Chemistry Requirement.....3
Pharmaceutical Chemistry Electives.........6
Graduate Elective..................................3
Total........12

Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings.

Required Courses (18 credits)
CHEM6673
Physical Organic Chemistry....................3
CHEM6754
Drug-delivery Systems..........................3
CHEM6755
Medicinal Chemistry................................3
CHEM6781
Biotechnology......................................3
CHEM7737
Chemical Analysis of Pharmaceuticals and
A graduate COMM course (6000 level)........3

Pharmaceutical Chemistry Electives
(6 credits)
MATH6737
Applied Statistics I...............................3
Any 5000- or higher-level BIOL, CHEM, COMM, COSC, MGMT, MKTG or PHYS course........3

A minimum of 121 credits is required for the B.S. degree, and a minimum of an additional 24 credits for the M.S. degree.

B.S. in Biochemistry/M.S. in Cosmetic Science

Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biochemistry and a Master of Science degree in cosmetic science. This program is designed for students who plan a career in the cosmetic, toiletries or fragrance industries.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

Undergraduate Courses

1st Semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1251, BIOL1253</td>
<td>General Biology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>MATH1201</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>UNIV1001</td>
<td>Transitioning to University Life</td>
<td>1</td>
</tr>
</tbody>
</table>

Total........16

2nd Semester

<table>
<thead>
<tr>
<th>Subject</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1252, BIOL1254</td>
<td>General Biology II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1202</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>General Chemistry Laboratory II</td>
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</tr>
<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
<td>3</td>
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<tr>
<td>MATH2202</td>
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Total........16

3rd Semester

<table>
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<tr>
<th>Subject</th>
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<tr>
<td>CHEM2261</td>
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<tr>
<td>PHYS2201</td>
<td>Physics Laboratory I</td>
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Total........16

**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
***Selected from MATH2205 Calculus III or MATH2337 Applied Statistics I.
****Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
## Combined Degree Programs

### B.S. in Biochemistry/M.S. in Cosmetic Science

<table>
<thead>
<tr>
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<tr>
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<tr>
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</tr>
<tr>
<td>BIOL4405</td>
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</tr>
<tr>
<td>Ethics in Science</td>
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<td>CHEM2211</td>
<td>3</td>
</tr>
<tr>
<td>Inorganic Chemistry I</td>
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<tr>
<td>CHEM3251, CHEM3232</td>
<td>4</td>
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<tr>
<td>Analytical Chemistry (Lecture and Laboratory)</td>
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<td>CHEM4514, CHEM3514</td>
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<tbody>
<tr>
<td>COSC6548</td>
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<tr>
<td>Cosmetic Science Laboratory</td>
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<tr>
<td>Cosmetic Science Requirements</td>
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<td>Graduate Requirement</td>
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<td>Total</td>
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### Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings.

### Required Courses (20 credits)

| BIOL6756 | Dermal Pharmacology and Immunology | 3 |
| CHEM6526 | Product Development | 3 |
| CHEM6529 | Microtoxicology and Biochemistry | 3 |
| COSC6543 | Hair-care Raw Materials and Formulations | 3 |
| COSC6547 | Skin-care Raw Materials and Formulations | 3 |
| COSC6548 | Cosmetic Science Laboratory | 2 |
| PHYS6753 | Applied Colloid and Surface Science | 3 |

### Cosmetic Science Electives (3 credits)

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<tbody>
<tr>
<td>CHEM6546</td>
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<tr>
<td>Perfumery</td>
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<tr>
<td>CHEM6773</td>
</tr>
<tr>
<td>Polymer Chemistry</td>
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<tr>
<td>CHEM6781</td>
</tr>
<tr>
<td>Biochemistry</td>
</tr>
<tr>
<td>COSC6542</td>
</tr>
<tr>
<td>Claims Substantiation</td>
</tr>
<tr>
<td>COSC6549</td>
</tr>
<tr>
<td>Color Cosmetics</td>
</tr>
</tbody>
</table>

A minimum of 120 credits is required for the B.S. degree, and a minimum of an additional 23 credits for the M.A. degree.

---

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses.
**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
****Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).**
Combined Degree Programs
B.S. in Biology/M.S. in Acupuncture and Oriental Medicine

B.S. in Biology/M.S. in Acupuncture and Oriental Medicine

Five-year Program
(with Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College)

This accelerated, combined degree program provides qualified students the opportunity to complete the bachelor’s degree and a master’s degree in five years, one year less than the normal span of six years. The bachelor’s degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the master’s degree (M.S.) is from the Finger Lakes School of Acupuncture and Oriental Medicine (FLSAOM) of New York Chiropractic College in Seneca Falls, N.Y.

The FLSAOM program provides a comprehensive professional education in acupuncture and oriental medicine that, combined with instruction in biomedicine, prepares graduates to practice in a wide range of clinical settings. The programs emphasize an integrative and holistic approach (http://aom.nycc.edu).

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first three trimesters at FLSAOM. A maximum of 32 credits from FLSAOM may be transferred toward completion of the B.S. degree at FDU.

Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 (at least 600 math and 550 verbal) or 25 on ACT and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio of 3.10 or higher may apply for admission to the combined degree program.

After a preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited to sit for an interview with the FDU/FLSAOM Joint Admissions Committee. Recommendation from the preprofessional adviser is required.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio of 3.10 or higher in all course work and a minimum of C in all science and math courses.

Qualifying for Enrollment at Finger Lakes School of Acupuncture and Oriental Medicine (FLSAOM)

Qualified students enrolled in the combined degree program will be guaranteed a seat at FLSAOM for training in acupuncture and oriental medicine. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at FLSAOM. Students need to obtain a grade of C or higher in science and math courses;
- A grade point ratio of 3.10 or higher;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at FLSAOM; and
- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering FLSAOM must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at FLSAOM.

Pre-acupuncture and Oriental Medicine Curriculum

Under the provisions of the pre-acupuncture and oriental medicine program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies for a minimum of 98 credits of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

1st Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL1251, BIOL1253</td>
<td>4</td>
</tr>
<tr>
<td>General Biology I (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1201</td>
<td>3</td>
</tr>
<tr>
<td>General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1203</td>
<td>1</td>
</tr>
<tr>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>3</td>
</tr>
<tr>
<td>Composition I: Rhetoric and Inquiry</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1001</td>
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2nd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL1252, BIOL1254</td>
<td>4</td>
</tr>
<tr>
<td>General Biology II (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM1202</td>
<td>3</td>
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<tr>
<td>General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204</td>
<td>1</td>
</tr>
<tr>
<td>General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>ENWR1002</td>
<td>3</td>
</tr>
<tr>
<td>Composition II: Research and Argument</td>
<td>3</td>
</tr>
<tr>
<td>UNIV1002</td>
<td>1</td>
</tr>
<tr>
<td>Preparing for Professional Life</td>
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</tr>
<tr>
<td>Mathematics Sequence</td>
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3rd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL2250, BIOL2150</td>
<td>4</td>
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<tr>
<td>Ecology and Field Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>or Mbio1209, Mbio1219</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Marine Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>CHEM2261</td>
<td>3</td>
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<tr>
<td>Organic Chemistry I</td>
<td>3</td>
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<tr>
<td>CHEM2263</td>
<td>2</td>
</tr>
<tr>
<td>Organic Chemistry Laboratory I</td>
<td>2</td>
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<tr>
<td>Mathematics Sequence</td>
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<tr>
<td>Humanities Course**</td>
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<td>Total</td>
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</tbody>
</table>

*In the freshman year, students are required to take either precalculus or calculus. The first-year course must be followed by a second mathematics course in sequence, i.e., Calculus I or Calculus II.

## Combined Degree Programs

**B.S. in Biology/M.S. in Biology**

### Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in biology and a Master of Science degree in biology at the Metropolitan Campus.

### Metropolitan Campus Sequence Undergraduate Courses

#### 1st Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL1251 General Biology I</td>
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<td>BIOL1253 Laboratory: General Biology I</td>
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</tr>
<tr>
<td>CHEM1201 General Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1203 General Chemistry Laboratory I</td>
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</tr>
<tr>
<td>ENWR1001 Composition I: Rhetoric and Inquiry</td>
<td>3</td>
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<td>UNIV1004 Transitioning to University Life</td>
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**Total:** 12

#### 2nd Semester

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL1252 General Biology II</td>
<td>3</td>
</tr>
<tr>
<td>BIOL1254 Laboratory: General Biology II</td>
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</tr>
<tr>
<td>CHEM1202 General Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM1204 General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>ENWR1002 Composition II: Research and Argument</td>
<td>3</td>
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<tr>
<td>UNIV1002 Preparing for Professional Life</td>
<td>1</td>
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<tr>
<td>Mathematics Sequence*</td>
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**Total:** 16

#### 3rd Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL2250, BIOL2150 Ecology and Field Biology</td>
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</tr>
<tr>
<td>CHEM2261 Organic Chemistry I</td>
<td>3</td>
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<tr>
<td>CHEM2263 Organic Chemistry Laboratory I</td>
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</table>

**Total:** 16

---


**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.**

---

*In the freshman year, students are required to take either precalculus or calculus. The first-year course must be followed by a second mathematics course in sequence (i.e., Calculus I or Calculus II).*

---

*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.**

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### 4th Semester

<table>
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<tr>
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<tbody>
<tr>
<td>BIOL2210, BIOL2211 Genetics (Lecture and Laboratory)</td>
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<tr>
<td>BIOL2300 Experimental Design</td>
<td>3</td>
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<tr>
<td>CHEM2262 Organic Chemistry II</td>
<td>3</td>
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<tr>
<td>CHEM2264 Organic Chemistry Laboratory II</td>
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<tr>
<td>UNIV2002 Global Issues</td>
<td>3</td>
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**Total:** 17

### 5th Semester

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<tr>
<td>BIOL2237, BIOL2239 Human Structure and Function I</td>
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<tr>
<td>BIOL3225, BIOL3226 General Microbiology (Lecture and Laboratory)</td>
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<tr>
<td>BIOL4900 Biology Seminar I</td>
<td>1</td>
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<td>PHYS2201 Physics Laboratory I</td>
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<td>PHYS2203 University Physics I</td>
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**Total:** 16

### 6th Semester

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<td>BIOL4240, BIOL4241 Molecular Cell Biology (Lecture and Laboratory)</td>
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<td>BIOL4405 Ethics in Science</td>
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<td>CHEM3281 Biochemistry I</td>
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<td>PHYS2202 General Physics Laboratory II</td>
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### 4th Semester

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<td>BIOL2300 Experimental Design</td>
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<tr>
<td>CHEM2262 Organic Chemistry II</td>
<td>3</td>
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<td>CHEM2264 Organic Chemistry Laboratory II</td>
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<tr>
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**Total:** 15

### 5th Semester

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<tbody>
<tr>
<td>BIOL2237, BIOL2239 Human Structure and Function I</td>
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</tr>
<tr>
<td>BIOL3225, BIOL3226 General Microbiology (Lecture and Laboratory)</td>
<td>4</td>
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<tr>
<td>PHYS2201 Physics Laboratory I</td>
<td>3</td>
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<tr>
<td>PHYS2203 University Physics I</td>
<td>3</td>
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<tr>
<td>UNIV2001 Cross-cultural Perspectives</td>
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**Total:** 15

### 6th Semester

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<th>Credits</th>
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<tbody>
<tr>
<td>CHEM3281 Biochemistry I</td>
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<tr>
<td>PHYS2202 Physics Laboratory II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS2204 University Physics II</td>
<td>3</td>
</tr>
<tr>
<td>Biology Elective</td>
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<tr>
<td>Social and Behavioral Sciences Elective***</td>
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<td>Free Elective</td>
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**Total:** 16

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*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.**

---


**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.**

***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course)
Combined Degree Programs

B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/M.B.A. in Accounting or Business Administration or Entrepreneurship or Finance or Information Systems or International Business or Management or Marketing or Pharmaceutical Management

7th Semester

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<td>Molecular Biology Techniques (Lecture and Laboratory)</td>
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<td>BIOL4900</td>
<td>Biology Seminar I</td>
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</tr>
<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
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<tr>
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<td></td>
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<tr>
<td>Free Elective</td>
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8th Semester

<table>
<thead>
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<th>Course Name</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL4405</td>
<td>Ethics in Science</td>
<td>3</td>
</tr>
<tr>
<td>BIOL4901</td>
<td>Biology Seminar II</td>
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</tr>
<tr>
<td>BIOL6240, BIOL6241</td>
<td>Molecular Cell Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>Oral Communication Elective</td>
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<td></td>
</tr>
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<td>Graduate Biology Elective</td>
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<tr>
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9th Semester

<table>
<thead>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
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10th Semester

<table>
<thead>
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<tbody>
<tr>
<td>Graduate Biology Electives</td>
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</tbody>
</table>

Graduate Course Requirements

Students should consult with their advisers for course selections and new course offerings. Students may take any biology (BIOL) course at or above the 5000 level.

B.S./M.S. Requirements

One hundred forty-two (142) credits are required to earn both the B.S. and M.S. degrees. A minimum of 120 credits is required to earn the B.S. degree and a minimum of 22 additional credits for the M.S. degree.

B.S. in Business Administration or Entrepreneurship or Finance or Management or Marketing/M.B.A. in Accounting or Business Administration or Entrepreneurship or Finance or Information Systems or International Business or Management or Marketing or Pharmaceutical Management

Fairleigh Dickinson University offers 45 combined degree programs: B.S. in business administration/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in entrepreneurship/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in finance/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in management/M.B.A. in accounting or business administration or entrepreneurship or finance or information systems or international business or management or marketing or pharmaceutical management; B.S. in marketing/M.S. in accounting or supply chain management or taxation; B.S. in marketing/M.S. in accounting or supply chain management or taxation; and B.S. in marketing/M.S. in accounting or supply chain management or taxation. For information contact undergraduate programs and student services, Silberman College of Business, at 201-692-7206.

Admission requirements for the graduate portion of this program apply.
Silberman College of Business Five-year (4+1) Programs

- B.S. in accounting/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in business administration (with any concentration)/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in finance/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in management (leadership/human resources)/M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing
- B.S. in marketing /M.S. in accounting, M.B.A. in finance, M.B.A. in management or M.B.A. in marketing

B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

Five-year Program
The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science degree in chemistry with a pharmaceutical chemistry concentration.

Florham Campus
Requirements for the Combined B.S. in Chemistry/M.S. in Chemistry with a Concentration in Pharmaceutical Chemistry

First Year (31 credits)
BIO L 1 2 01 , BIO L 1 2 03 Biological Diversity (Lecture and Laboratory)..............4
BIO L 1 2 02 , BIO L 1 2 04 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).......4
CHEM 1 2 01 , CHEM 1 2 02 General Chemistry I, II.........................6
CHEM 1 2 03 , CHEM 1 2 04 General Chemistry Laboratory I, II.......2
EN GW 1001 College Writing Workshop.................................3
EN GW 1002 Research Writing Workshop..........................3
MATH 1 2 03 , MATH 2 2 02 Calculus I, II.....................................8
UN IV 1001 Transitioning to College Life.........................1

Second Year (29 credits)
CHEM 2 2 01 , CHEM 2 2 02 Organic Chemistry I, II.................6
CHEM 2 2 03 , CHEM 2 2 04 Organic Chemistry Laboratory I, II.....2
PHYS 2 003 , PHYS 2 01 5; PHYS 2 004 , PHYS 2 01 4 General Physics with Calculus I, II (Lecture and Laboratory)...........8
UN IV 1002 Preparing for Professional Life.........................1
UN IV 2001 Cross-cultural Perspectives.........................3
Humanities Elective........................................3
General Education Electives.................................3

Third Year (37 credits)
CHEM 2 2 0 1 , CHEM 2 2 0 2
Inorganic Chemistry (Lecture and Laboratory)...............4
CHEM 2 2 0 3 , CHEM 2 2 0 4
Analytical Chemistry (Lecture and Laboratory)...............4
CHEM 3 2 4 1 , CHEM 3 2 4 2
Physical Chemistry I, II...............................6
CHEM 3 2 4 3 , CHEM 3 2 4 4
Physical Chemistry Laboratory I, II..............4
CHEM 3 2 8 1 , CHEM 3 3 8 9
Biochemistry (Lecture and Laboratory).........................4
MATH 1 1 3 3
Applied Statistics........................................3
UN IV 2002
Global Issues...........................................3
Foreign Language Courses.................................6
General Education Elective.................................3

Fourth Year (31 credits)
CHEM 4 2 1 5
Advanced Inorganic Chemistry.........................3
CHEM 4 2 3 3 , CHEM 4 2 3 4
Instrumental Analysis (Lecture and Laboratory)..........5
CHEM 4 4 0 1
Chemistry Seminar........................................1
CHEM 6 6 6 3
Introduction to Medicinal Chemistry...........3
CHEM 6 6 8 5
Pharmacology............................................3
CHEM 6 7 8 1
Biochemistry..............................................3
CHEM 7 7 5 1
Chemical Kinetics.....................................3
Senior Research Elective.................................1
Undergraduate Electives.................................9

Fifth Year (24 credits)
CHEM 6 6 7 5
Physical Organic Chemistry........................3
CHEM 6 8 3 0 –CHEM 6 8 3 3
Special Topics in Chemistry........................3
CHEM 7 7 3 5
Pharmaceutical Analysis...............................3
CHEM 7 7 4 7
Protein Chemistry*..............................3
CHEM 7 7 5 1
Chemical Kinetics*...............................3
CHEM 7 7 5 3
Pharmacokinetics....................................3
Undergraduate Electives...............................6

*Graduate electives. May be substituted with graduate courses from other departments (not to exceed 6 credits) relevant to the degree. Permission of the department chair is required.
Combined Degree Programs
B.S. in Chemistry/M.S. in Chemistry with Pharmaceutical Chemistry Concentration

Metropolitan Campus
Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

Recommended Course Sequence

1st Semester
Credits
Biology 1251, Biology 1253  General Biology I (Lecture and Laboratory) ___________ 4
Chemistry 1201  General Chemistry I ___________ 3
Chemistry 1203  General Chemistry Laboratory I ___________ 1
English 1001  Composition I: Rhetoric and Inquiry ___________ 3
Math 1201  Calculus I ___________ 4
University 1001  Transitioning to University Life ___________ 1
Total ___________ 16

2nd Semester
Credits
Biology 1252, Biology 1254  General Biology II (Lecture and Laboratory) ___________ 4
Chemistry 1202  General Chemistry II ___________ 3
Chemistry 1204  General Chemistry Laboratory II ___________ 1
English 1002  Composition II: Research and Argument ___________ 3
Math 2202  Calculus II ___________ 4
University 1002  Preparing for Professional Life ___________ 1
Total ___________ 16

3rd Semester
Credits
Chemistry 2261  Organic Chemistry I ___________ 3
Chemistry 2263  Organic Chemistry Laboratory I ___________ 2
Physics 2201  Physics Laboratory I ___________ 1
Physics 2203  University Physics I ___________ 3
University 2001  Cross-cultural Perspectives ___________ 3
Humanities Course* ___________ 3
Total ___________ 15

4th Semester
Credits
Chemistry 2262  Organic Chemistry II ___________ 3
Chemistry 2264  Organic Chemistry Laboratory II ___________ 2
Physics 2202  Physics Laboratory II ___________ 1
Physics 2204  University Physics II ___________ 3
University 2002  Global Issues ___________ 3
Humanities Course* ___________ 3
Total ___________ 15

5th Semester
Credits
Chemistry 3241  Physical Chemistry I ___________ 3
Chemistry 3243  Physical Chemistry Laboratory I ___________ 2
Chemistry 3281  Biochemistry I ___________ 3
Advanced Mathematics Course* ___________ 3
Social and Behavioral Sciences Elective*** ___________ 3
Total ___________ 14

6th Semester
Credits
Chemistry 3242  Physical Chemistry II ___________ 3
Chemistry 3244  Physical Chemistry Laboratory II ___________ 2
Speech Course ___________ 3
Science Elective ___________ 3
Free Elective ___________ 3
Total ___________ 14

7th Semester
Credits
Biology 4405  Ethics in Science ___________ 3
Chemistry 2211  Inorganic Chemistry I ___________ 3
Chemistry 3251, Chemistry 3232  Analytical Chemistry (Lecture and Laboratory) ___________ 4
Chemical Analysis of Pharmaceuticals ___________ 3
Total ___________ 16

8th Semester
Credits
Chemistry 4233  Instrumental Analysis ___________ 3
Chemistry 4234  Instrumental Analysis Laboratory ___________ 2
Chemistry 4514, Chemistry 5314  Inorganic Chemistry II (Lecture and Laboratory) ___________ 3
Graduate Chemistry Requirement ___________ 3
Graduate Elective ___________ 3
Total ___________ 12

9th Semester
Credits
Chemical Analysis of Pharmaceuticals ___________ 3
Graduate Elective ___________ 3
Total ___________ 12

10th Semester
Credits
Graduate Elective ___________ 6
Total ___________ 12

Graduate Course Requirements
Students should consult with their advisers for course selections and new course offerings.

Required Courses (18 credits)
Chemistry 6673  Physical Organic Chemistry ___________ 3
Chemistry 6754  Drug-delivery Systems ___________ 3
Chemistry 6755  Medicinal Chemistry ___________ 3
Chemistry 6781  Biochemistry ___________ 3
Chemistry 7737  Chemical Analysis of Pharmaceuticals ___________ 3
Graduate Course (6000 level) ___________ 3

Pharmaceutical Chemistry Electives (6 credits)
Math 6737  Applied Statistics I ___________ 3
Any 5000- or higher-level BIOL, CHEM, COMM, COSC, MGMT, MKTG or PHYS course ___________ 3


**Selected from MATH1202 Calculus II or MATH2337 Applied Statistics I.

***Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
### Combined Degree Programs

**B.S. in Chemistry/M.S. in Cosmetic Science**

**Five-year Program**

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in chemistry and a Master of Science in cosmetic science.

Students applying to this program must have completed 62 credits and achieved a minimum grade point ratio of 3.00. Students must apply by the end of their junior year.

Undergraduate students who have successfully completed the required two-semester sequence in organic chemistry and who have an overall grade point ratio of more than 3.00 may apply to one of the combined B.S./M.S. programs described below.

### Undergraduate Courses

<table>
<thead>
<tr>
<th>1st Semester</th>
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<tbody>
<tr>
<td>BIOL1251, BIOL1253</td>
<td>General Biology I (Lecture and Laboratory)</td>
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<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
</tr>
<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
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<tr>
<td>MATH1201</td>
<td>Calculus I</td>
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<td>UNIV1001</td>
<td>Transitioning to University Life</td>
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<th>2nd Semester</th>
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<tbody>
<tr>
<td>BIOL1252, BIOL1254</td>
<td>General Biology II (Lecture and Laboratory)</td>
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<tr>
<td>CHEM1202</td>
<td>General Chemistry II</td>
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<td>CHEM1204</td>
<td>General Chemistry Laboratory II</td>
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<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
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<td>MATH2202</td>
<td>Calculus II</td>
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<td>Preparing for Professional Life</td>
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**3rd Semester**

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<tr>
<td>CHEM2261</td>
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<td>CHEM2263</td>
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<tr>
<td>PHYS2201</td>
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<tr>
<td>PHYS2203</td>
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<tr>
<td>UNIV2001</td>
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**4th Semester**

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<tr>
<td>CHEM2262</td>
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<td>CHEM2264</td>
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<td>PHYS2202</td>
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<td>PHYS2204</td>
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<td>UNIV2002</td>
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**5th Semester**

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<tr>
<td>CHEM3241</td>
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<td>CHEM3243</td>
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<tr>
<td>CHEM3281</td>
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<tr>
<td>Advanced Mathematics Course</td>
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<tr>
<td>Social and Behavioral Sciences Elective</td>
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<td><strong>Total</strong></td>
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**6th Semester**

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<tr>
<td>CHEM3244</td>
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<tr>
<td>CHEM3251, CHEM3252</td>
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<td>Cosmetic Science Requirement</td>
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<td>Free Elective</td>
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**7th Semester**

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<th>Credits</th>
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<tbody>
<tr>
<td>BIOL4405</td>
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<tr>
<td>CHEM2211</td>
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<tr>
<td>CHEM3231, CHEM3232</td>
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<tr>
<td>Cosmetic Science Elective</td>
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<tr>
<td><strong>Total</strong></td>
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**8th Semester**

<table>
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<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM4233</td>
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<tr>
<td>CHEM4234</td>
</tr>
<tr>
<td>CHEM4314, CHEM5314</td>
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<tr>
<td>Cosmetic Science Requirement</td>
</tr>
<tr>
<td>Cosmetic Science Elective</td>
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**9th Semester**

<table>
<thead>
<tr>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Cosmetic Science Requirements</td>
</tr>
<tr>
<td>Graduate Requirements</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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**10th Semester**

<table>
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<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>COSC6548</td>
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<tr>
<td>Cosmetic Science Requirements</td>
</tr>
<tr>
<td>Graduate Requirement</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

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**Take 5 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

***Selected from MATH2205 Calculus III or MATH2337 Applied Statistics I.

****Three credits of a Social and Behavioral Sciences Elective (any COMM, CRIM, POLS, PSYC or SOCI course).
Combined Degree Programs
B.S. in Computer Science/M.S. in Computer Science

Graduate Course Requirements
Students should consult with their advisers for course selections and new course offerings.

Required Courses (20 credits)

BIOL6756  Dermal Pharmacology and Immunology................................. 3
CHEM6526  Product Development.......................................................... 3
CHEM6529  Microtoxicology and Biochemistry......................................... 3
COSC6543  Hair-care Raw Materials and Formulations.................................. 3
COSC6547  Skin-care Raw Materials and Formulations................................. 3
COSC6548  Cosmetic Science Laboratory.................................................... 2
PHYS6753  Applied Colloid and Surface Science........................................ 3

Cosmetic Science Electives (3 credits)

CHEM6546  Perfumery.................................................................................. 3
CHEM6778  Polymer Chemistry................................................................. 3
CHEM6781  Biochemistry............................................................................ 3
COSC6542  Claims Substantiation............................................................... 3
COSC6549  Color Cosmetics......................................................................... 3

A minimum of 120 credits is required for the B.S. degree, and a minimum of an additional 25 credits for the M.S. degree.

B.S. in Computer Science/M.S. in Computer Science

Five-year Program

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in computer science with a combined course load of 141 credits, which is 9 credits less than that of the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and obtaining a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degrees, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate computer science program.

B.S./M.S. in Computer Science 120+21=141 credits

Computer Science Undergraduate Core Requirements (36 credits)

COSC11201  Computer Programming I................................................... 3
COSC11202  Computer Programming II................................................ 3
COSC12215  Introduction to Computer Science..................................... 3
COSC12232  Data Structures..................................................................... 3
COSC12247  Assembly Language Programming................................... 3
COSC13240  Computer Networks............................................................ 3
COSC13251  Design of Software Systems.............................................. 3
COSC13255  Mathematical Foundations of Computer Science.................. 3
CSCI6605  Computer Architecture*...................................................... 3
CSCI6623  Database Systems*................................................................. 3
CSCI6638  Operating Systems*............................................................... 3
ENGR2286  Digital System Design......................................................... 3

Science Requirements (16 credits)

Science A I with Lab.................................................................4
Science A II with Lab...............................................................4
Science B I with Lab.................................................................4
Science B II with Lab.................................................................4

Mathematics Requirements (17 credits)

MATH1201  Calculus I.................................................................................. 4
MATH2202  Calculus II............................................................................... 4
MATH2255  Discrete Structures............................................................... 3
MATH3220  Linear Algebra......................................................................... 3
MATH3237  Probability and Statistics I.................................................. 3

Humanities Requirements (15 credits)

ENGR2210  Technical Communications................................................ 3
ENGR3000  Modern Technologies: Principles, Applications and Impacts..... 3
ENWR1001  Composition I: Rhetoric and Inquiry................................... 3
ENWR1002  Composition II: Research and Argument............................. 3
Humanities Elective.............................................................................. 3

University Requirements (8 credits)

UNIV1001  Transitioning to University Life.............................................. 1
UNIV1002  Preparing for Professional Life............................................ 1
UNIV2001  Cross-cultural Perspectives.................................................. 3
UNIV2002  Global Issues........................................................................... 3

Students must complete any two of the following concentrations: cybersecurity and information assurance, game and mobile application development, database management and information security administration.

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are prescribed in the B.S. in computer science curriculum (see pages 155–156).

*These courses can be applied to the M.S. degree, provided that the student earns a grade of B or better.
Combined Degree Programs
B.S. in Computer Science/M.S. in Management Information Systems

Below, the courses for any two concentrations, e.g. concentration A and concentration B, are designated as concentrations A I, A II and A III, and concentrations B I, B II and B III.

**Concentration Requirements (18 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Concentration A I</td>
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<tr>
<td>Concentration A II</td>
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</tr>
<tr>
<td>Concentration B I</td>
<td>5</td>
</tr>
<tr>
<td>Concentration B II</td>
<td>5</td>
</tr>
<tr>
<td>Concentration B III</td>
<td>5</td>
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</table>

**Free Electives (10 credits)**

Total...120

**Computer Science Graduate Requirements (21 credits)**

Students will receive graduate credit for each of the graduate courses CSCI6603 Computer Architecture, CSCI6623 Database Systems and CSCI6638 Operating Systems in which they have received a grade of B or better.

In addition, students will take two more core courses:

CSCI6620 Software Engineering.............5
CSCI7645 Systems Programming...............5
and Computer Science Electives.............15

The total combined degree is 141 credits (provided the student earns grades of B or better in the three graduate course taken as an undergraduate).

**B.S. in Computer Science/M.S. in Management Information Systems**

**Five-year Program**

The University offers a five-year program that allows qualified students to attain a Bachelor of Science degree in computer science and a Master of Science degree in management information systems (MIS) with a combined course load of 141 credits, which is 9 credits less than that of the separate degrees.

Students are eligible to apply for the combined program after completing 60 undergraduate credits and obtaining a grade point ratio (GPR) of 3.00 or better in the first 15 credits of computer science courses. Applications should be submitted before the student has completed 27 credits of computer science courses. Upon completion of their undergraduate degrees, students who have maintained a 3.00 GPR in their computer science courses will be admitted to the graduate MIS program.

**B.S. in Computer Science/M.S. in Management Information Systems 120+21=141 credits**

**Computer Science Undergraduate Core Requirements (36 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSCI11201 Computer Programming I.......</td>
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<tr>
<td>CSCI11202 Computer Programming II......</td>
<td>3</td>
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<tr>
<td>CSCI12215 Introduction to Computer Science</td>
<td>3</td>
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<tr>
<td>CSCI12252 Data Structures..............</td>
<td>3</td>
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<tr>
<td>CSCI12247 Assembly Language Programming</td>
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<tr>
<td>CSCI13240 Computer Networks............</td>
<td>3</td>
</tr>
<tr>
<td>CSCI13251 Design of Software Systems...</td>
<td>3</td>
</tr>
<tr>
<td>CSCI13255 Mathematical Foundations of Computer Science</td>
<td>3</td>
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<tr>
<td>CSCI6603 Computer Architecture*........</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6623 Database Systems*.............</td>
<td>3</td>
</tr>
<tr>
<td>CSCI6638 Operating Systems*............</td>
<td>3</td>
</tr>
<tr>
<td>ENGR2286 Digital System Design.........</td>
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**Science Requirements (16 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>Science A I with Lab....................</td>
<td>4</td>
</tr>
<tr>
<td>Science A II with Lab..................</td>
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<tr>
<td>Science B I with Lab...................</td>
<td>4</td>
</tr>
<tr>
<td>Science B II with Lab..................</td>
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**Mathematics Requirements (17 credits)**

<table>
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<th>Course</th>
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<td>MATH1201 Calculus I............ 4</td>
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<tr>
<td>MATH2202 Calculus II........ 4</td>
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<tr>
<td>MATH2255 Discrete Structures..........</td>
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<tr>
<td>MATH3220 Linear Algebra...............</td>
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<td>MATH3237 Probability and Statistics I.</td>
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**Humanities Requirements (15 credits)**

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGR2210 Technical Communications......</td>
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<td>ENGR3000 Modern Technologies: Principles, Applications and Impacts</td>
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<td>ENWR1001 Composition I: Rhetoric and Inquiry</td>
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<tr>
<td>ENWR1002 Composition II: Research and Argument</td>
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<tr>
<td>Humanities Elective....................</td>
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**University Requirements (8 credits)**

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>UNIV1001 Transitioning to University Life</td>
<td>1</td>
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<tr>
<td>UNIV1002 Preparing for Professional Life</td>
<td>1</td>
</tr>
<tr>
<td>UNIV2001 Cross-cultural Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>UNIV2002 Global Issues..................</td>
<td>3</td>
</tr>
</tbody>
</table>

**Business Requirements (6 credits)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT5012 Financial Accounting: End-user Applications</td>
<td>2</td>
</tr>
<tr>
<td>ECON5012 Economic Analysis...............</td>
<td>2</td>
</tr>
<tr>
<td>MKTG5012 Marketing Principles..........</td>
<td>2</td>
</tr>
</tbody>
</table>

Students must complete any of the following concentrations: cybersecurity and information assurance, game and mobile application development, database management and information security administration.

*These courses can be applied to the M.S. degree, provided that the student earns a grade of B or better.
Combined Degree Programs
B.S.E.E./M.S. in Computer Engineering

Each concentration requires the successful completion of six courses (18 credits), of which three courses (9 credits) are already included in the computer science core requirements. The remaining three courses (9 credits) of each concentration are prescribed in the B.S. in computer science curriculum (see pages 155–156).

Below, the courses for any two concentrations, e.g. concentration A and concentration B, are designated as concentrations A I, A II and A III, and concentrations B I, B II and B III.

<table>
<thead>
<tr>
<th>Concentration Requirements (18 credits)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration A I..........................5</td>
<td></td>
</tr>
<tr>
<td>Concentration A II..........................5</td>
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</tr>
<tr>
<td>Concentration A III..........................5</td>
<td></td>
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<tr>
<td>Concentration B I..........................5</td>
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<tr>
<td>Concentration B II..........................5</td>
<td></td>
</tr>
<tr>
<td>Concentration B III..........................5</td>
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</tbody>
</table>

| Free Electives (4 credits) | Total 120 |

Management Information Systems Graduate Requirements (21 credits)
Students will receive graduate credit for each of the graduate courses CSCI6603 Computer Architecture, CSCI6623 Database Systems and CSCI6638 Operating Systems in which they have received a grade of B or better. In addition, they will take five additional core courses:

- CSCI6720 Management Information Systems..................3
- CSCI6758 Electronic Commerce..................................3
- CSCI7727 Development of MIS I: Project Management and Systems Analysis..................3
- CSCI7791 Information Systems for Competitive Advantage..................3
- Graduate Electives...........................................9

The total combined degree is 141 credits (provided the student earns grades of B or better in the three graduate course taken as an undergraduate).

B.S.E.E./M.S. in Computer Engineering
Five-year Program
Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) and a Master of Science (M.S.) degree in computer engineering with a combined degree load that is 9 credits less than that for the separate degrees.

Students must register for this program by their junior year and must have achieved a 2.75 cumulative grade point ratio.

A minimum of 128 credits is required for the B.S.E.E. degree and a minimum of 149 credits is required for the combined B.S.E.E./M.S. in computer engineering degrees.

Requirements
First Year
1st Semester

| ENGR1301 Engineering Practices, Graphics and Design........5 |
| En WR1001 Composition I: Rhetoric and Inquiry... 5 |
| MATH1201 Calculus I..............................................4 |
| PHYS2201 Physics Laboratory I.................................1 |
| PHYS2203 University Physics I.................................3 |
| UNIV1001 Transitioning to University Life..................1 |

Total..........15

2nd Semester

| ENGR1204 Programming Languages in Engineering................3 |
| ENGR2286 Digital System Design..............................3 |
| ENWR1002 Composition II: Research and Argument...........3 |
| MATH1202 Calculus II..........................................4 |
| PHYS2202 Physics Laboratory II..............................1 |
| PHYS2204 University Physics II..............................5 |
| UNIV1002 Preparing for Professional Life....................1 |

Total..........18

Second Year
3rd Semester

| ENGR2221 Signals and Systems I..........................4 |
| ENGR2287 Microprocessor System Design I..................3 |
| ENGR3200 Advanced Engineering Programming..............3 |
| MATH2210 Differential Equations............................3 |
| UNIV2001 Cross-cultural Perspectives......................3 |

Total........16

4th Semester

| ENGR2222 Signals and Systems II........................3 |
| ENGR3288 Microprocessor System Design II...............3 |
| ENGR2210 Advanced Engineering Programming.............3 |
| ENGR4221 Technical Communications........................3 |
| UNIV2001 Engineering Statistics and Reliability........3 |
| UNIV2002 Global Issues........................................3 |

Total..........15

Third Year
5th Semester

| ENGR3223 Linear Systems..................................3 |
| ENGR3265 Electronics I......................................3 |
| ENGR4375 Electrical Energy Conversion....................3 |
| ENGR2221 Statics...............................................3 |
| MATH2203 Calculus III......................................3 |

Total..........15

6th Semester

| CHEM1201 General Chemistry I.........................3 |
| CHEM1205 General Chemistry Laboratory I................1 |
| ENGR3224 Digital Signal Processing......................3 |
| ENGR3266 Electronics II....................................3 |
| ENGR3341 Modern Technologies: Principles, Applications and Impacts..........................3 |
| ENGR3341 Advanced Engineering Mathematics.............3 |

Total..........16

240
Combined Degree Programs

B.S.E.E./M.S.E.E.

Fourth Year

7th Semester Credits
ENGR3244
Electromagnetic Fields and Waves........3
ENGR3267
Electronics III.............................3
ENGR4260
Preparation for Electrical Engineering Project........1
ENGR4342
Data Communications and Computer Networks........3
ENGR7725
Automatic Control Systems I..............3
ENGR4210
Managerial and Engineering Economic Analysis........3
Total........16

8th Semester

CSCI2232
Data Structures................................3
CSCI6603
Computer Architecture........................3
ENGR4268
Electrical Engineering Project.............2
ENGR4341
Communication Systems........................3
ENGR4347
Wireless Communication........................3
ENGR7701
Logic System Design..........................3
Total........17

Fifth Year

9th Semester

CSCI6620
Software Engineering........................3
ENGR7709
Embedded Systems................................3
CSCI Graduate Elective........................3
ENGR Graduate Elective.......................3
Total.........12

10th Semester

CSCI Graduate Elective.......................3
ENGR or CSCI Graduate Electives...........6
Total.........18

Total Degree Requirements..................149
For full details, consult an adviser and/or the Graduate Studies Bulletin.

B.S.E.E./M.S.E.E.

Five-year Program

Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science in Electrical Engineering (B.S.E.E.) degree and a Master of Science in Electrical Engineering (M.S.E.E.) degree with a combined degree load that is 9 credits less than that of the separate degrees.

Students must register for this program by their junior year and must have achieved at least a 2.75 cumulative grade point ratio.

A minimum of 128 credits is required for the B.S.E.E. degree and a minimum of 149 credits is required for the combined B.S.E.E./M.S.E.E. degrees.

Requirements

First Year

1st Semester Credits
ENGR1301
Engineering Practices, Graphics and Design......................3
ENWR1001
Composition I: Rhetoric and Inquiry...........3
MATH1201
Calculus I.....................................4
PHYS2201
Physics Laboratory I..........................1
PHYS2203
University Physics I.........................3
UNIV1001
Transitioning to University Life............1
Total........15

2nd Semester

ENGR1204
Programming Languages in Engineering....................3
ENGR2286
Digital System Design................................3
ENWR1002
Composition II: Research and Argument..................3
MATH2202
Calculus II....................................4
PHYS2202
Physics Laboratory II..........................1
PHYS2204
University Physics II..........................3
UNIV1002
Preparing for Professional Life..............1
Total.........18

Second Year

3rd Semester Credits
ENGR2221
Signals and Systems I..........................4
ENGR2287
Microprocessor System Design I.................3
ENGR3320
Advanced Engineering Programming...........3
MATH2210
Differential Equations........................3
UNIV2001
Cross-cultural Perspectives...................3
Total........16

4th Semester

ENGR2222
Signals and Systems II..........................3
ENGR3288
Microprocessor System Design II.............3
ENGR2221
Technical Communications.....................3
ENGR4221
Engineering Statistics and Reliability........3
UNIV2002
Global Issues..................................3
Total........15

Third Year

5th Semester

ENGR3223
Linear Systems................................3
ENGR3265
Electronics I..................................3
ENGR4375
Electrical Energy Conversion..................3
ENGR2221
Statics..........................................3
MATH2203
Calculus III....................................3
Total.........15

6th Semester

CHEM1201
General Chemistry I..........................3
CHEM1203
General Chemistry Laboratory I............1
ENGR3266
Electronics II................................3
ENGR3300
Modern Technologies: Principles, Applications and Impacts........3
ENGR3341
Advanced Engineering Mathematics........3
Technical Elective*.........................3
Total........16

*Six credits must be selected from the technical electives list for the engineering curriculum, copies of which can be obtained through the Lee Gildart and Oswald House School of Computer Sciences and Engineering. Choices must be approved by an academic adviser.
## Combined Degree Programs

B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies

### Fourth Year

<table>
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<td>EENG3267</td>
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<td>EENG4260</td>
<td>3</td>
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<tr>
<td>Preparation for Electrical Engineering Project</td>
<td>1</td>
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<tr>
<td>EENG4342</td>
<td>3</td>
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<tr>
<td>Data Communications and Computer Networks</td>
<td>3</td>
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<td>EENG6633</td>
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<tr>
<td>Digital Signal Processing</td>
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</tr>
<tr>
<td>EENG7725</td>
<td>3</td>
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<tr>
<td>Automatic Control Systems I</td>
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<td><strong>Total</strong></td>
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<table>
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<td>8th Semester</td>
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<tr>
<td>EENG4268</td>
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<td>Electrical Engineering Project</td>
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<td>EENG4341</td>
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<tr>
<td>Communication Systems</td>
<td>3</td>
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<tr>
<td>EENG4347</td>
<td>3</td>
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<tr>
<td>Wireless Communication</td>
<td>3</td>
</tr>
<tr>
<td>EENG7701</td>
<td>3</td>
</tr>
<tr>
<td>Logic System Design</td>
<td>3</td>
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<tr>
<td>ENGR4210</td>
<td>3</td>
</tr>
<tr>
<td>Managerial and Engineering Economic Analysis</td>
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<tr>
<td>Technical Elective*</td>
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<td>Digital Communications</td>
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<td>EENG Graduate Elective</td>
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<tr>
<td><strong>Total Degree Requirements</strong></td>
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For full details, consult an adviser and/or the Graduate Studies Bulletin.

### B.S. in Hotel and Restaurant Management/M.S. in Hospitality Management Studies

**Five-year Program**

**Recommended Course Sequencing**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>1st Semester</td>
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<tr>
<td>ENGL1111</td>
<td>3</td>
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<tr>
<td>Literature and Composition I</td>
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<tr>
<td>or ENWR1001</td>
<td>3</td>
</tr>
<tr>
<td>Composition I: Rhetoric and Inquiry</td>
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</tr>
<tr>
<td>HRTM1101</td>
<td>3</td>
</tr>
<tr>
<td>Career Orientation and Professional Development</td>
<td>3</td>
</tr>
<tr>
<td>HRTM2500</td>
<td>3</td>
</tr>
<tr>
<td>Professional Development Sequence (PDS) Lab</td>
<td>3</td>
</tr>
<tr>
<td>DSCI1234</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics for Business Decisions</td>
<td>3</td>
</tr>
<tr>
<td>or MATH1141</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Mathematical Methods</td>
<td>3</td>
</tr>
<tr>
<td>or MIS1045</td>
<td>3</td>
</tr>
<tr>
<td>Information Technology for Business</td>
<td>3</td>
</tr>
<tr>
<td>or MIS1135</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>PSYC1105</td>
<td>3</td>
</tr>
<tr>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>or PSYC1141</td>
<td>3</td>
</tr>
<tr>
<td>Psychology I</td>
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<td>UNIV1000</td>
<td>3</td>
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<tr>
<td>Transitioning to University Life</td>
<td>3</td>
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<tr>
<td>Foreign Language Requirement*</td>
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ACCT1131</td>
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<tr>
<td>Accounting I</td>
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<tr>
<td>or ACCT2021</td>
<td>3</td>
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<tr>
<td>Introductory Financial Accounting</td>
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### Third Semester

<table>
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<tr>
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<tr>
<td>COMM2101</td>
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<tr>
<td>Professional Communication</td>
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<tr>
<td>ECON1121</td>
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<tr>
<td>Macroeconomics</td>
<td>3</td>
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<tr>
<td>HRTM2103</td>
<td>2</td>
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<tr>
<td>Management Values and Professional Standards</td>
<td>2</td>
</tr>
<tr>
<td>HRTM2211</td>
<td>3</td>
</tr>
<tr>
<td>Accounting for Hospitality Managers</td>
<td>3</td>
</tr>
<tr>
<td>HRTM2500</td>
<td>3</td>
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<tr>
<td>Professional Development Sequence (PDS) Lab</td>
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<tr>
<td>DSCI2029</td>
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<td>Introduction to Statistics</td>
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<td>or MATH1142</td>
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<tr>
<td>Introduction to Statistics</td>
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<tr>
<td>UNIV2001</td>
<td>3</td>
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<td>Cross-cultural Perspectives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17</td>
</tr>
</tbody>
</table>

*A student may satisfy this liberal arts requirement (foreign language) in one of four ways: 1) Recommend 6 credits of the same foreign language; 2) Language and culture courses: each course listed in the Undergraduate Studies Bulletin as “Language and Cultural Studies” will fulfill three credits toward this requirement; 3) English for Professional Success: International students can fulfill this requirement by the successful completion of the English for Professional Success (EPS) requirement; 4) Study abroad: Students can fulfill this requirement by taking six credits of an immersion course in any language followed by a University-approved intercultural travel experience.

**Adviser-approved courses offered by Anthony J. Petrocelli College of Continuing Studies, Silberman College of Business and University College: Arts • Sciences • Professional Studies.
# Combined Degree Programs

## B.S. in Information Technology/M.S. in Computer Science

### Five-year Program

Fairleigh Dickinson University offers a five-year program that allows qualified students to attain a Bachelor of Science (B.S.) degree in information technology and a Master of Science (M.S.) degree in computer science with a combined degree load that is 9 credits less than that for the separate degrees.

Students must register for this program by their junior year and must have achieved a cumulative grade point ratio of at least 3.00.

A minimum of 123 credits is required for the B.S. in information technology degree, and a minimum of 144 credits is required for the combined B.S. in information technology/M.S. in computer science degrees.

### Requirements

#### First Year

<table>
<thead>
<tr>
<th>1st Semester</th>
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<tbody>
<tr>
<td>CSCI1105</td>
<td>Survey of Computers and Computer Software</td>
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<tr>
<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
</tr>
<tr>
<td>INFO1101</td>
<td>Computer Concepts and Technology</td>
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<tr>
<td>MATH1105</td>
<td>College Algebra</td>
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Total: 18

#### 2nd Semester

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<tbody>
<tr>
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<tr>
<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
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<td>INFO1201</td>
<td>Information Technology</td>
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<td>MATH1107</td>
<td>Precalculus</td>
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### 3rd Semester

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<tr>
<td>HRTM2100</td>
<td>Professional Development Sequence</td>
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<tr>
<td>HRTM2104</td>
<td>The Hospitality Manager and Law</td>
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<tr>
<td>HRTM2211</td>
<td>Accounting for Hospitality Managers</td>
</tr>
<tr>
<td>HRTM2235</td>
<td>Sustainability and Ecotourism</td>
</tr>
<tr>
<td>HRTM2500</td>
<td>Professional Development Sequence (PDS) Lab</td>
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<tr>
<td>SPCH1155</td>
<td>Public Speaking</td>
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<td>UNIV2002</td>
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Total: 18

### 4th Semester

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<tr>
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<td>Professional Development Sequence (PDS) Work Experience</td>
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<td>The Hospitality Manager and Law</td>
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<td>HRTM2235</td>
<td>Sustainability and Ecotourism</td>
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<td>Professional Development Sequence (PDS) Lab</td>
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<tr>
<td>HRTM3208</td>
<td>Financial Management in the Hospitality Industry</td>
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<td>SPCH1155</td>
<td>Public Speaking</td>
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### 5th Semester

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<tr>
<td>HRTM2210</td>
<td>Sales and Marketing for Hospitality Managers</td>
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<td>HRTM2500</td>
<td>Professional Development Sequence (PDS) Lab</td>
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<tr>
<td>HRTM3105</td>
<td>Managerial Challenges in the Workplace</td>
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<td>HRTM3108</td>
<td>Nutrition, Sanitation and Food Safety</td>
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<td>HRTM3203</td>
<td>Food and Beverage Management</td>
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<tr>
<td>HRTM3209</td>
<td>Human Resource Management</td>
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<tr>
<td>HRTM2500</td>
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<td>HRTM3100</td>
<td>Professional Development Sequence (PDS) Work Experience</td>
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<tr>
<td>HRTM3106</td>
<td>The Manager and the Group: Work Experience</td>
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<tr>
<td>HRTM3207</td>
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<tr>
<td>HRTM4280</td>
<td>Domestic and International Tourism</td>
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<td>HRTM7710</td>
<td>Current Concepts in Leadership</td>
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<td>HRTM7751</td>
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Total: 14

### 7th Semester

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<tr>
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<td>Professional Development Sequence (PDS) Lab</td>
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<tr>
<td>HRTM4107</td>
<td>Concepts in Transportation and Travel</td>
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<tr>
<td>HRTM4204</td>
<td>Property Management</td>
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<td>HRTM7734</td>
<td>Global Marketing for Hospitality Executives</td>
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### 8th Semester

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<td>Global Issues in Hospitality Management (seminar abroad)</td>
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<td>HRTM4109</td>
<td>Hospitality Operations Tactics and Strategy</td>
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Total: 6

*Adviser-approved courses offered by Anthony J. Petrocelli College of Continuing Studies, Silberman College of Business and University College: Arts • Sciences • Professional Studies.
Combined Degree Programs

B.S. in Biochemistry/Doctor of Pharmacy

Second Year

3rd Semester

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Third Year

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6th Semester

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Fourth Year

7th Semester

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9th Semester

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10th Semester

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Total Degree Requirements: 144

For full details consult an adviser and/or the Graduate Studies Bulletin.

B.S. in Biochemistry/Doctor of Pharmacy

Seven-year Program

(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)

Fairleigh Dickinson University sophomores and high school seniors can apply to the B.S. in biochemistry plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences. Sophomore applicants studying biochemistry (minimum of 30 credits, maximum of 60 credits) and maintaining a 3.30 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1220 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a “feeder” science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

Metropolitan Campus

A minimum of 120 credits for the B.S. degree: 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU’s School of Pharmacy and Health Sciences. Students not accepted into FDU’s School of Pharmacy and Health Sciences have the option of switching out of the B.S. in biochemistry/Pharm.D. combined degree and into another concentration.

B.S. in Biochemistry and Doctor of Pharmacy Combined Degree

1st Semester

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<tr>
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<tr>
<td>Laboratory: General Biology I</td>
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<td>CHEM1201</td>
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<tr>
<td>Laboratory: General Chemistry I</td>
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Total | 14
## Combined Degree Programs

**B.S. in Biochemistry/Doctor of Pharmacy**

### Credits

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<td>Calculus I</td>
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<td>General Chemistry II</td>
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<td>CHEM1204</td>
<td>General Chemistry Laboratory II</td>
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<td>ENWR1002</td>
<td>Composition II: Research and Argument</td>
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<td>Organic Chemistry I</td>
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<td>Organic Chemistry Laboratory I</td>
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<td>PHYS2203</td>
<td>University Physics I</td>
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<td>Physics Laboratory II</td>
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<td>BIOL2210, BIOL2211</td>
<td>Genetics (Lecture and Laboratory)</td>
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<td>CHEM3241, CHEM3245</td>
<td>Physical Chemistry I (Lecture and Laboratory)</td>
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<td>CHEM4253, CHEM4254</td>
<td>Instrumental Analysis (Lecture and Laboratory)</td>
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<td>CHEM3281</td>
<td>Biochemistry I</td>
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<td>Human Anatomy and Physiology II (Lecture and Laboratory)</td>
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<td>Enzymology</td>
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<td>CHEM3251, CHEM3232</td>
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<td>BIOL4901</td>
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<td>Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics</td>
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<td>PHRM6101</td>
<td>Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care</td>
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<td>PHRM6201</td>
<td>Pharmaceutics I: Physical Pharmacy</td>
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<td>PHRM6211</td>
<td>Pharmaceutical Calculations I</td>
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<td>PHRM6301</td>
<td>Medical Communication and Technical Writing</td>
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<td>PHRM6321</td>
<td>Pharmacy Practice Law</td>
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<td>Professional Pharmacy Practice I: Healthcare Delivery</td>
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<td>PHRM6103</td>
<td>Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care</td>
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<td>PHRM6104</td>
<td>Integrated Pharmacotherapy IV: Cardiology/Pulmonary</td>
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<td>Integrated Pharmacotherapy II-IV: Conceptual Connections and Patient Care</td>
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<td>Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics</td>
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*Requirements consist of a three-credit Speech course.

**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
Combined Degree Programs
B.S. in Biochemistry/Doctor of Pharmacy

School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7

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<td>Integrated Pharmacotherapy VI: Infectious Disease</td>
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<td>Integrated Pharmacotherapy VII: Cardiology/Pulmonary</td>
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<td>PHRM7108</td>
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<td>Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health</td>
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<td>Pharmaceutics III: Dosage Forms and Drug Delivery Systems</td>
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<td>Pharmaceutics IV: Sterile Products and Biopharmaceuticals</td>
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<td>Beyond the Curriculum: Expanding Horizons (1)</td>
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<td>Integrated Pharmacotherapy IX: Autoimmune Diseases, Rare Diseases and Special Populations</td>
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<td>Integrated Pharmacotherapy X: Hematology and Oncology</td>
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<td>Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care</td>
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Combined Degree Programs

B.S. in Biochemistry/Doctor of Pharmacy

Florham Campus

**B.S. in Biochemistry and Doctor of Pharmacy Combined Degree***

**1st Semester**

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<td>BIOL1204</td>
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<td>CHEM1202, CHEM1212</td>
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<td>CHEM2263</td>
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**4th Semester**

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**5th Semester**

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**6th Semester**

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<td>Introduction to Microeconomics</td>
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<td>Textual and Aesthetic Analysis</td>
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**7th Semester**

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<td>Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics</td>
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<tr>
<td>PHRM6101</td>
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<tr>
<td>Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care</td>
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*This is not American Chemical Society (ACS) certified.*
### Combined Degree Programs

**B.S. in Biochemistry/Doctor of Pharmacy**

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<td>Pharmacetics I: Physical Pharmacy</td>
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<td>PHRM6211</td>
<td>Pharmaceutical Calculations I</td>
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<td>PHRM6301</td>
<td>Medical Communication and Technical Writing</td>
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<td>PHRM6321</td>
<td>Pharmacy Practice Law</td>
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<td>Professional Pharmacy Practice I: Health Care Delivery</td>
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**8th Semester**

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<td>Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care</td>
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<td>Integrated Pharmacotherapy IV: Cardiology/Pulmonary I</td>
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<td>PHRM6111</td>
<td>Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care</td>
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<td>PHRM6202</td>
<td>Pharmacetics II – Oral Dosage Forms and Biopharmaceuticals/Pharmacokinetics</td>
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<td>PHRM6212</td>
<td>Pharmaceutical Calculations II</td>
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<td>Beyond the Curriculum: Foundations in Pharmacy Education (2)</td>
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### School of Pharmacy and Health Sciences Courses for All Undergraduate Majors

**Years 5 through 7**

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<td>Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology</td>
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<td>PHRM7106</td>
<td>Integrated Pharmacotherapy VI: Infectious Disease</td>
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<td>PHRM7107</td>
<td>Integrated Pharmacotherapy VII: Cardiology/Pulmonary II</td>
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<td>PHRM7108</td>
<td>Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health</td>
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<td>Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care</td>
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<td>PHRM7112</td>
<td>Integrated Pharmacotherapy VII–VIII: Conceptual Connections and Patient Care</td>
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<td>Pharmaceutics III: Dosage Forms and Drug Delivery Systems</td>
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<td>PHRM7301</td>
<td>Biostatistics</td>
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<td>Epidemiology and Study Design Evaluation</td>
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<td>Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology</td>
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<td>Integrated Pharmacotherapy X: Hematology and Oncology</td>
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<td>Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care</td>
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<td>Pharmacogenomics and Personalized Medicine</td>
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<td>Pharmacoepidemiology, Pharmacoconomics and Health Outcomes</td>
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<td>Public Health and the Global Mission of Pharmacy</td>
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<td>Health Care Ethics and Team Decision Making</td>
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Combined Degree Programs

B.S. in Biology/Doctor of Chiropractic

Six-year, Four-month Program
This accelerated, combined degree program enables students to earn both baccalaureate and Doctor of Chiropractic degrees in just six years and four months—a full year less than the normal study time of seven years and four months. Students can choose to attend undergraduate classes on either of Fairleigh Dickinson University’s New Jersey campuses.

The bachelor’s degree is awarded by the University and the Doctor of Chiropractic degree is awarded by a participating Council on Chiropractic Education (CCE)-accredited College of Chiropractic. To date, the University has affiliations with New York Chiropractic College, Seneca Falls, N.Y.; Life Chiropractic College West, Hayward, Calif.; Logan University, Chesterfield, Mo.; Palmer College of Chiropractic, Davenport, Iowa; and University of Western States, Portland, Ore.

Students are admitted into FDU’s combined degree program as incoming freshmen or qualified transfer students. The B.S. degree is awarded after the student completes six semesters (three years) at FDU (including the courses listed on the next pages or their approved equivalent), completes the first two trimesters of study at a participating chiropractic college with grades of C or better and is accepted into the third trimester. Up to 32 credits accepted in transfer toward completion of B.S. degree requirements will be selected from appropriate graduate-level courses offered by a participating chiropractic college.

Specific Course Requirements

Metropolitan Campus
Under the provisions of the prechiropractic program on the Metropolitan Campus, Teaneck, New Jersey, students matriculate in the School of Natural Sciences, University College: Arts • Sciences • Professional Studies for a minimum of 99 credits of course work leading to the B.S. in biology (preprofessional degree option), including the following courses:

Liberal Arts and Humanities Requirements

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<td>Advanced Pharmacy Practice Experience (APPE) VIII: Elective – Informatics I</td>
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## Recommended Course Sequence

### 1st Semester

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<td>ENWR1001</td>
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<td>Transitioning to University Life</td>
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### 2nd Semester

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<td>or MBIO1209, MBIO1219</td>
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<td>Introduction to Marine Biology</td>
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<td>Organic Chemistry I</td>
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<td>Humanities Course*</td>
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<td>Organic Chemistry II</td>
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<td>CHEM2264</td>
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<td>Organic Chemistry Laboratory II</td>
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<td>UNIV2002</td>
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<td>Global Issues</td>
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<td>BIOL3225, BIOL3226</td>
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<td>General Microbiology</td>
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<td>University Physics I</td>
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### 6th Semester

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<td>BIOL4405</td>
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<td>Ethics in Science</td>
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<td>CHEM3281</td>
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<td><strong>Total</strong></td>
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*Take 3 credits from ENGL (except developmental English), HIST, HUMAN, LANG, PHIL or RELI courses.

**Take 3 credits from ENGL, HIST, HUMAN, LANG, PHIL or RELI courses at the 2000-level or above.

## Combined Degree Programs

**B.S. in Biology/Doctor of Chiropractic**

---

### Florham Campus

Under the provisions of the prechiropractic program at the Florham Campus, Madison, New Jersey, students matriculate in the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, for a minimum of 97 credits of course work leading to the B.S. in biology (preprofessional degree option), including the following courses:

### Biology Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL1201, BIOL1203</td>
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<tr>
<td>Biological Diversity</td>
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<tr>
<td>(Lecture and Laboratory)</td>
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<tr>
<td>BIOL1202, BIOL1204</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
<td>4</td>
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<tr>
<td>BIOL2003, BIOL2004</td>
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<td>Cell Biology (Lecture and Laboratory)</td>
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<tr>
<td>BIOL3253, BIOL3254</td>
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</tr>
<tr>
<td>Comparative Anatomy</td>
<td>4</td>
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<td>(Lecture and Laboratory)</td>
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<tr>
<td>BIOL3256, BIOL3257</td>
<td>4</td>
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<tr>
<td>Genetics (Lecture and Laboratory)</td>
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</tr>
<tr>
<td>BIOL3337, BIOL3327</td>
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<tr>
<td>General Physiology</td>
<td>4</td>
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<td>(Lecture and Laboratory)</td>
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### Cognate Requirements

**Chemistry, Mathematics, Physics**

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<td>CHEM1203, CHEM1204</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry Laboratory I, II</td>
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<tr>
<td>Organic Chemistry I, II</td>
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<td>Precalculus</td>
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<td>MATH1205</td>
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<tr>
<td>Calculus I</td>
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### Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:

PHIL1440

Biomedical Ethics

SPCH1107

Fundamentals of Speech

or

COMM2099

Professional Communications
Combined Degree Programs
B.S. in Biochemistry or Biology or Chemistry/Doctor of Dental Medicine

B.S. in Biochemistry or Biology or Chemistry/Doctor of Dental Medicine
Eight-year Program
(with Lake Erie College of Osteopathic Medicine, School of Dental Medicine)

Lake Erie College of Osteopathic Medicine, School of Dental Medicine offers the D.M.D. degree through a full-time, four-year pathway at its campus in Bradenton, Fla. The curriculum consists of two years of basic science and preclinical instruction delivered through case-based, small-group problem-based learning sessions, as well as lectures, laboratories and introductory clinical experiences. Years three and four offer primarily hands-on, clinical experiences (http://lecom.edu/ school-dental-medicine).

These combined degree programs provide qualified students the opportunity to complete a baccalaureate degree and a Doctor of Dental Medicine (D.M.D.) degree in eight years. The bachelor’s degree (B.S. in biology/biochemistry/chemistry) is awarded by Fairleigh Dickinson University and the doctoral degree (D.M.D.) by Lake Erie College of Osteopathic Medicine (LECOM) – School of Dental Medicine. Through these Early Acceptance Programs, FDU undergraduate students are enrolled jointly by Fairleigh Dickinson University and by LECOM. Once recommended by Fairleigh Dickinson University, LECOM will interview the students prior to their enrollment at Fairleigh Dickinson University or within the first two years of being properly enrolled in the program. Students interviewing successfully will be offered a provisional acceptance to LECOM’s Doctor of Dental Medicine program.

The “4+4” track is comprised of two phases. Phase I consists of four years of undergraduate education at Fairleigh Dickinson University and completion of the B.S. in biochemistry, biology or chemistry degree. Phase II consists of four years of dental school education at LECOM and its associated clinical training sites. Upon meeting the criteria for final acceptance, students will matriculate at the LECOM Bradenton, Fla., campus.

Each academic year, a maximum combined total of five students will be accepted by LECOM into Phase II of the Early Acceptance Program from each campus of Fairleigh Dickinson University. Provisionally accepted students may not apply to any other medical school. Application to another medical school will result in the loss of the student's provisional acceptance.

Admission to the Combined Degree Programs

High school seniors with a combined SAT score of 1170 (ACT score of 26) and a grade point average (GPA) of 3.50 or better may apply for admission to the combined degree programs. All applicants for admission to the combined degree programs must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school GPA and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating the applicant’s credentials. Applicants are required to submit scores in the verbal and the mathematical components of SAT.

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the preprofessional curriculum in one of the sciences (biology, biochemistry or chemistry). They are expected to maintain a minimum cumulative grade point ratio of 3.00 or higher in all course work and in science courses.

Qualifying for Enrollment at LECOM School of Dental Medicine

Qualified students enrolled in the combined degree programs will be accepted into Phase II if they meet the following criteria:

- Completion of all FDU curriculum requirements, including including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission to LECOM School of Dental Medicine. Students need to maintain a cumulative grade point ratio (COPR) of 3.40 or higher in prerequisite courses with no grade lower than C in any of them and a cumulative overall science COPR of 3.20;
- A GPR of 3.40 or higher;
- An academic index score my be factored into admission decision;
- No reduced course load will be accepted. No summer courses will be accepted except in the case of scheduling conflicts;
- Submission of a satisfactory Dental Admission Test (DAT) score (established by LECOM at the time of entry into the Early Acceptance Program) in a timely fashion; and
- Full-time students currently enrolled at FDU who seek admission to the combined degree programs must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Florham Campus, Madison, N.J., prior to February 1 of their sophomore year.

Predental Curricula

Students enrolled in the 4+4 years Early Acceptance Program will follow FDU’s curricula for B.S. in sciences (for biochemistry, see pages 66 and 141; for biology, see pages 68 and 142; or for chemistry, see pages 69 and 146).

Under the provisions of the predental combined program, students matriculate in either University College: Arts • Sciences • Professional Studies or Maxwell Becton College of Arts and Sciences for a minimum of 96 credits of course work leading to the B.S. in one of the sciences (biochemistry, biology, chemistry).
Combined Degree Programs
B.S. in Biology/Doctor of Dental Medicine

Seven-year Program
(with Rutgers School of Dental Medicine)
Students accepted into this program will spend their first three years at FDU. The following four years will be spent at the Rutgers School of Dental Medicine (RSDM). Following successful completion of the first year of study at RSDM the student will be awarded a B.S. degree by FDU.

Admission to the Program
Qualified students who have completed their first three semesters of study achieving a 3.50 cumulative grade point ratio at FDU may apply. Applicants must have had secondary school preparation in English, mathematics, biology, chemistry and physics. Letters of recommendation from high school teachers also are required.

Following evaluation of applications by the admissions office, the Joint Admissions Committee will decide which applicants to interview at FDU and RSDM. The interview at RSDM will be conducted by a member of the RSDM Admissions Committee. The final decision will be made by the Joint Admissions Committee following a review of the interviewers' comments.

Final Admission to RSDM
Final admission into the Rutgers School of Dental Medicine is dependent on satisfactory completion of the following:
1. 98 credits as listed on this page and page 235 at University College: Arts • Sciences • Professional Studies or 98 credits as listed on this page at the Maxwell Becton College of Arts and Sciences.
2. A minimum grade point ratio of 3.50 and a minimum grade of B in each of the science courses required for admission to RSDM. There shall be no final grade of “D”, “F” or “I” in any course required for admission to RSDM, appearing on the student’s transcript.
3. A satisfactory score on the Dental Aptitude Test must be submitted prior to admission to RSDM.
4. A recommendation by four faculty members, including the chair of the department of biological and allied health sciences at the Florham Campus, Madison, New Jersey, or the director of the School of Natural Sciences at the Metropolitan Campus, Teaneck, New Jersey, and the pre-professional adviser is required. FDU students wishing to participate in the program must apply in writing to the pre-professional adviser no later than completion of 60 credits at FDU.
5. Participation in any orientation programs required by RSDM.
6. Final entrance into the D.M.D. program is contingent on satisfactory performance in all six semesters at FDU, not withstanding any prior offer of admission.
7. Further information can be obtained from the Advisement Office for Graduate and Professional Studies at the Florham Campus, Madison, New Jersey, or the Graduate School and Professional Studies Advisement Center at the Metropolitan Campus, Teaneck, New Jersey.

Specific Course Requirements
The course requirements to be followed at Maxwell Becton College of Arts and Sciences at the Florham Campus, Madison, New Jersey, or University College: Arts • Sciences • Professional Studies at the Metropolitan Campus, Teaneck, New Jersey, are found on this and the following page.

Florham Campus

Biology Requirements

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<td>BIOL.1202, BIOL.1204</td>
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<tr>
<td>Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
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<td>BIOL.2004</td>
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<td>BIOL.3253, BIOL.3254</td>
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<td>Comparative Anatomy (Lecture and Laboratory)</td>
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<td>General Physiology (Lecture and Laboratory)</td>
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Cognate Requirements
(Chemistry, Mathematics, Physics)

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Credits

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Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:

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<td>Fundamentals of Speech</td>
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<tr>
<td>or</td>
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<td>COMM.2099</td>
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<tr>
<td>Professional Communications</td>
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Metropolitan Campus

1st Semester

<table>
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<tr>
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<td>4</td>
</tr>
<tr>
<td>General Biology I (Lecture and Laboratory)</td>
<td></td>
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<tr>
<td>BIOL.1201</td>
<td>3</td>
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<tr>
<td>General Chemistry I</td>
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<tr>
<td>CHEM.1203</td>
<td>1</td>
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<tr>
<td>General Chemistry Laboratory I</td>
<td></td>
</tr>
<tr>
<td>ENWR.1001</td>
<td>1</td>
</tr>
<tr>
<td>Composition I: Rhetoric and Inquiry</td>
<td></td>
</tr>
<tr>
<td>UNIV.1001</td>
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Total........12

2nd Semester

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<td>General Biology II (Lecture and Laboratory)</td>
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</tr>
<tr>
<td>General Chemistry Laboratory II</td>
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</tr>
<tr>
<td>ENWR.1002</td>
<td>3</td>
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<tr>
<td>Composition II: Research and Argument</td>
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<td>UNIV.1002</td>
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<tr>
<td>Preparing for Professional Life</td>
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Total........16
## Combined Degree Programs

**B.S. in Biology/Medical Doctor**

### Eight-year Program

*(with Ross University School of Medicine, Portsmouth, Dominica, West Indies)*

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree (B.S. in biology) and a Medical Doctor (M.D.) degree in eight years. The bachelor's degree is awarded by Fairleigh Dickinson University and the doctoral degree (M.D.) by Ross University. English is the teaching language.

Students are admitted to FDU as incoming freshmen or qualified transfer students. They may apply for the Bachelor of Science degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at Ross University. A maximum of 32 credits from Ross University may be transferred toward completion of the B.S. degree at FDU.

### Admission to the Combined Degree Program

High school seniors with a combined SAT score of 1150 or higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a 3.40 cumulative grade point ratio or higher may apply for admission to the combined degree program. Applicants must have had secondary-school preparation in English, mathematics, biology, chemistry and physics. Letters of recommendation from high school teachers also are required.

The high school grade point average (GPA) and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit scores in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/Ross University Joint Admissions Committee.

### Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are

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### 3rd Semester

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<tr>
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<td>BIOL2211</td>
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<td>CHEM2300</td>
<td>Experimental Design</td>
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<td>CHEM2262</td>
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<td>BIOL2237</td>
<td>Human Structure and Function</td>
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<td>BIOL2239</td>
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<tr>
<td>BIOL3225</td>
<td>General Microbiology</td>
<td>4</td>
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<td>BIOL3226</td>
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<td>BIOL4900</td>
<td>Biology Seminar I</td>
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<tr>
<td>PHYS201</td>
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<tr>
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### 6th Semester

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<tr>
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<td>Molecular Cell Biology</td>
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<td>BIOL4241</td>
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<td>CHEM3281</td>
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<td>PHYS202</td>
<td>Physics Laboratory II</td>
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</table>

Consult pages 143–144 for additional details about the requirements for the B.S. in biology at the Metropolitan Campus, Teaneck, New Jersey.

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**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
Combined Degree Programs
B.S. in Biology/Medical Doctor

expected to maintain a minimum cumulative grade point ratio of 3.25 or higher in all course work and a minimum of 3.00 in prerequisite courses required by Ross University.

Qualifying for Enrollment at Ross University
To qualify, students must meet the following criteria:
• Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at Ross University. Students need to maintain a grade point ratio (GPR) of 3.00 or higher in prerequisite courses with no D or F in any of the courses;
• A GPR of 3.25 or higher;
• Submission of a satisfactory MCAT score (24 or higher) in a timely fashion;
• Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at Ross University; and
• Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering Ross University must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at Ross University.

Premedical Curricula
Under the provisions of the premedical program, students matriculate in either University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or Maxwell Becton College of Arts and Sciences, Florham Campus, for a minimum of 96 credits (University College) 97 credits (Becton College) of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

<table>
<thead>
<tr>
<th>Metropolitan Campus</th>
<th>1st Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BOL1251</td>
<td>General Biology I</td>
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</tr>
<tr>
<td>BOL1253</td>
<td>Laboratory: General Biology I</td>
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<tr>
<td>CHEM1201</td>
<td>General Chemistry I</td>
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<td>General Chemistry Laboratory I</td>
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<td>ENWR1001</td>
<td>Composition I: Rhetoric and Inquiry</td>
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<td><strong>Total</strong></td>
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<tr>
<td>BOL1254</td>
<td>Laboratory: General Biology II</td>
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<tr>
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<td>CHEM1204</td>
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<td>ENWR1002</td>
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<tr>
<td>BOL1250, BOL1250</td>
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<td>or MBIO1209, MBIO1219</td>
<td>Introduction to Marine Biology (Lecture and Laboratory)</td>
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<tr>
<td>CHEM2261</td>
<td>Organic Chemistry I</td>
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<td>Organic Chemistry Laboratory I</td>
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<td>Mathematics Sequence</td>
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<td>BOL2210, BOL2211</td>
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<td>Organic Chemistry II</td>
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<td>CHEM2264</td>
<td>Organic Chemistry Laboratory II</td>
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<th>5th Semester</th>
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<td>BOL2237, BOL2239</td>
<td>Human Structure and Function (Lecture and Laboratory)</td>
</tr>
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<td>BOL3225, BOL3226</td>
<td>General Microbiology (Lecture and Laboratory)</td>
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<td>BOL4900</td>
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<td>BOL4240, BOL4241</td>
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*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
## Florham Campus

### Biology Requirements

**Credits**

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<tr>
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<tr>
<td>Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
<td>4</td>
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<tr>
<td>BIOL1202, BIOL1204</td>
<td>4</td>
</tr>
<tr>
<td>Cell Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3253, BIOL3254</td>
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<tr>
<td>Comparative Anatomy (Lecture and Laboratory)</td>
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<tr>
<td>BIOL3256, BIOL3257</td>
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<tr>
<td>Genetics (Lecture and Laboratory)</td>
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<tr>
<td>BIOL3337, BIOL3327</td>
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<tr>
<td>General Physiology (Lecture and Laboratory)</td>
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### Cognate Requirements

**Credits**

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<td>Calculus I</td>
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### Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:

- PHIL1440
- Biomedical Ethics
- SPCH1107
- Fundamentals of Speech
- or
- COMM2009
- Professional Communications

## Combined Degree Programs

### B.S. in Biology/Medical Doctor

#### Seven-year Program

*(with Universidad Autónoma de Guadalajara School of Medicine, Mexico)*

The program is based on the U.S. model. Students who complete the program are eligible for practice medicine in all 50 states. Universidad Autónoma de Guadalajara School of Medicine is approved by the U.S. Department of Education as an eligible institution to participate in the Stafford Plus and Supplemental Student Loan Programs. While Spanish is not required for applicants, one-year, college-level Spanish is recommended. There is a rolling admissions policy and two entering classes per year (August and January). Residencies in all 50 states. (http://www.uag.edu/medicine or http://www.uag.mx).

### B.S. in Biology/Doctor of Osteopathic Medicine

#### Seven-year Program

*(with Lake Erie College of Osteopathic Medicine)*

These combined degree programs provide qualified students the opportunity to complete a baccalaureate degree and a Doctor of Osteopathic Medicine (D.O.) degree in seven (accelerated) or eight years. The bachelor’s degrees are awarded by Fairleigh Dickinson University and the doctoral degree (D.O.) by Lake Erie College of Osteopathic Medicine (LECOM). Through these Early Acceptance Programs, Fairleigh Dickinson University undergraduate students are enrolled jointly by FDU and by LECOM. Once recommended by FDU, LECOM will interview the students prior to their enrollment at Fairleigh Dickinson University or within the first two years of being properly enrolled in the program. Students interviewing successfully will be offered a provisional acceptance to LECOM’s Doctor of Osteopathic Medicine program.

The “4+4” track is comprised of two phases. Phase I consists of four years of undergraduate education at Fairleigh Dickinson University and completion of the B.S. in biochemistry or biology or chemistry degree. Phase II consists of four years (three years for the Primary Care Scholars Pathway) of medical school education at LECOM and its associated clinical training sites.

The “3+4” track is comprised of two phases. Phase I consists of three years of undergraduate education at FDU. Phase II consists of four years (three years for the Primary Care Scholars Pathway) of medical school education at LECOM and its associated clinical training sites. Students enrolled in this track will receive a B.S. in biology from FDU upon completion of at least 32 credit hours at LECOM. Each academic year, a maximum combined total of five students will be accepted by LECOM into Phase II of the Early Acceptance Program from each New Jersey campus of FDU. Provisionally accepted students may not apply to any other medical school. Application to
another medical school will result in the loss of the student’s provisional acceptance.

**Admission to Phase I of the Combined Degree Programs**

High school seniors with a combined SAT score of 1170 (ACT score of 26) and a grade point average (GPA) of 3.50 or better may apply for admission to the combined degree program. All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology chemistry and physics. The high school GPA and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicant’s credentials. Applicants are required to submit scores in the verbal and the mathematical components of the SAT.

**Medical 3+4 Phase I Admissions Criteria:**

- SAT (mathematics and verbal) or ACT score: 1280 (SAT) or 29 (ACT)
- High school unweighted GPA: 3.80

**Medical 4+4 Phase I Admissions Criteria:**

- SAT (mathematics and verbal) or ACT score: 1170 (SAT) or 26 (ACT)
- High school unweighted GPA: 3.50

**Combined Degree Program Requirements**

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology (for the 3+4 track) and a curriculum in biology, biochemistry or chemistry for the 4+4 track. They are expected to maintain a minimum cumulative grade point ratio (GPR) of 3.40 or higher in all course work and a minimum GPR of 3.20 in science courses.

**Qualifying for Enrollment of Phase II at Lake Erie College of Osteopathic Medicine**

Qualified students enrolled in the combined degree programs will be accepted into Phase II of the program if they meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission at LECOM. Students need to maintain a GPR of 3.20 or higher in prerequisite courses with no grade lower than C in any of them;
  - No reduced course load will be accepted. No summer courses will be accepted except in the case of scheduling conflicts;
  - Submission of a satisfactory MCAT score (established by LECOM at the time of entry into the Early Acceptance Program) in a timely fashion;
  - Full-time students currently enrolled at FDU who seek admission to the combined degree programs must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to February 1 of their freshman year for the 3+4 Early Acceptance Program, or by February 1 of their sophomore year for the 4+4 program; and
  - Students in the “3+4” track may switch to the “4+4” track by notifying FDU’s Pre-Health Professions Advisory Committee no later than December 1 of their third year of enrollment in the program.

**Medical 3+4 Phase II Admissions Criteria:**

- Cumulative overall GPR: 3.50 or higher
- Cumulative science GPR: 3.20 or higher
  - Academic Index Score: 125
  - MCAT*: 25 (at least 7 in each subcategory)

**Medical 4+4 Phase II Admissions Criteria:**

- Cumulative overall GPR: 3.40
- Cumulative science GPR: 3.20
  - Academic Index Score: 115
  - MCAT*: 25 (at least 7 in each subcategory)

**Premedical Curricula**

Students enrolled in the 4+4 years Early Acceptance Program will follow the curricula for the B.S. in biology (see pages 68 and 142), B.S. in biochemistry (see pages 66 and 141) or B.S. in chemistry (see pages 69 and 146).

Under the provisions of the pre-osteopathic medicine accelerated program (3+4 years), students matriculate in either University College: Arts • Sciences • Professional Studies or Maxwell Becton College of Arts and Sciences for a minimum of 95 credits of course work leading to the B.S. in biology (preprofessional option). The curricula are as follows:

**Metropolitan Campus Phase I (3+4 Track)**

**1st Semester**

- **BIOL1251, BIOL1253**
  - General Biology I (Lecture and Laboratory) .................................. 4
- **CHEM1201**
  - General Chemistry I.................................................. 3
- **CHEM1203**
  - General Chemistry Laboratory I.......................... 1
- **ENWR1001**
  - Composition I: Rhetoric and Inquiry........... 3
- **UNIV1001**
  - Transitioning to University Life............. 1

Total........ 12

**2nd Semester**

- **BIOL1252, BIOL1254**
  - General Biology II (Lecture and Laboratory)............. 4
- **CHEM1202**
  - General Chemistry II................................. 3
- **CHEM1204**
  - General Chemistry Laboratory II.............. 1
- **ENWR1002**
  - Composition II: Research and Argument............ 3
- **UNIV1002**
  - Preparing for Professional Life.......... 1
- **Mathematics Sequence**................................. 4

Total........ 16

**3rd Semester**

- **BIOL2150, BIOL2250**
  - Ecology and Field Biology (Lecture and Laboratory)
    - or
  - **MBIO1209, MBIO1219**
    - Introduction to Marine Biology (Lecture and Laboratory)........... 4
- **CHEM2261**
  - Organic Chemistry I................................. 3
Combined Degree Programs
B.S. in Biology/Doctor of Pharmacy

Florham Campus (3+4 Track)

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>Biological Diversity</td>
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<td>(Lecture and Laboratory)</td>
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<td>Introduction to Molecules, Cells</td>
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<tr>
<td>and Genes (Lecture and Laboratory)</td>
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Cognate Requirements (Chemistry, Mathematics, Physics)

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<td>MATH1203</td>
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Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:

- PHIL1440
  Biomedical Ethics
- SPCH1107
  Fundamentals of Speech
  or
- COMM2099
  Professional Communications

Two social and behavioral science classes
From either psychology, sociology or anthropology. Each class should be in a different discipline.

B.S. in Biology/Doctor of Pharmacy Combined Degree

1st Semester

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<tr>
<td>Composition I: Rhetoric and Inquiry</td>
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**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

Fairleigh Dickinson University sophomores and high school seniors can apply to the B.S. in biology plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying biology, and maintaining a 3.50 grade point average must also have a grade of B- or better in all prerequisite college courses. The program is even more competitive for high school students seeking admission: students must have an SAT score of 1220 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a “feeder” science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

Metropolitan Campus

A minimum of 120 credits for the B.S. degree; 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU’s School of Pharmacy and Health Sciences. Students not accepted into FDU’s School of Pharmacy and Health Sciences have the option of switching out of the B.S. in biology/Pharm.D. combined degree and into another concentration.

B.S. in Biology and Doctor of Pharmacy Combined Degree

1st Semester

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<tr>
<td>Laboratory: General Biology I</td>
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Combined Degree Programs
B.S. in Biology/Doctor of Pharmacy

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<td>PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care</td>
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<td>PHRM6201 Medicinal Chemistry I</td>
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<td>PHRM6301 Medical Communication and Technical Writing</td>
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<td>PHRM6521 Pharmacology I</td>
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<td>PHRM6401 Professional Pharmacy Practice I: Health Care Delivery</td>
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*Students are required to include in the first year at least one semester of Calculus.

*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
**Requirements consist of a three-credit Speech course.

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## Combined Degree Programs

**School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>Integrated Pharmacotherapy IX-X: Conceptual Connections and Patient Care</td>
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<td>Integrated Pharmacotherapy I-X: A Whole System Overview and Effecting Patient Care</td>
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<td>Pharmacogenomics and Personalized Medicine</td>
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<td>Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes</td>
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<td>Public Health and the Global Mission of Pharmacy</td>
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<td>PHRM8321</td>
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<td>PHRM9102</td>
<td>Advanced Pharmacy Practice Experience (APPE) II: Institutional</td>
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<tr>
<td>PHRM9103</td>
<td>Advanced Pharmacy Practice Experience (APPE) III: Ambulatory Care</td>
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<td>Advanced Pharmacy Practice Experience (APPE) V: Elective – Ambulatory Care</td>
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<td>Advanced Pharmacy Practice Experience (APPE) V: Elective – Home Infusion I</td>
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<td>Advanced Pharmacy Practice Experience (APPE) VI: Elective – Hospital Practice I</td>
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<td>Advanced Pharmacy Practice Experience (APPE) VII: Elective – Managed Care I</td>
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**Credits**

B.S. in Biology/Doctor of Pharmacy

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Combined Degree Programs
B.S. in Biology/Doctor of Pharmacy

**Florham Campus**

**B.S. in Biology and Doctor of Pharmacy Combined Degree**

**Major Requirements (24 credits)**

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**Cognate Requirements (19 credits)**

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**School of Pharmacy and Health Sciences Courses for All Undergraduate Majors**

**Years 5 through 7**

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### Combined Degree Programs

**B.S. in Biology/Doctor of Pharmacy**

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*Additional courses and credits may be required for specific tracks within the combined degree programs.*
Combined Degree Programs
B.S. in Biology/Doctor of Physical Therapy

B.S. in Biology/Doctor of Physical Therapy
Six-year Program
(with FDU's Henry P. Becton School of Nursing and Allied Health in partnership with the Rutgers School of Health Professions [Rutgers SHP])

This physical therapy program is a collaborative program between Fairleigh Dickinson University and the Rutgers School of Health Professions (Rutgers SHP). Students who successfully complete the program are awarded a B.S. in biology from FDU and a Doctor of Physical Therapy (D.P.T.) degree from Rutgers SHP.

This program offers an outstanding opportunity for talented and motivated students with a strong interest in science and health care careers. Students who are accepted to the program will receive a state-of-the-art education that prepares them for a career in physical therapy.

Admission Requirements for the D.P.T. Program of Rutgers SHP

- Completion of all University and core requirements at FDU while maintaining an overall high school grade point average (GPA) of 3.00;
- A minimum GPA of 3.0 in all coursework in academic and biological sciences courses;
- Demonstrated knowledge of the physical therapy profession through actual work or volunteer experience;
- Evidence of community service;
- Recommendation letters from high school or college teachers, counselors, or others familiar with the student;
- Formal application to the Rutgers SHP Physical Therapy Program for the professional component of the program;
- Satisfactory scores on all three sections (verbal, quantitative and analytical) of the Graduate Record Examination (GRE);
- Three letters of recommendation; and
- Basic computer literacy, including file management, use of word processing and spreadsheet programs and use of email and internet.

Undergraduate Sequence

Metropolitan Campus

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**B.S. in Biology/Doctor of Podiatric Medicine**

**Seven-year Program**

*(with New York College of Podiatric Medicine)*

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree and a Doctor of Podiatric Medicine (D.P.M.) degree in seven years, one year less than the normal span of eight years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the doctoral degree (D.P.M.) by New York College of Podiatric Medicine.

Students are admitted at FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at New York College of Podiatric Medicine. A maximum of 32 credits from New York College of Podiatric Medicine may be transferred toward completion of the B.S. degree at FDU.

**Admission to the Combined Degree Program**

High school seniors who satisfy the requirements for admission to the FDU preprofessional program may apply for admission to the combined degree program.

All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school grade point average (GPA) and rank in class, along with letters of recommendation from high school teachers, will be of primary importance in evaluating applicants' credentials. Applicants are required to submit score in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/New York College of Podiatric Medicine Joint Admissions Committee.

**Combined Degree Program Requirements**

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio of 3.25 or higher in all course work and a minimum of C in all science and mathematics courses.

**Qualifying for Enrollment at New York College of Podiatric Medicine**

Qualified students enrolled in the combined degree program will be guaranteed a seat at New York College of Podiatric Medicine for training in podiatry. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses required for admission to New York College of Podiatric Medicine.
- Students need to obtain a grade of C or higher in required courses:
  - A grade point ratio (GPR) of 3.00 or higher;
  - Submission of a satisfactory Medical College Admission Test (MCAT) score (at least equal to the current minimum) in a timely fashion;
  - A satisfactory evaluation in a personal interview;
  - At least three letters of evaluation;
  - Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or the department of biological and allied health sciences at the Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at New York College of Podiatric Medicine;
  - Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering New York College of Podiatric Medicine must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at New York College of Podiatric Medicine.

**Prepodiatry Curriculum**

Under the provisions of the prepodiatry program, students matriculate in the School of Natural Sciences of University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or the department of biological and allied health sciences, Florham Campus, for a minimum of 96 credits (University College) and 98 credits (Becton College) of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

**Florham Campus**

**Biology Requirements**

- BIOL1201, BIOL1203 Biological Diversity (Lecture and Laboratory).................. 4
- BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory).................. 4
- BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory).................. 4
- BIOL3009, BIOL3019 Microbiology (Lecture and Laboratory).................. 4
- BIOL2323, BIOL2324 Comparative Anatomy (Lecture and Laboratory).................. 4
- BIOL3256, BIOL3257 Genetics (Lecture and Laboratory).................. 4
- BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory).................. 4

**Cognate Requirements**

*(Chemistry, Mathematics, Physics)*

- CHEM1201, CHEM1202 General Chemistry I, II.................. 6
- CHEM1203, CHEM1204 General Chemistry Laboratory I, II.................. 2
- CHEM2261, CHEM2262 Organic Chemistry I, II.................. 6
- CHEM2265, CHEM2264 Organic Chemistry Laboratory I, II.................. 2
- CHEM3281 Biochemistry I.................. 3
- MATH1107 PreCalculus.................. 4
- MATH1133 Applied Statistics.................. 3
- MATH1205 Calculus I.................. 4

Students must complete the general education course plan (see pages 54–55) as well.
# Combined Degree Programs

## B.S. in Biology/Doctor of Veterinary Medicine

### Metropolitan Campus

**1st Semester**

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**4th Semester**

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**5th Semester**

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**Total**: 12

*Take 3 credits from ENGL (except developmental English), HIST, HUMN, LANG, PHIL or RELI courses.

**7th Semester**

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**Total**: 17

*Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.

## B.S. in Biology/Doctor of Veterinary Medicine

### Seven-year Program

(with Ross University School of Veterinary Medicine, Basseterre, St. Kitts, West Indies)

This accelerated, combined degree program provides qualified students the opportunity to complete a baccalaureate degree and a Doctor of Veterinary Medicine (D.V.M.) degree in seven years, one year less than the normal span of eight years. The bachelor's degree (B.S. in biology) is awarded by Fairleigh Dickinson University and the doctoral degree (D.V.M.) by Ross University. English is the teaching language.

Students are admitted to FDU as incoming freshmen or qualified transfer students. They may apply for the B.S. degree upon successful completion of six semesters at FDU, including the courses listed below, and the first year of study (three semesters) at Ross University. A maximum of 32 credits from Ross University may be transferred toward completion of the B.S. degree at FDU.

The program prepares students interested in pursuing a Doctor of Veterinary Medicine degree to become successful veterinarians in the United States. The program is an accelerated program which takes a little more than three years. The last three semesters are spent on the campus of one of the U.S. veterinary schools affiliated with Ross University School of Veterinary Medicine. The U.S. Department of Education has certified Ross University School of Veterinary Medicine as an eligible institution for the Title IV U.S. Federal Family Education Loan program.

Website: [http://www.rossu.edu/vet/](http://www.rossu.edu/vet/).

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**Admission to the Combined Degree Program**

High school seniors with a combined SAT score of 1150 and higher and ranking in the top 25 percent of their class or qualified students who have completed their first year of college study with a grade point ratio (GPR) of 3.40 or higher may apply for admission to the combined degree program.

All applicants for admission to the combined degree program must satisfy secondary-school preparation in English, mathematics, biology, chemistry and physics. The high school grade point average and rank in class, along with letters of
Combined Degree Programs

B.S. in Biology/Doctor of Veterinary Medicine

Students must complete the general education course plan (see pages 54–55) as well, including these specific classes:

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PHL1440 Biomedical Ethics</td>
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<tr>
<td>SPCH1107 Fundamentals of Speech</td>
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<tr>
<td>or</td>
<td></td>
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<td>COMM2099 Professional Communications</td>
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Metropolitan Campus

1st Semester

- BIOL1251 General Biology I ............................................ 3
- BIOL1253 Laboratory: General Biology I ........................ 1
- CHEM1201 General Chemistry I ........................................... 3
- CHEM1203 General Chemistry Laboratory I ............................ 1
- ENWR1001 Composition I: Rhetoric and Inquiry ...................... 4
- UNIV1001 Transitioning to University Life .......................... 1
- Total .................................................. 12

2nd Semester

- BIOL1252 General Biology II .............................................. 3
- BIOL1254 Laboratory: General Biology II ............................. 1
- CHEM1202 General Chemistry II ........................................... 3
- CHEM1204 General Chemistry Laboratory II ............................ 1
- ENWR1002 Composition II: Research and Argument .................. 4
- UNIV1002 Preparing for Professional Life ............................. 1
- Mathematics Sequence .................................................... 4
- Total .................................................. 16

Qualifying for Enrollment at Ross University School of Veterinary Medicine

Qualified students enrolled in the combined degree program will be guaranteed a seat at Ross University for training in veterinary medicine. To qualify, students must meet the following criteria:

- Completion of all FDU curriculum requirements, including the general education requirements and the degree program requirements for the major and all prerequisite courses for admission to Ross University School of Veterinary Medicine. Students need to obtain a GPR of 3.00 or higher in prerequisite courses with no D or F in any of the courses;
- A GPR of 3.25 or higher;
- Submission of a satisfactory Graduate Record Examinations (GRE) score in the 25th percentile or better in each category;
- Students currently enrolled at FDU who seek admission to the combined degree program must apply to the School of Natural Sciences, University College: Arts • Sciences • Professional Studies, Metropolitan Campus, Teaneck, N.J., or to the department of biological and allied health sciences, Maxwell Becton College of Arts and Sciences, Florham Campus, Madison, N.J., prior to the completion of 60 credit hours at FDU or at least one year before the anticipated date of matriculation at Ross University; and

- Students enrolled in the combined degree program who decide to complete the B.S. degree at FDU prior to entering Ross University must make this known to their school director or department chair prior to the completion of 60 credits at FDU or at least one year before the anticipated date of matriculation at Ross University.

Preveterinary Curricula

Under the provisions of the preveterinary program, students matriculate in either University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or Maxwell Becton College of Arts and Sciences, Florham Campus, for a minimum of 96 credits of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

Florham Campus

**Biology Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL1201, BIOL1203 Biological Diveristy (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3256, BIOL3257 Genetics (Lecture and Laboratory)</td>
<td>4</td>
</tr>
<tr>
<td>BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory)</td>
<td>4</td>
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**Cognate Requirements (Chemistry, Mathematics, Physics)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM1201, CHEM1202 General Chemistry I, II</td>
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<tr>
<td>CHEM1203, CHEM1204 General Chemistry Laboratory I, II</td>
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</tr>
<tr>
<td>CHEM2261, CHEM2262 Organic Chemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II</td>
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</tr>
<tr>
<td>CHEM3281 Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>MATH1107 Precalculus</td>
<td>4</td>
</tr>
<tr>
<td>MATH1133 Applied Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH1203 Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

Combined Degree Program Requirements

While enrolled at FDU, students are required to follow the accelerated preprofessional curriculum in biology and are expected to maintain a minimum cumulative grade point ratio (CGPR) of 3.25 or higher in all course work and a minimum of 3.00 in prerequisite courses required by Ross University.

recommendation from high school teachers, will be of primary importance in evaluating applicants’ credentials. Applicants are required to submit scores in the verbal and mathematical components of the SAT.

After preliminary screening of the applications by the FDU Office of Admissions, qualified applicants will be invited for an interview with the FDU/Ross University Joint Admissions Committee.

 Preveterinary Curricula

Under the provisions of the preveterinary program, students matriculate in either University College: Arts • Sciences • Professional Studies, Metropolitan Campus, or Maxwell Becton College of Arts and Sciences, Florham Campus, for a minimum of 96 credits of course work leading to the B.S. in biology (preprofessional option). The curriculum is as follows:

Florham Campus

**Biology Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL1201, BIOL1203 Biological Diveristy (Lecture and Laboratory)</td>
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<tr>
<td>BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes (Lecture and Laboratory)</td>
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<tr>
<td>BIOL2003, BIOL2004 Cell Biology (Lecture and Laboratory)</td>
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<tr>
<td>BIOL3253, BIOL3254 Comparative Anatomy (Lecture and Laboratory)</td>
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<td>BIOL3256, BIOL3257 Genetics (Lecture and Laboratory)</td>
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<tr>
<td>BIOL3337, BIOL3327 General Physiology (Lecture and Laboratory)</td>
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**Cognate Requirements (Chemistry, Mathematics, Physics)**

<table>
<thead>
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<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CHEM1201, CHEM1202 General Chemistry I, II</td>
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<td>CHEM1203, CHEM1204 General Chemistry Laboratory I, II</td>
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<tr>
<td>CHEM2261, CHEM2262 Organic Chemistry I, II</td>
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<td>CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II</td>
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<tr>
<td>CHEM3281 Biochemistry I</td>
<td>3</td>
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<tr>
<td>MATH1107 Precalculus</td>
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<td>MATH1133 Applied Statistics</td>
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## Combined Degree Programs

**B.S. in Chemistry/Doctor of Pharmacy**

### 3rd Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL2150, BIOL2250</td>
<td>Ecology and Field Biology (Lecture and Laboratory)</td>
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<td>CHEM2261</td>
<td>Organic Chemistry I</td>
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<td>CHEM2263</td>
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<td>Humanities Course*</td>
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### 4th Semester

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<tr>
<td>BIOL2210, BIOL2211</td>
<td>Genetics (Lecture and Laboratory)</td>
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<td>BIOL2300</td>
<td>Experimental Design</td>
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<td>CHEM2262</td>
<td>Organic Chemistry II</td>
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<td>CHEM2264</td>
<td>Organic Chemistry Laboratory II</td>
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<tr>
<td>UNIV2002</td>
<td>Global Issues</td>
<td>3</td>
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<td>Humanities Course**</td>
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### 5th Semester

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
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<td>Human Structure and Function (Lecture and Laboratory)</td>
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<td>BIOL3225, BIOL3226</td>
<td>General Microbiology</td>
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<td>BIOL4900</td>
<td>Biology Seminar I</td>
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<td>PHYS2201</td>
<td>Physics Laboratory I</td>
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<td>PHYS2204</td>
<td>University Physics I</td>
<td>3</td>
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<td>UNIV2001</td>
<td>Cross-cultural Perspectives</td>
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### 6th Semester

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<td>Molecular Cell Biology (Lecture and Laboratory)</td>
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<td>BIOL4405</td>
<td>Ethics in Science</td>
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<tr>
<td>CHEM3281</td>
<td>Biochemistry I</td>
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<td>PHYS2202</td>
<td>Physics Laboratory II</td>
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<td>PHYS2204</td>
<td>University Physics II</td>
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<tr>
<td>Oral Communication Elective</td>
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<td><strong>Total</strong></td>
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</table>

### B.S. in Chemistry/Doctor of Pharmacy

#### Seven-year Program

*(with FDU School of Pharmacy and Health Sciences, Fairleigh Dickinson University)*

Fairleigh Dickinson University sophomores and high school seniors can apply to the B.S. in chemistry plus Pharm.D. combined program (3+4) offered by the School of Pharmacy and Health Sciences.

Sophomore applicants studying chemistry (minimum of 30 credits, maximum of 60 credits), and maintaining a 3.50 grade point ratio must also have a grade of B- or better in all prerequisite college courses. The program is more competitive for high school students seeking admission: students must have an SAT score of 1220 or higher (on the 1600 scale) and a 3.50 grade point average.

The program is structured so that students complete three years of undergraduate work in a “feeder” science major through the Maxwell Becton College of Arts and Sciences or University College: Arts • Sciences • Professional Studies before transitioning to the School of Pharmacy and Health Sciences to begin four years of graduate work. They ultimately achieve both a Bachelor of Science and Doctor of Pharmacy.

### Metropolitan Campus

A minimum of 120 credits for the B.S. degree: 100–104 of these are taken at the Metropolitan Campus in years 1–3 + 28 credits (to be approved by the department chair/director) in year 4 at FDU’s School of Pharmacy and Health Sciences. Students accepted into FDU’s School of Pharmacy and Health Sciences have the option of switching out of the B.S. in chemistry/Pharm.D. combined degree and into another concentration.

### B.S. in Chemistry and Doctor of Pharmacy Combined Degree

#### 1st Semester

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>BIOL1253</td>
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<td>CHEM1201</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM1203</td>
<td>General Chemistry Laboratory I</td>
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**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.
## Combined Degree Programs

**B.S. in Chemistry/Doctor of Pharmacy**

<table>
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<td>CHEM261 Organic Chemistry I</td>
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<td>PHYS2201 Physics Laboratory I</td>
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<td>PHYS2203 University Physics I</td>
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<td>UNIV2001 Cross-cultural Perspectives</td>
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<td>PHYS2204 University Physics II</td>
<td>3</td>
</tr>
<tr>
<td>SPCH Oral Communication Elective*</td>
<td>3</td>
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<tr>
<td>UNIV2002 Global Issues</td>
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<tr>
<td>BIOL2203, BIOL2223 Human Anatomy and Physiology I (Lecture and Laboratory)</td>
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<td>BIOL4405 Ethics in Science</td>
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<tr>
<td>CHEM3241, CHEM3243 Physical Chemistry I (Lecture and Laboratory) or CHEM4233, CHEM4234 Instrumental Analysis (Lecture and Laboratory)</td>
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<tr>
<td>MATH2337 Applied Statistics I</td>
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<tr>
<td>BIOL2204, BIOL2224 Human Anatomy and Physiology II (Lecture and Laboratory)</td>
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<td>CHEM3251, CHEM3252 Analytical Chemistry (Lecture and Laboratory)</td>
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<td>BIOL4901 Biology Seminar II</td>
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<td>CHEM3242, CHEM3244 Physical Chemistry II (Lecture and Laboratory)</td>
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<tr>
<td>PHRM6100 Foundations in Pharmaceutical Science: Pharmacology, Medicinal Chemistry, Pharmacokinetics</td>
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</tr>
<tr>
<td>PHRM6101 Foundations in Integrated Pharmacotherapy I: An Introduction to Pathophysiology, Genetics, Microbiology and Delivery of Care</td>
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<tr>
<td>PHRM6201 Pharmaceutics I: Physical Pharmacy</td>
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<tr>
<td>PHRM6211 Pharmaceutical Calculations I</td>
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<tr>
<td>PHRM6301 Medical Communication and Technical Writing</td>
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<tr>
<td>PHRM6321 Pharmacy Practice Law</td>
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<tr>
<td>PHRM6401 Professional Pharmacy Practice I: Health Care Delivery</td>
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<td>PHRM6700 Beyond the Curriculum: Foundations in Pharmacy Education</td>
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<tr>
<td>PHRM6102 Integrated Pharmacotherapy II: Gastrointestinal</td>
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<tr>
<td>PHRM6103 Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care</td>
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<tr>
<td>PHRM6104 Integrated Pharmacotherapy IV: Cardiology/Pulmonary I</td>
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<tr>
<td>PHRM6111 Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care</td>
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<tr>
<td>PHRM6202 Pharmaceutics II – Oral Dosage Forms and Biopharmaceutics/Pharmacokinetics</td>
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<td>PHRM6402 Professional Pharmacy Practice II: Communication in Health Care</td>
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<td>PHRM6701 Beyond the Curriculum: Foundations in Pharmacy Education (1)</td>
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*Requirements consist of a three-credit Speech course.*

**Take 3 credits from ENGL, HIST, HUMN, LANG, PHIL or RELI courses at the 2000-level or above.*
## Combined Degree Programs

**B.S. in Chemistry/Doctor of Pharmacy**

### School of Pharmacy and Health

**Sciences Courses for All Undergraduate Majors**

**Years 5 through 7**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
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<td>Introductory Pharmacy Practice Experience (IPPE) I: Community</td>
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<tr>
<td>PHRM7105</td>
<td>Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology</td>
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<tr>
<td>PHRM7106</td>
<td>Integrated Pharmacotherapy VI: Infectious Disease</td>
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<tr>
<td>PHRM7107</td>
<td>Integrated Pharmacotherapy VII: Cardiology/Pulmonary II</td>
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<td>PHRM7108</td>
<td>Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health</td>
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<td>PHRM7111</td>
<td>Integrated Pharmacotherapy V–VI: Conceptual Connections and Patient Care</td>
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<td>PHRM7112</td>
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<td>PHRM7201</td>
<td>Pharmaceutics III: Dosage Forms and Drug Delivery Systems</td>
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<td>PHRM7202</td>
<td>Pharmaceutics IV: Sterile Products and Biopharmaceuticals</td>
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<td>PHRM7301</td>
<td>Biostatistics</td>
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<td>PHRM7302</td>
<td>Epidemiology and Study Design Evaluation</td>
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<td>Professional Pharmacy Practice III: Drug Information, Informatics and Toxicology</td>
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<td>Introductory Pharmacy Practice Experience (IPPE) II: Institutional</td>
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<td>Beyond the Curriculum: Expanding Horizons (2)</td>
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<td>PHRM8109</td>
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<td>PHRM8110</td>
<td>Integrated Pharmacotherapy X: Hematology and Oncology</td>
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<td>Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care</td>
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<td>PHRM8201</td>
<td>Pharmacogenomics and Personalized Medicine</td>
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<td>PHRM8301</td>
<td>Pharmacoepidemiology, Pharmacoeconomics and Health Outcomes</td>
<td>3</td>
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268
# Combined Degree Programs

## B.S. in Chemistry/Doctor of Pharmacy

### Florham Campus

#### B.S. in Chemistry and Doctor of Pharmacy Combined Degree*

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<tr>
<th>1st Semester</th>
<th>Credits</th>
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<td>B.I.O.L.1205</td>
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<tr>
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<td>UNIV.1001</td>
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| Total | 16 |

#### 2nd Semester

| B.I.O.L.1202, B.I.O.L.1212 | 4 |
| Lab: Introduction to Molecules, Cells and Genes | 1 |
| B.I.O.L.1204 | 4 |
| CHEM.1202, CHEM.1212 | 3 |
| ENgw1102 | 1 |
| MATH.2202 | 1 |

| Total | 15 |

#### 3rd Semester

| B.I.O.L.1205 | 4 |
| Lab: Anatomy and Physiology I | 0 |
| CHEM.2214 | 4 |
| CHEM.2213 | 3 |
| CHEM.2263 | 3 |
| PHYS.2203, PHYS.2205 | 4 |

| Total | 16 |

*This is not American Chemical Society (ACS) certified.*

### 4th Semester

| B.I.O.L.1206 | 4 |
| Lab: Anatomy and Physiology II | 0 |
| CHEM.2262, CHEM.2266 | 3 |
| CHEM.2264 | 1 |
| ENgw1103 | 1 |
| MATH.1153 | 1 |
| PHYS.2204, PHYS.2205 | 4 |
| Lab: General Physics with Calculus II | 0 |

| Total | 15 |

### 5th Semester

| CHEM.3241, CHEM.3245 | 3 |
| Lab: Physical Chemistry | 2 |
| CHEM.3281 | 3 |
| CHEM.338 | 1 |
| ENgw1102 | 1 |
| MATH.1133 | 1 |

| Total | 14 |

### 6th Semester

| CHEM.2221 | 4 |
| Lab: Analytical Chemistry | 0 |
| CHEM.2223 | 3 |
| CHEM.3242, CHEM.3246 | 3 |
| CHEM.3244 | 2 |
| ECON.2001 | 3 |

| Total | 18 |

---

*Credits are determined based on the specific degree requirements and program offerings.*

---

**Notes:**
- This degree program is designed for full-time students.
- The curriculum includes a mix of lecture courses and laboratory work.
- Students are required to complete a capstone project in their final year.
- Electives may be chosen from a list of approved courses.

---

**Florham Campus:**

1. **Advanced Pharmacy Practice:**
   - Experience (APPE) VII: Elective – Managed Care I
   - Credit: 5

2. **Advanced Pharmacy Practice:**
   - Experience (APPE) VII: Elective – Specialty Pharmacy I
   - Credit: 5

3. **Advanced Pharmacy Practice:**
   - Experience (APPE) VII: Elective – Medical Device/Patient Safety I
   - Credit: 5

4. **Advanced Pharmacy Practice:**
   - Experience (APPE) VIII: Elective – Public Health I
   - Credit: 5

5. **Advanced Pharmacy Practice:**
   - Experience (APPE) VIII: Elective – Industry I
   - Credit: 5

6. **Advanced Pharmacy Practice:**
   - Experience (APPE) VIII: Elective – Patient Advocacy I
   - Credit: 5

---

**Florham Campus:**

1. **Pharmacy Capstone I:**
   - Credit: 1

2. **Pharmacy Capstone II:**
   - Credit: 2

---

**Elective – Regulatory I:**

- Credit: 5

---

**Elective – Management I:**

- Credit: 5

---

**Elective – Information I:**

- Credit: 5

---

**Elective – Managed Care I:**

- Credit: 5

---

**Elective – Specialty Pharmacy I:**

- Credit: 5

---

**Elective – Medical Device/Patient Safety I:**

- Credit: 5

---

**Elective – Public Health I:**

- Credit: 5

---

**Elective – Industry I:**

- Credit: 5

---

**Elective – Patient Advocacy I:**

- Credit: 5

---

**Elective – Health Care Organization Management I:**

- Credit: 5

---

**Lab: General Physics with Calculus II:**

- Credit: 0

---

**Lab: Organic Chemistry II:**

- Credit: 1

---

**Research Writing Workshop:**

- Credit: 3

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**Biochemistry:**

- Credit: 4

---

**Lab: Analytical Chemistry:**

- Credit: 0

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**Lab: Physical Chemistry:**

- Credit: 2

---

**Physical Chemistry Laboratory:**

- Credit: 1

---

**Preparing for Professional Life:**

- Credit: 1

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**Language Course:**

- Credit: 4

---

**Lab: General Physics with Calculus II:**

- Credit: 0

---

**Total:**

- Credit: 16

---

*This program is designed to prepare students for careers in both pharmacy and chemistry, offering a unique blend of knowledge and skills.*
### 7th Semester

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<th>Credits</th>
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<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>
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<td>PHRM6201</td>
<td>Pharmaceutics I: Physical Pharmacy</td>
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<td>PHRM6211</td>
<td>Pharmaceutical Calculations I</td>
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<td>PHRM6301</td>
<td>Medical Communication and Technical Writing</td>
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<td>Pharmacy Practice Law</td>
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<td>Professional Pharmacy Practice I: Health Care Delivery</td>
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**Total**: 18 credits

### 8th Semester

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<td>Integrated Pharmacotherapy III: Dermatology, Over-the-Counter Remedies and Self Care</td>
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<td>PHRM6104</td>
<td>Integrated Pharmacotherapy IV: Cardiology/Pulmonary I</td>
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<td>PHRM6111</td>
<td>Integrated Pharmacotherapy II–IV: Conceptual Connections and Patient Care</td>
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<tr>
<td>PHRM6202</td>
<td>Pharmaceutics II – Oral Dosage Forms and Biopharmaceuticals/Pharmacokinetics</td>
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<td>PHRM6212</td>
<td>Pharmaceutical Calculations II</td>
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<td>Professional Pharmacy Practice II: Communication in Health Care</td>
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<td>Beyond the Curriculum: Foundations in Pharmacy Education (2)</td>
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**Total**: 17 credits

### School of Pharmacy and Health Sciences Courses for All Undergraduate Majors Years 5 through 7

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<td>Integrated Pharmacotherapy V: Neurology, Psychiatry and Anesthesiology</td>
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<td>Integrated Pharmacotherapy VI: Infectious Disease</td>
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<td>Integrated Pharmacotherapy VII: Cardiology/Pulmonary II</td>
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<td>Integrated Pharmacotherapy VIII: Endocrine, Urinary Tract, Renal and Reproductive Health</td>
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<td>PHRM7301</td>
<td>Biostatistics</td>
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<td>Epidemiology and Study Design Evaluation</td>
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<td>Integrated Pharmacotherapy I–X: A Whole System Overview and Effecting Patient Care</td>
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## Combined Degree Programs

**B.S. in Chemistry/Doctor of Pharmacy**

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International Studies

One of the missions of Fairleigh Dickinson University is to provide an international thrust in higher education that fosters in its students a more global orientation.

One of the ways that this commitment is expressed is through the administration of international campuses at Wroxton College, England, and in Vancouver, British Columbia, Canada.

Wroxton College
Wroxton Near Banbury, Oxfordshire, England

Nicholas D.J. Baldwin, Dean

General Information
Wroxton College has been in operation as the British campus of Fairleigh Dickinson University since 1965, when it opened as England’s first American-owned college campus. During the interim years, over 3,500 students from more than 250 colleges and universities have taken advantage of this unique study-abroad opportunity. Participants may choose to stay for a full academic year or a fall or spring semester program or attend a four-week summer session.

The College is ideally suited to the pursuit of academic excellence. It is housed in Wroxton Abbey, a modernized Jacobean mansion occupying 56 acres of English countryside. The ancestral home of Lord North, prime minister of Great Britain during the American Revolution, the Abbey and grounds later became a part of Oxford University’s Trinity College.

Situated in the beautiful Cotwold village of Wroxton, the College is secluded, yet close to the amenities of towns such as Oxford and Stratford-upon-Avon, home of the Royal Shakespeare Company. London is only one hour away by train. (Also see pages 8–9.)

Academic Program
With a British faculty and staff and a substantial library collection, the College offers fully accredited classes designed to make maximum use of its location, history and environment. Fall and spring semester course offerings include English theater and drama, literature, history, political science, sociology, fine arts, international business, economics and psychology as well as UNIV2001 Cross-cultural Perspectives and UNIV2002 Global Issues. The method of academic instruction is the lecture/seminar and tutorial system commonly used in British universities. In addition to the full-time and part-time tutorial staff, visiting lecturers are drawn from the nearby universities of Birmingham and Oxford, as well as from those at Cambridge, London and elsewhere.

It is the policy of Wroxton College to supplement every student’s academic experience with valuable cultural opportunities. To this end, an extensive program of tours and excursions is included. Visits to the theater, especially the Royal Shakespeare Company in Stratford, and to places and regions of national importance, such as the Houses of Parliament, are integral parts of the College’s academic offerings.

International education is fast becoming a requirement for young people seeking professional careers in the 21st century. Studying abroad provides a uniquely rewarding complement to the home-campus classroom by combining learning through an alternative structure with exposure to new cultural situations. Wroxton College assembles an exceptional group of native British scholars whose years of experience benefit Fairleigh Dickinson University students and others seeking the challenge of a true learning adventure. The MS in hospitality management studies will also be offered at Wroxton.

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

Admission Requirements
The requirements for entry to the Wroxton College program are as follows:

1. Application is made to the FDU Study Abroad Office, Fairleigh Dickinson University, 285 Madison Avenue, Madison, New Jersey 07940.

2. Students must have a cumulative grade point ratio of 3.00 or better on a four-point system (or equivalent) as indicated by an official college transcript.

3. Students must be sophomores, juniors or seniors.

4. Students may come from FDU or other regionally accredited institutions in the United States. An application must be approved by the sending college or university through appropriate signatures before acceptance can be granted.

Information
Inquiries about Wroxton College should be directed to:
FDU Study Abroad Office
Fairleigh Dickinson University
285 Madison Avenue, M-MS0-03
Madison, New Jersey 07940

Faculty & Administration
N.D.J. Baldwin, Dean, B.A. (University of Hull), Ph.D. (University of Exeter); C. Garrity, B.A., M.A., Ph.D. (University of Exeter); W. Hart, B.A., M.A. (Oxford Brookes University); L. Lee-Davies, M.B.A. (Henley Business School, University of Reading), Ph.D. (University of Chester); P. Mason, B.A., M.A., Ph.D. (University of Birmingham); A. Morris, B.A. (University of Hull), M.A., Ph.D. (University of Essex); K. Parsons, B.A. (University of Birmingham)
International Studies

Vancouver Campus
842 Cambie Street, Vancouver
British Columbia V6B 2P6
Canada

Wilfred J. Zerbe, Campus Executive

Mission and Vision
Vancouver Campus offers internationally accredited degree programs in business administration, information technology and individualized studies complemented by an enriching liberal arts program with an emphasis on global studies. Moreover, Vancouver Campus offers degree programs on a trimester calendar which enables students to complete their undergraduate studies in just three, rather than four years.

Vancouver, British Columbia, Canada, is a robust city with one of the most ethnically diverse communities in the world. The Vancouver Campus faculty and staff are equally diverse, representing a broad cross-section of ethnic, gender and linguistic diversity. Students are welcome from all over the world and are attracted to Vancouver Campus because of its location, academic offerings, faculty and staff, student diversity and academic and community support systems. Classes at the Vancouver Campus are small and energetic. The frequency and intensity of student interaction with faculty, staff and local communities is high. Support systems are customized to maximize student success and are integrated with academic progress. Teaching and learning experiences are guided by the needs of students with an appropriate blend of individual, small and large group work, problem-solving strategies and technology-rich resources. At the Vancouver Campus, faculty and students are partners in the learning process and work together to create new knowledge and solutions to problems of local and international importance.

The Vancouver Campus, located in the fashionable Yaletown section of Vancouver, was purposefully built for delivery of academic programs and to facilitate instructional strategies. Along with a technology-enhanced lecture theater, there are four multipurpose classrooms, one information technology laboratory and classroom and two general computer laboratories and classrooms. In addition, there are two seminar/presentation rooms, a library and information resource center and a comfortable student lounge. The neighborhood is safe, cosmopolitan, engaging and is an important part of campus life. In addition, Vancouver Campus has intramural athletic programs in badminton, boating, soccer and volleyball. There are trips, tours and recreational activities organized by student groups throughout the year.

Living in Vancouver
Vancouver is consistently rated one of the most livable cities in the world. It is surrounded by some of the most stunning natural beauty in the world, including mountains, the Pacific Ocean, a rainforest, parks and beaches. The population of the city of Vancouver is approximately 600,000; Greater Vancouver’s estimated total population is more than 2.4 million. Vancouver is a very cosmopolitan and multicultural city. While most of the population speaks English as either a first or second language, it is a very multicultural environment, in which many languages are spoken and diverse ethnic traditions are followed. Four out of every 10 residents are immigrants to the city. After English and Chinese, the most common languages spoken are Punjabi, German, Italian, French, Tagalog (Filipino) and Spanish. Warmed by Pacific Ocean currents and protected by a range of mountains, Vancouver enjoys mild temperatures year-round. From the high 70s Fahrenheit (low 20s Celsius) in summer to a mild mid 40s Fahrenheit (0º to 5º Celsius) in winter, the climate is always mild and hospitable. Winters are wet, but it rarely snows, except on local ski hills. Unlike many cities in North America, Vancouver has no highways cutting through it, making it possible to walk almost anywhere. The city also boasts an outstanding public transportation system that features buses, a sky train, sea bus and a commuter rail service.

Academic Programs

Pre-University Program
The Vancouver Campus “Pre-University Program” provides advanced English-language training for students who meet the University’s admission standards but require additional training in English (in speaking and/or writing) prior to matriculating in one of the three degree programs offered by the University in Vancouver — in business administration, information technology or individualized studies. Students enrolled in this program, in addition to English-speaking and writing courses, can take up to five University courses as part of their “Pre-University Program” (two mathematics courses, a business- or information technology-based English course, a computer technology course and Freshman Seminar).

Students admitted to the “Pre-University Program” shall carry a conditional admittance to the University but must successfully complete one or two semesters (up to 14 credits) of course work during their Pre-University Program before matriculating in one of the University’s three degree programs.

Only students with a TOEFL score of 520 or higher (190 on the computer-based test or 68 on the internet-based test) or an International English Language Testing System (IELTS) score of 5.0 or higher shall be considered for admission to the “Pre-University Program.” Moreover, upon arrival at the University’s campus in Vancouver, all students shall be tested in English and mathematics in order to determine the level at which they must begin the program. The English and mathematics tests administered to students prior to entering the “Pre-University Program” will be equivalent to those administered to first-time, full-time freshmen entering the University’s New Jersey campuses.

Bachelor of Science in Business Administration
Students enrolled in the B.S. in business administration program at the University’s campus in Vancouver are required to complete a concentration in international business.

The primary educational objective of the business administration program at Fairleigh Dickinson University is to facilitate, in its students, the development of competencies that are necessary to skillfully plan, organize, direct and manage the functions and processes within a firm or organization. Graduates of this AACSB-accredited program will possess both the educational knowledge and business acumen necessary to assume positions of responsibility in a global business commu-
nity characterized by rapid technological and social change and/or pursue graduate-level study in business or a related field.

Students in the B.S. in business administration program must complete a minimum of 121 credit hours of course work. Of the 121 credit hours, 8 will be in the University’s required and nationally recognized University Core curriculum, 36 are in general education requirements, 41 are in the Silberman College of Business’ core curriculum, 21 are in advanced courses specific to the business administration major with a concentration in international business and 15 are in electives that can be applied toward an optional minor in finance or marketing or a concentration in information technology.

The curriculum plan (also referred to as a “check sheet” or “degree audit”) for each of the four programs options can be viewed and downloaded at http://view2.fdu.edu/vancouver-campus/academic-programs/bs-business-admin-ib-conc/.

Bachelor of Science in Information Technology with a Minor in Business Administration and Concentrations in:

• Network and System Administration
• Web-development Technology

The overarching goal of this program is to prepare students as “information technologists” and professionals who can assist general users, including individuals and organizations, in evaluating needs and solving problems related to information technology (IT) as well as in applying IT effectively in a global work environment driven by rapidly changing technology.

The primary educational objective of the B.S. in information technology program is to produce graduates who can enter into and advance in the professions of IT, management information systems and business administration, as well as to continue their education and obtain advanced degrees in these and related fields. With regard to program outcomes, graduates must be able to evaluate current and emerging technologies; identify user needs; design user-friendly interfaces; apply, configure and manage these technologies, needs and interfaces; assess their impact on individuals, organizations and the environment; and apply fundamental business concepts and strategies in doing so.

Students in the B.S. in information technology program must complete a minimum of 130 credit hours of course work. The distribution is:

| Mathematics, Science and Programming Requirements | 18 |
| Liberal Arts Requirements | 54 |
| IT Core Requirements | 48 |
| Business Administration Minor | 18 |
| Free Electives | 12 |
| **Total** | **130** |

The IT Core Requirements provide students with a broad, integrated education in selected IT areas such as computer networking, computer-based systems, website development and management, digital media publishing, databases and application development. The minor in business administration provides students with the fundamental knowledge and skills needed in the field of business administration. Students also obtain a well-rounded education from the requirements in the liberal arts, mathematics, science and programming. Descriptions of all courses can be viewed at http://view2.fdu.edu/vancouver-campus/academic-programs/bs-information-technology/.

Bachelor of Arts in Individualized Studies with Specializations in:

• Applied Technology
• Applied Technology and Business
• Applied Technology and Communications
• Applied Technology and International Relations
• Business
• Business and Communications
• Business and International Relations
• Communications
• Communications and International Relations
• Disaster and Emergency Management
• Health and Human Services
• Homeland Security Studies
• Hospitality and Tourism Management
• International Relations
• Leadership Administration
• Security and Terrorism Studies
• Sports Administration Studies

The Bachelor of Arts in individualized studies program is a four-year degree program structured to meet the educational needs of both traditional and nontraditional (adult) students. In addition to preparing students for careers in professions including business, technology and hospitality and tourism management, the Bachelor of Arts in individualized studies program prepares students to enter graduate programs such as the Master of Business Administration, Master of Administrative Science or Master of Public Administration.

The individualized studies curriculum includes an introduction to management theory and practice; human resources management and behavior; quantitative methods including accounting, marketing and decision-making in complex organizations; and leadership, among other things. In addition, the curriculum permits students to focus on a single area of study by combining liberal arts courses with career-related specializations. The result is a degree program that is immediately appealing to graduates of two-year colleges who have completed a significant amount of their degree requirements and to mature adults who bring to the University traditional course work completed over a period of years at a number of institutions, a history of work and life experience that can be equated with credit-bearing courses.

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and the desire, commitment and self-discipline to complete the degree requirements of the Bachelor of Arts in individualized studies program.

Specific requirements for completion of the Bachelor of Arts degree in individualized studies include 120 credits: 18 credits in communication, mathematics and computer science; 24 credits in the liberal arts and sciences; 12 credits in University Core courses; 3 credits in a course with an international perspective; 18–36 credits in specialization courses; and 27–45 credits in elective courses.

**Admission Requirements**

1. A completed FDU application form.
2. Payment of an application fee.
3. Official or notarized secondary/high school transcripts and all relevant examination results.
5. Two letters of recommendation.
6. The FDU Scholarship Application (required only if applying for a scholarship).
7. Advanced Standing: Freshmen who have completed Advanced Placement (AP) or International Baccalaureate (IB) exams, students with General Certificate of Education (GCE) A-level courses and students who have taken course work at another university may be eligible for credit transfer. Students should submit all relevant scores as soon as they are available.

**For More Information**

Vancouver Campus
Office of Admissions
842 Cambie Street
Vancouver, BC V6B 2P6
(604) 682-8112; 1-877-338-8002 Toll Free (U.S. and Canada)
vancouver@fdu.edu

**Faculty & Administration**

W.J. Zerbe, Campus Executive, B.A., M.A., Ph.D. (University of British Columbia); D. O’Reilly, Deputy Campus Executive and Director of Learning Resources and Support Programs and Business Manager, B.Comm. (University College Dublin, Ireland), M.B.A. (Simon Fraser University); W.A. Aroca, Lecturer, B.A. (Bowling Green State University), M.A. (Royal Rhodes University); B. Assadi, Lecturer, B.A. (University of British Columbia), D.B.M., M.B.A. (University of Phoenix); J. Bachman, Assistant Professor, B.Sc., M.Ed., M.N.P. (University of Georgia), Ph.D. (Clemson University); C. Bygrave, Assistant Professor, B.B.A. (Simon Fraser University), M.B.A., Ph.D. (Saint Mary’s University); A. Garg, Assistant Professor, Associate Director of Administrative Science and Coordinator of Bachelor of Arts in Individualized Studies Program, B.S. (National Institute of Technology, India), M.B.A. (Kurukshetra University, India), Ph.D. (Guru Gobind Singh Indraprastha University, India); J. Gifford, Associate Professor and Director of University Core Program, B.A. (Simon Fraser University), M.A. (California State University, Dominguez Hills), Ph.D. (University of Alberta); V. Janarthanan, Assistant Professor and Program Coordinator of Information Technology Program, B-Tech (Regional Engineering College, Jalandhar, India), M.A.Sc., Ph.D. (Concordia University); I. Krysa, Assistant Professor, B.A., M.A., Ph.D. (St. Mary’s University); P. MacIntyre, Assistant Professor, B.Eng. (Dalhousie University), M.B.A. (University of British Columbia); M. McKay, Lecturer, B.A., M.A. (University of British Columbia); S. Mukherjee, Lecturer, B.E. (Jadavpur University, India), M.S., Ph.D. (University of Maryland); J. Reid, Lecturer, B.A. (University of Salford, England), M.B.A. (Aston University, England); Ph.D. (Carleton University); L. Wang, Associate Professor, L.L.B. (South-Central University, China), M.A. (University of New Brunswick); Ph.D. (University of Alberta); G. Dreher, Director of Global Scholars Program, Ph.D. (University of British Columbia); J. Mojtabavi, Director of Student Services, B.H.K. (University of British Columbia), M.A.S. (Fairleigh Dickinson University); J. Lee, Career Services Manager, B.A. (Simon Fraser University); J. Cho, Career and Student Services Assistant, M.A.S. (Fairleigh Dickinson University); E. Kennedy, HR Adviser, M.Sc. ISBP (University College Cork, Ireland), B.Bus. (Cork Institute of Technology, Ireland); N. Khartonova, Director of Admissions, B.A., Ph.D. (Manitogorsk State University, Russia); J. Fiorentino, Associate Director of Admissions, B.A. (Pontificl Catholic University, Brazil), B.A. (Fairleigh Dickinson University); M.B. Concepcion, Admissions Assistant, M.A.S. (Fairleigh Dickinson University); N. Otsubo, Admissions Assistant, B.A. (Kyoto University of Foreign Studies, Japan); J. Passos Da Camara, Admissions Assistant, M.A.S. (Fairleigh Dickinson University), B.Comm. (Murray State University); A. Yan, Director of Marketing and Recruitment, B.S. (Agricultural University of China, Beijing), M.A.S. (Fairleigh Dickinson University); G.E. Lee, Associate Director of Marketing and Recruitment, B.B.A. (Sprott Shaw Degree College), M.B.A. (New York Institute of Technology); A. Gava, Assistant Director of Marketing and Recruitment, M.B.A. (Sae Caetano do Sul University, Brazil), B.A. (Metodista University, Brazil); E. Davidson, Student Recruitment Officer, B.A. (Fairleigh Dickinson University); A. Hernandez Pulido, Director of Enrollment Services, A.A. (Capilano University), B.A. (Simon Fraser University), M.A.S. (Fairleigh Dickinson University); K. Enriquez Ramos, Administrative Assistant, B.A. (Universidad Cristobal Colon, Mexico); S. Kwon, Administrative Assistant, B.A. (Silla University, South Korea); V. Liu, Administrative Assistant, H.Dip. (Arbutus College); J. Martell, Director of Technical Operations, B.Sc. (University of British Columbia); E. Resuli, Senior Information Technology Specialist, B.E.E. (Polytechnic University of Tirana, Albania); S. Hoheisel, Academic Support Assistant, B.A. (Fairleigh Dickinson University); S. Lora Nava, Receptionist/Administrative Assistant, B.A. (Fairleigh Dickinson University)
Reserve Officers’ Training Corps (ROTC)

Army ROTC
The Department of Military Science at Seton Hall University contributes to Fairleigh Dickinson University’s effort of developing and educating global, adaptable, strategically thinking and flexible leaders of tomorrow by administering the Army Reserve Officer Training Corps (ROTC) program. Through the ROTC program’s course work and practical experience, students will develop decision-making, team-building and time-management skills — leadership qualities that are essential to success in any field and are highly valued in the private sector. The program provides an opportunity to examine service in the United States Army while earning a baccalaureate degree.

A student who completes the program may earn a commission in the Regular Army, Army Reserve or National Guard. Students may participate in the first two years of Army ROTC with no commitment to military service. Completing the program guarantees a student a job upon graduation serving in career fields like the Nurse Corps, aviation, engineer, infantry, military intelligence and the Signal Corps, to name a few.

Students may choose to major in any academic discipline, as long as it leads toward a baccalaureate or graduate degree.

The Army ROTC program is divided into two parts, the Basic Course and the Advanced Course.

Most courses are acceptable as elective subjects (see “Credits Toward a Degree”) or a student can follow a prescribed curriculum leading to a commission as an officer in the U.S. Army. The courses are designed to aid students by providing leadership and management experience; providing opportunity for a military career; developing self-discipline, physical stamina and poise; enhancing development of management skills; developing qualities basic to success in any career; and providing academic credit for course completion.

The department of military science offers a traditional four-year program of instruction consisting of a Basic Course and an Advanced Course and a two-year program that requires only the Advanced Course. Depending on the degree program, a maximum of 18 credits in ROTC courses may be applied to the bachelor’s degree, with the approval of the student’s academic adviser.

Cross-enrollment
FDU students enroll in the Army ROTC program at Seton Hall University through FDU as cross-enrolled cadets. ROTC courses are listed in the FDU Undergraduate Studies Bulletin, but the courses are conducted at Seton Hall, South Orange, New Jersey. Cross-enrolled students may take ROTC courses for credit or no credit by registering through FDU.

Classes are held on the campus of Seton Hall University, where students from numerous colleges and universities in northern New Jersey take advantage of the opportunity to participate in ROTC.

For individuals presently serving in the National Guard or Reserve, or those with prior military service interested in the National Guard or Reserve, ROTC offers an opportunity to participate as an officer cadet while gaining valuable leadership experience in a unit through the Simultaneous Membership Program.

Cadets may belong to any of the special ROTC groups, such as the Ranger Challenge Team or Color Guard. Cadets may also apply for additional training, normally conducted during the summer, such as parachuting and mountaineering. Involvement in other activities that broaden horizons and experiences is encouraged.

Questions should be directed to Rene Sumaya, GS, enrollment and admissions operations officer, Seton Hall University Army ROTC, 400 South Orange Avenue, South Orange, New Jersey 07079, at (973) 313-6255 or (858) 864-8111.

Basic Course
The Basic Course consists of the first two years of the program, typically completed in the freshman and sophomore years. The first year focuses on the Army profession, basic leadership and officership. The second year concentrates on the experiential examination of managing, decision-making and group dynamics.

Students are placed in a wide variety of group exercises designed to emphasize various professional-leadership competencies and insights. These events are held both inside the classroom and in outdoor settings. The instructor, acting as a facilitator, helps guide student processing, or after-action reviews of the events, to derive the leadership, group dynamics and problem-solving lessons that the exercises offer. Practical “life skills” are emphasized throughout the two years.

By the end of the Basic Course, students should possess a basic understanding of the unique aspects of leading, individual physical fitness and a healthy lifestyle. The lessons are designed to explore leadership principles and theories, inspire intellectual curiosity and stimulate self-study. Upon completion of the course, students are eligible to enter the Advanced Course.

The Basic Course imposes no military obligation on the part of students. Basic Course requirements also can be fulfilled through attendance at an ROTC Leadership Training Course (LTC), a six-week training course held each summer, or by having prior military service. LTC can count as an internship, awarding a student with credits applicable toward his or her degree, with prior approval by the student’s academic adviser. Basic Course requirements also can be waived by the professor of military science, on a case-by-case basis, for students who participated in a Junior ROTC high school program.

Advanced Course
The Advanced Course is for students in their junior and senior years or with four semesters of graduate school remaining. Course work includes military history and ethics, leadership development, tactics and national security issues and concerns. The Advanced Course also includes a requirement to attend a five-week Leader Development Assessment Course (LDAC), held during the summer between the junior and senior years, in which the student is further trained and evaluated for leadership potential. While at LDAC, students receive pay, travel expenses and benefits. LDAC can count as an internship, awarding a student with credits applicable toward their
Reserve Officers’ Training Corps (ROTC)

degree, with prior approval by the student's academic adviser.

In keeping with the military’s demanding challenges, physical fitness is an important part of the ROTC experience. All cadets participate in supervised physical training designed to gradually bring individuals to a high level of health and fitness.

All students are required to complete undergraduate courses in designated fields of study known as the professional military education component. Cadets must take courses in written and oral communications, military history and computer literacy. Numerous courses, including the core courses for most degrees offered at Fairleigh Dickinson University, fulfill these requirements. Students also are encouraged to take a course in management or national security.

**Four-, Three- or Two-year Programs**

Graduate or undergraduate students can complete the ROTC requirements through a four-year, three-year or two-year program. The four-year and three-year programs involve the Basic and Advanced Courses; the two-year program involves only the Advanced Course. The core course work includes 16 to 26 credits in topics such as the art and science of leadership, ethics, values, integrity, honor, problem-solving skills, military history, physical training and adventure training. Depending on the student's degree program, a maximum of 26 credits in ROTC courses may be applied to the bachelor's degree, with approval of the student's academic adviser.

**Four-year Program**

The four-year program is divided into two parts, the Basic Course and the Advanced Course. The Basic Course is typically completed in the first two years of college. Unless a student has accepted a scholarship, the Basic Course is voluntary, and all students are eligible. After completing the Basic Course, students who meet the physical and academic standards, and have demonstrated leadership potential contract into the Advanced Course.

The Advanced Course includes four consecutive semesters of course work and completion of the Leader Development Assessment Course (LDAC). LDAC is a paid, six-week leadership course conducted at Fort Lewis, Wash. Typically students attend LDAC during the summer after the first year of the Advanced Course.

**Three-year Program**

The three-year program is designed for students who want to start ROTC as sophomores or graduate students with six semesters remaining to complete their degrees. Students complete the Basic Course in one year instead of two then complete the Advanced Course in due course. This method is referred to as compression. Students completing the Basic Course as compression students go on to contract in the Advanced Course.

**Two-year Program**

The two-year program enables eligible students to contract in the Advanced Course at the time they are academic juniors or seniors or graduate students with four semesters remaining before graduation. Eligible students are those with one or more of the following:

- Prior service in the military;
- Membership in the National Guard or Reserve with basic training completed;
- Completion of three or more years of Junior ROTC in high school;
- Completion of the Army ROTC Leaders Training Course (LTC); and/or
- Qualification, selection and completion of an accelerated commissioning program.

Students who are members of the National Guard or Army Reserve can participate in the Simultaneous Membership Program (SMP), which provides additional income and the opportunity to serve in a leadership position in the student's unit of choice.

The two-year program is designed for sophomores who have not taken ROTC or students entering a two-year postgraduate program. To enter the two-year program, completion of the Basic Course, Basic Camp or Basic Training is required.

Students eligible for the two-year program may complete requirements for their commission in two years. Students in the two-year program are fully eligible for financial assistance and may apply for an Army scholarship.

**Benefits**

The ROTC program offers the best leadership course to college students with or without military experience.

**Personal Development**

The program allows students to gain the confidence to lead and manage while improving self-discipline, physical fitness and mental and physical endurance. Learning how to lead effectively and efficiently is a marketable asset.

**Scholarships**

A wide variety of scholarships are available and application can be made at anytime during the year. Scholarships range from two to four years in duration with extensions possible for high-demanding majors such as nursing or engineering. Scholarships provide full coverage of either tuition and mandatory fees or room and board. Scholarship recipients choose to apply their scholarship toward tuition or room/board (not both). The scholarship also includes $1,200 per year toward books and fees.

Two-year scholarships are available for members of the National Guard and Army Reserve. These scholarships feature continued Reserve duty after commissioning and guaranteed branching in the student's unit. Scholarships for two to four years are also available and include duty in the active Army after commissioning.

The ROTC Program awards two-, three- and four-year scholarships on a competitive basis to outstanding young people who are interested in the Army as a career. The scholarships provide up to $12,800.00 per year for tuition, $450.00 as a textbook allowance and a monetary allowance of $150.00 per month, for up to 10 months of each school year. Any U.S. citizen attending a college or university as a full-time student may apply. Scholarship inquiries should be directed to the department of military science, (973) 763-3078.

**Guaranteed Job After Graduation**

Upon commissioning, students have a full-time job in the active Army or a part-time job in the National Guard or Army Reserve. The military obligation of service is eight years after commissioning (four years active Army and four years in the Reserve component, or eight years in the National Guard or Army Reserve). The type of obligation is determined at the time of contracting in the Advanced Course and type of scholarships a student selects. Students are selected for a specific branch depending on factors such as their interest, academic achievement, Leader Development Assessment Course (LDAC) performance rating and the needs of the Army.
Reserve Officers’ Training Corps (ROTC)

Income
All contracted students receive a monthly stipend: $300 for freshmen, $350 for sophomores, $450 for juniors or first-year Advanced Course students and $500 for seniors or second-year Advanced Course students. Contracted students receive a stipend for 10 months of the year. Students with prior service, SMP cadets and members of the National Guard or Army Reserve may be eligible for Montgomery GI Bill (MGIB) benefits, financial assistance or reimbursement for tuition and an additional monthly incentive.

For Information
For more information concerning the program or Army scholarships, contact Rene Sumaya, GS, enrollment and admissions operations officer, Seton Hall University Army ROTC, 400 South Orange Avenue, South Orange, New Jersey 07079, at (973) 313-6253 or (858) 864-8111; or visit the web at http://armyrotc.com/edu/setonhall/index.htm.

Courses

Basic Courses

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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ROTC1101 or ROTC0101 Leadership and Personal Development*</td>
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<tr>
<td>ROTC1102 or ROTC0102 Introduction to Tactical Leadership*</td>
<td>2/0</td>
</tr>
<tr>
<td>ROTC2201 or ROTC2001 Innovative Team Leadership*</td>
<td>3/0</td>
</tr>
<tr>
<td>ROTC2202 or ROTC0202 Foundations of Tactical Leadership*</td>
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Advanced Courses

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<th>Course</th>
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<td>ROTC1115, ROTC1125, ROTC1135, ROTC1145, ROTC1155, ROTC1165, ROTC1175, ROTC1185, ROTC0115, ROTC0125, ROTC0135, ROTC0145, ROTC0155, ROTC0165, ROTC0175, ROTC0185 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs*</td>
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<tr>
<td>ROTC3301 or ROTC0301 Adaptive Tactical Leadership*</td>
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<tr>
<th>Course</th>
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<tr>
<td>ROTC3302 or ROTC0302 Leadership in Changing Environments*</td>
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</tr>
<tr>
<td>ROTC4401 or ROTC0401 Development Adaptive Leaders*</td>
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<tr>
<td>ROTC4402 or ROTC0402 Leadership in a Complex World*</td>
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<tr>
<td>ROTC5500-ROTCA5507 or ROTC0050-ROTCA057 Leadership Laboratory: Applied Leadership and Management*</td>
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</tr>
</tbody>
</table>

Course Descriptions

Basic

ROTC1101 or ROTC0101
2 or 0 Credits
Leadership and Personal Development

This course introduces students to the personal challenges and competencies that are critical for effective leadership. Instructors explain and illustrate how the personal development of life skills such as critical thinking, goal setting, time management, physical fitness and stress management relate to leadership (in both the civilian and military environments). Officership, the Army profession and daily life. Leadership principles within the current context of a university are emphasized. Application is also made to leadership in military and civilian settings that include government and corporate and nonprofit organizations. Corequisites: ROTC5300 or ROTC0305 Leadership Laboratory: Applied Leadership and Management and ROTC1115 or ROTC0115 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

ROTC1102 or ROTC0102
2 or 0 Credits
Introduction to Tactical Leadership

This course provides an overview of leadership fundamentals such as setting direction, problem-solving, listening, presenting briefs, providing feedback and using effective writing skills. Students explore dimensions of leadership values, attributes, skills and actions in the context of practical, hands-on and interactive exercises and scenarios. Students apply learning to their immediate university context as well as to a variety of military, government, corporate and nonprofit situations. Corequisites: ROTC5301 or ROTC0351 Leadership Laboratory: Applied Leadership and Management and ROTC1125 or ROTC0125 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

Advanced

ROTC1115, ROTC1125, ROTC1135, ROTC1145, ROTC1155, ROTC1165, ROTC1175, ROTC1185

ROTC2201 or ROTC0201
3 or 0 Credits
Innovative Team Leadership

This course explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of much of modern leadership frameworks (trait and behavior theories). Students practice aspects of personal motivation and team-building in the context of planning, executing and assessing team exercises and participating in Leadership Laboratories. Students study historical leaders from a variety of backgrounds: from Lincoln, Grant and Lee to Gandhi, Kennedy and Mother Teresa. Corequisites: ROTC5302 or ROTC0352 Leadership Laboratory: Applied Leadership and Management and ROTC1135 or ROTC0135 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

ROTC2202 or ROTC0202
3 or 0 Credits
Foundations of Tactical Leadership

This course examines the challenges of leading teams in complex contemporary operating environments. Instructors highlight course-of-action development, analysis, the execution of orders and the achievement of mission success. Students develop greater self-awareness as they assess their own leadership styles and practice communication and team-building skills while studying the theoretical basis of situational and contingent leadership. Students analyze recent and historical military case studies to gain insight into the importance and practice of teamwork and techniques in real-world scenarios. Parallels are drawn to the competitive and cross-cultural environments of most modern corporations. Corequisites: ROTC5303 or ROTC0353 Leadership Laboratory: Applied Leadership and Management and ROTC1145 or ROTC0145 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

ROTC1115, ROTC1125, ROTC1135, ROTC1145, ROTC1155, ROTC1165

ROTC1175, ROTC1185

ROTC0115, ROTC0125, ROTC0135, ROTC0145, ROTC0155, ROTC0165, ROTC0175, ROTC0185

Physical Fitness: Developing Personal and Organizational Physical Fitness Programs*

*Note: All qualified enrolled students must take Leadership Laboratory and Physical Fitness as these are corequisites to all ROTC lecture courses.

*Note: All qualified enrolled students must take Leadership Laboratory and Physical Fitness as these are corequisites to all ROTC lecture courses.
proving each student’s cardiovascular, upper-body and abdominal strength. The program also provides opportunities for students to lead and manage their own and their assigned organizations’ fitness programs toward fitness excellence. All students accepted as cadets in the ROTC program are required to enroll in this course. Prerequisite: Medical evaluation and clearance.

**ROTC3501 or ROTC3001**  
**Adaptive Tactical Leadership**  
This course challenges students to study, practice and evaluate adaptive leadership skills as they are presented with complex scenarios related to the contemporary operating environment and across the full spectrum of military, corporate and civic operations. Instructors and fellow students give students systematic and specific feedback on their leadership attributes and actions as they are applied in a variety of situations. Self-evaluations also allow students to develop their leadership skills and critical-thinking abilities. Corequisites: ROTC5504 or ROTC5554 Leadership Laboratory: Applied Leadership and Management and ROTC1155 or ROTC0155 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

**ROTC3502 or ROTC3002**  
**Leadership in Changing Environments**  
This course presents increasingly intense situational leadership challenges to build student awareness and skills in leading small teams. Students explore, evaluate and develop skills in decision-making, persuading and motivating team members across a full spectrum of military, corporate and civic operations. Students apply principles and techniques of effective written and oral communication. Instructors review aspects of military operations as a means of preparing students for the ROTC Leader Development and Assessment Course (LDAC). Corequisites: ROTC5505 or ROTC5555 Leadership Laboratory: Applied Leadership and Management and ROTC1165 or ROTC0165 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

**ROTC4401 or ROTC4001**  
**Developing Adaptive Leaders**  
This course strengthens student proficiency in planning, executing and assessing complex operations while functioning as a member of a staff and providing performance feedback to subordinates. Students assess risk, make ethical and moral decisions, identify responsibilities of key staff members, coordinate staff roles and use situational opportunities to lead, teach, train and develop junior ROTC cadets. Students apply leadership and problem-solving principles to a complex case study and simulation. Lessons on military and civil justice and personnel processes prepare students to make the transition to their initial leadership assignments. Prerequisite: ROTC3501 or ROTC3001 Adaptive Tactical Leadership. Corequisites: ROTC5506 or ROTC5556 Leadership Laboratory: Applied Leadership and Management and ROTC1175 or ROTC0175 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

**ROTC4402 or ROTC4002**  
**Leadership in a Complex World**  
This course explores the dynamics of leading in the complicated situations of current operations in the contemporary operating environment (COE) of the global village. Students examine differences in customs and courtesies, culture, military law, principles of war and rules of engagement in the face of international terrorism. They also explore aspects of interacting with nongovernmental organizations, engaging in civil duties and host-nation support. Instructors place significant emphasis on preparing cadets for their first unit of assignment. Case studies, scenarios and exercises prepare cadets to face the complex ethical and practical demands of leading organizations of varied sizes to succeed in a global and complex world. Prerequisite: ROTC3501 or ROTC3001 Adaptive Tactical Leadership. Corequisites: ROTC5507 or ROTC5557 Leadership Laboratory: Applied Leadership and Management and ROTC1185 or ROTC0185 Physical Fitness: Developing Personal and Organizational Physical Fitness Programs.

**ROTC3500–ROTC3507 or ROTC0500–ROTC0507**  
**Leadership Laboratory: Applied Leadership and Management**  
Leadership Laboratory is designed to provide students the environment and scenarios to lead organizations of varied sizes (from team to company size). It offers the opportunity to apply leadership and management principles, theories and techniques explored in the formal, classroom, military-science courses. By design, the Leadership Laboratories are progressive and sequential, where students are placed in increasingly complex scenarios. This is a two-hour session. All students accepted as cadets in the ROTC program are required to enroll in this course.

**Nursing**

**A Nursing Experience Unlike Any Other**  
With real-world experience they may not find in nursing school alone, nursing students who are also Army ROTC cadets benefit from extensive one-on-one mentoring and training. Students will find out exactly what it takes to become a leader in the medical field. If students are considering an undergraduate nursing degree, enrolling in Army ROTC can enhance their leadership skills and critical-thinking abilities while providing financial support to help make their professional goals a reality. Being a nurse in the Army provides them with opportunities not found in the civilian world. As Army nurses and officers, they will have the respect of their peers and coworkers as well as opportunities to train and serve in a variety of specialties.

Army ROTC’s Nurse Summer Training Program will give students the opportunity to truly fulfill the promises of their training after graduation. Coordinating and communicating patient care, students will be in a clear position to succeed.

**Army ROTC and Undergraduate Nursing**  
Nursing students who are also Army ROTC cadets can benefit from unique hands-on nursing opportunities while receiving financial assistance for college. They will gain valuable leadership experience and management training that can benefit them in either a military or private-sector nursing career.

**Scholarships**  
The Army ROTC program offers two-, three- or four-year scholarships for undergraduate nursing students. Interested students should contact their high school academic adviser or campus military science department for more information.

**Nurse Summer Training Program (NSTP)**  
Nursing students who are also Army ROTC cadets have an opportunity for a unique summer nursing experience. The paid, three-week Nurse Summer Training Program assigns cadets to Army hospitals throughout the U.S. and Germany. The program introduces them to the Army Medical Department (MED) and to the roles and responsibilities of an Army Nurse Corps Officer. Under the supervision of an experienced Army Nurse Corps Officer, students will obtain hands-on experience. Their one-on-one clinical experience will allow them to hone their clinical skills,
Reserve Officers’ Training Corps (ROTC)

Develop their problem-solving techniques and become comfortable with developing their professional skills as a member of the U.S. Army Health Care Team.

For Information
Contact Seton Hall College of Nursing at www.shu.edu/academics/nursing.

Course Description
NUCL4210
3 Credits
Nurse Summer Training Program
Clinical
The Nurse Summer Training Program (NSTP) Clinical Elective provides Army ROTC nurse cadets with clinical experience in a hospital setting while introducing them to the duties, roles, responsibilities and expectations of an Army Nurse Corps Officer. The nurse cadet will exercise leadership skills in a hospital environment by planning, organizing, decision making, implementing and being accountable to the outcome of nursing care. Prerequisites: ROTC basic course, advanced camp and completion of all junior-level nursing courses.

Air Force Program

The purpose of Air Force ROTC is to prepare students for active duty in the United States Air Force. This opportunity is available through an agreement between Air Force ROTC, New Jersey Institute of Technology (NJIT), Newark, N.J., and Fairleigh Dickinson University. The program is open to students who desire to earn appointments as commissioned officers in the Air Force.

The number of ROTC credits that may be counted toward a degree varies by school and degree program. As many as 14 ROTC credits are accepted by some colleges as few as 3 by others. Those enrolled for the courses receive credit at their individual campuses.

All aerospace studies classes are held at New Jersey Institute of Technology (NJIT). The Air Force ROTC Office is located in Room 210, Faculty Memorial Hall, NJIT. For more information, contact the Air Force ROTC Office at (201) 596-3626 or by email at afrotc490@njit.edu.

Program
The Air Force ROTC program consists of four courses in aerospace studies, which are taught on the NJIT campus.

The General Military Course (GMC) is the first half of the program and is generally taken during a student’s freshman and sophomore years. This program allows them to “try out” Air Force ROTC for up to two years without incurring any obligation (unless on an Air Force scholarship). As students attend a one-credit hour class each semester, they will learn more about the Air Force and the historical development of airpower. The second half, called the Professional Officer Course (POC), is highly competitive. These junior and senior-level three-credit courses cover management and leadership skills, national defense policy and preparation for active duty. All classes are taught at NJIT in Newark, N.J.

The Courses

The Air Force Today (AS100, 1 credit) is a survey course designed to introduce students to the U.S. Air Force and Air Force ROTC. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities and an introduction to communication skills. Leadership Laboratory is mandatory for Air Force ROTC cadets and complements this course by providing cadets with followership experiences.

The Air Force Way (AS200, 1 credit) is designed to examine general aspects of air and space power through a historical perspective. The course covers a time period from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies) and missions (functions) to demonstrate the evolution of what has become today’s U.S. Air Force air and space power. The course also examines several fundamental truths associated with war in the third dimension (e.g., Principles of War and Tenets of Air and Space Power). This course provides students with a level of understanding for the general element and employment of air and space power from institutional, doctrinal and historical perspectives. In addition, students will discuss the importance of the Air Force Core Values using operational examples and historical Air Force leaders and will develop their communication skills. Leadership Laboratory is mandatory for Air Force ROTC cadets and complements this course by providing cadets with followership experiences.

Air Force Leadership and Management (AS300, 3 credits) is a study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations to demonstrate and exercise practical application of the concepts being studied. A mandatory Leadership Laboratory provides advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles.

Preparation for Active Duty (AS400, 3 credits) examines the national security process, regional studies, advanced leadership ethics and Air Force doctrine. Special topics of interest include: the military as a profession, officership, military justice, civilian control of the military, preparation for active duty and current issues affecting military professionalism. Continued emphasis is given to refining communication skills. A mandatory Leadership Laboratory provides advanced leadership experiences, giving students the opportunity to apply leadership and management principles.

Laboratories
All Air Force ROTC classes are accompanied by a Leadership Laboratory, which provides knowledge and practical command and staff leadership experiences. The laboratory is largely cadet planned, directed and centered. Except for special exceptions, all students enrolled in aerospace studies courses must participate in the Leadership Laboratory.

GMC Leadership Laboratories include a study of Air Force customs, courtesies, drills, ceremonies and giving military commands; the instruction, correction and evaluation of the preceding skills; the environment of an Air Force officer; and opportunities available to commissioned officers.

POC Leadership Laboratories consist of activities classified as advanced leadership experiences. They involve planning, organizing, staffing, coordinating, directing and controlling the military activities of cadet corps; preparation and presentation of briefings and other oral and written communications; and providing interviews, guidance and information to increase the understanding, motivation and performance of other cadets.
Preprofessional Degree Options

An exciting range of curricula at FDU allows highly qualified high school students to earn their bachelor's and professional doctoral degrees in one year less than in traditional programs. Under these programs, students are guaranteed admission into various professional schools, providing they maintain appropriate academic standards. Students then can earn a medical degree at Ross University School of Medicine or at Universidad Autónoma de Guadalajara; a dental degree at the Rutgers School of Dental Medicine or Lake Erie College of Osteopathic Medicine's School of Dental Medicine; a chiropractic degree at most chiropractic colleges that are Council of Chiropractic Education (CCE) accredited; a doctor of veterinary medicine degree at Ross University; a doctor of podiatric medicine at New York College of Podiatric Medicine; a doctor of physical therapy degree at the Rutgers School of Health Professions; a Pharm.D. degree at FDU School of Pharmacy and Health Sciences; a doctor of osteopathic medicine degree at Lake Erie College of Osteopathic Medicine; an M.S. in applied clinical nutrition (Metropolitan Campus) at New York Chiropractic College, School of Health Sciences and Education; or an M.S. in acupuncture and oriental medicine (Metropolitan Campus) at Finger Lakes School of Acupuncture and Oriental Medicine, New York Chiropractic College. See “Combined Degree Programs,” pages 206–271.

Application for the degree must be made through the Office of Enrollment Services at least one year before the expected date of completion of the first year in the professional school.

For information about preprofessional studies in the sciences (medical, dental, veterinary, chiropractic, etc.) on the Metropolitan Campus, contact Professor Mihaela Leonida in the School of Natural Sciences, University College: Arts • Sciences • Professional Studies. For information about non-science-related preprofessional studies or graduates seeking a professional career on the Metropolitan Campus see department chairs and directors. For information about preprofessional studies on the Flurham Campus, contact Professor Bruce Peasbody in the social sciences and history department and Professor James Salierno, biological and allied health sciences department, Maxwell Becton College of Arts and Sciences (premedical-related fields).

Medical Technology
Students who complete the six-semester academic curriculum in medical technology and then continue in the clinical curriculum in a school of medical technology approved by the National Academy for Clinical Laboratory Science (NAACLS) will receive a Bachelor of Science degree upon completion of the clinical program.

Prelaw
Students who are accepted to law school after completing six semesters of undergraduate work at Fairleigh Dickinson University may apply for the Bachelor of Arts or Bachelor of Science degree from Fairleigh Dickinson University under the following conditions:

1. Completion of 100 credits in a liberal arts curriculum or business administration curriculum (with accounting majors having to satisfy requirements for state certification) to include all of the required courses for the first four semesters; 18 credits of the basic curriculum of the fifth through eighth semesters; 12 credits of the major and 2 credits of electives taken during the fifth and sixth semesters. At least 64 credits are to be taken at the University immediately preceding the completion of 100 credits.

2. Successful completion of the first year and admission to the second year of an accredited law school.

Premedical and Predental Sciences
Students who plan to enter and are accepted to a school of medicine, dentistry, osteopathy, podiatry, chiropractic, physical therapy or veterinary medicine after completing six semesters of undergraduate work at Fairleigh Dickinson University may apply for a Bachelor of Science degree from Fairleigh Dickinson University under the following conditions:

1. Completion of 99 credits in a biology curriculum. At least 77 of these credits must be taken at Fairleigh Dickinson University immediately preceding the completion of these 99 credits. All of the required courses for the first six semesters of the biology or science curriculum, described in this bulletin, must be included in the 99 credits.

2. Successful completion of the first year and admission to the second year of an accredited professional school.

Prepharmacy Program
Students in the prepharmacy program who plan to enter and are accepted to a school of pharmacy need to take the required courses within the chemistry or biochemistry curriculum. Fairleigh Dickinson University offers the prerequisite courses for admission to pharmacy school. FDU students who complete the prepharmacy program must apply for admission to and meet the entrance requirements of the pharmacy school of their choice.

Students who plan to receive a joint B.S. in chemistry or biochemistry or biology/Pharm.D. degree need to take the required courses within the chemistry or biochemistry or biology curriculum. Fairleigh Dickinson University offers the prerequisite courses for admission to a pharmacy school. FDU students who complete three or four years in the chemistry/biochemistry/biology programs must apply for admission to and meet the entrance requirements of the pharmacy school of their choice or of FDU’s School of Pharmacy and Health Sciences. After completing FDU’s requirements for the undergraduate prepharmacy program the students may apply for a bachelor of science degree from FDU under the following conditions:

1. Completion of 100 or 104 credits in a chemistry or biochemistry curriculum (96 credits in the biology curriculum [Flurham Campus]), respectively. At least 100 of these credits must be taken at FDU immediately preceding the completion of those 100 or 104 credits. Additionally, these students have to take courses in public speaking, microbiology and anatomy (most schools of pharmacy require one of each).

2. Successful completion of the first year and admission to the second year of the accredited school of pharmacy.

At the Metropolitan Campus, Teaneck, New Jersey, students wishing to enter the prepharmacy program must apply to the prepharmacy adviser in addition to normal FDU admissions procedures. A limited number of students will be accepted to the prepharmacy program each year.

At the Flurham Campus, Madison, New Jersey, Maxwell Becton College of Arts and Sciences students interested in the prepharmacy program should contact the chair of the chemistry and pharmaceutical science department. Details on the curricula are contained within this bulletin’s sections on the Maxwell Becton College of Arts and Sciences.
Other Programs

Adult Educational Opportunities

More than half of all students attending FDU are over the age of 21. To respond to the special needs of the adult learner, the University has developed a diverse range of academic programs, support services and convenient class hours.

Adult undergraduates can pursue their degree work on a full- or part-time basis, choosing from day, evening, distance-learning and weekend classes.

The University provides career-planning and advisement services, as well as awarding academic credit to qualifying students for life and work experience through portfolio assessment. Military student services for veterans are also available. FDU has been designated as a Military-friendly School. Many adult students achieve their academic goals through the SUCCESS Program, with individualized advisement, portfolio assessment of experiential learning, specialized courses and other innovative educational options available to them. Skills-building courses and programs also are available to help make the transition to college studies as smooth as possible. For more details see Anthony J. Petrocelli College of Continuing Studies, pages 115–125.

Independent Studies

Independent Studies are offered to qualified juniors and seniors interested in studying and researching a specialized area of study not usually covered in regular class work. Students may use Independent Studies courses to fulfill honors requirements in the colleges as appropriate.

Veterans Student Services

Fairleigh Dickinson University has a long tradition of assisting veterans in their quest to realize their educational goals. The University provides academic and benefits counseling through the Office of Veterans Student Services, including the Post-9/11 GI Bill and the Yellow Ribbon Program. The University has many degree options for veterans on the Metropolitan Campus and the Florham Campus, as well as in online and off-campus locations, and prides itself as a military-friendly institution of higher education.

For information, contact (201) 692-7085.

Cooperative Education/Internship Program

The Cooperative Education/Internship Program is the integration of academic study with preprofessional work experience. It is a developmental process designed to combine progressive learning on the job in a supervised environment while incorporating both an academic and career-development component.

The University’s Cooperative Education/Internship Program allows qualified students (48 plus credits with a minimum grade point ratio of 2.50) to gain valuable job-related experience before they graduate. Students work in positions directly related to their majors and gain exposure to career possibilities as well as a specific work environment. This preprofessional experience helps students to gain a competitive edge in the job market while they are still undergraduates. Students can earn academic credit toward their degree if they meet the criteria of the program. Cooperative education/internships can be either paid or unpaid.

For more information, contact career development on each campus — at the Florham Campus: Fairleigh Dickinson University, 285 Madison Avenue, Madison, New Jersey 07940, (973) 443-8945, or at the Metropolitan Campus: Fairleigh Dickinson University, 1000 River Road, Teaneck, New Jersey 07666, (201) 692-2193.

Internships, Clinicals and Fieldwork Studies

The University believes that well-prepared graduates should have a thorough understanding of their field, and part of this can come with experiences in the working world. Therefore, a wide variety of internships, clinics and fieldwork is available.

The supplement classroom lectures and study with invaluable “hands-on” experience. Consult your academic advisor for available programs. Cooperative study program (see “Cooperative Education,” this page) allow students to complement classroom learning with paid professional experience.

A special plus is the location of the University — close to the major centers of business, communication, culture, science, engineering and health care in New York City and New Jersey.

Entrepreneurship

Increasing global competition, downsizing of American corporations and the growing importance of small and mid-sized firms in the marketplace have sparked a broad interest in the creative process and in innovative behavior in the workplace. The
Educational Opportunity Fund (EOF)

The Educational Opportunity Fund (EOF) program is a University- and state-sponsored program governed by the policies established by the Office of the Secretary of Higher Education and Fairleigh Dickinson University. The fund was created by law in 1969 to ensure meaningful access to higher education for those who come from backgrounds of economic and educational disadvantage. The fund assists low-income New Jersey residents who are capable and motivated but lack adequate preparation for college study. To ensure the opportunity to attend college, the fund provides supplemental financial aid to help cover college costs (such as tuition, books, fees, room and board) that are not covered by the state’s Tuition Aid Grant program.

The EOF program is located on FDU’s two New Jersey campuses. Each campus has an EOF office with an administrator and support staff. Services that are provided include financial aid, counseling and tutorial services. Students have access to academic, career, personal and financial-aid counseling in both individual and group settings. Tutorial assistance is provided to students to reinforce and enhance their course work. In order to be responsive to students’ varied learning styles and academic-support needs, services are continually monitored and refined to ensure personalized attention.

Distance Learning

The University views the internet as a fundamental learning, communication, research and collaboration tool with which every graduating student should have a high level of facility for a lifetime of job and educational success and in furtherance of the University’s global education mission, the online format provides a means for integration of global information resources and the participation of faculty members from around the world (our Global Virtual Faculty™) as teaching partners with our local, on-site faculty.

To take any online course, students must have an active FDU NetID (formerly Webmail) account prior to the beginning of the semester. Without a NetID (formerly Webmail) account, participation in these courses is impossible. NetID (formerly Webmail) accounts can be obtained online by going to http://webmail.fdu.edu/ and following the step-by-step instructions.

To find out more information about online courses, students should contact their college dean or department chair/director. Questions regarding the online delivery should be directed to the Office of Educational Technology at cet@fdu.edu. In addition, general information about online programs can be found at http://globaleducation.edu.

Enhanced Freshman Experience (EFE)

Enhanced Freshman Experience (EFE) offers a freshman-year support program to selected students on the Metropolitan Campus. Providing a structured program of study, personal guidance and extra academic support services, EFE is designed to provide the way to success in college. Periodic academic reviews will place students on probation if their performance is below acceptable standards. A year-end review will subject students to dismissal if program requirements are not fulfilled.

For further information contact S. Craig Mourton, deputy campus executive at the Metropolitan Campus, Teaneck, New Jersey, (201) 692-2477 or email at efe@fdu.edu.

Freshman Intensive Studies (FIS)

Offered through the Maxwell Becton College of Arts and Sciences at the Florham Campus, Freshman Intensive Studies (FIS) is a one-year learning-support and mentoring program that helps freshmen effectively transition to college. FIS is for students who have the ability and drive to succeed, but need to enhance their skills to meet their full potential. The program offers a highly structured curriculum as well as extra advising services during the students’ first year at FDU. The FIS director, writing and mathematics learning specialists, faculty and staff work together with students to help them strengthen themselves academically and eliminate as many obstacles to their academic success as possible. All FIS students are entitled to a first-year grant to assist them in their freshman year. An annually renewable FIS grant is awarded to all students who successfully complete the FIS program year and maintain satisfactory academic progress. For more information, visit the FDU website.

Regional Center for Learning Disabilities

FDU offers students with language-based learning disabilities who are admitted to the Regional Center for Learning Disabilities a comprehensive and structured program of support. The program is available at both New Jersey campuses.

Regional Center students are integrated fully into University degree programs of study. Support begins during orientation with academic advisement and priority registration. During the academic year, services offered include individual and small group tutorials as well as individual and career counseling with our professional staff. A two-course sequence in the freshman year focuses on skills in such areas as time management, note-taking and test preparation and explores such topics as stress reduction and self-advocacy. Computer and technological support also is available. Individual accommodations are
determined through entrance testing and may include extended time for exams and textbooks on CD, among others.

Center students enter as freshmen or transfer students after acceptance by general admissions and the Regional Center. Criteria for eligibility for the program include documentation of a language-based learning disability (SLD), a mainstream college preparatory high school program and strong faculty recommendations regarding motivation. Because enrollment is limited, interested students are encouraged to apply early. A special application and reports of current diagnostic testing are required for the center application process in addition to the University application. Applications are reviewed once students are accepted to Fairleigh Dickinson University. Students interested in the Regional Center should contact the Regional Center for Learning Disabilities, Fairleigh Dickinson University, 1000 River Road, T-RH 5-02, Teaneck, New Jersey 07666, (201) 692-2087.

Students with learning disabilities who are not part of the Regional Center at the Metropolitan Campus, Teaneck, New Jersey, may apply for accommodations through the Special Needs Committee of the University, which may be contacted by written request to the Campus Executive’s Office. Accommodations will be provided with the committee’s approval of the student’s written request accompanied by appropriate documentation. At the Florham Campus, Madison, New Jersey, requests for accommodations will be reviewed through the Office of the Dean of Students. Support services are available to students through the Counseling Center and the Academic Resource Center. The Regional Center is available to serve in an advisory capacity with both the Counseling Center and the Academic Resource Center to help in planning the best program for you at FDU.

**COMPASS (COMmunity Promoting Academic and Social Success) Program**

The COMPASS (COMmunity Promoting Academic and Social Success) program is an individually tailored, comprehensive, academic and social support program for a very limited number of FDU students with high-functioning Autism Spectrum Disorder or Asperger’s Syndrome. The program is offered separately on each of FDU’s two New Jersey campuses. The goals of this two-year program are: 1) to help each student recognize and make use of existing academic and social strengths, 2) to aid in the development of new abilities and 3) to promote progress toward a higher level of independent functioning.

As a participant in the COMPASS program, students will begin the FDU experience during the summer when all incoming freshmen participate in a one-time overnight freshman orientation program designed to help them meet their new classmates and become acquainted with the University campus and the services available. Program staff will work closely with the COMPASS students during this orientation, making certain that each student has a positive experience. While fall and spring classes are in session, COMPASS students receive weekly services including two hours of individualized, hands-on academic support, one hour of individual counseling and one group therapy session.

The application and interview process occurs during the spring semester prior to the student’s freshman year at FDU. The student who can benefit the most from the COMPASS program is the one for whom a successful four- to five-year college experience is within reach. The ideal candidate for the COMPASS program has the intellectual, academic and organizational capabilities to succeed at college as a full-time matriculated student, the ability to live in a semi-independent setting and the readiness to face the challenge of exploring the social aspects of the residential college experience. Application instructions can be found at www.fdu.edu/compass.

Students with an autism spectrum diagnosis are welcome to participate in the Peer Mentorship Program, regardless if they are a member of the COMPASS program. Each peer mentor is an upperclassman at FDU who has volunteered to serve as a friend and resource to a student with autism to help them settle in and become comfortably acquainted with University life. Monthly events for all students and their peer mentors will allow for additional social opportunities.

For more information on the COMPASS program at the Metropolitan Campus, please visit www.fdu.edu/compass, call (201) 692-2645 ext. 413 or email at compassmetro@fdu.edu. For information on the COMPASS program at the Florham Campus, please visit www.fdu.edu/compass or call (973) 443-8550.
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Course Numbering System

0000—Developmental Level: remedial or developmental courses intended to prepare students for entry into curriculum or to remove a deficiency, no degree credit.

1000—Freshman Level: a lower-division course having no formal prerequisites beyond admission into the curricula or intended for freshmen or lower-division students.

2000—Sophomore Level: a lower-division course having a 1000-level prerequisite or intended for sophomores.

3000—Junior Level: an upper-division course having a 2000-level prerequisite or intended for juniors or upper-division students.

4000—Senior Level: an upper-division course or thesis having a 3000-level prerequisite or intended for seniors.

5000—Graduate Level: a graduate course.
University Core

University Core Directors

Fairleigh Dickinson University requires all students to complete a common University Core curriculum. The four courses making up the University Core program serve to fulfill the promise of the University’s global learning mission: to prepare students for responsible citizenship in the global community and for professional success in the global economy. In most cases, students will complete the University core sequence during their first and second years at FDU, providing a foundation for more advanced studies.

UNIV1001
1 Credit
Transitioning to University Life
The first course in the University Core program provides support for the transition to university life. Students are introduced to the global mission of the University as well as to the competencies of information and technological literacy. Students participate in formal and informal learning experiences that facilitate their personal and academic growth, enabling them to become more thoughtful and engaged citizens of the world. Respect for individual and cultural differences is fostered throughout the course, as is the generation of positive attitudes towards lifelong learning.

UNIV1002
1 Credit
Preparing for Professional Life
The second course in the University Core program helps promote the transition from classroom learning to experiential learning as well as the transition from academic life to professional life. Students are introduced to methods of self-awareness and engaged learning, and are encouraged to develop an academic plan, with formal and informal components, that supports their ultimate career goals. Respect for individual and cultural differences is fostered throughout the course, as is the importance of an international perspective for professional success. Prerequisite: UNIV1001 Transitioning to University Life.

UNIV2001
3 Credits
Cross-cultural Perspectives
In the third course in the University Core program, students learn to describe and analyze cultural phenomena in their own lives, to grapple with cultural differences and to understand cultural conflicts. Through a study of samples across a variety of cultures, students examine the fluidity and multiplicity of cultural identities and borders. Ways in which cultures change, how cultures shape and are shaped by individuals, how misunderstandings and conflicts arise within and between cultures and how those differences evolve are central to the course. Critical-thinking skills are developed and brought to bear on these topics. Prerequisites: UNIV1002 Preparing for Professional Life and ENGW1101 College Writing Workshop or ENGL1103 English Masters or ENWR1101 Academic Writing.

UNIV2002
3 Credits
Global Issues
In the fourth course in the University Core program, students develop essential aspects of critical thinking and apply those skills in evaluating international systems, environmental issues and human-rights questions. Not only will this course demonstrate the global dimensions of crucial contemporary issues, it will also develop the relational thinking that students will be expected to exercise in other academic contexts and throughout the rest of their personal and professional lives. In other words, this course is as much about how to study and think about global problems and relationships as it is a course about specific global issues. Prerequisites: UNIV2001 Cross-cultural Perspectives and ENGW1101 College Writing Workshop or ENGL1103 English Masters or ENWR1101 Academic Writing.
African-American Studies

Maxwell Becton College of Arts and Sciences

Florham Campus, Madison, New Jersey

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

AFAM2001
3 Credits
Introduction to African-American Studies

AFAM2010
3 Credits
The Black Diaspora and Transnationality
Examination of events, movements, theories and texts that have shaped the development of the African diaspora. Topics include slavery, abolitionism; Pan-Africanism; the culture/politics nexus; hip-hop, AIDS; linkages among gender, sexuality and diasporic sensibilities.

AFAM2100
3 Credits
The New Jim Crow
This course will explore modern state of affairs for its sociopolitical interrelations with race, gender, civil rights, poverty, policing and the prison industrial complex, drawing from Michelle Alexander's influential book, The New Jim Crow: Mass Incarceration in the Age of Colorblindness, as well as scholarship from Derek Bell, Kimberlé Williams Crenshaw, President Barack Obama, Angela Davis and Wally Lamb, among others. Students will learn about and critically analyze specific cases of wrongful imprisonment and the exponential growth of inmates, largely minority men and women.

AFAM2500
3 Credits
Black Male Experiences
This course will explore the black male experience in America from both sociological and interdisciplinary perspectives. In order for students to develop a comprehensive understanding of this experience, theories, strategies and perspectives regarding racial conflict, class, gender, religion and sexuality will be analyzed. The various roles inhabited by African-American men will be evaluated and students will discover the challenges and contributions of black men during significant periods in American history and the new millennium. The speeches, literary and artistic works of Dr. Martin Luther King, Jr., Malcolm X, W.E.B. DuBois, Marcus Garvey, James Baldwin, August Wilson, President Barack Obama, Elijah Anderson and contemporary hip-hop lyrics will be reviewed. Lectures from invited guests, a trip to Harlem, N.Y., and the organization of a collective event (that is open to the public) are all required components of the course curriculum.

AFAM2501
3 Credits
Black Female Experiences
This course will explore the black female experience in America from a sociological perspective. In order for students to develop a comprehensive understanding of this experience, theories regarding race, gender, sexuality, love relationships and the various roles inhabited by African-American women will be evaluated. Students will discover the challenges and contributions of African-American women during significant periods of American history including slavery and the Civil Rights Movement. The research, literary and artistic works of Patricia Hill-Collins, Tricia Rose, Sheri Parks, Elijah Anderson, Jacqueline Grant, Alice Walker, Angela Davis, Maya Angelou and others will be critically examined.

AFAM3356
3 Credits
African-Americans and New Media
This course will examine how the internet and the use of new media have impacted the ways in which African-Americans create, communicate and protest injustice from an interdisciplinary perspective. Students will explore the historic ways in which African-Americans organized and expressed a desire to change society and compare those methods to contemporary forms of protest and empowerment. Twitter, Instagram, videos, blogs, digital photographs, music-streaming sites and other forms of digital technologies will be reviewed in detail. Students will be required to present a final project utilizing new media.

AFAM3357
3 Credits
Sociology of the African-American Family
This course will analyze, from a sociological perspective, the factors that have contributed to the evolution of the African-American family such as slavery, religion and the civil rights movement. Students will not only examine theories that attempt to explain social concerns for the African-American family, such as poverty, incarceration and single-parent households but also the rise of the African-American middle class and its family structure. The continuous impact of the media, music and literature on the African-American family experience will also be investigated. Students will be exposed to literature from W.E.B. DuBois, Frederick Douglass, Franklin Frazier, Patrick Moynihan and others.

AFAM3538
3 Credits
Sociology of the Black Church
This course will introduce students to the black church from a sociological perspective. Concepts such as socialization, the Protestant Ethic and deviance will be examined. Students will re-
view literature from historical and contemporary African-American theologians such as Dr. Martin Luther King, Jr., Rev. Gardner C. Taylor, Rev. Floyd Flake and Rev. Dr. Elaine Flake. Students will evaluate the content of sermons and identify critical themes such as liberation theology and feminist theology. This course will analyze the complete relationship between the black church and politics, ethnic conflict, economics and the African-American family. Social science research methods such as participant observation will also be reviewed and implemented.

AFAM3359
3 Credits
Sociology of Race, Rap and Religion
This course will provide students with a sociological analysis of race and religion as they intersect in rap music and hip-hop culture. Classical theorists such as Marx, Weber, DuBois, Durkheim and contemporary theorists such as Tricia Rose and Michael Eric Dyson will be discussed in relation to this multifaceted and controversial subculture. Sociological theories on violence, socialization, urbanism and social stratification will also be explored.

Anthropology
Department of Social Sciences and History

ANTH1201
3 Credits
Physical Anthropology
The study of the evolution of human beings and of the relationship between human beings and nonhuman primates. Attention is given to the evidence of the fossil record, behavioral and genetic studies of human and nonhuman primates and the existence of modern human physical variability.

ANTH1202
3 Credits
Cultural Anthropology
The study of the culture and social institutions of human societies with special emphasis on the many small-scale societies that make up the majority of the people of the world. Attention is given to marriage and family life, patterns of equality and inequality, collective violence and war, religion and the impact of globalization upon the diversity of the world's peoples.

ANTH2201
3 Credits
Anthropology of Women
The cultural and legal determinants of women's status and options in cross-cultural perspective. Students will examine the broad patterns of male/female power structures and the range of variability and associated cultural, ecological and economic factors. The course will involve the examination of various theoretical approaches.

ANTH2202
3 Credits
Anthropology of Sex
Exploration of the evolution of sex and sexual behavior, drawing on data from biology. The course looks at the relationship between sexual behavior and social structure, examines the biological basis of differences between the sexes and explores the evolution and biology of sexual orientation. The focus is on human and nonhuman primates.

ANTH2300
3 Credits
Ethnographic Field Methods
An introduction to the practical and theoretical issues surrounding ethnographic research in anthropology and the social sciences. Lecture discussions on research methods are enhanced by group and individual research projects conducted by students themselves on a key anthropological theme. Students will develop a knowledge of anthropological research methods, have the practical experience of conducting ethnographic research, acquire the ability to analyze data drawn from their own research and have the opportunity to acquire the ability to present their research in written and verbal form. Prerequisite: ANTH1202 Cultural Anthropology, SOC11201 Introduction to Sociology or permission of instructor.

ANTH2305
3 Credits
Introduction to Archaeology and Prehistory
A basic introduction to archaeology and prehistory. Emphasis is on the historical development of human societies and cultures as evidenced by the archaeological record. Attention is given to the methods and procedures of archaeological investigation as well as to selected cases in both Old World and New World prehistories.

ANTH2335
3 Credits
Anthropology of Law
Cross-cultural study of law. Examination of custom and law in societies in Africa, Asia, the Middle East and the Americas; analysis of the impact of the West on traditional legal systems in the developing world; and exploration of the role of culture in shaping legal decision-making.

ANTH2341
3 Credits
Jewish Communities of the Middle East
This course explores ancient Jewish communities throughout the Middle East, such as Shiraz (Iran), Bataween, (Iraq), Djerba (Tunisia), Rabat (Morocco), Izmir (Turkey), the communities of Islamic Spain, as well as some of the oldest centers in Israel and many more. The course takes an interdisciplinary approach combining ethno-history and anthropology, with history of art and architecture and other fields. These communities, some of which survive to this day, have rich histories of prosperity and cultural integration as well as persecution. In addition to these histories, the current status and future prospects for Jews of the Mid-East Diaspora will be considered.

ANTH2430
3 Credits
Anthropology of Crime
Muder, theft, corruption, genocide, sex trafficking, this course examines all from an anthropological perspective. Using cultural situations from around the globe, it investigates the complexities that generate and support crime, even while seeking to constrain and end it. (Equivalent to CMGY2431 Anthropology of Crime.)
ANTH2440
3 Credits
Sustainability and Anthropology
A study of the interrelationships between humans and environments using the perspectives of anthropology. The course examines cultural and biological adaptation to various physical environments in the past and present. There will be a focus on global modern strategies for cultural and environmental sustainability.

ANTH2441
3 Credits
Forensic Anthropology
This course introduces students to the field of forensic anthropology. Forensic anthropology uses the knowledge of human skeletal remains in modern legal, criminal and investigatory settings. Topics to be explored include basic human skeletal anatomy; the identification process including the assessment of the biological profile (sex, ancestry, age and stage); the examination of traumatic processes to bone (blunt force trauma, ballistic trauma, sharp-force trauma, burned remains and child abuse); the determination of time since death; and the work of the anthropologist in a forensic setting. Special attention is given to the role of the forensic anthropologist in human-rights works such as the war crimes trials in Bosnia and Rwanda as well as issues that arise in human and natural disasters such as the attack on the World Trade Center, the recent tsunami and Hurricane Katrina.

ANTH3102
3 Credits
Anthropology of Children and Childhood
This course is a cross-cultural exploration of the lives of children. It examines basic anthropological concepts about childhood and especially the issue of how much children in different cultures, societies and historical periods resemble one another. Ethnographic case material is used to explore the ways in which childhood is culturally constructed. Central to this is how to understand and interpret the everyday lives of children and the role of a children's agency in defining and giving meaning to the life of a child.

ANTH3350
3 Credits
Introduction to Folklore
An introduction to the study of folklore, including how folklore is classified and collected. Students will be asked to conduct folklore fieldwork in New Jersey as part of the New Jersey Stories Project.

ANTH3360
3 Credits
Medical Anthropology
An examination of how cultural and social factors influence health and well-being. The prevention and treatment of illness, the healing process and experience and distribution of illness. The role of pluralistic medical systems is also given attention.

ANTH3403
3 Credits
Global Poverty, Culture and Reproduction
Topics covered include the issues in developing countries that women and girls face like poverty, lack of education, lack of access to health care, HIV/AIDS, culture and patriarchy and their relationship to family planning and reproductive and maternal health. Students also learn about U.S. foreign policy and how it impacts women's health in developing countries, the role and work of the United Nations in this area and important solutions to address these issues.

ANTH3430
1–3 Credits Each Semester
Selected Studies in Anthropology
Directed reading in a subfield of anthropology to be determined by the professor.

ANTH4075
1–3 Credits Each Semester
Honors Seminar
Senior seminar. A capstone course for students in social sciences, addresses broad questions in theory and application.

ANTH4477
1–3 Credits Each Semester
Honors Research and Thesis

ANTH4700
3–18 Credits
Washington Center Internship
This course is a one-semester internship in Washington, DC, through the Washington Center Internship Program. Students may register for 3–18 credits.

ANTH4800
1–3 Credits Each Semester
Independent Study in Anthropology
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

ANTH4900
3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

ANTH4901
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

Arabic Language and Culture
Department of Literature, Language, Writing and Philosophy

ARAB1001
3 Credits
Beginning Arabic I
An introduction to the language with practice in reading, writing and conversation. Corequisite: ARAB1007 Arab Practicum I.

ARAB1002
3 Credits
Beginning Arabic II
An introduction to the language with practice in reading, writing and conversation. Prerequisite: ARAB1001 Beginning Arabic I. Corequisite: ARAB1008 Arab Practicum II.

ARAB1007
1 Credit
Arab Practicum I
This 1-credit course is linked to ARAB1001 Beginning Arabic I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ARAB1001 Beginning Arabic I.

ARAB1008
1 Credit
Arab Practicum II
This 1-credit course is linked to ARAB1002 Beginning Arabic II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ARAB1002 Beginning Arabic II.

ARAB2506
3 Credits
Arab Culture and Civilization
This course, taught in English, introduces key topics in Arabic history, politics, arts, literature, as well as the sciences. It will also address contemporary issues in Arabic culture.
Course Descriptions

Art

Maxwell Becton College of Arts and Sciences
Florham Campus

Art
School of the Arts

Art – Art History and Interpretation

ARTH1110
3 Credits
Life of the Contemporary Artist
Built around the study of various forms of art and trips to experience the arts in the region, including New York City, this course will introduce students to the contemporary arts and to the artists who create them.

ARTH1205
3 Credits
Art History: Prehistoric Through Medieval
The development of visual art (painting, sculpture and architecture) from prehistoric times to the present (within its historical context) with slides and films. The ideas and philosophies of each culture are considered in order to point out the effect of thought upon art. No attempt is made to define a universal aesthetic; rather, the aim is to interpret and, consequently, enjoy art in the context of culture.

ARTH1206
3 Credits
Art History: Renaissance Through Today
The development of visual art (painting, sculpture and architecture) from prehistoric times to the present (within its historical context) with slides and films. The ideas and philosophies of each culture are considered in order to point out the effect of thought upon art. No attempt is made to define a universal aesthetic; rather, the aim is to interpret and, consequently, enjoy art in the context of culture.

ARTH1402
3 Credits
Museums of New York
Students will have guided tours of the most important art museums in New York. Classroom lectures and museum visits.

ARTH1803
3 Credits
Modern Art in the New York Museum
This course explores modern and contemporary art in New York City museums and galleries, in both permanent collections and special exhibitions. It includes three all-day excursions to New York City, along with evening classes held on campus. While there is no required course book for the class, transportation and admissions amount to approximately $100.00 to $120.00.

ARTH2011
3 Credits
Florham Scholars in Arts and Humanities Seminar II
This course is open to Florham Scholars or by permission of the instructor.

ARTH2218
3 Credits
20th-century Art
A study of the main movements in modern and contemporary painting and sculpture: symbolism, fauvism, expressionism, cubism, futurism, dadaism and surrealism. More recent movements such as pop, op, minimal and conceptual art will be discussed.

ARTH2220
3 Credits
Art From 1950s–Present
A study of the work, lives and history of artists from the 1950s to the present. The course will explore art from abstract expressionism to postmodernism and various contemporary art movements. The students will visit art galleries in New York City as part of the course.

ARTH2265
3 Credits
History of Photography
A look at the social, artistic and political contexts surrounding the history of the photograph — from its inception to the present day. Lectures will highlight various photographic trends and photographers who have made major contributions to the art form.

ARTH2550
3 Credits
 Movements in Art Since 1945
This class will look at the development of modern art after World War II, including painting, sculptures, performances, street art, land art, photography, video art and all new media. This course will focus on works in the collections of New York City museums. During the semester, students will visit several sites including The Museum of Modern Art, S.R. Guggenheim Museum, Whitney Museum, International Center of Photography and contemporary art galleries.

ARTH2875
3 Credits
American Impressionists
A study of American Impressionists, artists of the Cos Cob Colony, including Childe Hassam and J. Alden Weir, and the Pennsylvania Impressionists, such as Lathrop, Redfield, Schofield and others. Ties to French Impressionism will also be studied.

ARTH3008
3 Credits
Italian History and Art History
A course about the fundamental concepts of Italian history and art history, designed specifically to take advantage of the resources of the culturally rich city of Bergamo. The course is co-taught by a historian and an art historian in English. The course takes place in Italy and is offered at no cost to FDU students as long as they register in one of the other courses offered in the study-abroad in Italy program. (Equivalent to HIS3008/ITAL3008 Italian History and Art History.)

ARTH3009
3 Credits
African-American Art
This course will suggest different ways of looking at African-American art and works by black artists and explore the culture from which it emerges. Issues such as the relationship of art and politics, cultural diversity as well as questions of racial identities across the African-American and black culture and how they relate to visual representation, will be explored. The class will consider work from among such artists as Henry Ossawa Tanner to the video installations of Keith Piper, and including such artists as Jean-Michel Basquiat, Jacob Lawrence, Faith Ringgold, El Anatsui, Kehinde Wiley and J.D. Okhai Ojeikere.

ARTH3217
3 Credits
Late 19th-century Art
Western European painting and sculpture, focusing on the period from 1870–1914, with emphasis on Impressionism, post-Impressionism, symbolism, the Pre-Raphaelites as well as academic art. Special attention is given to major artists such as Degas, Manet, Monet, van Gogh, Rodin, Turner, Seurat, Gauguin as well as Rossetti and others.

ARTH3219
3 Credits
Art in America
The development of the arts in America. Special emphasis given to America’s contribution to art of the 20th century.

ARTH3315
3 Credits
Spanish Art and Its Influence in America
Study of Spanish art from its beginnings, with special attention to the 19th and 20th centuries. Focus on particular trends, movements and individuals in the art of Spain who influenced other artists in Latin America and the United States. Study of the works of art within their social, historical and theoretical contexts. Conducted in English.

ARTH3555
3 Credits
New Jersey Museums and Their Art
A course of study movements as presented in New Jersey museum exhibits and lectures.
ARTH3423  
3 Credits  
**Women Artists**  
The study of the lives and influences, art and techniques of American and European women artists during the period from Impressionism to the present day, with emphasis on issues of subject matter, historical context and gender.

ARTH3442  
3 Credits  
**Art Appreciation in Sport**  
A study of sports activities as expressed by various artists throughout history and through the media.

ARTH3503  
3 Credits  
**Modern Art in the New York Museum**  
This course covers the 20th century in painting and art as well as its foundation in late 19th-century France. It is taught onsite through trips to New York’s most famous museums.

ARTH3525  
3 Credits  
**Exploring Great Museums of England**  
This course introduces students to the history of British painting and photography through visits to museums, galleries and historical sites in England. Lectures and related hands-on, art-making activities will take place at FDU’s Wroxton campus in England.

ARTH4405  
3 Credits  
**Public Art in New York City**  
This course will look at the role of public art in cities. Since the early years of this country, public art has served to visualize the people’s sense of identity, mostly in the shape of the likeness of the founding fathers and the heroes of this immigrant nation. But it was also meant to shape the people’s sense of character, celebrating civic virtues, honoring the victims of war and terrorism, remembering historic events and to mark historic sites. The idea of public art has now grown to include a role that includes adornment, entertainment and to inspire and strengthen a sense of community. The class will visit the sites of public art and study its crucial role in modern urban development.

ARTH4440  
3 Credits  
**Museums of New York: 19th-century French Art and Impressionism**  
A study of French art in the New York museums through realism, Impressionism and post-Impressionism.

ARTH4422  
1–3 Credits  
**Internship in Art History I**  
Students will work independently on special projects or topics, which require approval of supervising faculty member.

ARTH4425  
1–3 Credits  
**Internship in Art History II**  
Students will continue to work independently on special projects or topics, which require approval of supervising faculty member.

ARTH4900  
3 Credits  
**Faculty/Student Research I**  
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

ARTH4901  
3 Credits  
**Faculty/Student Research II**  
Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: ARTH4900 Faculty/Student Research I.

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**Course Descriptions**

**Art**

Maxwell Becton College of Arts and Sciences
Florham Campus

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ART1191  
3 Credits  
**Fundamentals of Black-and-White Photography**  
The fundamentals of black-and-white photography are taught as students develop their own photographs in the darkroom.

ART1201  
3 Credits  
**Drawing I**  
An introduction to, and an exploration of, a selected variety of drawing materials and techniques. Emphasis will be placed on the comprehension of the creative possibilities of pencils, charcoal and conte crayon. The course will explore the drawn line as the description of contour, light, darkness and space, as well as the techniques of gesture drawing, shading, texture and heightened drawing on stained paper and other drawing surfaces.

ART1202  
3 Credits  
**Drawing II**  
Pencil, conte and ink rendering while developing concepts of composition and personal modes of expression in the given media. Emphasis on the development of a personal aesthetic by each student. Prerequisite: ART1201 Drawing I.

ART1225  
3 Credits  
**Painting I**  
This introductory course into techniques and ideas in painting allows the student to learn to translate the three-dimensional world of the portrait or still life into painting.

ART1251  
3 Credits  
**2-Dimensional Design I**  
Basic elements of visual language in their application to selected problems. The study is based on formal and ideological analysis of a given object and translation of the resulting material into a two-dimensional visual system of communication. The following are examples of this visual vocabulary that are studied and applied to concrete projects: dynamic and static figure-ground relationships, rhythm, scale, color theory and contrasts, rotating patterns, elementary poster design. All criticism and instruction are on an individual basis.

ART1235  
3 Credits  
**Sculpture I**  
The student will be introduced to contemporary concepts of sculpture by way of traditional and contemporary materials. Drawing upon the students’ own experience and interests as primary resources as well as historical considerations, the students will create sculptures.

ART1250  
3 Credits  
**Art of the Graphic Novel**  
Students will learn to draw graphic-novel pages. Instruction includes all stages of fine art production — from concept sketch to finished page (including lettering). Students are encouraged to take ART1201 Drawing I before enrolling in this course, although it is not required.
ART1260
3 Credits
Ceramic Character Sculpture
The course will allow students to create sculptures in clay of their own original characters as models for animations, graphic novels or other personal projects. Students will learn ceramic-building techniques for constructing three-dimensional figures. The class will examine the important role clay models play in the development of characters. This will be explored in a range of animated films.

ART1315
3 Credits
Ceramics I
The art of clay and glazes. Involves the student in the making of sculptural forms, vessels or functional objects. Techniques used are clay, pinching, slab and coil building, throwing on the wheel and glazing.

ART2060
3 Credits
Advanced Character Sculpture
This course will teach character sculpture at an advanced level. It will include development and creation of unique characters along with their environments in three dimensions. Modeling techniques in multiple materials will be demonstrated (clay, wire, plaster and mixed media). Class geared toward portfolio development in fine arts as well as film/animation. Prerequisite: ART1260 Ceramic Character Sculpture.

ART2061
3 Credits
Animal Sculpture
The course will allow students to create 3D sculptural representations of animal forms. Basic introduction to comparative animal anatomy will be explored along with direct observation from live animals. The symbolic and expressive use of animal imagery in visual art across cultures and throughout history, including contemporary art and animation, will be considered. The course will include varied approaches to building 3D forms in clay and mixed media (ex. plaster, wire). Students will have the opportunity to make portraits of selected animals and/or create their own invented creatures. Class trips will include visits to a zoo, the Metropolitan Museum of Art and an animal skeleton collection. Prerequisite: ART2061 Animal Sculpture.

ART2117
3 Credits
All the World's a Canvas: Illustrating the English Countryside and Cityscapes
This is a unique opportunity for students to combine traveling to England to explore, illustrate and study the English countryside, cities and culture. Students will learn a variety of illustration techniques while documenting their journey and travel experiences and will assemble course work and sketches into a final journal to commemorate the experience. Although home base will be Wroxton College, students will visit a variety of places such as museums and theaters.

ART2233
3 Credits
3-Dimensional Design
A basic course that introduces the student to the ideas and language of threedimensional design. Because of the wide range of the course, students who may be interested in sculpture; jewelry, interior, architectural design, stage or graphic design; computer animation; and 3D modeling, can benefit from this course.

ART2245
3 Credits
Landscape Painting
Explores the creative possibilities and techniques in painting landscapes. Focus is on live observation. Media will include oil and acrylic.

ART2275
3 Credits
Introduction to Color
Basic theory of color perception and its relevance to the visual arts. Diverse color relationships and contrasts are studied with the use of color aid, studio experiments are supplemented by theoretical investigation. Projects investigate different types of color contrasts (hue, value, saturation and temperature).

ART2289
3 Credits
Watercolor Painting II
Advanced techniques in water-soluble media. Emphasis on original procedures for painting various subjects including still life and landscape.

ART2316
3 Credits
Ceramics II
A further investigation of artistic and technical considerations explored in ART1315 Ceramics I. Prerequisite: ART1315 Ceramics I.
ART3308  
3 Credits  
Ceramics IV  
This course will allow students in-depth investigation of concepts along with advanced-level process using the ceramic media. Personal exploration and research will be emphasized. Contemporary art works will be a focus in class trips to New York galleries and museums. Prerequisites: ART1315 Ceramics I, ART2316 Ceramics II and ART3307 Ceramics III.

ART3312  
3 Credits  
Printmaking  
Introduces the student to multiple mechanical and industrial characteristics of printmaking. The student explores the possibilities of block-printing (woodcuts), intaglio (etching) and silk-screen as a means of reproducing images. Experiments with texture, color, line and mass are encouraged.

ART3313  
3 Credits  
Ceramics V  
An advanced-level class allowing in-depth development of major personal projects and research. Prerequisites: ART1315 Ceramics I, ART2316 Ceramics II, ART3307 Ceramics III and ART3308 Ceramics IV.

ART3314  
3 Credits  
Ceramics VI  
An advanced course in the ceramics sequence. Further study based on earlier courses in ceramics, which focuses on the art of clay and glazes. Involves the student in the making of sculptural forms, vessels or functional objects. Techniques used are clay, pinching, slab and coil building, throwing on the wheel and glazing. Prerequisite: ART3313 Ceramics V or permission of instructor.

ART3327, ART3328  
6 Credits (3 Credits Each Semester)  
Painting III, IV  
An in-depth investigation into materials, techniques and content of painting. An introduction of new media and contemporary ideas. The student is encouraged to develop personal modes of expression and the ability to express inner imperatives, personality and individuality through intuitive, as well as national “plastic” approaches to outside reality. All criticism and instruction are on an individual basis. Prerequisite: ART3328 Painting IV.

ART3337  
3 Credits  
Life Sculpture  
The course offers a sculptural exploration of human form and anatomical study. Students work from live models in clay and other materials.

ART3339  
3 Credits  
Sculpture III  
An advanced course allowing further studio work. The student’s own subject matter is developed and related to recent sculptural ideas and materials. Knowledge and skills of contemporary sculpture are expanded and applied. Prerequisites: ART1235 Sculpture I and ART2336 Sculpture II.

ART3340  
3 Credits  
Sculpture IV  
The course concentrates on the student’s execution of a major project. Attention is given to technique, material, scale and its environment. Prerequisites: ART1235 Sculpture I, ART2336 Sculpture II and ART3339 Sculpture III.

ART3350  
3 Credits  
Illustration  
Employing diverse studio art techniques, students will be exposed to a variety of illustration practices. They will learn to express visual ideas and narratives found in book, magazine, editorial and music promotion.

ART3352  
3 Credits  
General Drawing III  
Advanced exploration of both the students’ environment and selected drawing media.

ART4293  
3 Credits  
Introduction to Art Therapy  
This course will study the history and development of art therapy, the relationship between psychotherapy and art, the use of art as a diagnostic tool and art-therapy methodologies. This course will help students achieve a greater awareness of their own creative strengths and how to utilize them in a therapeutic setting. (Equivalent to PSYC4293 Introduction to Art Therapy.)

ART4371  
0 Credits  
Senior Portfolio Preparation  
A review course in developing student artwork for presentation. The portfolio’s application is for graduate school or for entering the professional art field.

ART4422  
1–3 Credits  
Internship in Art I  
Intern at a company or organization for up to 20 hours per week. Students in computer graphic design and in studio arts are eligible for this internship.

ART4423  
1–3 Credits  
Internship in Art II  
Intern at a company or organization for up to 20 hours per week. This internship may be a continuation of ART4422 Internship in Art I or a new experience with a different company.

ART4430  
1–3 Credits Each Semester  
Selected Studies in Art or Art History  
Studies in an area of art or art history.

ART4451  
3 Credits  
Ceramic Character Sculpture III  
The course will allow students to create sculptures in clay of their own original characters as models for animations, graphic novels or other personal projects. For advanced level. Prerequisites: ART1260 Ceramic Character Sculpture and ART2060 Advanced Character Sculpture.

ART4800  
1–3 Credits Each Semester  
Independent Study in Art or Art History  
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

ART4900  
3 Credits  
Faculty/Student Research  
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

ART4901  
3 Credits  
Faculty/Student Research  
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation. Prerequisite: ART4900 Faculty/Student Research.
Course Descriptions

Art

Maxwell Becton College of Arts and Sciences
Florham Campus

Graphic Design

CGD1050 3 Credits
Creative Concept Drawing
This course emphasizes developing ideas in sketch form to convey visual representations of a concept before going to the computer to create the digital comps. The course builds drawing skills for graphic arts students while concentrating on conceptual thinking. Interpretation of ideas and how they are realized is covered in this course along with focusing on the student’s individual creativity.

CGD1212 3 Credits
Introduction to Graphic Design
This course is foundational for understanding the principles and theory of graphic design and how to put this knowledge into practice. Students will learn how to communicate emotion through design principles and organization, through an exploration of visual literacy and project-based learning. The course will cover an introduction to design elements, color, layout, typography, historical perspectives, visual and conceptual problem solving, career paths and planning for future jobs.

CGD1313 3 Credits
Creative Imagination with Photoshop
This course is an introductory exploration of computer graphics as a technology and a creative medium. Through the use of industry-standard software, Adobe Photoshop® students learn the fundamentals of working with raster editing techniques. The focus is on manipulating images and learning about the production workflow as it pertains to digital imagery.

CGD1314 3 Credits
Illustrator Graphics and Design
This course is an exploration of computer-generated vector graphics as a creative medium. Through the use of industry-standard software, Adobe Illustrator®, students study the fundamentals of graphic design and learn to conceptualize and present ideas in visual form. Topics in this course include production workflow and output standards of vector graphics as they apply to print and web delivery.

CGD1552 3 Credits
The Digital Children’s Book
The course focuses on the theory, history and artistic production of illustrated children’s books. Topics include visual storytelling, character development and guidance for assembling an effective portfolio presentation. This course explores a variety of digital-illustration and computer-generated art techniques as well as topics on drawing, painting composition and picture planning. Students learn the skills necessary in the production of digital children’s book illustrations through an artfully creative and practical course, which includes scanning hand-drawn illustrations, digital-image creation and manipulation. Prerequisite: CGD1313 Creative Imagination with Photoshop or CGD1314 Illustrator Graphics and Design.

CGD2215 3 Credits
Editorial Design and Illustration
Students learn to analyze and create images that portray its implicit as well as explicit meanings through a variety of media, both computer-based and traditional, with diverse image-making techniques and styles. Prerequisite: CGD1313 Creative Imagination with Photoshop or CGD1314 Illustrator Graphics and Design.

CGD2245 3 Credits
Children’s Book Publishing
An outstanding children’s book requires artful creativity and careful planning. In this course students learn an exciting approach for submission of children’s books to publishers. The focus is on the preparation and computer techniques used in the creation of a storyboard and a book dummy for a 32-page children’s book. The storyboard is a reduced, overall view of the book, displaying all of the pages within a few documents. The book dummy is a formal mock-up of the proposed book, which demonstrates how the illustrations and text actually interact with each other. Basic scanning, text and image manipulation using artistic computer techniques will be covered. Prerequisite: CGD1313 Creative Imagination with Photoshop.

CGD2250 3 Credits
Typography 1
A study of fundamental typographic principles as they apply to graphic design and communication. The history and technological development of type as well as its terminology, specifications and diverse applications will be covered. Studio projects using various graphics programs will involve the analysis, application and exploration of typographic issues in design. Prerequisite: CGD1313 Creative Imagination with Photoshop or CGD1314 Illustrator Graphics and Design.

CGD2215 3 Credits
Design with the Computer
This course will provide students with the theoretical and practical foundations of design through the discussion of historical examples, major ideas and theories and exercises and projects geared toward exploring and developing solutions to visual design problems. Both lateral and critical thinking will be encouraged. Prerequisites: CGD1313 Creative Imagination with Photoshop and CGD1314 Illustrator Graphics and Design.

CGD2225 3 Credits
2D Design with the Computer
This course will provide students with the theoretical and practical foundations of design through the discussion of historical examples, major ideas and theories and exercises and projects geared toward exploring and developing solutions to visual design problems. Both lateral and critical thinking will be encouraged. Prerequisites: CGD1313 Creative Imagination with Photoshop or CGD1314 Illustrator Graphics and Design.

CGD2300 3 Credits
Illustration: Special Topics
This course gives illustration-concentration majors the opportunity to study special techniques, learn specific skills, experiment with new software or experience and discover special illustration topics in the classroom. Prerequisite: CGD1313 Creative Imagination with Photoshop or CGD1314 Illustrator Graphics and Design.
CGD3303
3 Credits
Web Design
This course will provide the students the opportunity to learn Adobe Dreamweaver, the industry standard web-development software. The class prepares students with the skills and knowledge of web publishing and the application of multimedia skills for the design and implementation of responsive websites using a variety of software, HTML and CSS.

Fee

CGD3315
3 Credits
WordPress
This course focuses on how to utilize WordPress' open-source templates and its HTML- and PHP-coded themes to design, create and maintain web pages and online blogs. Students learn to use WordPress' robust plugins and widget tools, which allow designers and developers to broaden its capabilities beyond the basic features. This course also teaches students how to set up and employ WordPress' dynamic content management system to change and revise the visual design and functionality of a WordPress website without changing the international content that is stored in MySQL databases. Prerequisite: CGD1315 Creative Imagery with Photoshop.

Fee

CGD3351
3 Credits
Illustration Design
This course will be an introduction to the concepts and techniques of illustration both on and off the computer. It exposes the student to a wide variety of methods and media for producing representational art both on and off the computer. The student will learn to present designed concepts in visual form, through the illustration of pictorial art for advertising, books, magazines, editorials, corporate and specialized posters. A focus on aesthetics, personal expression and client needs will be explored. Prerequisite: CGD1315 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

Fee

CGD3352
3 Credits
Typography 2
Building on CGD2212 Typography 1, this course will approach typography in more detail and depth. Topics include form and counter-form in type design, non-font solutions, type as shape and texture, special characters, styles, tables, page structure and output issues. Prerequisite: CGD2212 Typography 1.

Fee

CGD3355
3 Credits
Package Design
By studying the consumer, company branding and target markets, students learn to combine text, colors and additional graphic elements to design unique logos, corporate identities and product lines. The focus is on effective visual communication through designing unique logos and product packaging, which are commonly utilized by commercial enterprises, businesses and organizations. This course teaches how and why a company's external image is important in promoting its public recognition and how graphic designers aid in selling their products or ideas. Students brainstorm, formulate and critique ideas; do initial sketches; and finalize their most effective concepts into digital form. Prerequisites: CGD1315 Creative Imagery with Photoshop and CG1314 Illustrator Graphics and Design.

Fee

CGD3358
3 Credits
Project-based Web Design
This course focuses on intermediate to advanced web-design features, extensions and behaviors available in Adobe software. Students enhance their web-design skills while learning more sophisticated Dreamweaver tools, focusing on CSS, HTML 5 and current trends in design. The class covers intermediate to advanced web-design topics on how to build effective navigation, laying out pages and working with typography, colors and backgrounds. Instruction is project-based, where students learn through the process of creating websites, while developing more extensive CSS and design skills along the way. Prerequisite: CGD3303 Web Design.

Fee

CGD3360
3 Credits
Freelance Practices
This course teaches students ways to network in the community and how to initiate client connections resulting in appointments to present their portfolio and discuss how they can be of service to their company. Students learn good communication, listening and note-taking skills to aid in understanding, organizing and evaluating the client's wants and needs. The course also covers how to expand the creative-thinking process by utilizing basic principles of marketing and business practices. Students learn to write proposals (including timelines and budgetary costs) with the goal of obtaining contractual graphic-arts projects. Hardware, software and outside-service requirements are also covered in this course.

Fee

CGD3362
3 Credits
Mobile App Design
Anticipating the limitations of the small screens, the various screen sizes, the different screen crops and the text-size preferences set by the user, good design planning is critical in app design. In this course students learn adaptive design, which adjusts the layout accordingly while still standardizing the look and functionality to be considered across all devices, guaranteeing that the experience is the same regardless of device. This course emphasizes how app designers must take into consideration mobile-device limitations while still thinking creatively within those constraints. Taking advantage of mobile capabilities not available on a desktop computer, such as the use of the camera to snap images, signatures or location devices are also topics covered in this course. Prerequisite: CGD1315 Creative Imagery with Photoshop.

Fee

CGD3365
3 Credits
Interactive Publishing
Extending basic skills and knowledge acquired in CGD2370 Print Layout, students will learn to design, construct and manage effective interactive documents in Adobe InDesign. They will focus on the creative possibilities in interactive PDF, SWF, tablet and e-book publishing as well as continue to acquire knowledge of printing technologies and the overall publishing process using InDesign. Prerequisite: CGD2370 Print Layout.

Fee

CGD3371
3 Credits
Sell Your Designs Online
Students learn to be an entrepreneur as they create a variety of designs in Adobe software to sell in the online market. They will learn how to create a variety of designs for home decor and wearable art; how to showcase products effectively; how to build a storefront in Etsy, Society 6, Facebook or other online markets; how to present on social media; how to talk about their products; how to create a business plan; how to gain exposure for your brand; how to attract visitors to your store; and marketing strategies for a creative business. Prerequisite: CGD1315 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

Fee

CGD3373
3 Credits
Email Blast Design and Implementation
This course teaches tips, tricks and resources for designing and creating beautiful, professional-looking email blasts and newsletters that render well and are useful to its recipients within this challenging medium. Learn how to work within the coding limitations of email clients across the board, supplying plain-text versions, how to implement thorough testing before launching and why to never make compatibility assumptions. Emphasis is placed on designing for relevance, coding within the medium constraints, respecting the reader, setting measurable goals and measuring success. Legal topics such as email blast subscription options, terms and policies are discussed in this course. Prerequisite: CGD3305 Web Design.

Fee
CGD3374 3 Credits
**Online Ad Design and Implementation**
In this course students will consider the needs of a website visitor and why clients buy ads. Students will analyze why different companies’ goals vary from one campaign to the next and how to creatively design and implement for all sorts of advertising media on the internet. The focus will be on designing to gain exposure, brand recognition and improving sales and traffic to the client’s website, thus expanding and strengthening business as a result of the ad campaign. Topics such as ad placement, click-through rates, direct communication, interactivity, flexibility, measurable results and the effectiveness of ad campaigns will be covered in this course. Prerequisite: CGD3303 Web Design.

CGD3375 3 Credits
**Fashion Illustration**
Students will learn drawing skills both on and off the computer to develop a foundation for producing conceptual fashion illustrations. This course teaches students to analyze and draw the female fashion figure from all viewpoints and how to design ideas in a fashion sketch. Students will focus on garment details, fabric, texture and color analysis, as well as figure proportion and movement in a variety of poses. Students will learn technical skills using a variety of media and the computer to render the latest research trends, collections, mood boards and styles. A general knowledge of the fashion industry and fundamental techniques of fashion design will also be covered. Prerequisite: CGD1315 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design.

CGD3377 3 Credits
**Web Design II**
Learning to create an application and a browser-friendly website is essential in today’s ever-changing web market. Using industry-standard software, students will study the various features of HTML 5 to create dynamic and responsive websites. The focus will be on learning the structural markup elements and attributes of HTML 5, native multimedia, drawing with the canvas element and browser support. Techniques on using cascading style sheets with CSS 3 to make visually stunning websites will also be covered in this course. Prerequisite: CGD3303 Web Design.

CGD3380 3 Credits
**Social Media Marketing Design**
This course focuses on designing and implementing social-media marketing practices and establishing brand continuity to be used to engage the target audience, inspire them to act and keep them coming back for more. Students begin by creating an identity that will get a client noticed and remembered. Then, by incorporating the established branding, designing supporting graphics, writing engaging copy and structuring an exciting social-media marketing campaign, students learn how to increase a client’s online presence. Through the use of graphics, animations, videos and written content, they will discover how to inspire engaged social-media communities, including forums, blogs, YouTube, Facebook and Twitter. Organic features as well as paid social-media strategies, increasing the loyalty of customers, keyword selection, search-engine rankings, setting goals and measuring successes are covered in this course. Prerequisite: CGD3303 Web Design.

CGD3385 3 Credits
**E-commerce Design**
This course teaches how to design database storefront websites, which draw on technologies such as electronic funds transfer, online transaction processing, inventory management systems, automated data-collection systems and security features. Students will carefully plan their product categories and displays, ease of navigation and how to provide a good built-in search engine to make finding specific products easy. The importance of featuring the products on an e-commerce site over incorporating unnecessary bells and whistles will be taught in this course. Topics, such as how to set up a secure functioning cart, making it as easy as possible for the customers to add items to their cart and to accept credit card payments in order to complete the checkout process, will also be covered. Students will also learn how to design and incorporate online contact forms. Legal issues will be discussed and students will learn how to implement confirmation-clause checkboxes where necessary, store policies, terms and conditions and FAQ pages. Prerequisite: CGD3303 Web Design.

CGD4422 1–3 Credits
**Graphic Design Internship I**
Students will intern at a company or organization, in a graphic design or web design facility, for between a minimum of 50 hours (for 1 credit), 100 hours (for 2 credits) and 150 hours (for 3 credits) per semester. Prerequisite: CGD4422 Graphic Design Internship I.

CGD4423 1–3 Credits
**Graphic Design Internship II**
The course will provide an opportunity for the student to gain real-world experience in the field of graphic design or web design either through the continuation of CGD4422 Graphic Design Internship I, by entering a new internship facility or by working virtually with a professional company via the internet. The internship must be approved and evaluated by the computer graphics faculty member who is chosen as the internship mentor. To qualify for Graphic Design Internship II credits, the student must apply a minimum of 50 hours (for 1 credit), 100 hours (for 2 credits) and 150 hours (for 3 credits) per semester. Prerequisite: CGD4422 Graphic Design Internship I.

CGD4500 3 Credits
**Portfolio Preparation**
Students will create both a professional printed and online portfolio, resume, letter of introduction and follow-up letter. They will also design personalized printed business cards. At the end of the semester, students will present their portfolios, respond to questions and discuss their interests with a panel of working professionals. Upon completion of this course, students will be better able to discuss their goals and how they match with the objectives of organizations they will be interviewing with upon graduation. Prerequisite: CGD3351 Illustration Design or CGD3363 Interactive Publishing.

CGD4800 3 Credits
**Graphic Design Independent Study**
Students will work independently on a special computer graphics project or topic, which will be approved by the supervising professor.

CGD4900 3 Credits
**Faculty/Student Research I**
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.
Course Descriptions

Biological Sciences
Maxwell Becton College of Arts and Sciences
Florham Campus

**CGD4901**
3 Credits
**Faculty/Student Research II**
Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: CGD4900 Faculty/Student Research I.

**CGDH2020**
3 Credits
**History of Graphic Design**
The course will trace the history of graphic design — from ancient civilization to the present. It will seek to answer whether graphic design is art, communications, craft, marketing or a combination of all. This course will have online readings and classroom lectures.

**CGDH2216**
3 Credits
**Design for Social Responsibility**
Designing powerful imagery that addresses critical social issues is a current trend in design. There is a need for social responsibility in graphic designs in both the public and private sectors, by large organizations and small entities. Designers can learn to use their work to increase public awareness of a variety of social issues across the globe as well as on an individual basis. Through a combination of craft and tools, students will learn how to communicate a powerful message with graphic design. Fee

**Biological Sciences**

**Department of Biological and Allied Health Sciences**

**BIOL1002, BIOL1012**
3 Credits
**Plants and Society**
The importance of plants to human life and the world, with emphasis on interrelationships between plants and animals; plant groups studied with reference to their ecology, structure, functions and their beneficial and harmful aspects. For nonbiology majors. Fee

**BIOL1005, BIOL1006**
4 Credits
**Current Topics in Biology**
Explores current issues in biology that are of interest to informed citizens. Topics include, but are not limited to, emerging infectious disease, bioterrorism, cloning and stem cell research. Fee

**BIOL1007, BIOL1017**
4 Credits
**Animal Biology**
Survey and phylogeny of the animal kingdom: the anatomy, physiology, reproductive cycles, ecology and behavior. Fee

**BIOL1010**
Lecture 3 hours
**Human Sexuality**
Lectures, discussions and small group explore all aspects of human sexuality, including the biological, psychological, sociological and personal aspects. Includes gender, gender role, gender identity and sexual orientation; sexual behaviors based on value systems; communication, consent, responsibility for sexual health, reproductive rights and freedoms; and understanding sociopolitical influence.

**BIOL1024**
3 Credits
**Advanced Topics in Biology**
This course covers major biological topics of interest to society today. The instructor will select topics in areas such as biotechnology, genetics, cell biology, microbiology, biodiversity and environmental science. The purpose of this course is to increase science literacy and understanding of scientific analysis and methods. Students will learn central concepts in biology and apply them to analyze and evaluate scientific instruction.

**BIOL1025**
3 Credits
**Human Biology and Non-infectious Diseases**
This course will focus on human biology and health using a systems-based approach. The cardiovascular system as well as the urinary system will allow students to deepen their understanding of some of the most common causes of premature human death in the Western world. Current treatment options will be discussed in the context of human physiology.

**BIOL1041, BIOL1042**
3 Credits
**Tropical Biology**
An introduction to tropical biology, with a particular emphasis on tropical forests. Course topics include different types of tropical forest, rainforest diversity and function and the importance of geological processes on tropical forest type and function. This course will also address the distribution of tropical forests and sustainable development and tourism efforts related to tropical habitats. This course includes a mandatory short-term, study-abroad component in Costa Rica in January.

**BIOL1070, BIOL1071**
4 Credits
**Ecosystem and Environmental Science**
This course provides an introduction to global ecosystems, the negative effects of humans on ecosystems and living sustainably as a human population. The course will cover interactions between organisms and their environment, energy flow, nutrient cycles, global resource use and development, pollution, environmental health and principles of sustainability. The course’s laboratory component will include a survey of plants and animals and field trips to terrestrial and aquatic ecosystems. For nonbiology majors. Fee

**BIOL1080, BIOL1081**
4 Credits
**Structure and Function of the Human Body**
A systems-based overview of the structure and function of the human body. The role of each organ system in maintaining homeostasis is examined. The course fulfills the lab science requirement for nonmajors. Fee

**BIOL1090, BIOL1091**
4 Credits
**Human Biology and Health**
This course is a survey of the structure and function of the human body, from the cellular to the organismic level of organization. The role of organ systems, nutrition, parasites and genetics will be considered in the perspective of human health. For nonbiology majors; fulfills the Tier 1 general education laboratory science requirement.

**BIOL1110**
2 Credits
**Medical and Pathological Terminology**
An analytical study of medical and pathological terminology relevant to the health sciences. The use of shared etymologies and word-building systems is applied to decipher unfamiliar medical terms. Material is presented in lecture and workshop format, including diagnostic medical equipment.

**BIOL1170**
3 Credits
**Introduction to Ocean Life**
Marine ecosystems are an essential component to life on earth and cover 70 percent of the earth’s surface. This course will provide a general study of the biology of marine life, including the ecology of estuarine, intertidal, pelagic and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the marine environment. Topics will include general marine biology and oceanography as well as the effects of climate change and anthropogenic influences on the ocean.
Course Descriptions

Biological Sciences

Maxwell Becton College of Arts and Sciences
Florham Campus

BIOL1180
3 Credits
Climate Change Biology
The course will examine human-induced climate change and the resulting shifts in the distribution of species and the timing of biological events (phenology). Basic principles of climate will be presented, including the natural and enhanced greenhouse effect, climatological cycles and positive/negative climate feedback loops. The influence of climate change on biological systems will be examined from both a modern perspective and through geologic time. Additional topics to be studied include extinction events; adaptation and mitigation to climate change; species and landscape management; basic climate modeling; and the political, ethical and economic implications of climate change. Finally, students will be responsible for the presentation of case studies in both an oral and written format.

BIOL1190
3 Credits
Exploring Biology Behind American Museum of Natural History
In this course, students will explore some of the key biological concepts studied and exhibited in the American Museum of Natural History in New York City. These concepts include biological diversity, with an emphasis on mammals, birds and marine life; human origins, migrations and evolution; and dinosaurs and vertebrate origins. Half of class time will be spent at FDU learning key biological concepts related to the exhibits. The other half will be spent at the museum (three to four large blocks of time). The course will also include how the museum itself has evolved over the past 100 years, changing how it displays biological connections and certain aspects of the tree of life as new scientific data comes to light. Students will also learn how scientific information is communicated to the public in different ways, including dioramas, models, video and interactive exhibits.

BIOL1201, BIOL1203
4 Credits
Biological Diversity
Study of biological diversity across three domains. Emphasis on morphology, physiology and phylogenetic comparison of species in Eukarya.

BIOL1202, BIOL1204
4 Credits
Introduction to Molecules, Cells and Genes
Introduction to molecular and cellular processes in biological systems.

BIOL1205, BIOL1207
4 Credits
Anatomy and Physiology I
Integrated structural and functional systematic study of the human body including cells, tissues and organ systems. Homeostasis and disorders with health and clinical applications are examined. Dissection of selected animal systems, integrated with exercises emphasizing human structure and function. Restricted to allied health students and nonmajors.

BIOL1206, BIOL1208
4 Credits
Anatomy and Physiology II
Continued integrated structural and functional systematic study of the human body including all major body systems. Homeostasis and disorders with health and clinical applications are examined. Dissection of selected animal systems, integrated with exercises emphasizing human structure and function. Restricted to allied health students and nonmajors.

BIOL1209, BIOL1210
4 Credits
Integrated Structural and Functional Systematic Study of the Human Body Including All Major Body Systems
Continued integrated structural and functional systematic study of the human body including all major body systems. Homoeostasis and disorders with health and clinical applications are examined. Dissection of selected animal systems, integrated with exercises emphasizing human structure and function. Restricted to allied health students and nonmajors.

BIOL1400, BIOL1401
4 Credits
Introduction to Microbes
This introductory survey course examines the role of beneficial and harmful microbes including bacteria and viruses in environmental processes and disease. Corequisite: BIOL1401 Laboratory: Introduction to Microbes.

BIOL2000
1 Credit
Sophomore Research Experience
Introduction to laboratory techniques in biological research. Permission of allied health and biological sciences chair required.

BIOL2001
1 Credit
Sophomore Research Experience II
Second part of the introduction to laboratory techniques in biological research. Requires permission from allied health and biological sciences chair.

BIOL2003, BIOL2004
4 Credits
Cell Biology
Structure and function of cells as the basic unit of life. Required in the biology and allied health curricula. Prerequisites: BIOL1201, BIOL1203 or BIOL1205 Biological Diversity; BIOL1202, BIOL1204 or BIOL1206, BIOL1208 Introduction to Molecules, Cells and Genes; CHEM1201, CHEM1202 General Chemistry I, II; CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

BIOL2049, BIOL2050
4 Credits
Ecology
The relationship between organisms and their environments, emphasizing faunal and floral analyses of ecosystems. Prerequisites: BIOL1201, BIOL1203 Biological Diversity; BIOL1202, BIOL1204 Introduction to Molecules, Cells and Genes.

BIOL3009, BIOL3019
4 Credits
Microbiology
An introduction to basic prokaryote biology, including medical and ecological microbiology. Viruses are also examined. Prerequisites: BIOL2003, BIOL2004 Cell Biology; BIOL2049, BIOL2050 Ecology; CHEM1201, CHEM1202 General Chemistry I, II; and CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

BIOL3028, BIOL3029
4 Credits
Plant Morphology
The structure and development of representatives of the major plant groups. Identification of specimens from herbarium and field collections. Prerequisites: BIOL2003, BIOL2004 Cell Biology; BIOL2049, BIOL2050 Ecology; BIOL2526, BIOL2527 Genetics; CHEM1201, CHEM1202 General Chemistry I, II; and CHEM1203, CHEM1204 General Chemistry Laboratory I, II.

BIOL3221, BIOL3231
4 Credits
Microbiology — Medical Focus
A microbiology course covering introductory concepts (structure, nutrition, growth, metabolism and basic genetics of microbes); immunology; pathogenicity; and microbial disease (including detection and control). Prerequisites: BIOL1201, BIOL1203 Biological Diversity and CHEM1201, CHEM1202 General Chemistry I, II. Corequisites: BIOL3256, BIOL3257 Genetics and CHEM2261 Organic Chemistry I.

BIOL3253, BIOL3254
4 Credits
Comparative Anatomy
This course is an intensive comparative study of the anatomy of vertebrates, examining vertebrate structure from both an evolutionary and functional perspective. Course topics include vertebrate evolution, key morphological characteristics of the major vertebrate groups and the diversity and evolution of vertebrate organ systems (including human anatomy). Laboratory includes dissection of representative vertebrates, including the dogfish shark, mudpuppy salamander and domestic cat. Mammalian organ systems will receive additional emphasis in lab, including studies of the human skeleton and
anatomical models, and dissection of the sheep/pig heart, kidney, brain and eye. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; BIOI2003 Cell Biology; and BIOI2049 Ecology.

Fee

BIOI3256, BIOI3257
4 Credits
Genetics
An introduction to the genetics of prokaryotic and eukaryotic cells, including the molecular biology of DNA replication, transcription and protein expression. Mendelian genetics, non-Mendelian inheritance, mutation, gene mapping and population genetics are examined. Prerequisites: BIOI1202, BIOI2004 Cell Biology, CHEM1201, CHEM1202 General Chemistry I, II; and CHEM1205, CHEM1204 General Chemistry Laboratory I, II.

Fee

BIOI3310, BIOI3311
4 Credits
Evolution
This course examines evolution, focusing on the mechanisms within populations to explain large-scale patterns observed in evolutionary biology. Topics include genome evolution, sexual selection, speciation, human health and the role of natural selection and chance in evolution. The course will emphasize the application of learned concepts to real data with a strong focus on collaborative learning environment. Note: This course includes one required field trip on a Saturday (whole day). Exact date will be specified in the syllabus. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; BIOI2003 Cell Biology; and BIOI2049 Ecology.

Fee

BIOI3332, BIOI3333
4 Credits
Immunology
Introduction to the immune system and its application to biological research using the viruses as a model parasitic system in the laboratory.

BIOI3337, BIOI3327
4 Credits
General Physiology
This is an integrative course in animal physiology, examining the coordinated mechanisms employed by animals to maintain homeostasis across multiple levels of biological organization. Lectures will consider various representative vertebrates and invertebrates, with an emphasis on the proper functioning of organ systems in humans and other mammals. Laboratory will include hands-on experiments and demonstrations of physiological principles in classic animal models, as well as measurement techniques applicable to human medicine. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; BIOI2003 Cell Biology; and BIOI2049 Ecology. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; and BIOI2003 Cell Biology.

Fee

BIOI3360, BIOI3361
4 Credits
Introduction to Molecular Biology
This course provides an introduction to modern molecular biology, which is the study of biology at the level of molecules (DNA, RNA, protein). Topics covered include the regulation of gene expression, recombinant DNA methods and uses and analysis of genome sequences. The class will also explore how and why transgenic animals are made; ways to analyze DNA, RNA and protein expression; newer areas of gene regulation such as RNA and epigenetics, as well as the human genome sequence and forensic DNA analysis. Prerequisites: BIOI2003 Cell Biology; BIOI2049 Ecology; and BIOI2049 Ecology. Fee

BIOI3380, BIOI3381
4 Credits
Animal Behavior
A study of the causation, development and adaptive value of behavioral patterns of animals as individuals and in groups. Topics will include biological rhythms, migration, interactions, communication, reproductive behavior and sociality. Laboratory work will emphasize field investigations. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; BIOI2003 Cell Biology; and BIOI2049 Ecology.

Fee

BIOI3390, BIOI3391
4 Credits
Conservation Biology and Wildlife Management
This course focuses on the science of conservation biology, including the study of biodiversity, impacts of humans on the environment, sustainable resource use and management and restoration of habitats and ecosystems. Topics will also include aspects of environmental policy and ethics. Prerequisites: BIOI1201 Biological Diversity; BIOI2049 Ecology and BIOI2049 Ecology. Fee

BIOI3408, BIOI3409
4 Credits
Forensic Science
This course is an introduction to forensics from a chemical and biological perspective. Topics covered include collection and analysis of physical evidence, organic and inorganic analysis of samples, microscopy, drugs and toxicology, serology and DNA evidence. Discussions on current issues and new technologies are included. For biology and chemistry majors only. Prerequisite: BIOI3256, BIOI3257 Genetics; CHEM2262, CHEM2264 Organic Chemistry II; or permission of instructor.

Fee

BIOI3413, BIOI3423
4 Credits
Entomology
Entomology will introduce students to the astonishing species and phenotypic diversity found in insects. Using ecological and evolutionary concepts, the class will explore the causes and consequences of their tremendous success and discuss their effects on human health and other aspects of human living. The course will emphasize the application of the learned concepts with a strong focus on a collaborative learning environment. Field trips will accompany the lab, in which students will have opportunities to collect and identify major insect groups. Note: This course includes two required field trips on a Saturday (one during the day and one during the evening). Exact dates will be specified in the syllabus. Prerequisites: BIOI1201 Biological Diversity and BIOI202 Introduction to Molecules, Cells and Genes.

Fee

BIOI3420, BIOI3421
4 Credits
Developmental Biology
In this course, students will explore the many changes associated with the growth and cell specialization leading to a new multicellular organism. The class will focus on the embryonic stages of animal development, including learning major embryonic structures. It will also link changes in shape and form of the developing embryo to changes on the cellular level, including changes in gene expression associated with pattern formation. Prerequisites: BIOI1201, BIOI1203 Biological Diversity; BIOI202, BIOI2049 Ecology; and BIOI2049 Ecology.

Fee

BIOI4100, BIOI4110
4 Credits
Marine Ecology
A detailed study of the structure and function of marine and estuarine environments including the ecology of intertidal, estuarine, pelagic, tropical and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the environment at different population and community levels of organization. Topics will include general oceanography, predation, competition, symbiosis, trophic relationships, food webs and human impacts. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; and BIOI2003 Cell Biology; and BIOI3256, BIOI3257 Genetics.

Fee

BIOI4110, BIOI4110
4 Credits
Marine Ecology
A detailed study of the structure and function of marine and estuarine environments including the ecology of intertidal, estuarine, pelagic, tropical and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the environment at different population and community levels of organization. Topics will include general oceanography, predation, competition, symbiosis, trophic relationships, food webs and human impacts. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; and BIOI2003 Cell Biology; and BIOI3256, BIOI3257 Genetics.

Fee

BIOI4110, BIOI4110
4 Credits
Marine Ecology
A detailed study of the structure and function of marine and estuarine environments including the ecology of intertidal, estuarine, pelagic, tropical and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the environment at different population and community levels of organization. Topics will include general oceanography, predation, competition, symbiosis, trophic relationships, food webs and human impacts. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; and BIOI2003 Cell Biology; and BIOI3256, BIOI3257 Genetics.

Fee

BIOI4110, BIOI4110
4 Credits
Marine Ecology
A detailed study of the structure and function of marine and estuarine environments including the ecology of intertidal, estuarine, pelagic, tropical and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the environment at different population and community levels of organization. Topics will include general oceanography, predation, competition, symbiosis, trophic relationships, food webs and human impacts. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; and BIOI2003 Cell Biology; and BIOI3256, BIOI3257 Genetics.

Fee

BIOI4110, BIOI4110
4 Credits
Marine Ecology
A detailed study of the structure and function of marine and estuarine environments including the ecology of intertidal, estuarine, pelagic, tropical and benthic habitats. Emphasis will be placed on adaptations of marine organisms and their roles within the environment at different population and community levels of organization. Topics will include general oceanography, predation, competition, symbiosis, trophic relationships, food webs and human impacts. Prerequisites: BIOI1201 Biological Diversity; BIOI1202 Introduction to Molecules, Cells and Genes; and BIOI2003 Cell Biology; and BIOI3256, BIOI3257 Genetics.

Fee
Course Descriptions

**Biological Sciences**
Maxwell Becton College of Arts and Sciences
Florham Campus

**BIO L4401**
2 Credits
*Biology Seminar*
This course reviews current topics and research methods in the biological sciences through the scientific literature, research, invited speakers and student presentations. Students completing an internship of supervised research during their senior year are encouraged to enroll in the senior seminar concurrently. Students must have completed at least 28 credit hours in biology course work in order to enroll in this course. This course may only be taken once.

**BIO L4430, BIO L4435, BIO L4436, BIO L4438**
1–3 Credits Each Semester
**Research in Biology I, II, III, IV***
This course will explore a specific topic within ecology and environmental biology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field. Prerequisites: BIO.L2003, BIO.L2004 Cell Biology and BIO.L2049, BIO.L2050 Ecology. Corequisites: BIO.L3256, BIO.L3257 Genetics and permission of instructor.

**BIO L4431**
4 Credits
*Selected Studies in Ecology and Environmental Biology*
This course will explore a specific topic within ecology and environmental biology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field. Prerequisites: BIO.L2003, BIO.L2004 Cell Biology and BIO.L2049, BIO.L2050 Ecology. Corequisites: BIO.L3256, BIO.L3257 Genetics and permission of instructor.

**BIO L4440, BIO L4443, BIO L4444**
4 Credits
*Selected Studies in Cell and Molecular Biology*
This course will explore a specific topic within cell and molecular biology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field. Prerequisites: BIO.L2003, BIO.L2004 Cell Biology and BIO.L2049, BIO.L2050 Ecology. Corequisites: BIO.L3256, BIO.L3257 Genetics and permission of instructor.

**BIO L4446, BIO L4447**
16 Credits
*Allied Health Consortium I and II*
Clinical courses at affiliate institutions to fulfill the clinical part of B.S. degrees in Allied Health Technologies, Medical Imaging Sciences and Clinical Laboratory Sciences. For allied health students only.

**BIO L4448**
16 Credits
*Allied Health Consortium III*
Third semester of clinical courses at affiliate institutions to fulfill the clinical part of B.S. degrees in Allied Health Technologies, Medical Imaging Sciences and Clinical Laboratory Sciences. For allied health students only.

**BIO L4449**
16 Credits
*Allied Health Consortium IV*
Fourth semester of clinical courses at affiliate institutions to fulfill the clinical part of B.S. degrees in Allied Health Technologies, Medical Imaging Sciences and Clinical Laboratory Sciences. For allied health students only.

**BIO L4452**
4 Credits
*Selected Studies in Anatomy and Physiology*
This course will explore a specific topic within anatomy and physiology in depth through relevant readings, presentations/discussions and laboratory exercises. Topics will change with each course offering and will be chosen for their relevance and importance in the field. Prerequisites: BIO.L2003, BIO.L2004 Cell Biology and BIO.L2049, BIO.L2050 Ecology. Corequisites: BIO.L3256, BIO.L3257 Genetics and permission of instructor.

**BIO L4460, BIO L4461**
4 Credits
*Ecotoxicology*
This course will provide a general background into the science of toxicology while incorporating specific environmental and ecological effects. Topics include: acute and chronic exposures, bioaccumulation and trophic transfer of toxic compounds, sublethal and lethal effects of compounds on organisms, biomarkers, biomonitoring and population and community-level effects of toxin exposure. The goal is to provide a foundation in the field of environmental toxicology and an understanding of mechanisms and effects of toxin exposure in organisms. Prerequisites: BIO.L2003, BIO.L2004 Cell Biology; BIO.L2049, BIO.L2050 Ecology; BIO.L3256, BIO.L3257 Genetics; and CHEM 2261, CHEM 2262 Organic Chemistry I, II. Corequisites: BIO.L4461 Ecotoxicology Lab and MATH 1205 Calculus I.

**BIO L4470, BIO L4471**
4 Credits
*Introduction to Neuroscience*
This course will familiarize students with various branches of neuroscience and the study of the nervous system. Branches include: molecular, cellular, physiological and systems neuroscience. The course will cover topics such as how cells of the nervous system communicate with each other electrically and chemically, how some drugs and disorders can affect this communication and how this communication ultimately results in sensation, perception, memory and behavior. Methods for each of these branches of neuroscience will also be covered. Prerequisites: BIO.L2003 Cell Biology and BIO.L3256 Genetics.

**BIO L4477**
1–3 Credits
*Honors Research and Thesis*
Permission must be obtained in writing from mentor, student’s adviser and the department chairperson.

**BIO L4480, BIO L4481**
4 Credits
*Insect-transmitted Diseases*
Learn about the deadliest animals on earth — insects! Everyone has heard of Lyme disease and West Nile virus. Separate fact from fiction regarding these and other ailments. This course explores why insects are able to transmit some diseases so successfully, how this influences humans throughout the world and what steps can be taken to reduce their impact. Prerequisites: BIO.L2003, BIO.L2004 Cell Biology; BIO.L2049, BIO.L2050 Ecology; and BIO.L3256, BIO.L3257 Genetics. Corequisite: BIO.L4481 Insect-transmitted Diseases Lab.

**BIO L4496**
1–3 Credits
*Internship in Biology I*
Supervised internship in a field of biological science. Students will follow both department and career-development guidelines for completing the internship.

**BIO L4497**
1–3 Credits
*Internship in Biology II*
Supervised internship in a field of biological science — second internship experience. Students will follow both department and career-development guidelines for completing the internship.

**BIO L4500, BIO L4501**
4 Credits
*Cell Biology Cancer*
Cancer is a collection of different genetic diseases. In this course, the class will discuss the effects of various genetic diseases.
major genes and cellular pathways that play a role in cancer. It also will explore how these genes regulate the cell under normal conditions and how they are perturbed in cancerous cells. Some of the latest cancer therapies developed to target these misregulated genes will also be covered. Prerequisites: BIOL2003, BIOL2004 Cell Biology and BIOL3256, BIOL3257 Genetics.

**Chemistry Department of Chemistry and Biochemistry**

**CHEM1022**
3 Credits
Lecture

**The Chemistry of Nutrition**
Nutrition and the chemical composition of natural and synthetic food, along with related topics of current interest, such as food additives, fat and ethnic diets and megavitamin therapy. The examination of the composition and production of food and food additives.

**CHEM1027, CHEM1028**
4 Credits
Lecture; Laboratory

**Chemistry for the Global Citizen**
Provides a basic understanding of chemistry knowledge and concepts within the context of everyday life and global issues. Topics covered include global warming, acid rain, nuclear and alternative power sources and other issues relevant to everyday life. Students will develop a basic understanding of chemical concepts and begin to understand the diverse applications of chemistry in society.

**CHEM1051**
3 Credits
Lecture

**Chemistry and the Crime Scene**
This course will look at the concepts and techniques of forensic chemistry, with emphasis on how to collect, process and present chemical evidence. Lectures will include a discussion of the crime scene, collection of evidence, analysis of organic and inorganic samples and processing of DNA samples. Students will learn how scientific methods and common laboratory practices continue to be used to solve the world’s most notable and challenging cases. Satisfies Tier II core science requirement for all nonscience majors.

**CHEM1107, CHEM1117**
4 Credits
Lecture; Laboratory

**Chemistry for Health Sciences**
Chemical principles with examples taken from health sciences. Organic compounds significant for the medical field and biochemical processes with human focus.

**CHEM1201, CHEM1202**
6 Credits (3 Credits Each Semester)
Lecture; Recitation

**General Chemistry I, II**
Fundamental principles of chemistry, with emphasis on atomic and molecular structure, physical, chemical and periodic properties, stoichiometry, energetics, kinetics and equilibria of reactions, and descriptive chemistry of elements, including theory of qualitative analysis of common ions. Prerequisite: algebra.

**CHEM1201** is prerequisite to the second.
Corequisites: CHEM1203, CHEM1204 General Chemistry Laboratory I, II; and CHEM1211, CHEM1212 Recitation: General Chemistry I, II.

**CHEM1201, CHEM1211 Fall, Summer I; CHEM1202, CHEM1212 Spring, Summer III**

**CHEM1203, CHEM1204**
2 Credits (1 Credit Each Semester)
Laboratory

**General Chemistry Laboratory I, II**
Laboratory experiments emphasizing representative physical and chemical properties, synthetic and analytical techniques, and including an introduction to the qualitative analysis of the common ions. Corequisites: CHEM1201, CHEM1202 General Chemistry I, II.

**CHEM1203 Fall, Summer I; CHEM1204 Spring, Summer III**

**CHEM2211, CHEM2213**
4 Credits
Lecture; Laboratory

**Inorganic Chemistry**
Principles of atomic and molecular structure, stereochemistry, periodicity and bonding, with emphasis on the main group elements and their descriptive chemistry. Also covers topics such as hydrogen bonding, acid-based chemistry, inorganic polymers, geochemistry and metallic bonding. Prerequisite: CHEM1202, CHEM1204 General Chemistry II.

**CHEM2221, CHEM2223**
4 Credits
Lecture; Laboratory

**Analytical Chemistry**
Principles of modern quantitative methods in chemistry, including the study of chemical equilibria, reaction kinetics, acidity and complex formation. The laboratory work involves practical applications of inorganic and organic biochemical analysis using volumetric, gravimetric, chromatographic and instrumental techniques. Prerequisite: CHEM1202, CHEM1204 General Chemistry II.

**CHEM2261, CHEM2262**
6 Credits (5 Credits Each Semester)
Lecture; Recitation

**Organic Chemistry I, II**
Structure and chemical properties of compounds of carbon, with emphasis on electronic theory, fundamental mechanisms of reaction and principles of synthesis. Prerequisite: CHEM1202, CHEM1204 General Chemistry II. Corequisites: CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II; and CHEM2265, CHEM2266 Recitation: Organic Chemistry I, II. The first semester is prerequisite to the second.

**CHEM2261 Fall, Summer I; CHEM2262 Spring, Summer III**
Course Descriptions

Chemistry

Maxwell Becton College of Arts and Sciences
Florham Campus

CHEM2263, CHEM2264
2 Credits (1 Credit Each Semester)
Laboratory
Organic Chemistry Laboratory I, II
A laboratory course taken simultaneously with CHEM261, CHEM262 Organic Chemistry I, II that illustrates important principles of structure and reactivity, synthesis and analysis and structure determination of organic compounds. CHEM2263 Fall, Summer I; CHEM2264 Spring, Summer III Fee

CHEM3241, CHEM3242
6 Credits (3 Credits Each Semester)
Lecture; Recitation
Physical Chemistry I, II
Introduction to the principles of physical chemistry from both macro- and microscopic viewpoints: thermodynamics, phase and chemical equilibria, electrochemistry, kinetics, quantum mechanics, spectroscopy and molecular structure. Prerequisites: CHEM2262, CHEM2264 Organic Chemistry II, MATH2202 Calculus II and PHYS2004 General Physics with Calculus II or PHYS1002 General Physics II. The first semester is prerequisite to the second. Corequisites: CHEM3245, CHEM3246 Recitation: Physical Chemistry I, II. Note: Some students may take Physical Chemistry lecture without the lab but they may not take the lab without the lecture. CHEM3241, CHEM3245 Fall; CHEM3242, CHEM3246 Spring

CHEM3243, CHEM3244
4 Credits (2 Credits Each Semester)
Laboratory
Physical Chemistry Laboratory I, II
Laboratory experimentation designed to demonstrate fundamental laws, concepts and mathematically derived relationships involving selected physical chemical properties of matter and the interactions of energy with matter. Corequisites: CHEM3241, CHEM3242 Physical Chemistry I, II. CHEM3243 Fall, CHEM3244 Spring

CHEM3281
3 Credits
Lecture
Biochemistry I
Structure and function of biological molecules. Prerequisite: CHEM2262, CHEM2264 Organic Chemistry II. Fall

CHEM3282
3 Credits
Lecture
Biochemistry II
Current concepts of biochemistry with continued emphasis on the structure and function of biological macromolecules, metabolism and genetic information. Metabolic control, membrane transport, biosynthetic pathways of biological intermediates, expression and transmission of genetic information and the biochemical basis of molecular physiology. Spring

CHEM3589
1 Credit
Laboratory
Biochemistry Laboratory
The preparation, separation and identification of biochemicals using modern extractive, chromatographic and spectroscopic techniques. Corequisite: CHEM3281 Biochemistry I. Fall

CHEM4215
3 Credits
Lecture
Advanced Inorganic Chemistry
Advanced bonding theories, structures, stereochemistry and reaction mechanisms, with emphasis on transition metal coordination and sigma and pi-bonded organometallic compounds. Also covers topics such as nonaqueous solutions, catalysis, descriptive chemistry of the transitional metals, solid-state chemistry and bioinorganic chemistry. Prerequisites: CHEM2211, CHEM2213 Inorganic Chemistry and CHEM3242 Physical Chemistry II. Spring

CHEM4233
3 Credits
Lecture
Instrumental Analysis
Theory and applications of spectroscopy, electrochemistry and chromatography to problems in chemical analysis, with an introduction to computerized instrument control and data handling and an emphasis on comparison of methods and interpretation of data. Prerequisite: CHEM3242 Physical Chemistry II. Corequisite: CHEM4234 Instrumental Analysis Laboratory. Fall

CHEM4234
2 Credits
Laboratory
Instrumental Analysis Laboratory
Instrumentation for methods involving spectrometry (such as UV/Vis, IR, AA, NMR), chromatography (GC, HPLC, TLC) and electrochemistry (potentiometry, voltammetry). Computer handling of data and emphasis on report writing. Corequisite: CHEM4233 Instrumental Analysis. Fall

CHEM4235
3 Credits
Pharmaceutical Analysis
The analytical chemistry unique to pharmaceutical compounds from the viewpoint of a pharmaceutical scientist. CHEM4235 Fall

CHEM4253
3 Credits
Pharmacokinetics
The study of the rate of change of drug concentration in the body. The understanding of the absorption, distribution, biotransformation and excretion of drugs is used in the design and optimization of drug formulations and dosage regimens. CHEM4263

CHEM4285
3 Credits
Introduction to Medicinal Chemistry
This course is based on all branches of chemistry, but especially organic chemistry. Its focus is on improving a drug’s therapeutic effect while minimizing its undesirable side effects.

CHEM4351
3 Credits
Lecture
Chemical Kinetics
A study of kinetic theory, rate laws, reaction mechanisms, absolute rate theory, salt effects. Prerequisites: CHEM3242, CHEM3244 Physical Chemistry II and MATH2202 Calculus II.

CHEM4373
3 Credits
Lecture
Polymer Chemistry
A study of natural and synthetic polymers derived from free radical, cationic and anionic polymerizations. Prerequisite: CHEM3242 Physical Chemistry II.

CHEM4401
1 Credit
Lecture/Seminar
Chemistry Seminar
Chemical literature is reviewed through lectures, library assignments and student seminars. Prerequisite: CHEM3242, CHEM3244 Physical Chemistry II. Spring

CHEM4430
1–3 Credits Each Semester
Lecture
Selected Topics in Chemistry
An exploration of recent developments in special fields of chemistry.
Chemistry II.
Prerequisite: CH EM 3242, CH EM 3244
Physical

An individual research project taken under the supervision of a faculty mentor. A final research report must be submitted. Open to students in
the sophomore year.

Chemistry II.
Prerequisite: CH EM 3242, CH EM 3244
Physical

1–3 Credits Each Semester
Laboratory
Independent Study in Chemistry
An individual research project undertaken
under a faculty supervisor. A final research re-
port must be submitted. Open only to upper-
level students.
Fall, Spring

Chemical Thermodynamics
Lecture
A study of drugs, their history, sources, physical
and chemical properties, compounding, bio-
chemical and physiological effects, mechanism
of action, absorption, distribution in the body
and therapeutic uses. Prerequisite: CHEM2262
Organic Chemistry II.

Chinese
Department of Literature,
Language, Writing and Philosophy

From literature to filmmaking, there is a tradit-
on of looking at the unique world of filmmak-
ing. Beginning with “What Makes Sammy Run”
and quickly moving to the screen, this class will
look at what filmmakers see when they look at
the film business. Screenings may include “Day
for Night,” “Bowlinger,” “What Just Happened,”
“Stuntman,” “Lost in Oblivion” and “The Big
Picture.” What these films tell us about the
world of work will be included in the course.

Chinese Philosophy

As adults, people spend most of their time at
work, but as seen on film and TV, the world of
work is not a welcome place. In this course, the
class will investigate representations of work on
screen. Whether in “Office Space,” “Clerks,”
“Working Girl,” “The Office” or “Time Out,”
work is seen as a separate world, sometimes
mysterious and often kept secret from the rest of
people’s lives. This course will look at the work
environment as seen on screen, and consider
what this has to say about the way people see
their lives.

History of Film
The history of film from the earliest attempts to
visually reproduce motion to the sophistication
of today’s motion picture production, through
the discussion and screening of films by D.W.
Griffith, Alfred Hitchcock, Cecil B. Demille,
Francis Ford Coppola and international artists
and their films. (Film clips and full screenings.)

History of Television
This course examines the development of televi-
sion from experiments in the late 1800s through
the Golden Age of the 1950s and up to the pre-
sent. Through studying historical television pro-
grams, the class examines programming, events
and commercials responsible for reshaping
American entertainment and values.
Course Descriptions

Cinema Studies

Maxwell Becton College of Arts and Sciences
Florham Campus

CINE1501  
3 Credits  
**Cinematic Storytelling**

A basic introduction to the art of telling the visual story, examining the work of the screenwriter, art director, producer, director, actor, music composer, editor and studio executive. Such subjects as a film's theme and focus, genre and market are closely discussed. The class consists of viewing film clips, doing readings and having discussions on what are all the elements that contribute to the visual story — the how and why.

CINE2004  
3 Credits  
**War on Film**

From action films like “Saving Private Ryan” to behind-the-frontlines stories like “Born on the Fourth of July” and “Jarhead,” the war film itself has become a genre. This course will look at the history of the conflict the film depicts, what films from that era say about people's view of themselves and how changes in the historical view have affected screen visions as well. The course will include films such as “The Hurt Locker,” “The Bridge on the River Kwai,” “Battle of the Bulge,” “Das Boot,” “Full Metal Jacket,” etc.

CINE2005  
3 Credits  
**French Cinema**

Development of French film with emphasis on the French New Wave. Introducing special topics in acquainting students with significant contributions emerging from the French cinematic tradition, this course focuses on the French cinema after World War II. Films are studied generically, thematically and historically. Emphasis is placed on issues of film analysis and theory. (Equivalent to FREN2005 French Film.)

CINE2008  
3 Credits  
**The Films of Wes Anderson**

From “Bottle Rocket” to “The Royal Tenenbaums” to “The Grand Budapest Hotel,” Wes Anderson has made his style and approach to film a signature that cannot be confused with any other. The class will look at the design behind the filmmaking, question whether it sometimes becomes more important than the story the film tells and how the filmmaker contributes to the culture of his time.

CINE2010  
3 Credits  
**Films of Spike Lee**

This course will study the influential works of film director Spike Lee. From his early days at New York University, when he spoofed the controversial “Birth of a Nation,” to his early films, “She's Gotta Have It” and “Do the Right Thing,” through his work as a mainstream director (“25th Hour,” “Malcolm X,” “Inside Man” and “4 Little Girls”), the career and filmography of Spike Lee will be examined.

CINE2011  
3 Credits  
**Films of Coen Brothers**

The Coen brothers have written, directed and produced films that speak to their independence and to a unique view of the world. Their films can be serious (“Fargo”), but always have more than a trace of humor (“Raising Arizona”), while also displaying an understanding of history and social change. Whether it’s Hollywood (“Barton Fink”) or the modern southwest (“No Country for Old Men”), the Coens have made films that are creative and impactful. Other films to be considered may include “Blood Simple,” “Miller’s Crossing,” “Hudsucker Proxy,” “The Big Lebowski,” “O Brother Where Art Thou” and “A Serious Man.”

CINE2015  
3 Credits  
**Italian Cinema**

The course will discuss the development of the Italian cinema from Neo-Realism to today, in particular dealing with Rossellini, Fellini, DeSica, Bertolucci, Pasolini, Antonioni and Wertmuller. It is taught in English. (Equivalent to ITAL2005 Italian Cinema.)

CINE2205  
3 Credits  
**Blondes and Bombshells**

This course will introduce students to themes in film studies, with a look at how American, Italian and other internationally produced films portray images of women — as sexualized objects, as wives and homemakers and as entrepreneurs and self-realized individuals — and how these images and ideas have changed over time. Full screenings in class.

CINE2207  
3 Credits  
**East Asian Cinema**

Over the past 25 years, the films of China, Japan and Korea have become staples of art-film houses and international film festivals. Additionally, low-cost electronic media, global distribution networks and the interests of widespread diasporic communities have made these films available to homes in the United States. This course examines the narrative concerns and structures and the visual styles of East Asian films with regard to their cultures of creation and reception. Featured directors might include Wong Kar-Wai, Hou Hsiao-Hsien, Jia Zhangke, Yasujiro Ozu, Akira Kurosawa, Im Sang-soo, Kim Ki-duk and Hong Sang-soo.

CINE2250  
3 Credits  
**The American Film Director**


CINE2355  
3 Credits  
**American Film, American Scandal**

Many events in American history have been the basis or inspiration of great American films. The politics, history and social forces that created these films, the accuracy of how the issues and events are portrayed and how people regard the issues as time passes, will be the focus of this course. Examples will be taken from: Civil War and Reconstruction, journalism, the end of the frontier, corruption in our cities, war and its aftermath, women and power, modernity and loneliness and the African-American experience.

CINE2371  
3 Credits  
**History on Film: Britain**

Many events in British history have been the basis or inspiration of great films. The politics, history and social forces that created these films; the accuracy of how the issues and events are portrayed; and how we regard the issues as time passes, will be the focus of this course. Examples will be taken from: the Church of England, British Colonialism, World Wars and the loss of Empire, War on the British Homeland, assimilation and the effects of Brexit. (Equivalent to HIST2371 History on Film: Britain.)

CINE2404  
3 Credits  
**Films of Alfred Hitchcock**

Study, analysis and dissection of the many creative and technical ways Alfred Hitchcock “punctures” and titillates people's emotions and imagination through his major works, such as “Psycho,” “The Birds,” “North by Northwest,” “Rear Window” and other important films by the master of suspense. (Full Screenings)

CINE2405  
3 Credits  
**American Film Comedy**

Screening and analyzing the numerous forms of film comedies in America and the many stars and comic teams that bring unmitigated laughs and enjoyment: Mel Brooks, Marx Brothers,
John Belushi, Dan Aykroyd, Abbott and Costello, W.C. Fields and many other laughables. (Full Screenings)

CINE2406 3 Credits
Clint Eastwood — The Total Artist
To examine, study and analyze, through lectures, discussion, full-length features and clips, a broad range of Clint Eastwood's artistic directorial and producing capabilities in the motion-picture medium. Films to be screened include "The Unforgiven"; "Heartbreak Ridge"; "Pale Rider"; "The Good, the Bad and the Ugly"; "Play Misty for Me"; "Dirty Harry"; "The Bridges of Madison County"; "Bird"; "Escape from Alcatraz"; "Sudden Impact"; and "Mystic River."

CINE2407 3 Credits
Experimental/Surreal Cinema
A critical look at films that have influenced the mainstream by staying on the fringe. Artistic and dreamlike, they bring us into a world of their own. Commentaries will focus on different directors and styles of film. Screenings will include films by Tim Burton, Luis Bunwell, David Lynch, Terry Gilliam, Maya Deren, Stanley Kubrick, Dario Argento, Andy Warhol, David Cronenberg, Ingmar Bergman, Werner Herzog, F.W. Murnau, Samuel Fuller, and Jean-Luc Godard.

CINE2408 3 Credits
The Films of Woody Allen
Explores the cinematic style and many themes of this quintessential New York filmmaker. Screenings and discussions will include "Annie Hall," "Hannah and Her Sisters," "Sleeper," "Love and Death" and "Manhattan," among others.

CINE2515 3 Credits
Spanish Film
This course surveys Spanish films. Students analyze how cinema represents Spanish history and culture. They also examine how Spanish films have moved from local and national themes to include more global topics for an international audience. (Equivalent to SPAN2515 Spanish Film.)

CINE2520 3 Credits
Growing Up on Film
The class will look at coming-of-age films about youths in their teens and early 20s. Looking at films from different countries, cultures and eras will show the consistencies and changes in the process of youths transitioning into adulthood as well as the medium's view of youth in popular culture. Films may include "American Graffiti," "400 Blows," "The Graduate," "Juno," "Boyz n the Hood," etc.

CINE2522 3 Credits
From Comic Book to Big Screen
The course will read, screen and analyze the history of films based on comic books, graphic novels and other pop culture icons and how these stories often serve as a modern mythology. The historical, sociological, psychological and cinematic aspects of this cultural phenomenon will be examined. Screenings will be accompanied by scholarly readings.

CINE2524 3 Credits
African-American Cinema
African-American filmmakers have long been active, in front of and behind the camera, contributing to American culture and history, even if finding resistance within the American film industry. Long before Spike Lee and John Singleton came Oscar Micheaux and Paul Robeson. This course will consider the work of more modern, but still less well-known filmmakers such as Melvin Van Peebles (father of "New York City's" Mario Van Peebles) and Charles Burnett, as well as Gordon Parks, Richard Roundtree and the many who came before them.

CINE2530 3 Credits
Latin American Film
This course is designed to introduce students to Latin-American culture through film media. It focuses on the study of 10 films from most countries in Latin America. First analyzed from a general perspective, each film provides a different aspect of the culture of the Spanish-speaking world. (Equivalent to SPAN2530 Latin American Film.)

CINE3010 3 Credits
Film Noir: The Dark Side of Cinema
This class will examine the beginnings of film noir as B films during World War II. The course will also examine how the genre got its name as well as various theories and concepts about the meaning of film noir and what it has come to mean. Students will view and discuss a retrospective of noir classics and neo-noir films, with particular attention to styles and scripts.

CINE3011 3 Credits
Film Noir: Mystery Films 1940s–50s
This class will take a critical look at the classic American mystery films referred to as film noir by looking at how these films were made, by whom and why they were so successful with the studios and audiences alike. Students will also learn about the Hollywood studio film factory system, the B movies, the Hollywood Production Code and the art of the hard-boiled mystery.

CINE3012 3 Credits
Films of Steven Soderbergh
A modern-day influence on films, Steven Soderbergh came out of the "independent" film movement with "Sex, Lies and Videotape" and then made several failures which jeopardized his career. He emerged as the director of "Erin Brockovich," "Ocean's Eleven" (and others in the franchise), "Traffic," among several other projects that challenged the boundaries of narrative film; "Bubble," "Che" and "The Girlfriend Experience." Full screenings and consideration of Soderbergh's biographical influences will be considered in this course.

CINE3014 3 Credits
Movies, TV and Rock n Roll
In the years after World War II, the growth of entertainment outlets provided a means by which American cultural and economic values were constructed and reflected across our culture. Ideas of "rugged individualism," our connections with religion and our attitudes toward gender roles are reflected in film. This course will examine these major themes and look at how values considered to be American are expressed and subverted in films, television and popular music.

CINE3015 3 Credits
Japanese Culture Through Film
Study of Japanese culture through selected films. It highlights pivotal moments in Japanese history captured in Japanese movies. (Equivalent to JAPN3015 Japanese Culture Through Film.)

CINE3056 3 Credits
Italy: Land of Migrations
In the last two centuries, Italy has been the source of a large migration outward and in recent years the destination for a large migration forward. This course explores these migrations to and from Italy through literature, film and documentaries, paying particular attention to the North American experience. Taught in English. (Equivalent to ITAL3056 Land of Migrations and LITS3056 Italy: Land of Migrations.)

CINE3215 3 Credits
Introduction to World Cinema
Survey of films from various countries with a focus on how different ways of seeing and thinking about the world are manifested through narratives, styles and cinematic elements.

CINE3535 3 Credits
The American Film
A detailed study of cinematic trends and expression through the works of major American film directors.
Communication Studies

Maxwell Becton College of Arts and Sciences
Florham Campus

CINE3345
3 Credits
Films of Steven Spielberg
Screening, analyzing and dissecting the major films of one of Hollywood’s greatest directors, Steven Spielberg, the course will study how Spielberg produces, directs and communicates through his works on a historical, psychological and cinematic level. (Full screenings.)

CINE3350
3 Credits
Twentieth-century Cinema
The history of film from the earliest attempts to visually reproduce motion to the sophistication of today’s motion picture production, through the discussion and screening of films by D.W. Griffith, Alfred Hitchcock, Cecil B. DeMille, Frank Coppola and international artists and their films. (Film clips and full screenings.)

CINE4801
3 Credits
Horror and Science Fiction Movies
Screening and analyzing the historical, sociological, psychological and cinematic aspects of the greatest horror and sci-fi movies of all times, these fun-filled “thrill” films will be observed from a “serious” vantage point, from the classics to cult. (Full Screenings)

Communication Studies

Department of Communication Studies

COMM1001
3 Credits
Communication in Everyday Life
This introductory course will provide students with a foundation in communication concepts, theory and research, while helping them begin to master practical communication skills, such as listening and critical thinking, using technology to communicate, understanding nonverbal communication, understanding persuasive strategies and managing group conflict. Topics will include self-development, interpersonal communication, family communication, group communication, public speaking, media/technology and communicating in the workplace and in public.

COMM1105
3 Credits
Intercultural Communication
The course focuses on cultures and subcultures as well as their impact on perception, communication and behavior. It explores similarities and differences between cultures and barriers to intercultural communication. It also examines principles of and skills in effective communicating and intercultural settings.

COMM2000
1 Credit
Experiential Learning in Communication
This course is for communication studies majors in good standing who wish to do an internship prior to the beginning of their junior year. This course is a first step in developing a professional persona and skills in applying communication concepts. Students must have an approved internship prior to beginning the course.

COMM2001
3 Credits
Perspectives on Communication Studies
What is communication? This is the question that drives this course. The question is deceptively simple since one can probably provide an answer with little difficulty. Answers to the question, “What is communication?” have been dominated by a very particular tradition of Northern American scholarship since the early part of the 20th century. The structure of the course reflects the fact that there are two main schools in the study of communication. The first sees communication as the transmission of messages. It is concerned with how senders and receivers encode and decode and sees communication as a process by which one person affects the behavior or the state of mind of another. The second school sees communication as the production and exchange of meanings. It is concerned with how people interact with messages or texts in order to produce meanings and examines the roles of texts in our culture. This course will examine both areas of communication study.

COMM2002
3 Credits
Small Group Communication
The main purpose of this course is to help students become better communicators in the context of a small group. The objective is to give students both a broad understanding of group communication processes and practical advice to help them become more effective small-group participants. The course will primarily deal with task-oriented small groups — groups with a specific objective to achieve, information to share, a problem to solve or a decision to make.

COMM2003
3 Credits
Interpersonal Communication
This course examines processes, practices and problems of communication between persons through various modes of interaction (talk, text and media). Topics explored include: formation of the self and impression management; relational development, performance and maintenance; and forms and functions of communicating interchangeably among friends, in families and at work.

COMM2004
3 Credits
Public Relations Principles
This course explores the field of professional public relations covering the role, origin and trends affecting the future of the practice. Additionally, the course will cover topics such as effective writing skills, campaign development and ethical and legal implications of the profession.

COMM2005
3 Credits
Narrative Communication in Media and Everyday Life
This course examines a variety of forms that narrative communication takes (story, myth, fairy tale, report, eyewitness account and rumor) in different media (conversation, radio, film, literature, internet forums, news and entertainment television) and explores the many functions narrative communication serves in people’s professional and personal lives.

COMM2006
3 Credits
Nonverbal Communication
This course is designed to enhance student awareness of how nonverbal cues are used in sending and receiving messages and in enacting culture. The course provides an in-depth study of physical appearance, gesture and movement, facial expression, eye contact, touch, use of time and the voice to communicate nonverbally in a variety of interpersonal relationships across personal, professional, public and cultural contexts. Students will be sensitized to how postural, gestural, vocal, facial and spatial behaviors combine with each other and with talk in conducting socially and culturally meaningful interaction.

COMM2011
3 Credits
Introduction to Journalism
A survey course in the history of journalism in America; emphasis on development of principles of modern journalistic practice, including broadcasting. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

COMM2099
3 Credits
Professional Communications
A writing and oral communication course which emphasizes the importance of collaborative communication techniques used in the workplace. The course features an extended simulation that integrates work-related written and oral communication through practical application. The simulation allows students to gain experience similar to that of the workplace. The course also concentrates on business writing, including letters, memos, reports and proposals; oral presentation; listening skills; and group dynamics. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.
COMM2210
3 Credits
**Popular Culture and the Media**
This course provides an introduction to the critical issues and approaches used in the study of current and recent American popular culture. Popular culture is all around us — influencing how we think, how we feel, how we vote, how we live our lives in countless ways. Students will look primarily at television, film, advertising, fashion, popular music and computer culture, with occasional forays into other types of pop culture. Students will analyze how such critical factors as ethnicity, race, gender, class, age, religion and sexuality are shaped and reshaped by popular culture.

COMM2214
3 Credits
**Introduction to Broadcasting**
This course provides an introduction to the principles and practices of the broadcasting industry. While the focus will be on radio broadcasting, many of the discussions will have application to the television industry as well, particularly when it comes to legal issues. The course will include training and practice in radio productions. Students also will receive an introduction to radio programming (both commercial and noncommercial), production, broadcast-station policies, legal issues and industry trends.

COMM2221
3 Credits
**Advertising Principles**
This course is designed for people who have not had much prior experience in advertising and as such, the primary objective is to improve their skills for advertising. In particular, students will be working on the creative and persuasive aspects of advertising. Although time will be spent discussing, planning and budgeting for advertising campaigns, the bulk of the time will be spent learning the elements that go into the creation, development and production of advertisements.

COMM2260
3 Credits
**Cross-cultural Communication**
This course explores cross-cultural communication both in general discourse and a few specialist fields, giving special attention to texts examined from an intercultural perspective. The importance of the use of English as a lingua franca is also taken into consideration as well as its influence on the linguistic and external realizations at an international level. The course will be offered at the Universita di Bergamo in Bergamo, Italy.

COMM2851
3 Credits
**Visual Journalism**
In the 21st century, journalism will continue to include a strong visual component but photographers can no longer take images of current events and simply submit them to editors. Today, visual journalists are also expected to be able to write captions and short stories to accompany the visuals. In this course students will learn to recognize newsworthy images, become proficient (using a single-lens reflex digital camera) in taking digital images, developing, processing and transmitting these images for both print and electronic media. Students will also work on captions and short stories to accompany these images.

COMM2866
3 Credits
**Women and Minorities in Media**
With an emphasis on print and electronic journalism, an examination of the history, role and impact of women and minorities in the American media; analysis of traditional minority-media outlets and their audiences; the transition to participation in the major media marketplace of ideas; contemporary issues of race, ethnicity and sex and how they are reported. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

COMM2900
3 Credits
**Self-presentation for Employment**
The course applies principles of interpersonal communication and organizational communication to the employment process. Course work includes self-assessment and industry research, preparation of targeted resumes and cover letters and preparation for the employment interview through the study and practice of interview structure and content. Needs NetID (formerly Webmail) account.

COMM3001
3 Credits
**Marketing Communications**
This course is designed to provide students with an understanding of how the major types of marketing communication messages are created and delivered. Students will develop an understanding of how advertising, sales promotion, publicity/public relations, personal selling and direct marketing are planned and synthesized to form an integrated marketing communications (IMC) program. Students will develop a theoretical basis and strategic understanding of how to build and manage the marketing communications that impact customer relationships and brands, and an understanding and appreciation for the IMC concept and process through hands-on experience in analyzing and making recommendations for real company situations.

COMM3004
3 Credits
**Organizational Communication**
This course examines the foundations, as well as the challenges and misunderstandings within public and private organizations. It focuses on the concepts and applications of the nature of work, motivation to work, roles and interactions, leadership and management, power and influence, working in groups and cultures of organizations. Organizations in a global context are explored.

COMM3005
3 Credits
**Social Media, Communication and Community**
With the advent of virtual communities, online social networks and the rapidly advancing use of social media, the question of effective communications can be addressed through multiple lenses. Drawing upon the theoretical literature from various disciplines, this course will enable students to understand what constitutes social media and its associated technology and its impact on communications within groups, organizations and society in general. Students will be expected to actively engage in several forms of social media. In addition, students will be introduced to the concept and practice of social network analysis and its role in measuring communication flows within organizations and groups.

COMM3012
3 Credits
**Newswriting**
Practical instruction in newswriting, feature writing and reporting and interviewing for newspapers. How to cover and write about meetings, speeches, crime, the courts and business. Standard news style and ethical and legal limitations of the press. Prerequisite: ENGW1002 Composition II: Research and Argument.

COMM3013
3 Credits
**Feature Writing**
The art and practice of writing for a variety of media. Consideration of the variety of techniques and structures, from narrative writing to human-interest profiles, opinion pieces and criticism. Emphasis in the story-pitch process, interview techniques, writing and editing. Prerequisite: ENGW1002 Composition II: Research and Argument.

COMM3014
3 Credits
**Family Communication**
This course examines family relationships, roles, structures, crisis-management strategies, myths and dynamics from a communication systems perspective. Family interaction as foundational to lifelong experience is a central consideration of the course. Historical, economic, social and legal issues relating to the family are explored.

COMM3002 Composition II: Research and Argument
3 Credits
A requirements for real company situations. Needs NetID (formerly Webmail) account.
COMM3015
3 Credits
Political Reporting: Journalism in an Election Year
This course will give students the opportunity to write news articles and analyses about the race for the U.S. presidency. Students will work on breaking news and longer-form pieces, all while examining the political process. Students also will review and critique the work of national media outlets, especially once the election is over. Articles will be submitted to The Pillar student newspaper for publication.

COMM3016
5 Credits
News Editing
Practical instruction in editing copy and writing headlines for newspapers. Also covers standard news style, newsroom routine, newsroom technology, wire services, photo editing, typography, page makeup and design and ethical and legal limitations on the press. Prerequisite: ENGW1002 Composition II: Research and Argument.

COMM3018
3 Credits
Mass Communication
This class will provide a forum for examining the media of mass communication. It will take a closer look at both the history and contemporary trends in the newspaper, book, magazine, radio, film and television industries, and then bring the discussion to present day by taking a closer look at computer media and the internet. Using media literacy as a central theme, the course will also discuss media ethics and other social issues related to mass media. Prerequisite: COMM2001 Perspectives on Communication Studies. Fall

COMM3019
3 Credits
Global Communication
This course surveys a broad range of communication issues related to the area of globalization. The course explores international, intercultural and multicultural communication; diversity issues related to gender, race and ethnicity; postmodernism; the role of technology; and the impact of the "global village" on the nature of work. Time will also be spent exploring how globalization has led to compressions of time and space and significant changes in social relationships. Prerequisite: COMM2001 Perspectives on Communication Studies.

COMM3020
3 Credits
Art and Theory of Film
A course in the aesthetics and theory of film, with a focus on writing critically about movies. Covers such major elements of film art as montage, composition, cinematography, lighting, sound, music and special effects. Major critical movements covered include semiotics, myth criticism, feminist criticism, auteur theory and genre criticism. The work of one or two theorists will be explored in depth.

COMM3022
3 Credits
Communication Research
The primary goals/objectives of this course are to introduce students to the concepts, approaches and tools for gathering and analyzing information in research related to communication and, generally, to make students better consumers of the research they are exposed to in their everyday lives. By the end of the semester, students will be acquainted with the terminology and concepts of social science research as they are used in the field of communication studies, and be able to do the following: use library and internet sources to gather information; develop a research question, hypothesis and accompanying review of the relevant literature; and have a working understanding of the range of methodologies available to communication researchers. Prerequisite: COMM2001 Perspectives on Communication Studies.

COMM3023
3 Credits
Film and Culture
A course in the way film reflects and influences culture. Focus on a historical or cultural theme represented in film; background reading in appropriate cultural texts and documents. Topics vary from semester to semester, such as politics and community in American film; American individualism and the Western; the crime film and American values; America and the psychology of war. Film screenings held in addition to class time.

COMM3027
3 Credits
Language and Social Interaction
Introduces students to the research and methods of scholars doing work in the area of communication studies known as language and social interaction. The objective of this course is to develop a working knowledge of language and social-interaction studies to raise awareness of how language is used and what it is used to do and to foster an understanding of how language and social-interaction function in people's everyday lives. Prerequisite: COMM2001 Perspectives on Communication Studies.

COMM3030
3 Credits
Events Planning
Event planning is an important component of marketing and public relations. Events have the power to build consumer awareness and create a connection to a company or brand that other channels cannot match. From product launches to fundraising galas, effective events can help brands and organizations achieve measurable business goals. But event planning is more than just throwing a good party. Each production takes months of planning and strategy. In this course, students will learn how to create successful events from conception to completion. They will develop essential materials for their events, including invitations, advertisements, calendar listings and media alerts to create awareness; create and manage an event budget; and think creatively to build strategic collaborations. Prerequisite: COMM2004 Public Relations Principles.

COMM3055
3 Credits
Public Relations Writing
This course will provide students with a repertoire of writing skills and techniques for use in the public relations field. Particular emphasis will be placed on writing for the media, for crisis communication and for promotion and publicity. Prerequisite: COMM2004 Public Relations Principles. Spring

COMM3050
3 Credits
Communication Theory
This course offers a broad explanation and appreciation of communication theory and its centrality to everyday life. It explores the process of theory construction in modern communication studies through a multidisciplinary survey of many of the theories that have historical and contemporary value to communication scholars.

COMM3051
3 Credits
Communication and Gender
Starting with a more general exploration of gender and communication, and moving into media, education and workplace-specific applications, this course seeks to blend extensive reading and personal reflection into a solid understanding of what "gender" means in today's society and the implications that this understanding has for communication in people's personal and professional lives.

COMM3060
3 Credits
Television News
The key areas that go into the creation, production and distribution of television news; how daily television news is researched, written and produced; the differences between network and local news, between local and 24-hour news and between morning and evening network news broadcasts. Examination of the ethical, racial and gender issues in production and reception of news. Exercises in writing copy and laying out the elements of a 30-minute broadcast, while also exploring the inner workings and politics of a career in television news.
COMM3223  
3 Credits  
**Mass Communication Law**  
Provides practical knowledge of the basic laws and regulations governing anyone involved with mass communication products or industries. Students will examine the federal and state regulation of print, broadcasting and new media in the United States. It will also focus on legal mandates and the constraints that have shaped the role of the media in society, especially the First Amendment. The course covers several areas, including libel, hate speech, obscenity, news gathering, advertising and broadcasting regulations. It also explores processes of deregulation and its implications for freedom of speech in the United States.

COMM3243  
3 Credits  
**Advanced Advertising and Promotions**  
Building on COMM2221 Advertising Principles, this course focuses on basic principles of account planning, good account management and relationships within agencies and between agencies, clients and consumers; principles of media buying; planning and budgeting for advertising campaigns. Emphasis is on creating more sophisticated advertising and promotional campaigns and polishing the communication skills that are such a vital part of account management. Prerequisite: COMM2221 Advertising Principles.

COMM3244  
3 Credits  
**Public Relations Campaigns**  
This course provides students with an accelerated opportunity to enhance essential practitioner skills through engagement in a hypothetical campaign based on skeletal scenarios. Students engage in the entire problem-solving process, including research and planning, as teams, while refining their critical thinking and writing skills. Prerequisite: COMM2004 Public Relations Principles.

COMM3248  
3 Credits  
**Writing for Broadcast and Podcast**  
This course will prepare students to write for the electronic news media. In addition to developing the skills necessary for writing good radio and television news copy and promotional/commercial copy, students will also discuss current issues (ethics, legal issues and history) as well as current events in broadcast journalism. Writing projects will be completed, both individually and in teams, and sample assignments may include radio and television commercials, broadcast news copy, broadcast interviews, public service announcements and dramatic pieces.

COMM3311  
3 Credits  
**Communication and Customer Service**  
This course will focus on the role of communication in customer service and the practices that “best in class” companies apply to differentiate themselves from the competition. The course includes a grounding in communication theory as well as practical information and activities designed to teach students not only how to respond to customers, resolve problems and provide quality customer service, but also how to manage and motivate a staff of customer-service employees as well.

COMM3341  
3 Credits  
**Radio Management**  
This course will deal with radio-management functions and operations. In addition to exercises that will enable students to more closely examine trends in the world of radio, radio programming and station development, students will enhance their hands-on skills as well. Students will develop a working knowledge of the operation of radio stations including the audience rating methods that impact their programming design.

COMM3349  
3 Credits  
**Introduction to Television**  
This introductory course will examine the language and narrative structure of television and cover such practical areas as videography, cinematography and editing. Time will also be spent reviewing the history of television and addressing special topics such as music television, animation, commercials and reality programming.

COMM3451  
3 Credits  
**Sports Information Writing**  
Examination of and practical exercises in sports information writing, gathering news and writing basic sports stories and press releases, designing and writing brochures and other publicity material, interviewing, information sources and outlets and setting up and operating “gameday” activities. Prerequisites: COMM2001 Perspectives on Communication Studies and ENGW1002 Composition II: Research and Argument.

COMM3452  
3 Credits  
**Sports Journalism**  
This course provides practical training for students interested in a career in sports journalism — from the basics of game coverage to interviews, profiles, columns, investigative stories, analysis and commentaries. Students will work toward an understanding of how to report and write about such topics as the business of sports and gender and racial issues in sports. Students will cover events and practice writing on deadline, study the differences in reporting for print, online and broadcast and learn how to inject interpretation and color into their coverage without losing professionalism. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry or its equivalent.

COMM3433  
3 Credits  
**Communication in Science Fiction Literature and Film**  
Examination of the forms and roles of communication in the possible worlds imagined by science-fiction writers; exploration of such issues as relationship development, alien communication, human-machine interaction, communication and institutions; provides grounding in communication theory to make sense of current communication phenomena.

COMM3437  
3 Credits  
**Talk at Work**  
Explores how communication constitutes the work that people do in a variety of professional contexts, including medical care, emergency service, legal interrogation, broadcasting, public hearing and political press conferences. Students will study talk in these contexts to discern how it is organized to accomplish certain tasks.

COMM3538  
3 Credits  
**Media Ethics**  
Ethics in both the print and broadcast media, using current newspaper articles and news programming as resources. Students participate in the decision-making process of reviewing and selecting information for mass audiences. Emphasis on class discussions.

COMM4001  
3 Credits  
**Communication Internship I**  
Practical experience in communication in a professional setting.

COMM4002  
3 Credits  
**Communication Internship II**  
Advanced practical experience in communication in a professional setting. Prerequisite: COMM4001 Communication Internship I.

COMM4003  
1 Credit  
**Advanced Practicum in Communication**  
This course is for communication studies majors in good standing who have taken COMM4001 Communication Internship I and COMM4002 Communication Internship II and wish to do an additional internship. Students must have an ap
proven internship prior to beginning the course. Prerequisite: COMM4002 Communication Internship II. Note: must have instructor approval to register.

COMM4005  
3 Credits  
Literary and Communication Theory  
This course considers the contribution and impact of literary theory within contemporary communication studies. The course examines perspectives such as semiotics, hermeneutics, phenomenology, structuralism, and post-structuralism and explores what literary theory contributes to the understanding of human communication processes. Prerequisite: COMM2001 Perspectives on Communication Studies. Open to seniors only.

COMM4006  
3 Credits  
Advanced Literary and Communication Theory  
This course builds upon COMM4005 Literary and Communication Theory. Students consider advanced texts in semiotics, phenomenology, and critical theory and their relationship to contemporary communication problems. Prerequisite: COMM4005 Literary and Communication Theory.

COMM4070  
3 Credits  
International Communication and Culture  
This is a 12-day seminar course offered at Wroxton College, England, each summer. A key objective of the seminar is to make students familiar with the cultural, historical, and political contexts in which international business transactions take place, from a United Kingdom and European perspective. Along with an understanding of the cultural context of communication, students are given a grounding in the theoretical context of communication study. Students will examine case studies conducted by United Kingdom practitioners, which show how issues of culture, history, politics, and theory play out in actual corporate communication practice.

COMM4444  
3 Credits  
Multimedia Journalism  
This course will attempt to keep up with the ever-changing media landscape. In addition to developing the skills needed to ensure students produce solid journalism, they also will learn how to apply multimedia techniques to tell stories in new and interesting ways. Throughout the semester, students will work on developing their own web pages, complete with original reporting, audio and video components, photography and blogs. Students will also study current events as well as ethical and legal issues in electronic media. Note: Students should complete at least one journalism course prior to taking this class.

COMM4480  
3 Credits  
Crisis Communication in a Public Relations Context  
This course specifically examines the dynamic practice of crisis communication on the organizational level. It seems that the world lives in a culture of crisis — organizations must be proactive and reactive in their public relations practices. Topics discussed will include image-repair strategies, options available to organizations facing crisis, crisis-management teams, crisis management as a form of public relations and examination of case studies. Using the most recent scholarship, students will learn about this timely topic in an interactive and engaging environment. Prerequisite: COMM2004 Public Relations Principles.

COMM4800  
3 Credits  
Independent Study in Communication  
Independent study under the direction of a specific faculty member after consultation with the department chairperson. Prerequisite: advanced standing in major.

COMM4900  
3–12 Credits  
Faculty/Student Research  
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

Writing and Creative Writing  
See pages 367–369.

Computer Science

Department of Mathematics, Computer Science and Physics

CSCI1145  
3 Credits  
Computers and Computing  
A first introduction to computer technology and applications for all disciplines. Topics include discussion of computer hardware and software, the societal impact of computers and computer applications in everyday life and business. The goal of this computer course is to foster skills development so that students have sufficient computer skills for use in college, at home and in the workplace for a technology-filled 21st century.  
Fall, Spring

CSCI1205  
3 Credits  
Introduction to Computer Programming  
An introduction to computer programming using the C# language with emphasis on good software engineering practice and basic computer science concepts. Topics include algorithm design, top-down design, forms and controls, decision structures, loops, methods, arrays and lists. Prerequisite: placement in MATH107 Precalculus.  
Fall, Spring

CSCI1500  
3 Credits  
Programming in Visual BASIC  
An introductory programming course designed to introduce the students to the logic, format and conventions of coding using graphics and database elements. The course covers object-oriented programming techniques and use of graphic components in designing application interfaces.

CSCI2100  
3 Credits  
Mobile App Development  
In this course students will learn how to develop applications for mobile devices such as smartphones. Students will use the App Inventor application for the creation of Android applications. It is intended for students with no prior programming experience. Prerequisite: Completion of MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

CSCI2215  
3 Credits  
Introduction to Computer Science  
Problem solving with data models, data structures and algorithms using C++. Exposure to areas of computer science such as complexity theory, computer architecture, software engineering, etc. Prerequisite: CSCI1205 Introduction to Computer Programming or equivalent.  
Fall, Spring

CSCI2216  
3 Credits  
Introduction to Computer Science II  
Advanced C++ programming constructs and features will be covered, including structured data, file operations, advanced objects and classes, exceptions and templates. Prerequisite: CSCI2215 Introduction to Computer Science.

CSCI2233  
3 Credits  
Data Structures and Algorithms  
This course provides an introduction to data structures and algorithms, including their design, analysis and implementation. It will introduce algorithmic analysis tools to study the behavior of algorithms associated with various data structures including lists, sorted lists,
stacks, queues, deques, trees, heaps and priority queues, hash tables, search trees, sorting, selection, graph algorithms and B-trees. Students will be introduced to algorithms’ design techniques, including divide-and-conquer, greedy approach, backtracking and dynamic programming.

CSCI2247  
3 Credits  
**Assembly Language Programming**  
Fundamentals of digital computer logic, symbolic assembly language programming, macros; introduction to the assembly process, compilation process and operating systems. Selected topics. Prerequisite: CSCI2215 Introduction to Computer Science.  
*Spring*

CSCI2255  
3 Credits  
**Discrete Structures**  
Set theory, algebraic structures, Boolean algebra and propositional logic, graph theory and other aspects of combinatorial mathematics. Prerequisite: MATH1107 Precalculus or MATH1203 Calculus I.  
*Fall*

CSCI3100  
3 Credits  
**Android Apps Development**  
This course introduces students to the design and implementation of Android applications for mobile devices (including smartphones and tablets). The course is an engaging, hands-on course and is designed to prepare student programmers to meet growing business demand for mobile apps. Students will develop apps from scratch and learn how to set up an Android Studio Development environment. They will work with various Android Activities, create user interfaces for their apps and program the logic behind their apps. This course blends theory and practice to enable students to build apps the right way and learn best practices of mobile development. This course is intended for students with at least one year of programming experience in an object-oriented programming language (ex. C++). Prerequisite: A grade of C or higher in CSCI2216 Introduction to Computer Science II.

CSCI3157  
3 Credits  
**Cyber Security**  
Overview of computer security; foundations — access control matrix; policy — security policies, confidentiality policies, integrity policies, hybrid policies; implementation — information-hiding techniques — steganography, digital watermarking, cryptography, fingerprinting, key management, cipher techniques, authentication, access-control mechanisms, confinement problem, user and system security, data security, copyright, digital certificates and digital-rights management. Prerequisites: CSCI2215 Introduction to Computer Science and MATH1203 Calculus I.

CSCI3268  
3 Credits  
**Database Systems**  
Overview of the function and architecture of database systems. Study of storage structures and their implementation. Survey of the current types of data models. Examples of data definition and data manipulation languages. Specific database management systems will be studied to support the database concepts.

CSCI3269  
3 Credits  
**Introduction to Data Mining**  
This course introduces the fundamental concepts of data mining. Students will gain an in-depth understanding of algorithms in the field, and will learn how to prepare data for learning and classification. Topics covered include data preprocessing, classification, cluster and outlier analysis and text mining. Students will work on projects for developing classification systems. Prerequisite: CSCI2253 Data Structure and Algorithms, CSCI3333 Computer Algorithms, MATH3300 Statistics I or permission of department chair.

CSCI3270  
3 Credits  
**Introduction to Machine Learning**  
This course introduces the fundamental concepts of machine learning. Topics covered include support-vector machines, kernel methods, boosting, online learning, multiclass learning, ranking, regression and reinforcement learning. Students will work on projects implementing algorithms discussed in class. Prerequisites: CSCI3333 Computer Algorithms, MATH3220 Linear Algebra and MATH3303 Probability and Statistics.

CSCI3278  
3 Credits  
**Operating Systems**  
Organization and architecture of computer systems. Introduction to operating systems principles. Interrelationships between operating systems and computer systems architecture. Prerequisites: CSCI2215 Introduction to Computer Science and CSCI2255 Discrete Structures.  
*Fall*

CSCI3294  
3 Credits  
**Data Analysis and Visualization**  
The course is designed to help students acquire the knowledge and skills needed to analyze information and, more importantly, draw conclusions from their analysis. Students will be introduced to a variety of software tools used to formulate models and visualize data. This course will be offered in a problem-based environment where students will learn that by presenting data visually it is possible to uncover surprising patterns and observations that would not be apparent from looking at simple statistics alone. Prerequisite: MATH1128 Mathematical Methods or its equivalent.

CSCI3304  
3 Credits  
**Computer Organization**  
Fundamentals of logic design and organization and structuring of major hardware components of computers. The mechanics of information transfer and control in a digital computer system. Prerequisite: CSCI2215 Introduction to Computer Science.  
*Spring*

CSCI3305  
3 Credits  
**Combinatorics**  
Arrangements, selections and distributions. Generating functions, partitions and recurrence relations. Inclusion-exclusion principle. Graph models and isomorphisms. Planarity, Euler and Hamilton circuits. Graph coloring. Trees and graph algorithms. Applications particularly to computer science. Prerequisite: CSCI2255 Discrete Structures or MATH2255 Discrete Structures.

CSCI3306  
3 Credits  
**Organization of Programming Languages**  
The organization of existing programming languages and the run-time behavior of programs. Introduction to the formal study of program language specification and analysis.

CSCI3307  
3 Credits  
**Object-oriented Programming**  
An introduction to object orientation as a fundamental problem-solving and design concept. Programming and problem solving using the “top-down” approach with object abstraction. The course is taught using Java. Prerequisite: CSCI2233 Data Structures and Algorithms.

CSCI3308  
3 Credits  
**Translation of Computer Languages**  
An introduction to compiler construction. Topics include scanning, parsing, semantics and code generation, with emphasis on simple precedence and operator-precedence grammars. Prerequisites: CSCI2233 Data Structures and Algorithms and CSCI2247 Assembly Language Programming.
Course Descriptions

Computer Science
Maxwell Becton College of Arts and Sciences
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CSCI3309
3 Credits
**Numerical Analysis**
Numerical solution of problems in analysis using the computer. Interpolation approximation, numerical integration and differentiation, solution of nonlinear equations and differential equations. Prerequisites: CSCI1205 Introduction to Computer Programming and MATH2202 Calculus II.

CSCI3312
3 Credits
**Theory of Computing**
Finite state deterministic and nondeterministic automata, pushdown, linear bounded and infinite automata, formal languages and computability. Prerequisite: CSCI2255 Discrete Structures.

CSCI3315
3 Credits
**Software Design**
An introduction to the principles of formal software design. Topics include software requirements generation, system specification, program-development techniques, programming language issues, abstraction, information hiding, structured analysis, program documentation, testing, maintenance, reliability and security. The course will use a number of programming and writing projects and case studies to reinforce the concepts discussed. Prerequisite: CSCI2215 Introduction to Computer Science.

CSCI3316
3 Credits
**Local Area Networks**
Coverage of the concepts, issues and implementation of local area network hardware and software for PCs. The course includes in-depth coverage of and hands-on experience with one of the major local area network products. Prerequisites: CSCI1145 Computers and Computing and CSCI2215 Introduction to Computer Science.

CSCI3324
3 Credits
**Computer Graphics**
Study of the software, hardware and mathematical tools required for the presentation, manipulation and display of topological and two- and three-dimensional objects, and the application of these tools to specific problems.

CSCI3330
3 Credits
**Database Management Systems**
Introduction to the theory, design and implementation of database management systems. Relational, network and hierarchical models. Database processing. Role of the data administrator. Prerequisite: CSCI2255 Data Structures and Algorithms or equivalent.

CSCI3333
3 Credits
**Computer Algorithms**
Introduction to the study of algorithms. Topics include complexity analysis, practical algorithm development and common algorithm methods, including recursion, greedy algorithms, dynamic programming, backtracking and branch-and-bound. The course will include programming assignments implementing the algorithms discussed in class. Prerequisite: CSCI2215 Introduction to Computer Science.

CSCI3335
3 Credits
**Nonnumerical Computing**
Introduction to list processing and other nonnumerical techniques using the LISP programming language. Prerequisite: CSCI2233 Data Structures and Algorithms.

CSCI3344
3 Credits
**Algorithms in Bioinformatics**
This course covers topics in string algorithms, sequence alignment, dynamic programming, phylogeny, gene expression analysis, clustering algorithms and sequence patterns and classifiers. Laboratory will include programming and the use of online databases and search engines.

CSCI3355
3 Credits
**Introduction to Cryptography**
Classical and modern cryptography, cipher techniques, substitution ciphers, vigenere cipher, data-encryption standard, other classical ciphers, public key cryptography, RSA, stream and block ciphers, key management — session and interchange keys, key exchange, digital signatures, networks and cryptography, protocols — secure electronic mail, security and network layer. Prerequisite: CSCI2255 Discrete Structures or MATH2202 Calculus II.

CSCI3371
3 Credits
**Modeling and Simulation**
Definition of systems. Input, output and state variables. Continuous and discrete dynamical systems. Differential equations and their use in modeling. The CSMP language and its use. Prerequisite: MATH2202 Calculus II.

CSCI3388
3 Credits
**Introduction to Game Programming Using C++**
Introduces students to game-programming techniques, how to use a game library, programming input devices, 3D-game programming theory and design and bitmap handling through programming. Prerequisite: CSCI2215 Introduction to Computer Science.

CSCI3389
3 Credits
**Introduction to Human-Computer Interaction**
Human-computer interaction integrates the fields of computer science, cognitive psychology, arts and design. This course is an introduction to the principles of human-computer interaction, user-interface design and usability analysis of systems. Students will learn about the user-experience process lifecycle, contextual inquiry, contextual analysis, design thinking, ideation, sketching, design production, low- and high-fidelity prototyping, empirical evaluation and feedback and affordances. Students will apply these principles in weekly activities, assignments and a final project.

CSCI3390
3 Credits
**Virtual Reality**
Virtual reality (VR) is a display technology that provides immersive and interactive experiences. In this course, students will learn about virtual reality, augmented reality, stereoscopic rendering, VR input/output devices, 3D interaction techniques, scene fidelity, spatial tracking, presence, human factors in VR and applications of virtual reality. Students will work on developing their own virtual environments to provide interactive experiences. Prerequisite: CSCI3388 Introduction to Game Programming Using C++.

CSCI3431
3 Credits
**Expert Systems and Logic Programming**
Fundamentals of expert systems, applications and development techniques for representing knowledge using logic with the prolog programming language. Prerequisites: CSCI11205 Introduction to Computer Programming and CSCI2255 Discrete Structures.

CSCI3566
3 Credits
**Data Communications and Computer Networks**
Data communications, communication hardware technologies, local area and long-haul networks, circuit and packet switching, computer and network hardware interface, network architecture protocol, transport protocols, network layering architecture, performance issues, reliable delivery over unpredictable channels, virtual circuits, client and server model, address resolution, routing algorithms, congestion control and TCP/IP. Need NetID (formerly Webmail) account. Prerequisite: CSCI2215 Introduction to Computer Science.
CSCI3869
3 Credits
Network Security
Coverage of potential threats to networks. Course includes strategies to harden system against these threats and discusses the liability of the network administrator for some crimes via the network. Class concludes with strategies for pursuit when system is compromised or data is altered, removed or copied. Prerequisite: CSCI3666 Data Communications and Computer Networks.

CSCI3998
3 Credits
Artificial Intelligence
An introduction to fundamental concepts and techniques of artificial intelligence. Topics covered include problem solving, knowledge representation, reasoning and searching. Students will learn the LISP (List Processing) programming language. Prerequisites: CSCI2215 Introduction to Computer Science and CSCI2253 Discrete Structures.

CSCI4001, CSCI4002
1–3 Credits Each Semester
Computer Science Internship
Supervised practical experience in the field of computer science in a professional setting. Permission of the instructor and department chair.
Fall, Spring, Summer

CSCI4450
1–3 Credits Each Semester
Selected Studies in Computer Science
Studies in the area of computer science.

CSCI4477
1–3 Credits Each Semester
Honors Research and Thesis

CSCI4488
3 Credits
Advanced Game Programming Using C++
A software engineering approach to game programming, building a game engine, debugging techniques, XML (Extensible Markup Language) and scripting. Need NetID (formerly Webmail) account. Prerequisite: CSCI3388 Introduction to Game Programming Using C++.

CSCI4489
3 Credits
Design and Development of Video Games
This class is project based, where game-development students and video-game animation students work in groups to design and develop their own video games. In order to gain interdisciplinary work experience, the teams will design and develop 2D and 3D games in order to understand the production cycle found in real-world game-creation projects. Prerequisites: CSCI3388 Introduction to Game Programming Using C++ and CSCI4488 Advanced Game Programming Using C++.

CSCI4498
1–3 Credits
Co-op in Computer Science
Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job. University course work and career-development skills. Prerequisite: permission of director of co-op.

CSCI4499
3 Credits
Co-op Computer Science
Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job. University course work and career-development skills. Prerequisite: permission of director of co-op.

CSCI4800
1–3 Credits Each Semester
Independent Studies in Computer Science
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

CSCI4999
0 Credits
Computer Science Assessment
This course is a level-assessment test for evaluating the breadth of knowledge in the major requirement and major elective courses. No class time is allocated for this course. The test is administered once every semester.
Fall, Spring

CMLGY1201
3 Credits
Introduction to Sociology
An introduction to sociology that explores society and culture, groups and organizations, socialization, deviance, social stratification, race and ethnicity, the family and education. (Equivalent to SOC1120 Introduction to Sociology.)

CMLGY1210
3 Credits
Introduction to Law
Overview of substantive and procedural law and scholarly research on legal behavior and institutions. Course emphasizes the contemporary U.S. legal system, but includes discussion of comparative and historical issues. (Equivalent to GOVT1200 Introduction to Law.)

CMLGY1306
3 Credits
Introduction to Crime and Criminology
This course provides an understanding of crime and criminal justice. Students will examine theories of crime, individual and group criminal behavior and aspects of criminal justice systems from American and global perspectives. (Equivalent to SOC12506 Crime and Criminology.)

CMLGY2030
3 Credits
Supreme Court
The Supreme Court of the United States has emerged as the most powerful tribunal in the world. It plays a major role in resolving conflicts, making policy and developing the rule of law. This class examines how history, theory, social science research, jurisprudence, public opinion and a range of social and political forces help us in understanding why and how the Court is a major force in American politics. (Equivalent to GOVT2030 The Supreme Court.)

CMLGY2203
3 Credits
Research Methods in Criminology
This course provides an introduction to the theories and methods underlying modern social sci-
ence research across sociology, political science, economics and criminology. In this course, students will learn to assess the validity of social science research and design their own research projects using a variety of qualitative and quantitative techniques such as ethnography, content analysis, experiments and surveys. Students are required to have completed MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods and should have this level of mathematical skill in order to succeed in the required methodological course. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

CMLG/Y2204
3 Credits
Qualitative Research Methods
Provides students with practical research skills which will enhance their competitiveness in the job market. The course helps students design qualitative research projects using a variety of techniques such as interviews, ethnography, focus groups and content analysis. In class, students will develop research goals, observe data collection and practice conducting interviews and focus groups.

CMLG/Y2300
3 Credits
Wrongful Convictions
The course will examine the criminal justice system through the prism of cases in which an innocent person was convicted. It will examine the causes of proposed remedies for wrongful conviction and consider its implications for the criminal justice system as a whole. Topics will include mistaken eyewitness identification, forensic science, false confessions, prosecutorial misconduct, ineffective assistance, snitch testimony and the death penalty. The class will explore the current debate regarding the significance of the number of wrongfully convicted people who have recently been exonerated.

CMLG/Y2301
3 Credits
Correctional Setting Combined
This class creates a space for honest dialogue and real exchange between “inside” and “outside” students to generate new ideas and fresh solutions to problems related to crime and the administration of justice. Ten students from FDU will join a class at a prison institution with current inmates. This face-to-face experience challenges participants to re-evaluate cultural stereotypes, justice issues and to change the public opinion’s tone and attitude toward incarcerated individuals. Relevant articles and texts will explore fundamental issues of crime and justice such as what prisoners are for, why people commit crime, a critical analysis of the criminal justice system, punishment versus rehabilitation, the myths and realities of prison life and issues of victims and victimization. Note: special permission required.

CMLG/Y2307
3 Credits
Deviance and Social Control
What is considered deviant behavior and how do certain behaviors become deviant in the eyes of society? This class will examine the social construction of deviance and the different theoretical perspectives that explain deviance. Certain forms of deviance will be examined critically, including drug use, sexual deviance and suicide. (Equivalent to SOCI2307 Social Deviance.)

CMLG/Y2317
3 Credits
Probation and Parole: Theory and Practice
This course examines the history of probation and parole from past to present. Specifically, the class will look at the historical foundations of community-based corrections, the everyday operation of probation and parole and evaluations of the effectiveness of probation and parole.

CMLG/Y2353
3 Credits
Criminal Law
A basic introduction to criminal law in the United States. Emphasis is upon social factors, norms, values and social policy considerations that shape modern criminal law. Subject areas include issues such as the justification of punishment, the elements of just punishment and the death penalty as well as the study of substantive laws of homicide, rape and other criminal acts. Attention is also given to the emergence of international criminal law and the punishment of war crimes. (Equivalent to GOVT3220 Criminal Law.)

CMLG/Y2360
3 Credits
Victimology
This course provides an overview of the field of victimology. In this course, students will gain an understanding of the nature and extent of criminal victimization, the criminal justice system’s response to crime victims and the policy implications of victimization research. Course readings will encourage analysis of a discussion of the legal, social and political implications of criminal victimization.

CMLG/Y2503
3 Credits
Crime and Media
This course offers an examination of the role of the media in reporting crimes and the extent to which media coverage of crime and the criminal justice system impacts the commission of crimes and the operation of the system. It also will explore the impact media has on public perceptions of crime and society, criminals and the criminal justice system.

CMLG/Y2509
3 Credits
Serial Killers
This course will examine the phenomenon known as serial murder. While this type of murder is not new, the “serial killer” has become popularized in modern-day culture and in the media. In this class, students will distinguish fact from fiction. They will examine the causes of serial killing, which include various criminological and psychological theories, as well as the different types of serial murderers. They will also use various case studies to investigate the motivation of serial killers, as well as the response by the criminal justice system, which includes the investigation, prosecution and punishment of serial killers.

CMLG/Y2701
3 Credits
Penology
Penology is the study of punishment of criminal offenders. This class will examine justifications for punishment and the methods of punishment used in society. This course will also look at approaches to sentencing, the development of prisons and the evolution of corrections in the United States.

CMLG/Y2702
3 Credits
Penology from East to West
Penology is the study of the punishment of criminal offenders. This class will trace the development of the American penal system beginning with the colonial times through present day, often referred to by criminal justice experts as a time of “mass incarceration.” Students will learn about the competing goals of punishment and the unintended consequences of penal reforms. They will look at the development of prisons, the prison culture of both inmates and correctional officers,sentencing policies, probation, parole and prisoner-reentry movement. The class will also consider key topics including the punishment of drug offenders and sex offenders, particularly because these two groups have come to the forefront of penal policy. Students will consider a wide range of issues facing criminologists, criminal justice practitioners and policymakers. Some of these issues include the following: who goes to prison and why; are prisons a “breeding ground” for criminals; does probation work?; and how should society deal with sex offenders.

Criminology
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Florham Campus
**Course Descriptions**

**Criminology**

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**CMLGY3005**  
**3 Credits**  
**Abnormal Psychology**  
This class examines the long-standing and serious forms of mental disturbance, including character disorders, brain damage, retardation and psychotic processes; central focus on classification, dynamics, symptoms and treatment, with practical experience as a companion to mental patients.

**CMLGY3012**  
**3 Credits**  
**Crisis Intervention**  
This class explores the theoretical and practical responses to traumatic events (e.g., crime, domestic violence, natural disasters, medical conditions, substance abuse, suicide and suicide attempts). Further, this class also examines the strategies utilized by treatment providers and first responders, such as police and firemen, to these traumatic events.

**CMLGY3017**  
**3 Credits**  
**Reimagining Justice: The Creation of Just Societies**  
This course introduces students to competing theories of justice and how these theories shape the American justice system. This course is separated into two halves. The first half covers philosophical theories of justice so that students may gain a broader understanding of how and why the U.S. justice system exists in its present state. The second half discusses competing justice system models and allows students to consider how these models differ in their philosophical underpinnings.

**CMLGY3019**  
**3 Credits**  
**Restorative Justice**  
With growing evidence that the American criminal justice system is fundamentally flawed, policymakers have begun to explore alternative ways to address crime in society. One viable alternative appears to be restorative justice, a social movement and set of practices that views criminal behavior as harm against people and relationships rather than violations against the state. Students in this class will read about, debate and critically analyze whether this growing movement holds the potential for a better, more humane system of justice.

**CMLGY3020**  
**3 Credits**  
**Race, Class and Policing in the Divided States of America**  
In contemporary society, the state grants police the power to use force when necessary to maintain safety and security. Racial, economic and ethnic minority citizens have disproportionately been affected by this police power. Community members living in "hot spots" of crime have claimed that the police have targeted their communities to suppress, control and pacify their people rather than to serve and protect families living there. On the other hand, police departments have declared that their actions and policies within these same communities serve as a "thin blue line" protecting the decent citizens from those seeking to endanger them. This class seeks to clarify and inquire how we arrived at this place in American history; or perhaps how we have always been here but have chosen to ignore it.

**CMLGY3030**  
**3 Credits**  
**Surveillance and Security**  
Recent revelations about data collection by actors as varied as the National Security Agency and Facebook have challenged many of the basic beliefs about power and privacy. It is increasingly clear that people’s bodies, images and words are ceaselessly tracked, sorted, profiled, stored in databases and recalled by algorithms — all in the name of a loosely defined concept called "security." In this class, students will interrogate these uneasy relationships between surveillance and security, looking at both state surveillance practices as well as visual practices aimed at monitoring the state. By engaging with a broad array of media — academic research, social theory, television, film, fiction — students will debate the role of surveillance in generating security, but also focus on the ways that broad data collection can actually enable populations to act in new and beneficial ways. (Equivalent to GEOG3030 Surveillance and Security.)

**CMLGY3040**  
**3 Credits**  
**Capture and Control**  
Modern democratic states often rely on practices of detention and incarceration in order to demonstrate (and increasingly, to circumvent) the power of the rule of law. As a result, international and domestic detention spaces like refugee camps, jails and for-profit prisons, war prisons, black sites, migrant detention islands, border checkpoints and protest camps are utilized in an ever-expanding number of spatial, legal and political contexts. In this course, students will explore these spaces and engage in a detailed historical and theoretical investigation of the complex and often-contradictory processes that produce them. (Equivalent to GEOG3040 Capture and Control: Geographies of Detention and Incarceration.)

**CMLGY3205**  
**3 Credits**  
**Responses to Mass Violence**  
This course would focus on societal responses to dealing with mass violence. Specifically, students would be exposed to examples of domestic and international episodes of mass violence and the governmental and nongovernmental responses created to redress mass violence and human-rights violations. This course would introduce concepts of transitional justice and use contemporary and historical examples from the United States, Rwanda, Cambodia and other sites where mass violence has taken place.

**CMLGY3207**  
**3 Credits**  
**Offender Reentry and Reintegration**  
Offender reentry is the process of transitioning offenders from prisons/jails to the community. The class will provide students with an in-depth analysis of issues impacting offender reentry including employment, access to various forms of treatment, family reunification and housing issues as well as barriers and impediments to offender reentry.

**CMLGY3250**  
**3 Credits**  
**Crime and Punishment in South Africa**  
This course examines the complex history of criminality and state response in the African subcontinent. Although the class will examine the nature of precolonial crime and punishment, the focus of the course will be on the colonial period and the apartheid era that followed. Rogues, rebels, shebeen queens, tsotsis (gangsters), highwaymen and corporate raiders all
make appearances in this course that mixes traditional lectures with seminar-style discussions. (Equivalent to HIST3250 Crime and Punishment in South Africa.)

**CMLGY3251**  
3 Credits  
**Crime and Punishment in Latin America**  
This upper-level course examines the changing cultural paradigms about order, crime, justice and punishment in Latin America and their impact on society and institutions. Chronologically, the course will be divided into four main sections: pre-Hispanic notions of social control and order (until the 1500s), the colonial foundations of racial and religious criminalization and repression (1500s to early 1800s), the early republican state and the modernization of the means of social control (mid-1800s to the 1930s) and crime and punishment in the 20th and 21st centuries (1930s to the present). Particular attention will be given to topics such as social-control policies, the police, narco-trafficking and crime, political crimes, genocide and justice. (Equivalent to HIST3251 Crime and Punishment in Latin America.)

**CMLGY3301**  
3 Credits  
**Women and Crime**  
This course examines the major theoretical explanations of both female offending and victimization. It will analyze the sociological, cultural and political forces that have shaped the construction of the female offender in society. Additionally, the class will examine the role of gender in shaping the female experience within the criminal justice system as a whole.

**CMLGY3305**  
3 Credits  
**Comparative Criminal Justice System: United States and United Kingdom**  
This course will comparatively study and analyze the criminal justice systems and philosophies of punishment in the United States and the United Kingdom. Taught in collaboration with British criminal-justice professionals and the faculty of Wroxton College, the course will examine the social, cultural, historical, political, operational and administrative components of both countries. The course will feature guest lecturers from and/or field visits to local police constabularies, the London Metropolitan Police and Scotland Yard, the Supreme Court, London’s highest criminal court (the Old Bailey) and a medium-security prison.

**CMLGY3307**  
3 Credits  
**Civil Liberties and Civil Rights**  
Analysis of Supreme Court decisions concerning speech, press, religion, rights of women, racial discrimination and affirmative action. (Equivalent to GOVT3210 Civil Liberties and Civil Rights.)

**CMLGY3308**  
3 Credits  
**Law and Society**  
Law as a determinate of social control and change analysis of legal systems and their administration with special emphasis on law affecting the poor.

**CMLGY3309**  
3 Credits  
**Policy Analysis**  
Is Megan’s Law a good policy? What about Three-strikes Laws? Many criminal justice policies have been passed due to public sentiment without proper evaluation. The goal of this class is to teach students to critically analyze, evaluate and develop sound criminal justice policies.

**CMLGY3310**  
3 Credits  
**Juvenile Delinquency**  
This course examine the juvenile justice system in the United States, including the roles of the court, police and corrections. Current empirical evidence regarding trends in juvenile delinquency will be provided, along with a thorough examination of the theoretical causes of juvenile crime.

**CMLGY3316**  
3 Credits  
**Global Terrorism**  
This course will provide a basis for understanding international terrorism, with a special focus on the frontlines. Students will study historical and current conflicts involving terrorism, including the Battle of Algiers, Israel and Palestine (Hamas and Hezbollah), Al Qaeda and the global war on terrorism. The class will also examine the bombings of the USS Cole, Khobar Towers and 9/11. It will look past U.S. policies and tactics such as interrogations, indefinite detention, extradition/rendition and rehabilitation/de-radicalization.

**CMLGY3349**  
3 Credits  
**War and Crime**  
A historical and comparative analysis of social, ethnic, religious and national conflicts with special emphasis upon understanding and analyzing the customary, moral and legal regulation of armed conflict. A case-analysis approach is used to illustrate the complexity subsetting warfare to legal regimes. (Equivalent to ANTH3349 War and Crime.)

**CMLGY3360**  
3 Credits  
**Forensic Psychology**  
This course will explore the complex interaction between psychology and the law, and it will focus on how psychologists work within the legal arena. Criminal and civil cases will be discussed and a sampling of topics to be covered includes: jury selection, eyewitness reliability, profiling, legal insanity, forensic evaluations/reports and court testimony.

**CMLGY3360**  
3 Credits  
**International Criminal Law**  
A review of the key concepts, processes, institutional and organizational components of the international criminal legal system. Problems to be analyzed include terrorism, crimes against humanity and war crimes, piracy, drug trafficking, and trafficking of women and children. The course examines the foundations and justification of the establishment of the mechanisms of international criminal law, the relationship between treaties and custom, the problems of sovereignty and the use of force, the emergence of international tribunals and courts for the trying of offenders.

**CMLGY33841**  
3 Credits  
**Torture**  
This course explores a wide range of questions about a particular form of political violence practiced by many states: torture. Examining state-sponsored torture from empirical, normative and analytical perspectives over time and across political space, the class explores the what, why, when, where, how and who of torture. (Equivalent to GOVT3841 Torture.)

**CMLGY3397**  
1–6 Credits  
**Internship in Criminology**  
Supervised internship in criminology fields with practical, experiential and academic components. More than one criminology internship may be completed.

**CMLGY3398**  
1–6 Credits  
**Internship in Criminology**  
Supervised internship in criminology fields with practical, experiential and academic components. More than one criminology internship may be completed.

**CMLGY4700**  
3–15 Credits  
**Washington Center Internship**  
This is a one-semester internship in Washington, D.C., through the Washington Center Internship Program. Students may register for 3 to 15 credits.

**CMLGY4710**  
3 Credits  
**Post-exoneration Offending**  
Students will aid in data collection, coding and analysis for a research project examining wrongful convictions’ aftermath.
CMLGY 4844
3 Credits
Game Theory
This course is an introduction to some basic concepts in noncooperative game theory and their application to a range of problems in several social-science disciplines, including economics, criminology, political science and sociology. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher.

CMLGY 4845
3 Credits
Agents in the Matrix: Creating and Analyzing Agent-based Models
This course introduces students to a powerful transdisciplinary computational tool for exploring complex systems: a large number of autonomous agents interacting independently without central control. Rooted in mathematics and computer science, agent-based modeling (ABM) is one of the most widely used methodologies for simulating complex systems by drawing on computing power to run experiments. The introduction to ABM in this course is more than just learning about the methodology; students will also learn how to design, program, execute and analyze their own ABM and then write up and present the results. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher. (Equivalent to ECON4845/GOVT4552 Agents in the Matrix: Creating and Analyzing Agent-based Models.)

CMLGY 4900
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

CMLGY 4901
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

CMLGY 4902
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

CMLGY 4903
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

Economics
Department of Social Sciences and History

ECON 1111
3 Credits
Introduction to Economics
Introductory survey of modern economics. The course offers a basic working vocabulary in economics and relies on a minimal amount of mathematical expression for students with no previous exposure to the field. Among the central concepts broached are markets and regulation, trade and tariffs, fiscal and monetary policy, distribution and redistribution.

ECON 2001
3 Credits
Introduction to Microeconomics
Problems of consumer behavior and demand, the allocation of resources of production, factor pricing and market conduct under pure competition, imperfect competition, oligopoly and monopoly.

ECON 2102
3 Credits
Introduction to Macroeconomics
A comprehensive introduction to macroeconomics. The concept of national income analysis, the theory of determination of income and employment, problems of fiscal and monetary policy and aspects of international trade. Prerequisite: ECON2001 Introduction to Microeconomics.

ECON 2205
3 Credits
Intermediate Macroeconomics
The determination of national income, inflation, unemployment and interest rates using classical, Keynesian, monetarist, new classical, new Keynesian and supply-side economics. Monetary and fiscal policy alternatives. Prerequisite: ECON2102 Introduction to Macroeconomics.

ECON 2204
3 Credits
Intermediate Microeconomics
The theory of demand, economics of the firm, cost, price and distribution. Prerequisite: ECON2001 Introduction to Microeconomics.

ECON 2206
3 Credits
Economic History of the United States
An empirical and theoretical analysis of the economic and financial growth of the United States, including changes in the industrial structure, technology and level of national product. Prerequisites: ECON2001 Introduction to Microeconomics, ECON2102 Introduction to Macroeconomics or the instructor’s permission.

ECON 2207
3 Credits
Introduction to Econometrics
Quantitative analytical methods, combining economic theory, mathematics and statistics. Prerequisites: ECON2205 Intermediate Macroeconomics, ECON2204 Intermediate Microeconomics or the equivalent.

ECON 2208
3 Credits
International Trade
Theoretical and practical aspects of world trade; studies of comparative cost advantages, tariff policies, balance of payments, foreign exchange market, foreign investments, foreign trade promotion and trade agreements. Prerequisite: ECON2102 Introduction to Macroeconomics.

ECON 2250
3 Credits
Economic Methods
This course provides an introduction to the theories and methods underlying modern social science research across sociology, political science, economics and criminology. In this course, students will learn to assess the validity of social science research and design their own research projects using a variety of qualitative and quantitative techniques such as ethnography, content analysis, experiments and surveys. Students are required to have completed MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods and should have this level of mathematical skill in order to succeed in the required methodological course. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

ECON 3307
3 Credits
Public Finance
Government in a mixed economy and its impact on the individual, the firm and the market. Prerequisites: ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics.

ECON 3310
3 Credits
Current Economic Problems
Economic (national and international) problems facing the United States.

ECON 3314
3 Credits
The Russian Economy
Economic developments in the former Soviet Union since 1917, including Soviet economic planning and the post-Soviet transition.
Course Descriptions

English Language and Literature • Film and Animation

Maxwell Becton College of Arts and Sciences
Florham Campus

ECON3515
3 Credits
Economics of the Near and Middle East
Geographical, cultural, social and other factors influencing the economic development of individual countries, as well as the entire area.

ECON3519
3 Credits
Politics of the Global Economy
Studies the relationship between political events and economic actions on the international economy.

ECON3666
3 Credits
Government and Business
The economic position of the United States government with respect to economic policy, including government regulation of business, growth, stability and the redistribution of income. Prerequisite: ECON2102 Introduction to Macroeconomics.

ECON4075
1–3 Credits Each Semester
Honors Seminar

ECON4401
3 Credits
Economics Seminar
Seminar on a topic selected by the instructor. Prerequisite: the instructor's permission.

ECON4421
3 Credits
Selected Studies in Economics
Studies in an area of economics. Prerequisites: ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics.

ECON4430
1–3 Credits Each Semester
Selected Studies in Economics
Studies in an area of economics or regional studies.

ECON4461
3 Credits
Economic Sociology
Means, mechanisms and ways people understand their relationship to production, consumption and the distribution of goods, commodities and, most importantly, value. Note: Blended course. Meets in person and online. Equivalent to SOCI4461 Economic Sociology.

ECON4477
1–3 Credits Each Semester
Honors Research and Thesis

ECON4800
3 Credits Each Semester
Independent Study in Economics

ECON4844
3 Credits
Game Theory
This course is an introduction to some basic concepts in noncooperative game theory and their application to a range of problems in several social-scientific disciplines, including economics, criminology, political science and sociology. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher.

ECON4845
3 Credits
Agents in the Matrix: Creating and Analyzing Agent-based Models
This course introduces students to a powerful transdisciplinary computational tool for exploring complex systems: a large number of autonomous agents interacting independently without central control. Rooted in mathematics and computer science, agent-based modeling (ABM) is one of the most widely used methodologies for simulating complex systems by drawing on computing power to run experiments. The introduction to ABM in this course is more than just learning about the methodology; students will also learn how to design, program, execute and analyze their own ABM and then write up and present the results. Prerequisite: MATH1107 Precalculus or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods or higher. (Equivalent to CMGY4845/GOVT4552 Agents in the Matrix: Creating and Analyzing Agent-based Models.)

ECON4900
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

ECON4901
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

Film and Animation
School of the Arts

Animation

ANIM1300
3 Credits
Writing for Animation
Any memorable animation starts with a story. This course teaches how to transform basic ideas into animated stories by learning to write for visual media. While nurturing their individual writing style, students learn to develop premises, outlines and final scripts for animation in proper industry standard format. How to structure plots, create tone and build themes are covered in this course. 

ANIM1400
3 Credits
Character Design
Character design takes place during the initial production stages of animated films and video games and plays a crucial role in the creation and success of those projects. Students in this class learn the process of designing imaginative original characters by creating character-development documents, which consist of sketched and digitally enhanced poses and facial expressions assembled into model sheets along with written character biographies. These materials, which are typically utilized in the industry, aid in defining the appearance, poses and behavior of an animated character.

ANIM1500
3 Credits
Storyboarding
In this class, students learn to produce storyboards, which are a series of sketches displayed in sequence for the purpose of pre-visualizing an animation, after which they assemble those sketches into animatics to establish timing and pacing. Students brainstorm together, just as a creative team would do in the industry, by arranging and rearranging their sketches in order to evoke stronger reaction or interest based on their classmates’ input and feedback. Through this process, students consider modifications in their storylines as well as additional scenarios that may contribute to the enhancement of their ideas.

ANIM1501
3 Credits
Fundamentals of Animation Principles
This course teaches the principles of animation used to produce the illusion that the characters

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in an animation are following the basic laws of physics. Students learn how to show weight and flexibility while also emphasizing and exaggerating abstract issues, such as emotional timing and character appeal. Portraying natural motion and anticipation in order to prepare the audience for an action, as well as how to direct the audience’s attention, is covered in this course. Topics include timing, speed, momentum, secondary action, anticipation, follow through, weight, balance, mood, emotion and personality.

Fee

ANIM1502
3 Credits
Introduction to Stop Motion Animation
This course will explore the techniques used to produce stop motion animation and study the procedures for creating armatures and joints used in traditional 3D animation. Students will design and create characters from clay, plastic, foam and/or latex, manipulating them frame-by-frame to bring the characters to life. Through the creation of these projects, students will learn the history, secrets and tricks used to produce animation using tangible 3D media.

Fee

ANIM1650
3 Credits
Game Design
By studying the evolution and history of video games, students learn to plan the visual and interactive content, goals, game play and the rules of their own game ideas. This course also teaches how art specifications can conflict with technical constraints and how some ideas might be impractical to build. Students write in-depth game-design documents, where elements such as story, setting, character development, logical flow and levels are planned, and unforeseen issues are dealt with through modification of the paper design based on class critiques and feedback.

ANIM1750
3 Credits
Motion Graphics with After Effects®
By learning how to animate virtually every aspect of an element using Adobe® After Effects®, students create high-impact communications combining moving imagery, graphics, video, text and sound. This course focuses on manipulating moving images, dynamic effects and compositing techniques to produce animated content for virtually any media. The focus is on quality design and animation targeted at high-end, commercial-style production. Color management and enhancement tools used in the manipulation of photos and videos while preserving clarity and color integrity are also covered in this course.

Fee

ANIM1800
3 Credits
Vector Animation Using Animate CC
This course teaches how to design interactive animations using Adobe Animate CC’s innovative drawing tools and publish them to multiple platforms. Students learn to recognize and implement the basic principles of animation into their projects. The focus is on learning the vector animation toolset and the motion editor to create multifaceted animations targeted at mobile devices as well as today’s ultra-high-resolution displays.

 Fee

ANIM1850
3 Credits
3D Computer Modeling
This course is an introduction to the 3DS MAX software interface and its various features. The focus is on learning how to build high-detail 3D models, create and apply high-quality textures and implement lighting and cameras. Students create manmade and organic objects and learn to effectively critique their own as well as their classmates’ work.

ANIM2100
3 Credits
Tradigital Animation
This course teaches a mixed-media approach of using the computer to seamlessly combine two- and three-dimensional animation. Students learn to merge studio art media with digital animation to produce free-flowing traditional style animation that is completely digital. Emphasis is on the emerging movement of exploring technologies that blend computer animation with classical cell-animation techniques. Prerequisite: ART1201 Drawing I.

 Fee

ANIM2240
3 Credits
Low Poly 3D Modeling
This introductory course focuses on the design and creation of low polygon 3D models and textures as they relate to interactive-game production. Students learn to create assets that fit within the guidelines, limitations and goals of those capable of being utilized in 3D engine platform games. This course teaches students how to plan ahead so when producing models for interactive use they will be as low poly as possible, yet still look as high quality as possible in-game.

 Fee

ANIM2245
3 Credits
Advanced After Effects®
Students take their motion graphics skills to the next level by animating, editing and compositing media in both 2D and 3D space in this course. They also learn to produce impressive digital effects and composite artwork with live-action footage using finely tuned keying techniques.

 Fee

ANIM2270
3 Credits
ZBrush Digital Sculpting Human Anatomy
This class teaches digital sculpture by learning how to create ultra-realistic, lifelike 3D characters using ZBrush. The focus is on planes, anatomy, form, rhythm and proportion while learning how to add a high level of detail to polygonal meshes utilizing the application tools. Digital sculpting techniques and texture painting are discussed and taught through a variety of demonstrations, exercises and in-depth assignments. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

ANIM2285
3 Credits
3D Asset Creation for Video Games
The course teaches students how to design, create and import 3D models into a game-mesh renderer that mimics the settings found in today’s popular game engines. Learn to create and organize asset libraries and properly assign textures and materials to those elements. Convert texture layers created in graphics programs to normal maps and other types of maps, such as ambient occlusion and cavity maps, which are necessary for producing fast and efficient high-quality game renderings. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

 Fee

ANIM2300
3 Credits
Texturing for 3D Production
The course focuses on in-depth analysis of texture principles, materials, color, characteristics, properties and their application in 3D computer artwork. Students develop a fundamental understanding of material identification and texture creation. Emphasis is placed on the ability to examine real-world textures and identify each
characteristic found in those materials. Learning how to properly apply and adjust alignments using various texture-mapping techniques is also covered in this course. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

Fee

ANIM2500 3 Credits
3D Computer Animation
The course teaches the basics of 3D animation, including physics, substance, reaction and force. Topics include keyframing, function curves, motion paths, dope sheets, aesthetics and limited special effects. After first sketching and refining storyboards that communicate their ideas, students then move on to the computer phases of the project. They are expected to produce animations that emulate real-world physics as well as exhibiting mood and symbolism. Everyone in the class participates in critiques of their own, as well as their classmates', work. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

Fee

ANIM3225 3 Credits
Vector Animation II
This course builds on the skills learned in ANIM1800 Vector Animation Using Animate CC. The emphasis is on a broader use of the vector animation toolset and the motion editor to generate engaging animations. Students learn to increase their attention to detail and study the intricacies of creating sophisticated animated pieces. Prerequisite: ANIM1800 Vector Animation Using Animate CC.

Fee

ANIM3250 3 Credits
3D Particle Animation and Effects
This course teaches how to create, control and optimize various types of 3D particle systems within Autodesk's 3DS MAX. Students learn how to effectively implement special effects such as fire, explosions, fluids, dust, bubbles, disintegration, physics, collisions, etc., into their 3D scenes and animations. Prerequisite: ANIM2500 3D Computer Animation.

ANIM3350 3 Credits
3D Environment Modeling
This course focuses on taking all aspects of 3D modeling, lighting and texturing learned in previous courses to a higher level. By creating detailed 3D environments, students gain a greater understanding of the software tools and how to manipulate the complex details of each to improve the visual aesthetics of their finished renders. How to see the flaws and identify areas of improvement in their own works as well as their classmates' pieces is discussed in class critique sessions. Prerequisite: ANIM1850 3D Computer Modeling or ANIM2240 Low Poly 3D Modeling.

Fee

ANIM3351 3 Credits
Logo and Product Animation
Students design logos and work with a variety of types of animation and special effects to create commercial-style animation. Prerequisite: ANIM2500 3D Computer Animation.

Fee

ANIM3341 3 Credits
Character Animation Using CAT
This course teaches students how to apply and manipulate the basic character animation techniques found within the CAT toolset. Students learn how to rig, add muscles, create facial morphs and apply and adjust the Physique and Skin modifiers, which perform the mesh deformation necessary to move the character throughout the 3D scene. How to work with and combine the various CAT layers to produce smooth, believable animation is covered in this course. The details of secondary motion, follow through and asymmetrical poses to emulate lifelike body gesture and facial expression are discussed and critiqued. Prerequisite: ANIM2500 3D Computer Animation.

Fee

ANIM3345 3 Credits
Advanced Character Animation
This class builds on the character rigging and animation skills learned in the previous CAT course. Students continue to develop the article and technical skills necessary to become successful character animators by concentrating on the critical principles of animation like motion area, weight, overlapping motion, subtleties using animation layering and muscle simulation. The focus is on how to increase empathy for their animated characters by better displaying feelings of happiness, desolation and distress and articulating the personality and emotion to the audience. Prerequisite: ANIM3341 Character Animation Using CAT.

Fee

ANIM3440 3 Credits
Design and Development of Video Games
This class is project based, where game development students and video game animation students work in groups to design and develop their own video games. In order to gain interdisciplinary work experience, the teams will design and develop 2D and 3D games in order to understand the production cycle found in real-world, game-creation projects. Prerequisites: ANIM1650 Game Design and ANIM2500 3D Computer Animation.

Fee

ANIM4422 1–3 Credits
Internship in Animation I
Intern at a company or organization, in an animation, interactive multimedia, web design or graphic design facility for between five and 20 hours per week. Prerequisites: permission of instructor and department chairperson.
ANIM422
1–3 Credits
Internship in Animation
A continuation of ANIM422 Internship in Animation. Students will enter a new internship site or continue at a previous production or postproduction facility. Prerequisites: permission of instructor and department chair.

ANIM4500
3 Credits
Thesis I
This class is designed to prepare film and animation majors for exit from the program. It requires the student to write proposals and scripts, sketch storyboards and begin creating original 3D models for their thesis project. Prerequisite: permission of program director.

ANIM4600
3 Credits
Thesis II
The course requires students to complete, present and screen their thesis projects. Prerequisite: ANIM4500 Thesis I.

ANIM4800
3 Credits
Independent Study in Animation
Students will work independently on a special animation project or topic, which will be approved by the supervising professor.

ANIM4900
3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

ANIM4901
3 Credits
Faculty/Student Research
Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: ANIM4900 Faculty/Student Research.

ANIMH1202
3 Credits
History of Special Effects and Animation
Students investigate and analyze the history and evolution of special effects and techniques while applying that understanding to modern-day visual effects and animation. Starting with camera methods, this course covers topics that include traditional stop motion, claymation, cameramotion control, matte paintings, rotoscoping, models and miniatures. This class also explores modern computer-generated visual effects, animation, compositing and production techniques.

Film
FILM1004
3 Credits
Filmmaking I for High School Students
A foundation is established in understanding the creative possibilities in film production and basic visual communications. Television and film techniques in camera, story and editing are stressed. Mini-productions in narrative, documentary, interview format, along with technical understanding of basic concepts in production. (Equivalent to FILM1005 Filmmaking I: Basic Production.)

FILM1005
3 Credits
Filmmaking I: Basic Production
The language of cinema. Techniques in camera, story and editing are stressed. Narrative and documentary productions are assigned, as the class pursues both an understanding of basic production and storytelling concepts. (Equivalent to FILM1004 Filmmaking I for High School Students.)

FILM2006
3 Credits
People at Work: The Psychology of the Office
Throughout their lives, most people will spend more time at work interacting with strangers than in any other activity. These interpersonal activities give rise to many situations and interactions that are — from a psychological perspective — unique and study-worthy. Using the popular TV series “The Office” as a case study, this course will explore the psychological and sociological dimensions of the office as a workplace and examine the personalities, interactions, emotions and behaviors that exist in the work environment.

FILM2208
3 Credits
Filmmaking II: The Professional Crew
Techniques of the professional crew. This course focuses on preproduction, production, working as a team and at reaching an understanding of all the crafts and crew positions that go into production. Script breakdowns, scheduling and advanced production techniques such as sound mixing, booming, lighting and camera work, as well as beginning editing skills are the focus of this class. Prerequisite: FILM1005 Filmmaking I: Basic Production.

FILM2210
3 Credits
Postproduction I
The course presents advanced nonlinear editing approaches to film and video through the use of practical assignments and introducing a knowledge of the history of film editing and its practice. Prerequisite: FILM2208 Filmmaking II: The Professional Crew.

FILM2214
3 Credits
Audio for Film and Video
Learn the basics and aesthetics of film/video sound and music. The class will involve workshops and lectures in recording live sound, postproduction mixing and sound design. Prerequisite: FILM2208 Filmmaking II: The Professional Crew.

FILM2216
3 Credits
The Radio Documentary
Students will study and create in the unique form of the radio documentary. Starting with audio source material and research, the class will prepare long-form news stories and documentary features, and learn how to use audio for dramatic effect. Work will culminate in the creation of a program designed to work through its effective use of audio. The class will also visit production companies to meet with creators of audio content and to gain from their knowledge and experience. All efforts will be made to have the student-produced work broadcast on a local radio station. Prerequisite: COMM2214 Introduction to Broadcasting.

ANIM422
1–3 Credits
Internship in Animation II
A continuation of ANIM422 Internship in Animation I. Students will enter a new internship site or continue at a previous production or postproduction facility. Prerequisites: permission of instructor and department chair.

ANIM4500
3 Credits
Thesis I
This class is designed to prepare film and animation majors for exit from the program. It requires the student to write proposals and scripts, sketch storyboards and begin creating original 3D models for their thesis project. Prerequisite: permission of program director.

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3 Credits
Faculty/Student Research
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ANIMH1202
3 Credits
History of Special Effects and Animation
Students investigate and analyze the history and evolution of special effects and techniques while applying that understanding to modern-day visual effects and animation. Starting with camera methods, this course covers topics that include traditional stop motion, claymation, cameramotion control, matte paintings, rotoscoping, models and miniatures. This class also explores modern computer-generated visual effects, animation, compositing and production techniques.
Course Descriptions

**Film and Animation**

Maxwell Becton College of Arts and Sciences
Florham Campus

**FILM2250**
3 Credits

**Screenwriting I**

Students learn the basics of screenplay structure, character development, dialogue, rising and falling action, conflict and resolution by writing scripts and reading and analyzing successful screenplays. Students complete short scripts that may be used in other classes as shooting assignments. (Equivalent to CREW2250 Screenwriting I.)

**FILM2251**
3 Credits

**Screenwriting II**

Advanced techniques of writing for motion pictures. Emphasis is placed on writing the feature screenplay. Students look deeper at character flaws and reversal, fine-tuning their creative voice and style and the development of a story that is worthy of someone giving up two hours of their life. Students will complete a feature-film screenplay. Advanced students also deal with the realities of marketing their work.

**FILM2255**
3 Credits

**TV News and Magazine Production**

Students will learn how to identify, develop and produce single-camera field productions for TV spot news, TV news feature stories and TV news magazine segments. Students will write, direct, shoot and edit in a fast turnaround schedule common in the TV news industry. Prerequisite: FILM1005 Filmmaking I: Basic Production.

**FILM3109**
0 Credits

**Film and Actors Lab**

A laboratory to provide a meeting time for collaboration between directors, cinematographers and actors. The course will run to facilitate those taking DAN3316 Stage Combat I, FILM3209 Filmmaking III: Mastering the Art and Craft of Film Production and FILM3214 Cinematography: Camerawork, when these courses are run concurrently. Corequisite: DAN3316 Stage Combat I, Filmmaking III: Mastering the Art and Craft of Film Production or FILM3214 Cinematography: Camerawork.

**FILM3209**
3 Credits

**Filmmaking III: Mastering the Art and Craft of Film Production**

A continuation of the filmmaking sequence. Student stories and productions are pursued. The focus of this course is on individual project design and management, stressing new and advanced production techniques.

**FILM3211**
3 Credits

**Cinematography: Lighting**

Lighting is what creates mood, depth and believability on the screen. This class covers both the art and the craft of lighting — from the physics of light and basic electricity to lighting units, film lighting styles and professional techniques. Students learn from in-class lighting demonstrations, out-of-class lighting assignments, watching and discussing the lighting techniques of the masters in cinematography. Prerequisite: FILM2208 Filmmaking II: The Professional Crew.

**FILM3212**
3 Credits

**Postproduction II**

A continuation of FILM2210 Postproduction I. In-depth aesthetic exploration using nonlinear editing styles and procedures, including planning special effects and their implementation in digital postproduction. Prerequisites: FILM2208 Filmmaking II: The Professional Crew and FILM2210 Postproduction I.

**FILM3214**
3 Credits

**Cinematography: Camerawork**

Advanced study of camera work from angles, frame composition, filters and camera movement to exposure, focus and lenses. Course will include viewing and discussion of camera work in film, video and television as well as practical, in-class exercises and critiques. Students will also learn about film stocks and development processes by shooting 16mm in-class assignments and will examine the work of famous significant directors of photography.

**FILM3253**
3 Credits

**Screenwriting III: Feature Films**

An advanced course focusing on the art of writing feature films. Students will delve into how films of a longer length, greater depth and increased character development are researched and written. They will be expected to work on films of a feature length and master the art of story on a deeper level than in previous courses. Prerequisite: FILM2251 Screenwriting II.

**FILM3365**
3 Credits

**Film Directing**

The advanced student will study both the theory and techniques of directing the narrative film.

**FILM3401**
3 Credits

**Advanced Cinematography**

This course will cover advanced subjects and techniques in cinematography and lighting, and delve into the work of noted cinematographers. Subjects will include blocking for the camera, planning effective camera movement, creating cinematographic styles and the use of an artistic color palette for narrative film. Prerequisite: FILM3214 Cinematography: Camerawork.

**FILM3425**
3 Credits

**16mm Motion Picture Photography**

Course will cover techniques, properties and artistic applications of shooting motion picture film as well as the operation of the 16mm film camera. Film stocks, contrast, grain, color range, special processing such as pushing, flashing and bleach bypass will also be discussed. Students will learn from in-class shooting exercises, viewing of dailies, visits to Kodak and discussions with cameramen as well as screenings and lectures.

**FILM3426**
3 Credits

**Producing Movies**

The business of motion picture production. What is the role of producer as both artist and business person? Emphasis will be on the financing of film and media projects, assembly of creative team and analysis of material from the producer’s perspective. The class will look into budgets and how to plan film and television production, with an emphasis on the role of the producer and the creative organizational techniques of producing.

**FILM3427**
3 Credits

**Distributing Movies and Media**

Finding the audience and the market. How does a film, television or media project move from concept to market? This class will focus on the marketing and distribution of films across multiple platforms and methods of exploitation. It will study both traditional and new methods of exploiting media, from working with large established companies to self-distribution.

**FILM3450**
3 Credits

**Reality TV Production**

Reality TV is now an undeniable part of popular culture both in the U.S. and abroad and has become a major successful genre in television.
Students will learn the unique production procedures by examining the long-running, Emmy-nominated and internationally popular TV series “Project Runway.” Students will learn firsthand by using “Project Runway” as a model to create, produce and edit their own reality series that will then be aired on the FDU TV YouTube channel. Prerequisite: COMM3349 Introduction to Television or FILM1005 Filmmaking I: Basic Production.

FILM4512
3 Credits
Producing and Directing the Thesis Film II
This course is designed to prepare film majors for exit from the program. Each student will create an original narrative or documentary production or other approved project, at short or feature length. Prerequisite: FILM4311 Producing and Directing the Thesis Film I.
Fall, Spring
Fee

FILM446
3 Credits
Producing and Directing the Thesis Film I
This course is designed to prepare film majors for exit from the program. Each student will create an original narrative or documentary production or other approved project, at short or feature length. Prerequisite: FILM4311 Producing and Directing the Thesis Film I.
Fall, Spring
Fee

FILM4109
3 Credits
Music Scoring for Film – Video
Students will study the basic elements of music as well as the fundamental techniques of scoring, the use of MIDI and current computer technology. The course is designed for students with video and film backgrounds as well as those with a very specific musical background.

FILM4422
3 Credits
Internship in Film I
Intern at a company or organization, in a production or postproduction facility, for between 5-20 hours per week. Prerequisites: permission of instructor and department chair.

FILM4423
3 Credits
Internship in Film II
A continuation of FILM4422 Internship in Film I. Students will enter a new internship site or continue at a previous production or postproduction facility. Prerequisites: permission of instructor and department chair.

FILM4461
3 Credits
Documentary Filmmaking
This course is for the filmmaker whose interest is primarily in creating documentary footage that explores a wide range of issues, whether social, economic and/or political. Prerequisite: FILM2208 Filmmaking II: The Professional Crew or email hoffman@fdu.edu for permission.
Fee

FILM4463
3 Credits
Sports Video Production
This course is designed for the student primarily interested in the exploration of the general and aesthetic issues of the sports world. Prerequisite: FILM2208 Filmmaking II: The Professional Crew and FILM2210 Postproduction I.
Fee

FILM4465
3 Credits
Client-driven Production I
Working with nonprofit, corporate and government organizations. Students gain real-world experience working on productions for corporate clients or for nonprofit or government organizations. Students handle production concepts, scripts and fill the roles of scriptwriters, camera operators, production managers, sound mixer, boom, editor, etc., resulting in a training, corporate image or marketing-type film.
Fee

FILM4800, FILM4801, FILM4802, FILM4890, FILM4891
1–3 Credits Each Semester
Independent Study

FILM4900
3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.
FREN4901  
3 Credits  
**Faculty/Student Research**  
Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: FILM4900 Faculty/Student Research.

**French Language and Literature**

*Department of Literature, Language, Writing and Philosophy*

FREN1001  
3 Credits  
**Beginning French I**  
An introduction to the language with practice in reading, writing and conversation. Corequisites: FREN1007 French Practicum I and FREN1008 French Practicum II.

FREN1002  
3 Credits  
**Beginning French II**  
An introduction to the language with practice in reading, writing and conversation. Prerequisite: FREN1001 Beginning French I or departmental permission.

FREN1007  
1 Credit  
**French Practicum I**  
This one-credit course is linked to FREN1001 Beginning French I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: FREN1001 Beginning French I.

FREN1008  
1 Credit  
**French Practicum II**  
This one-credit course is linked to FREN1002 Beginning French II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: FREN1002 Beginning French II.

FREN2003  
3 Credits  
**French Conversation I**  
Course focuses on conversation through writing, reading, literature and grammar. Note: FREN2003 French Conversation I and FREN2004 French Conversation II may be taken in any order.

FREN2004  
3 Credits  
**French Conversation II**  
This course reviews important grammar topics and discusses contemporary issues in France.

FREN2005  
3 Credits  
**French Film**  
This bilingual course studies the evolution of French film with special emphasis on the contemporary period. It studies various movements in literature and the visual arts as they relate to film. (Equivalent to CINE2005 French Cinema.)

FREN2006  
1 Credit  
**French Film Workshop**  
Writing and discussion in French of contemporary French films. Corequisite: FREN2005 French Film.

FREN2007  
3 Credits  
**Francophone Current Events: Writing and Conversation**  
Taught in French, this course focuses on current events in the French-speaking world as a springboard for writing and conversation. Prerequisite: FREN1002 Beginning French II.

FREN2008  
3 Credits  
**Writing in French**  
Students read and write in a variety of content areas. Emphasis is on written expression, building vocabulary and grammar. Prerequisite: FREN2003 French Conversation I, FREN2004 French Conversation II or departmental permission.

FREN2203  
3 Credits  
**Contemporary France**  
A bilingual course, it discusses current issues on politics, the European Union, society and language related to France and its former colonies.

FREN3005  
3 Credits  
**French Conversation and Translation**  
Advanced conversation course that focuses on translation techniques in several media. Fall

FREN3007  
3 Credits  
**French Culture and Civilization**  
This bilingual course introduces key topics in French history, politics, arts and literature as well as the sciences. It will also address contemporary issues in French culture.

Note: FREN2003 French Conversation I and FREN2004 French Conversation II may be taken in any order.

FREN3010  
3 Credits  
**Advanced French Grammar**  
This course focuses on intensive grammar review, sentence structure, building vocabulary and perfecting composition skills. Prerequisite: FREN2003 French Conversation I or FREN2004 French Conversation II.

FREN3051  
3 Credits  
**Sex and Politics in French Literature**  
This course focuses on manners at court and beyond — from the 18th century to the end of the 19th century. Among the authors considered are Molière, Laclos, Marivaux, Dumas, Stendhal, Balzac, Baudelaire and Zola. Prerequisite: ENGW1002 Composition II: Research and Argument.

FREN3142  
3 Credits  
**Advanced French Composition**  
Composition and essay writing are the main focuses of this course. Grammar topics are reviewed as students write on a variety of issues.

FREN3142  
3 Credits  
**Writing in French**  
Students read and write in a variety of content areas. Advanced grammar is reviewed as students expand their vocabulary and improve their written expression. Prerequisite: FREN2003 French Conversation I, FREN2004 French Conversation II or permission of department chair.

FREN3502  
3 Credits  
**French Translation**  
This course focuses on translating written material.

FREN3551  
3 Credits  
**Topics in French Literature I**  
This course focuses on the literature of the Middle Ages through the Enlightenment in France.

FREN3552  
3 Credits  
**Topics in French Literature II**  
This course focuses on Romanticism, Realism, Modernism and other contemporary themes in Francophone literature.

FREN3666  
3 Credits  
**Witches and Warlocks in the Western World**  
This course focuses on the definition of who and what is a witch, both in Europe and in North America, from the Middle Ages to the 20th century. Note: meets literature elective and culture course requirement.
courses have changed over time.

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tries and poor, and interrogate the ways in

waging with these types of issues, the class will

as “developing countries” or “the third world”
certain regions of the world collectively

ical-economic change commonly known as “de-

velopment.” The class will ask why, for example,
certain regions of the world collectively known as “developing countries” or “the third world” have come to experience conditions of crushing poverty while other areas have prospered. In engaging with these types of issues, the class will examine the relationships between rich countries and poor, and interrogate the ways in which the links between different parts of the world have changed over time.

Geography

Department of Social Sciences and History

GEOG1102

3 Credits

Geography and World Issues

This is an introductory course in geography, a discipline that examines the relationships between and among people, places, environments and cultures. The course covers a range of concepts that will enable students to engage critically with geography as an academic discipline. The class interrogates the geographic aspects of several important contemporary world issues like global connectivity, human migration, citizenship, cultural identity, urbanization, economies and politics.

GEOG1111

3 Credits

Economic Geography

This course serves as an introduction to the core principles, theories and histories of economics, with specific attention to the issues that shape the spatial contours of the global economy. The class will work to develop a basic understanding of contemporary public debates about economic policy and explore the relationships between spaces, labor and markets. By the end of the semester, the class will have engaged with concepts like globalization, austerity and neoliberalism and studied the often-conflicting roles of economic actors like states, producers and consumers.

Spring, Fall

GEOG2500

3 Credits

Global Development: Geographies of Wealth and Poverty

This course provides an introduction to the multifaceted process of social, cultural and political-economic change commonly known as “development.” The class will ask why, for example, certain regions of the world collectively known as “developing countries” or “the third world” have come to experience conditions of crushing poverty while other areas have prospered. In engaging with these types of issues, the class will examine the relationships between rich countries and poor, and interrogate the ways in which the links between different parts of the world have changed over time.

GEOG2600

3 Credits

Urban Geography

This course will serve as a geographical introduction to the history, theory, form and function of cities. In the past decade, the number of people living in cities has surpassed the world’s rural population. Demographers speculate that cities will account for all global population growth over the next 50 years as people continue to leave rural areas for urbanized life. Most of these changes are happening in the developing world, marking a globalized landscape no longer exclusively defined by places like New York or Paris, but also by “third-world” cities like Lagos, Mumbai and São Paulo. As sites of economic production, spaces of cultural and artistic expression and places where inequality is often rendered most visible, cities pose new challenges and offer opportunities for governments, communities and individuals the world over. The class will employ a number of different vantage points and disciplinary lenses in order to interrogate these exciting and complex urban landscapes.

GEOG2700

3 Credits

Environmental Geography: Nature, Power and Society

This course critically examines environmental transformations that arise from the complex interactions between natural systems and human activities. The pursuit of knowledge about natural resources and ecological systems is a scientific enterprise, yet addressing questions about the production, consumption, distribution, worth, degradation and preservation of these resources is a historically, politically and economically specific endeavor. The course goal is to encourage students to develop an appreciation of environmental conditions in their historical and political context.

GEOG3030

3 Credits

Surveillance and Security

Recent revelations about data collection by actors as varied as the National Security Agency and Facebook have challenged many of society’s most basic beliefs about power and privacy. It is increasingly clear that bodies, images and words are ceaselessly tracked, sorted, profiled, stored in databases and recalled by algorithms — all in the name of a loosely defined concept called “security.” In this class, students will interrogate these uneasy relationships between surveillance and security, looking at both state-surveillance practices as well as visual practices aimed at monitoring the state. By engaging with a broad array of media — academic research, social theory, television, film, fiction — students will debate the role of surveillance in generating security, but also focus on the ways that broad data collection can actually enable populations to act in new and beneficial ways. (Equivalent to CMLGY3030 Surveillance and Security.)

GEOG3040

3 Credits

Capture and Control: Geographies of Detention and Incarceration

Modern democratic states often rely on practices of detention and incarceration in order to demonstrate (and increasingly, to circumvent) the power of the rule of law. As a result, international and domestic detention spaces like refugee camps, jails and for-profit prisons, war prisons, black sites, migrant detention islands, border checkpoints and protest camps are utilized in an ever-expanding number of spatial, legal and political contexts. In this course, students will explore these spaces and engage in a detailed historical and theoretical investigation of the complex and often contradictory processes that produce them. (Equivalent to CMLGY3040 Capture and Control.)

German

Language and Literature

Department of Literature, Language, Writing and Philosophy

GERM1001, GERM1002

6 Credits (3 Credits Each Semester)

Beginning German I, II

An introduction to the language with practice in reading, writing and conversation. Corequisites: GERM1007 German Practicum I and GERM1008 German Practicum II.

GERM1007

1 Credit

German Practicum I

This one-credit course is linked to GERM1001 Beginning German I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: GERM1001 Beginning German I.

GERM1008

1 Credit

German Practicum II

This one-credit course is linked to GERM1002 Beginning German II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: GERM1002 Beginning German II.

GERM2003

3 Credits

German Conversation I

Course focuses on conversation through writing, reading, literature and grammar. GERM2003 German Conversation I and GERM2004 German Conversation II may be taken in any order.
Course Descriptions

Government and Law
Maxwell Becton College of Arts and Sciences
Florham Campus

GERM2004
3 Credits
German Conversation II
This course reviews important grammar topics and discusses contemporary issues in Germany. GERM2003 German Conversation I and GERM2004 German Conversation II may be taken in any order.

GERM3007
3 Credits
German Culture and Civilization
This bilingual course introduces key topics in German history, politics, arts and literature as well as the sciences. It will also address contemporary issues in German culture.

Government and Law
Department of Social Sciences and History

GOVT1000
3 Credits
American Government and Politics
Structure and function of American national government; roles of interest groups and political parties, voting behavior, powers of president, Congress, bureaucracy and federal judiciary. Fall, Spring

GOVT1100
3 Credits
Global Politics
This course introduces students to two dimensions of world politics: the domestic politics of countries outside the United States and interactions between countries. Topics covered include states and the international system, regimes, identity, democratic and nondemocratic political institutions and change, war, international political economy and trade, human rights and international law, transnational problems and globalization. The course explores these themes through an examination of prominent theories and case studies.

GOVT1120
3 Credits
Comparative Government
Analysis and comparison of contemporary political institutions and processes of selected countries.

GOVT1200
3 Credits
Introduction to Law
Overview of substantive and procedural law, and scholarly research on legal behavior and institutions. Course emphasizes the contemporary U.S. legal system but includes discussion of comparative and historical issues.

GOVT1850
3 Credits
Playing Politics
Politics can be conceptualized as a “game,” a situation of strategic interaction between two or more players. In this course students adopt the perspective of different political actions and actually play important political games — elections, campaigns, state formation, forming a coalition government and more.

GOVT2010
3 Credits
The Congress
Organization, political leadership and procedures of each house of Congress; the committee system; proposed congressional reforms.

GOVT2020
3 Credits
The American Presidency
Roles and functions of president, Cabinet, executive agencies; relations with Congress.

GOVT2030
3 Credits
The Supreme Court
The Supreme Court of the United States has emerged as the most powerful tribunal in the world. It plays a major role in resolving conflicts, making policy and developing the rule of law. This class examines how history, theory, social science research, jurisprudence, public opinion and a range of social and political forces help us in understanding why and how the Court is a major force in American politics. (Equivalent to CMLGY2030 Supreme Court.)

GOVT2045
3 Credits
Public Opinion
Explores the nature of public opinion and its connection to survey research, mass media influence and public policymaking, as well as the psychology of opinion holding and the role of public opinion as a mechanism of democratic linkage.

GOVT2050
3 Credits
President and Congress
The relationship between the two branches of government in the policy-making process. Why do presidential initiatives succeed or fail? What are the sources of presidential and congressional influence in the policy process?

GOVT2070
3 Credits
Women and American Politics
This course examines the participation of women in American political life. It will analyze the role of feminism in altering women’s public roles in historical and contemporary contexts, women’s participation in electoral politics and the role of women and their influence as officials within governing institutions.

GOVT2120
3 Credits
Globalization and Its Impact on the State
The effect of globalization on the political organization of modern states, with special emphasis upon the developing world.

GOVT2130
3 Credits
International Relations
Theories and problems of international politics and foreign policy.

GOVT2230
3 Credits
Judicial Process
Students will be introduced to the litigation process, including basic evidentiary rules, courtroom procedures and trial advocacy. Students will use this knowledge to prepare and conduct a simulated trial in which they serve as attorneys and witnesses.

GOVT2281
1–3 Credits
Mock Trial I
Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills.

GOVT2282
1–3 Credits
Mock Trial II
Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills from GOVT2281 Mock Trial I. Prerequisite: GOVT2281 Mock Trial I.
GOVT2283
1–3 Credits
Mock Trial III
Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills from GOVT2282 Mock Trial II. Prerequisite: GOVT2282 Mock Trial II.

GOVT2284
1–3 Credits
Mock Trial IV
Students in the mock trial class use hypothetical cases to develop their knowledge of (and ability to analyze) criminal and civil law and to develop courtroom advocacy skills on an advanced level. Prerequisite: GOVT2283 Mock Trial III.

GOVT2300
3 Credits
Citizenship, Service and Civic Engagement
This interactive course will offer students the skills to participate in a democratic society through education and direct service. Students will engage in an experiential-learning process whereby they work collaboratively to identify a problem, evaluate solutions and create an action plan for change. The course will address such key concepts as tracing the history of civic engagement in the United States, critically analyzing the methods to effectuate change in a democratic, pluralistic society and learning about the various levels of government. Local and state policymakers will supplement the course through in-person presentations.

GOVT2400
3 Credits
Political Ethics
This course surveys and critically examines the dominant approaches to political ethics, including deontology and rights, consequentialism and utilitarianism and contemporary critiques of liberalism. Students will explore the substance and implications of these approaches in applications to contemporary ethical and political problems and questions.

GOVT2500
3 Credits
Social Analysis
Theory and method of the study of politics, research designs, theory building, techniques of data collection and analysis.

GOVT2520
3 Credits
Qualitative Research Methods
This course provides an introduction to the theories and methods underlying modern social science research across sociology, political science, economics and criminology. In this course, students will learn to assess the validity of social science research and design their own projects using a variety of qualitative and quantitative techniques such as ethnography, content analysis, experiments and surveys. Students are required to have completed MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods and should have this level of mathematical skill in order to succeed in the required methodological course. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

GOVT2526
3 Credits
Polls and Surveys
How to comprehend, evaluate, construct and conduct public opinion polls as well as surveys of special populations.

GOVT2810
3 Credits
Gender, Film and History
The course explores the representation of women, gender roles and sexism from the advent of the motion picture to the present. The class will ponder the benefits and limitations of the film medium for illustrating gender issues and will consider how portrayals of gender in film have changed over time. Whether films merely reflect existing attitudes toward gender or help shape those attitudes will also be explored. The course will consist of film viewings, discussions, lectures and readings. Historical periods covered in the course will vary. (Equivalent to HIST2322 Gender, Film and History.)

GOVT3015
3 Credits
Political Parties and Interest Groups
Interest group membership, structure and impact on public policy; components of American political parties, party in the electorate, party organization, party in office.

GOVT3040
3 Credits
Politics and the Media
The course will examine the relationship between the mass media and government. It will consider imperatives the media will follow in choosing to run particular stories, and how government seeks to take advantage of those imperatives to influence the media. Finally, the course will investigate how the media try to arouse public opinion in order to influence government policy.

GOVT3060
3 Credits
Political Behavior
Impact of public opinion, voting, protests on public policy.

GOVT3121
3 Credits
Nationalism and Ethnic Violence
This course provides students with a broad overview of the major theories of nationalism, paying particular attention to ethnic violence and conflict. Emphasis is on the critical evaluation of different theories of both nationalism and ethnic conflict, with case studies illustrating the competing theories.

GOVT3122
3 Credits
Rebels and Revolutionaries
This course examines multiple forms of violent political conflict — from riots through rebellions and civil wars to revolution. The class will do so from a variety of approaches, including economics, political, psychological and sociological, and a variety of methods (qualitative case studies, formal modeling, quantitative analysis, computer simulations). The overarching goal, however, is singular: to assess the various approaches, methods and theories in terms of their ability to account for the emergence, duration and outcomes of violent political conflict. The class will compare cases from across the globe and through time, from classic social revolutions in France, Russia and China, through riots in the U.S. and India and civil war in Greece to rebellions in Ukraine and Syria.

GOVT3150
3 Credits
Terrorism and Counterterrorism
This course examines an important problem: terrorism and how to respond to it. In order to better understand terrorism, the class will explore who commits terrorism when and why, who gets targeted and why terrorist groups decline. It will also survey different approaches to combating terrorism and assess their efficacy. The approach to both will be theoretical and empirical, and readings and assignments reflect a wide diversity within each: from detailed case studies to large-N quantitative analyses, from formal models to exploration of several data sets.

GOVT3200
3 Credits
American Constitutional Law
Development, scope and role of judicial review, problems of federalism, civil rights and civil liberties.

GOVT3210
3 Credits
Civil Liberties and Civil Rights
Analysis of Supreme Court decisions concerning speech, press, religion, rights of women, racial
discrimination and affirmative action. (Equivalent to CMLGY3307 Civil Liberties and Civil Rights.)

GOVT3220
3 Credits
Criminal Law
A brief introduction to criminal law in the United States. Emphasis is upon social factors, norms, values and social policy considerations that shape modern criminal law. Subject areas include issues such as the justification of punishment, the elements of just punishment and the death penalty as well as the study of substantive laws of homicide, rape and other criminal acts. Attention is also given to the emergence of international criminal law and the punishment of war crimes. (Equivalent to CMLGY2353 Criminal Law.)

GOVT3230
3 Credits
International Criminal Law
A review of the key concepts, processes, institutional and organizational components of the international criminal legal system. Problems to be analyzed include terrorism, crimes against humanity and war crimes, piracy, drug trafficking, trafficking of women and children. The course examines the foundations and justifications of the establishment of the mechanisms of international criminal law, the relationship between treaties and custom, the problems of sovereignty and the use of force, the emergence of international tribunals and courts for the trying of offenders.

GOVT3240
3 Credits
Law and Society
Law as a determinant of social control and change. Analysis of legal systems and their administration, with special emphasis on law affecting the poor.

GOVT3800
3 Credits
Current Events Seminar
This course is designed to link current events in the United States and international political systems with political theory and contemporary research in political science and related disciplines. Students will make use of a variety of news media, including written, video and podcast on a weekly basis to inform themselves about current events in the political system, then combine these with readings from scholarly research to understand what’s really driving politics in the U.S. and around the world. Students will discuss these events — and linkages to the scholarly reading — in seminar-style class meetings.

GOVT3841
3 Credits
Torture
This course explores a wide range of questions about a particular form of political violence practiced by many states: torture. Examining state-sponsored torture from empirical, normative and analytical perspectives over time and across political space, the class explores the what, why, when, where, how and who of torture. (Equivalent to CMLGY3841 Torture.)

GOVT3851
3 Credits
Monsters and Bad States
An exploration of political and social nightmares and dreamscapes, drawing on literature, political theory and contemporary policy and public affairs.

GOVT4200
3 Credits
The Constitution
In this class, students will examine the Constitution from the perspective of a political architect or framers — someone actually responsible for designing and maintaining a polity. The class will supplement (and transcend) the traditional emphasis on the Constitution as supreme law and as a text that courts alone should consider. Instead, students look at the Constitution as a dynamic blueprint for achieving certain aspirations, a “machine that would go off itself.” The class will also evaluate the Constitution as a source of American values, a basis for institutional conflicts and a touchstone for political and social life.

GOVT4220
3 Credits
Advanced Criminal Law
This seminar offers an in-depth analysis of recent scholarship and emerging issues related to contemporary and enduring issues in criminal law. Students should have taken GOVT3220 Criminal Law or have a good working knowledge of basic criminal law before taking this class. Prerequisite: GOVT3220 Criminal Law.

GOVT4498
1–3 Credits
Internship in Government and Law
Integration of classroom study with specific planned periods of supervised learning in paid and relevant employment experiences. Co-op education combines learning on the job, university course work and career-development skills. Students are encouraged to complete two complementary co-op courses.

GOVT4499
1–3 Credits
Internship in Government and Law
Integration of classroom study with specific planned periods of supervised learning in paid and relevant employment experiences. Co-op education combines learning on the job, university course work and career-development skills. Students are encouraged to complete two complementary co-op courses.

GOVT4551
3 Credits
Game Theory
This course is an introduction to some basic concepts in non-cooperative game theory and their application to a range of problems in several social science disciplines, including economics, criminology, political science and sociology. Prerequisite: MATH1107 Precalculus, MATH1126 Contemporary Mathematics, MATH1128 Mathematical Methods or higher.

GOVT4552
3 Credits
Agents in the Matrix: Creating and Analyzing Agent-based Models
This course introduces students to a powerful transdisciplinary computational for exploring complex systems; a large number of autonomous agents interacting independently without central control. Rooted in mathematics and computer science, agent-based modeling (ABM) is one of the most widely used methodologies for simulating complex systems by drawing on computing power to run experiments. The introduction to ABM in this course is more than just learning about the methodology; students will also learn how to design, program, execute and analyze their own ABM and then write up and present the results. Prerequisite: MATH1107 Precalculus, MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods. (Equivalent to CMLGY4845/ECON4845 Agents in the Matrix: Creating and Analyzing Agent-based Models.)

GOVT4590
1–3 Credits
Faculty Research
Faculty-student research on faculty projects.

GOVT4700
3–15 Credits
Washington Center Internship
This course is a one-semester internship in Washington, D.C., through the Washington Center Internship Program. Students may register for 3 to 15 credits.

GOVT4800
3 Credits
Independent Study in Government and Law
Independent study under the direction of a specific faculty member after consultation with the department chairperson.
GOVT4801
3 Credits
Independent Study in Government and Law
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

GOVT4900
3–12 Credits
Faculty Research
Faculty-student research on faculty projects.

GOVT4901
3–12 Credits
Faculty Research
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

GOVT4902
3–12 Credits
Faculty Research
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

GOVT4999
3 Credits
Senior Thesis
In this capstone course, students select a research topic in consultation with an adviser, conduct the research and produce a paper and oral presentation.

HIST1150
3 Credits
The United States to 1877
A survey of American history from the earliest Colonial times through the end of Reconstruction. The course cannot be counted toward the history major.

HIST1151
3 Credits
World History I
A survey of world history from the earliest civilizations to the age of increased global contacts. This course will cover a variety of themes like the importance of agriculture, the rise of civilizations, birth of arts and the spread of world religions.

HIST1170
3 Credits
European History to 1750
Survey of European history from the fall of the Roman Empire to 1750.

HIST1171
3 Credits
European History from 1750
Survey of European history from the Age of Enlightenment and Revolution to the present.

HIST1175
3 Credits
Modern African History
A survey of the continent from the end of the Atlantic slave trade through European colonization, two World Wars, independence, Cold War politics and the contemporary challenges of modernity. Note: meets culture requirement.

HIST2100
3 Credits
Medieval History in Film
Thematic treatment of the history behind cinematic portrayals of Europe in the Middle Ages, as well as what these films say about the societies that produce them.

HIST2200
3 Credits
Europe in the Middle Ages
An introduction to the social, religious, intellectual and cultural life of medieval Europe from 500 to 1563.

HIST2201
3 Credits
Modern Germany
An examination of Germany from the period of unification under Bismarck to the present time, with particular emphasis on the period of World Wars I and II, the Weimar Republic, Adolf Hitler and the rise of the Nazi party, the two Germanies of the postwar world and the recurrent “German question” of the present day.

HIST2202
3 Credits
Introduction to African History
Examines the history of Africa from the origins of man through the Atlantic slave trade, with a particular focus on the development of political, social and cultural institutions across the continent.

HIST2231
3 Credits
Renaissance and Reformation
An examination of Europe during the late Middle Ages, the artistic and cultural flourishing of the Renaissance and the Reformation with its religious wars. Includes emphasis on sources written and created during the period, as well as historians’ assessments of their importance and impact.

HIST2244
3 Credits
Islamic Empires
This course examines the spread of Islamic culture and society specifically in the context of the large caliphates, dynasties and empires that dominate early Islamic history from the death of Muhammad to the Ottoman Empire.

HIST2252
3 Credits
Gender, Film and History
The course explores the representation of women, gender roles and sexism from the advent of the motion picture to the present. The class will ponder the benefits and limitations of the film medium for illustrating gender issues and will consider how portrayals of gender in film have changed over time. Whether films merely reflect existing attitudes toward gender or help shape these attitudes will also be ex-
plored. The course will consist of film viewings, discussions, lectures and readings. Historical periods covered in the course will vary. (Equivalent to GOVT2810 Gender, Film and History.)

HIST2326
3 Credits
The Medieval Castle
This course examines the medieval castle from a number of different angles, including the castle as a military instrument and as a hub of economic, social and religious activity. The class will consider historians’ conflicting assessments of castles and will delve into primary-source materials describing the multiple layers of life in castle communities.

HIST2346
3 Credits
Birth of Modern America: 1877–1929
Covers the critical half-century between the end of Reconstruction in 1877 and the Great Crash of 1929, when the United States transformed from a largely rural-agrarian society into the world’s leading urban-industrial power. Topics include: conquest and settlement of the West; mass urbanization and industrialization in the North; rise of Jim Crow in the South; populist and socialist protest movements; rise of corporate capitalism; progressive reforms; ascendency of the “New Woman” and Harlem Renaissance; prohibition and the “Roaring Twenties”; and emergence of the U.S. as a global power from the Spanish-American War through the First World War.

HIST2348
3 Credits
American History to 1877
This is the first of a two-semester course in African ancestry from the 17th century through Vietnam War; Detente; Watergate; impact of Civil Rights Movements for African Americans, women and gays; suburbanization; urban decay and renewal; the New Immigration; the end of the Cold War and the rise of globalization with 9/11 and the 2008 financial crisis.

HIST2350
3 Credits
Colonial and Revolutionary America
The history of the American colonies from 1450 to the Revolutionary War and the subsequent problems of creating an American union.

HIST2351
3 Credits
The United States in the Early Republic
This course introduces the main themes and events from the earliest years of the new nation until about the mid-19th century. Among the topics explored are the first and secondary political party systems, gender and race, the development of market capitalism and its impact, the slave South, the westward movement and reform movement and abolitionism.

HIST2352
3 Credits
Civil War and Reconstruction
The rise of sectionalism, the election of Lincoln and the secession of the Southern states, the Civil War, Reconstruction and the return of Southern “home rule.”

HIST2359
3 Credits
African-American History to 1877
This is the first of a two-semester course in African-American history. The course explores selected major developments; issues and interpretations unique to the past of Americans of African ancestry from the 17th century through the Civil War and Reconstruction. Among the topics explored are the African-American slave trade, the development of racism, black slavery, master-slave relations and black institutions.

HIST2361
3 Credits
African-American History Since 1877
This is the second of a two-semester course in African-American history. This course begins with the legacy of Reconstruction and continues with the Jim Crow laws. It covers the Booker T. Washington vs. W.E.B. Du Bois debate amid entrenched segregation; how the two World Wars raised expectations in the black community, as did Brown vs. The Board of Education; how the Civil Rights movement increased opportunity; a new debate between King and Malcolm X; and how, today, a middle class contrasts with the underclass.

HIST2368
3 Credits
Survey of India
Introduction to the vast panorama of Indian history, art, cultures, philosophies and politics from ancient through pre-Colonial times.

HIST2370
3 Credits
Comparative Revolutions
This course examines the “Age of Revolution” (circa 1776 to 1815) and carefully considers the major wars of independence and revolution that were so central to the era. The focus will be on the American, French and Haitian Revolutions, as well as the Latin American Wars of Independence. Special attention is paid to the interconnectedness of the major events, the origins and timing of the Revolutions and the social, political, racial and gender aspects of the “Age of Revolution.”

HIST2371
3 Credits
History on Film: Britain
Many events in British history have been the basis or inspiration of great films. The politics, history and social forces that created these films; the accuracy of how the issues and events are portrayed; and how we regard the issues as time passes, will be the focus of this course. Examples will be taken from: the Church of England, British Colonialism, World Wars and the loss of Empire, War on the British Homeland, immigration, assimilation and the effects of Brexit. (Equivalent to CINE2371 History on Film: Britain.)

HIST2400
3 Credits
The Indian Ocean
Examines the history of the peoples and communities that ring the Indian Ocean — from east Africa to Saudi Arabia, India, Indonesia and Australia. This course will focus in particular on forces that have linked these societies such as trade, religion, migration, imperial ambition and independence.

HIST2401
3 Credits
Pacific Worlds
This course broadly covers the history of the diverse cultures connected to the Pacific Ocean, including the changing interaction between East Asia, the Pacific Islands, Australia and the Americas from the emergence of the early modern world in the 15th century through the era of globalization today.

HIST2402
3 Credits
Atlantic Worlds
This course explores the history of interaction between peoples located around the Atlantic
Ocean. From Columbus through colonization, the slave trade, independence and finally globalization, this course will explore a variety of themes (such as the origins of the blues) as rich and varied as the people who live in and around the Atlantic.

HIST2403
3 Credits
Mediterranean Worlds
Covers themes, people and cultures of the Mediterranean basin from the ancient world up to approximately 1500. Considers the Mediterranean as both a highway and a barrier to human interactions and the spread of ideas.

HIST2404
1 Credit
Pacific Worlds Study Abroad
Optional short-term study abroad to East Asia for HIST2401 Pacific Worlds. This is a required fall term corequisite offered with a study-abroad component over winter break.

HIST2424
3 Credits
Western Front in World War I
Summer course taught jointly at Becton College and Wroxton College with field study in England, France and Belgium. This course explores the role of mass, multimillion-man armies engaged along the 500-mile Western Front in World War I. Within 25,000 miles of trenches, a war of attrition generated casualties of an unprecedented magnitude, owing to the role of industrialization, militarism and nationalism.

HIST2425
3 Credits
Western Front in World War II
Summer course taught jointly at Becton College and Wroxton College with field study in England, France and Belgium. This course will explore the role of highly mechanized and aerial warfare in the German Blitzkrieg that conquered Western Europe from Norway to France in less than 11 weeks (thus breaking the strategy of trench warfare from World War I); the aerial bombardment of civilian targets with focus on the Battle of Britain; the fate of population in occupied Western Europe; the opening of the Second Front with D-Day invasion followed, by the 11-month campaign to V-E Day.

HIST2445
3 Credits
New Jersey History
The history of New Jersey from colonial times to the present.

HIST2500
3 Credits
Medieval Maidens in the Movies
An interdisciplinary, co-instructed examination of women in medieval Europe and of their portrayals in film. This course considers not only the history of the women depicted in movies but how historiography, conventions of the film medium and women's studies help illuminate these representations.

HIST2501
3 Credits
Colonial Latin America
Covers Latin America from late pre-Columbian times, the European conquest of the region, the key features of Spanish and Portuguese colonization and the issues that lead to independence. Includes discussion of indigenous civilizations; the encounter of the Europeans with indigenous Americans and enslaved Africans; the introduction of European social and political institutions; the economic impact of mining and plantations; and the pivotal role of the Catholic Church.

HIST2502
3 Credits
Modern Latin America
Covers Latin America from the independence movements to the present. Includes the impact of independence and the struggle to build stable nation states; the continuing friction between Church and state; urbanization and industrialization; modernization efforts and the challenge of populist and socialist movements; key 20th-century revolutions and Mexico and Cuba; the pervasive role of military dictatorships; democratizations; and contemporary challenges in the 21st century.

HIST2503
3 Credits
Indigenous Peoples of Latin America
This upper-division course focuses on the history of indigenous peoples of Latin America from the pre-Columbian period until the present. The course explores the social, economic, political and cultural transformations affecting the native societies of Mesoamerica and the Andes, with a focus on their strategies for survival and socio-political inclusion. Part I examines the European civilizations prior to European invasion and colonization. Part II examines the creation of the “Indian” in the context of the imposition of colonial rule from the late 15th to the early 19th century. Part III investigates the reformulation of the indigenous peoples’ status in the young Latin American republics and the restrictions created by new political elites to exclude them from political participation. Part IV discusses indigenous peoples’ activism, main challenges and successes from the second half of the 20th century until the present.

HIST2504
3 Credits
Gender and Race in Latin America
This course introduces students to the history of gender and race in Latin America from colonial times to the 21st century. Topics include the continuities and changes that have affected the lives of women and men from diverse racial, cultural and class backgrounds more than 500 years since the Spanish conquest. This course will focus especially on negotiation, resistance and agency to explore how gender roles and racial identities have been imposed but also re-defined.

HIST2506
3 Credits
Pre-Columbian Americans
This course focuses on the history of indigenous peoples in the Americas before the arrival of Europeans in 1492. It explores the social, economic, political and cultural transformations affecting the societies of North, Central and South America with an emphasis on the civilizations of Mesoamerica and the Andes. The course is divided into three parts, which examine each stage in the development of pre-contact societies: Lithic Stage, Archaic Stage and Post-Archaic Stage. The main objective of this course is to present the history of these societies through their own perspective while highlighting their contributions and legacy.

HIST2630
3 Credits
U.S. Women's History to 1877
Cultural, social and political developments in the roles of women from Colonial times through Reconstruction. Includes comparison based on gender, race, religion, class, education and era.

HIST2651
3 Credits
U.S. Women's History Since 1877
Examination of the lives of women in America from Reconstruction to the present. Lectures, primary source readings, secondary source readings and research assignments will show the ways in which social, political and economic conditions shaped women’s roles and expectations. Special consideration is given to the diversity of women’s experiences in America, and attention is paid to race, class, age and sexuality.

HIST2701
3 Credits
Modern Mexico: 1876–Present
This course examines the history of Mexico’s “long 20th century” from the modernizing dictatorship of Porfirio Díaz (1876–1910) to the present. Bookmarked by two periods of globalization—one that began at the end of the 19th century and another that commenced a century later—the course provides students with an understanding of the various social, political, economic and cultural processes that shaped Mexico’s transformation into a modern nation-state and “middle power” on the global stage. Through an examination of practices of nation and state building, revolution and reaction and the transnational ebb and flow of goods, people and ideas, students will gain an understanding of the diversity of forces that shaped and continue to shape modern Mexico.
HIST2900
3 Credits
Premodern War in Video Games
The gaming industry continues to produce numerous video packages based on ancient and medieval warfare. These games are widely popular software packages, especially among college-age students. They are therefore a powerful “hook” to draw society’s attention to material that might otherwise seem obscure or unimportant. But how true are these virtual depictions to the historical people, societies and events they portray? This course approaches such works with the aim of determining historical accuracy or lack thereof and determining what these games say about the societies that produce and find pleasure in them.

HIST2951
3 Credits
Crime and Punishment in Latin America
This upper-level course examines the changing cultural paradigms about order, crime, justice and punishment in Latin America and their impact on society and institutions. Chronologically, the course will be divided into four main sections: pre-Hispanic notions of social control and order (until the 1500s), the colonial foundations of racial and religious criminalization and repression (1500s to early 1800s), the early republican state and the modernization of the means of social control (mid-1800s to the 1930s) and crime and punishment in the 20th and 21st centuries (1930s to the present). Particular attention will be given to topics such as social-control policies, the police, narco-trafficking and crime, political crimes, genocide and justice. (Equivalent to CMLGY3250 Crime and Punishment in South Africa.)

HIST3251
3 Credits
Crime and Punishment in Latin America
This upper-level course examines the changing cultural paradigms about order, crime, justice and punishment in Latin America and their impact on society and institutions. Chronologically, the course will be divided into four main sections: pre-Hispanic notions of social control and order (until the 1500s), the colonial foundations of racial and religious criminalization and repression (1500s to early 1800s), the early republican state and the modernization of the means of social control (mid-1800s to the 1930s) and crime and punishment in the 20th and 21st centuries (1930s to the present). Particular attention will be given to topics such as social-control policies, the police, narco-trafficking and crime, political crimes, genocide and justice. (Equivalent to CMLGY3250 Crime and Punishment in South Africa.)

HIST3252
3 Credits
The Roman Empire
Roman civilization from the creation of the imperial system by Augustus to its collapse in the West under the impact of the Germanic invaders.

HIST3254
3 Credits
Medieval Religion
Examines various aspects of medieval history in more depth than allowed by a survey course. Topics will change each time the course is offered. Examples of possible topics include, but are not limited to, The Family in Medieval Law and Society Medieval England; The Church in Medieval Europe; and War and Society in the European Middle Ages. Emphasis on research and writing.

HIST3316
3 Credits
The History of Sexuality in the United States
Sex is often thought of as an unchanging need behavior or instinct — an experience without history. And yet, even in the recent past, sexual desires, activities, identities, attitudes and technologies have undergone profound transformations. This course will examine the last 400 years of sexuality in the regions that now make up the United States. Among the topics covered are reproduction, fertility, birth control and abortion, prostitution, same-sex and cross-sex sexualities, interracial sex and sex as violence.

HIST3324
3 Credits
Medieval Religion
Examines various aspects of medieval history in more depth than allowed by a survey course. Topics will change each time the course is offered. Examples of possible topics include, but are not limited to, The Family in Medieval Law and Society Medieval England; The Church in Medieval Europe; and War and Society in the European Middle Ages. Emphasis on research and writing.

HIST3325
3 Credits
The Roman Republic
An examination of ancient Rome from its origins to the beginning of the Empire (c. 500–14 BCE). Special attention will be given to social, cultural, political and legal developments through the use of both primary and secondary sources.

HIST3347
3 Credits
History of Modern China
An introduction to the history of China, focusing on the 20th century, but also providing background to its 4,000-year-old culture; the Communist Revolution and the political system so long under the influence and domination of Chairman Mao Tse-tung; and the forces of “hard line” Communism that are restraining the powerful drive for democratization.

HIST3350
3 Credits
U.S. as a Continental Power, 1607–1898
This course explores the expansion of the United States from a British-settlement colony to that of a national continental empire. Topics include the conquest and settlement of Native American lands, negotiations and conflicts with neighboring powers and competing visions over expansion as related to slavery and trade.
HIST3331
3 Credits
**U.S. as a Global Power**
Narrative examination of U.S. foreign policies from the Spanish-American War to the Wilsonian principles of 1918, idealism and isolationism in the '20s and '30s, the crucifying year of World War II and the Cold War and culminating in the confusing and prosperous first decade of the post-Cold War era.

HIST3358
3 Credits
**United States Constitutional History**
Explores the framing of the Constitution, antecedents of American common law, the development of judicial review and the various intellectual leaders and eras of the court in both the 19th and 20th centuries.

HIST3367
3 Credits
**Public History**
The study and practice of presenting history to a public audience (rather than to an academic audience of students or experts). Focus is on museum exhibits, historic houses, sites, documentary films, oral history and interactive media.

HIST3368
1 Credit
**Public History Field Experience**
This course provides students an opportunity to study public history in the field. The class will conduct a number of onsite visits to talk with practitioners about the implementation of the methodologies discussed in class. This unique opportunity can introduce students to a career in public history, provide a model for incorporating this practice into their own classrooms or simply make them better participants in future visits to these venues.

HIST3400
3 Credits
**Colonial Epidemics**
This course examines the epidemics that accompanied the process of European colonization after the 15th century and the social, religious, cultural and political responses of local people to these plagues. In addition, the course will examine how colonial diseases shaped European ideas of the colonial project, of race and of the environment.

HIST3405
3 Credits
**Explorers and Exploration**
This course will look at selected explorers and their travels from antiquity to the early 16th century. Reasons for exploration, the means of doing so and the effects of cross-cultural contacts will be considered. Heavy emphasis will be placed on analysis of the explorers’ own travel descriptions.

HIST3666
3 Credits
**Witches and Warlocks in the West**
An interdisciplinary course that analyzes historical and literary texts and films that represent the idea of witchcraft through the ages, from St. Augustine to the 20th century.

HIST3802
3 Credits
**Historical Methods**
This course is designed for history majors. It aims to prepare students to “do” history and acquaint them with the various approaches and methods that historians use in writing history.

HIST4001
3 Credits
**The Black Death**
History and historiography of the cataclysmic disease that wiped out nearly a third of Europe in the 14th century, as well as precursors and later waves of illness. Implications for modern epidemics will also be considered. Course will include significant use and analysis of primary source materials. Prerequisite: HIST3802 Historical Methods or permission of instructor.

HIST4008
3 Credits
**The Military Revolution**
The term “military revolution” is used by historians to denote the changes to warfare and society from about 1300–1800. This course will consider the effects that gunpowder weaponry, sailing ships, military professionalization and economic objectives had in changing Europe and the world. Heavy emphasis will be placed on historians’ debates over the military-revolution model and on primary-source analysis. This is not a course on the American Revolutionary War.

HIST4200
3 Credits
**Colonial Epidemics**
Seminar that explores the connection between colonization and disease from the horrific destruction of Native American communities at the hand of smallpox, to the more subtle effects of syphilis in India or tuberculosis in South Africa. Focus will be on how epidemics reordered colonized societies and shifted power to the colonizers.

HIST4205
3 Credits
**Seminar: Race and Empire**
This seminar examines the critical role of race in the global context of imperialism, from the age of high imperialism in the 19th century through the age of decolonization in the 20th century. Prerequisite: HIST3802 Historical Methods or permission of instructor.

HIST4498
1–3 Credits
**Internship in History**
Interning in public history: museums, historical parks and societies, archival sites. Combines learning on the job, University course work and career-development skills. Students may complete more than one internship for credit.

HIST4500–HIST4503
3 Credits
**Great Issues Colloquium**
Available to well-motivated students, this interdisciplinary course takes up an important societal or global question, requires broad reading and encourages active participation in discussion and debate. The topic and professor will change each time the course is offered.

HIST4800
1–3 Credits Each Semester
**Independent Study in History**
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

HIST4900
3–12 Credits
**Faculty/Student Research**
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

HIST4901
3 Credits
**Faculty/Student Research**
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

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**Honors**

**University Honors Program**

HON2000
0 Credits
**Honors Study-abroad Experience – Wroxtom**
Study-abroad experience that includes travel to Wroxtom, England, for a seminar/lecture program. Topics vary by semester/year. Additional cost may apply.

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**Honors**

Maxwell Becton College of Arts and Sciences
Florham Campus
This course will examine a number of artists and Visionary Artists and Writers 3 Credits HUMN2212

HUMN2201 3 Credits Humanities Seminar I

This seminar introduces students to the concept of the humanities and focuses on the ways in which different disciplines explore a period or theme. Students will learn how to apply interdisciplinary approaches to their studies. Should be completed by humanities majors prior to the first semester of their junior year.

HUMN2212 3 Credits Visionary Artists and Writers

This course will examine a number of artists and writers from various traditions who lead us far beyond the boundaries of geography and reason to explore religions that cannot be visited by any other means than the imagination. Students will become familiar with various religions and belief traditions — Jewish, Hindu, Christian, Native American, Muslim, Buddhist, etc. — from which such artists often spring while focusing on how they may be relevant to our real-world lives. The class will also discuss the psychology of unusual states of consciousness. The artists will include Rumi, Lalla, Mirabai, Rimbaud, William Blake, Tolkien, Madge Gill, Henry Darger and many others. Students will write both creatively and critically in response to art.

HUMN2500 1 Credit Research in Humanities

Introduction to interdisciplinary research in the humanities.

HUMN3211 3 Credits Humanities Seminar II

This senior seminar will focus on a theme explored in depth from a variety of interdisciplinary perspectives.

HUMN4498 3 Credits Internship

Practical experience working in a business, government or a nonprofit setting or in the publications field, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

HUMN4900 3–12 Credits Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

Italian Language and Literature

Department of Literature, Language, Writing and Philosophy

HON3501 3 Credits Junior Honors Seminar

Introduction to the methods of research; literature searches using computer databases; proposal development; organization and presentation of research data; development of the honors thesis. HON3501 Junior Honors Seminar is a University-wide course. For other University Honors Program courses please contact the University Honors Program director on your campus.

For requirements in Becton College Honors, see page 56.

Humanities

Department of Literature, Language, Writing and Philosophy

HUMN2015 3 Credits Ways of Seeing: Visual Intelligence and Creative Writing

This course follows ARTH1110 Life of the Contemporary Artist in the sequence for students in the Arts Learning Community. Using contemporary and classic art and writing inspired by art, this course is a multifaceted exploration of the ways people see. Among other things, students will learn how teaching police (and others) to look at art has led to solving crimes in the real world; how learning such techniques of looking at and understanding art may enrich one’s life, academic experience and career; how to express oneself in a variety of ways; how contemporary and earlier art have been used to educate, create social change, religious change and so on. Students will write creative and critical pieces and will look at a great deal of remarkable and important work. Prerequisite: ARTH1110 Life of the Contemporary Artist.

HUMN2201 3 Credits Humanities Seminar I

This seminar introduces students to the concept of the humanities and focuses on the ways in which different disciplines explore a period or theme. Students will learn how to apply interdisciplinary approaches to their studies. Should be completed by humanities majors prior to the first semester of their junior year.

HUMN2212 3 Credits Visionary Artists and Writers

This course will examine a number of artists and writers from various traditions who lead us far beyond the boundaries of geography and reason to explore religions that cannot be visited by any other means than the imagination. Students will become familiar with various religions and belief traditions — Jewish, Hindu, Christian, Native American, Muslim, Buddhist, etc. — from which such artists often spring while focusing on how they may be relevant to our real-world lives. The class will also discuss the psychology of unusual states of consciousness. The artists will include Rumi, Lalla, Mirabai, Rimbaud, William Blake, Tolkien, Madge Gill, Henry Darger and many others. Students will write both creatively and critically in response to art.

HUMN2500 1 Credit Research in Humanities

Introduction to interdisciplinary research in the humanities.

HUMN3211 3 Credits Humanities Seminar II

This senior seminar will focus on a theme explored in depth from a variety of interdisciplinary perspectives.

HUMN4498 3 Credits Internship

Practical experience working in a business, government or a nonprofit setting or in the publications field, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

HUMN4900 3–12 Credits Faculty/Student Research

Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

Italian Language and Literature

Department of Literature, Language, Writing and Philosophy

Note: Students may also take courses at the University of Bergamo, FDU’s partner institution in Italy, in a semester-long stay or during the FDU summer study-abroad program (mid-May to mid-June).

ITAL1001 3 Credits Beginning Italian I

An introduction to the language with practice in reading, writing and conversation. Corequisites: ITAL1007 Italian Practicum I and ITAL1008 Italian Practicum II.

ITAL1002 3 Credits Beginning Italian II

An introduction to the language with practice in reading, writing and conversation. Prerequisites: ITAL1001 Beginning Italian I or departmental permission.

ITAL1007 1 Credit Italian Practicum I

This one-credit course is linked to ITAL1001 Beginning Italian I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ITAL1001 Beginning Italian I.

ITAL1008 1 Credit Italian Practicum II

This one-credit course is linked to ITAL1002 Beginning Italian II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: ITAL1002 Beginning Italian II.

ITAL2003 3 Credits Italian Conversation I

A conversation course that focuses on grammar skills through a variety of readings. (ITAL2003 Italian Conversation I and ITAL2004 Italian Conversation II are not sequential.)

ITAL2004 3 Credits Italian Conversation II

A conversation course that focuses on grammar skills through readings on contemporary issues. (ITAL2003 Italian Conversation I and ITAL2004 Italian Conversation II are not sequential.)

ITAL2005 3 Credits Italian Cinema

The course will discuss the development of the Italian cinema from Neo-Realism to today, in particular dealing with Rossellini, Fellini, Desica, Bertolucci, Pasolini, Antonioni and Wertmuller. It is taught in English. (Equivalent to CINE2015 Italian Cinema.)

ITAL2015 3 Credits Italian Film

Through the appropriate literature, the course examines the films of Roberto Rossellini, Vittorio De Sica and Michelangelo Antonioni (mainly) as true innovators of cinematic techniques, who led the way for filmmakers around the world since the end of World War II.

ITAL2050 3 Credits Italian Romanticism and Risorgimento Through Literature, Art and Music

This course provides a broad historical perspective on Italian Romanticism and the Risorgimento. The focus will be on the role that literature
(poetry and narrative), the visual arts and music have played in shaping Italian national and cultural identity in the first decades of the 19th century. All romantic “sister arts” contributed to the creation of new homes and techniques in an effort to establish a modern relation between passion and beauty.

ITAL 2501
6 Credits
**Italian Culture and Civilization: Make in Italy:**
Introduction to Entrepreneurship

The entrepreneur is an agent of change and an innovator who seizes opportunities and needs in a wide range of fields. Radical and rapid changes in new technologies, such as information technologies, bio techniques, new materials, renewable energies and the opportunities coming from a globalized and interconnected economy encourage the establishment of startups ready to act in different sectors. Moving from an analysis of the specific features of “made in Italy” and of “family business” both at the core of the Italian economic system, the course develops the idea that entrepreneurial culture fosters innovation in all spheres. This is mainly a laboratory for students to explore innovative ideas of business and discover their entrepreneurial potential. At the end of the course, students will be able to: analyze the value of an entrepreneurial idea through different perspectives, know the tools needed to establish and develop a startup.

ITAL 3004
3 Credits
**ITAL 3004 Italian Film and Culture**

Through a variety of texts (prose, poetry, film, art), this course surveys contemporary Italian social, political and cultural life from the fall of Fascism to the present. Among the topics examined are resistance, post-resistance, post-World War II reconstruction, economic boom, the Mafia, immigration and Berlusconi years. Taught in English.

ITAL 3007
3 Credits
**ITAL 3007 Italian Culture and Civilization**

This bilingual course introduces key topics in Italian history, politics, arts, literature, as well as the sciences. It addresses contemporary issues in Italian culture.

ITAL 3008
3 Credits
**ITAL 3008 Italian History and Art History**

A course about the fundamental concepts of Italian history and art history, designed specifically to take advantage of the resources of the culturally rich city of Bergamo. The course is co-taught by a historian and an art historian in English. Course takes place in Italy and is offered at no cost for FDU students as long as they register in one of the other courses offered in the study-abroad in Italy program. (Equivalent to ARTH 3008/HIST 3008 Italian History and Art History.)

ITAL 3051
3 Credits
**ITAL 3051 Italian Tragedy**

The course, taught in English, explores the evolution of Italian tragedy from Greek and Roman models to the 20th-century tragic-comedy of Eduardo de Filippo.

ITAL 3053
3 Credits
**ITAL 3053 Creating a Nation**

Through an exploration of the arts, this course deals with the historical and cultural events that led to Italy’s unification. It will focus on romanticism, Risorgimento, Scapigliatura, realism and the way opera helped create a national spirit. The course is taught in English. Note: meets cultural course requirement.

ITAL 3055
3 Credits
**ITAL 3055 The Italian-American Experience**

This course examines key moments in the history of Italian immigration, settlement and integration in North America — from the 19th century to today — through literature and film. Note: meets cultural course requirement.

ITAL 3056
3 Credits
**ITAL 3056 Italy: Land of Migrations**

In the last two centuries, Italy has been the source of a large migration outward and, in recent years, the destination for a large migration forward. This course explores these migrations to and from Italy through literature, film and documentaries, paying particular attention to the North American experience. Taught in English. (Equivalent to CINE 3056/LITS 3056 Italy: Land of Migrations.)

ITAL 3301
3 Credits
**ITAL 3301 Italian Advanced Conversation**

Students read, view, write and converse about a wide variety of texts while acquiring advanced grammar skills — emphasis placed on oral communication. Prerequisites: ITAL 2003 Italian Conversation I and ITAL 2004 Italian Conversation II or permission of department chair.

ITAL 3390
3 Credits
**ITAL 3390 Italian Mafia in Literature and Film**

The course examines the evolution of organized crime in Italy (termed Mafia, Cosa Nostra, Camorra, ‘Ndrangheta, etc.) from its beginnings in the second half of the 19th century to the 21st century through the analysis of novels, films, newspaper articles and documentaries. (Equivalent to LITS 3390 Italian Mafia in Literature and Film.)

ITAL 3452
3 Credits
**ITAL 3452 Writing in Italian**

Students read and write in a variety of content areas. Advanced grammar is reviewed as students expand their vocabulary and improve their written expression. Prerequisites: ITAL 2003 Italian Conversation I and ITAL 2004 Italian Conversation II or permission of department chair.

ITAL 3501
3 Credits
**ITAL 3501 Italian for Business**

Business and social situations are enacted in Italian. Business correspondence skills are developed.

ITAL 3502
3 Credits
**ITAL 3502 Italian Translation**

This course focuses on translating written material.

ITAL 3666
3 Credits
**ITAL 3666 Witches and Warlocks in the West**

This course focuses on the definition of who and what is a witch, both in Europe and North America, from the Middle Ages to the 20th century. (Equivalent to LITS 3666 Witches and Warlocks in the West.)

ITAL 4800
1–6 Credits
**ITAL 4800 Independent Study in Italian**

Independent study under the direction of a specific faculty member after consultation with the department chairperson. Limited to advanced courses.

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**Japanese Language and Literature**

Maxwell Becton College of Arts and Sciences
Florham Campus

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**Japanese Language and Literature**

Department of Literature, Language, Writing and Philosophy

**JAPN 1001**

***Beginning Japanese I***

Course Descriptions

Literature
Maxwell Becton College of Arts and Sciences
Florham Campus

JAPN1002
3 Credits
**Beginning Japanese II**

JAPN1007
1 Credit
**Japanese Practicum I**
This one-credit course is linked to JAPN1001 Beginning Japanese I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: JAPN1001 Beginning Japanese I.

JAPN1008
1 Credit
**Japanese Practicum II**
This one-credit course is linked to JAPN1002 Beginning Japanese II providing additional reinforcement through exercises that focus on listening and speaking skills. Prerequisite: JAPN1007 Japanese Practicum I. Corequisite: JAPN1002 Beginning Japanese II.

JAPN2001
3 Credits
**Intermediate Japanese I**
With the basic knowledge acquired in JAPN1001 Beginning Japanese I and JAPN1002 Beginning Japanese II, students learn more advanced grammar and build skills by using these in practical situations with practice in oral communication, writing and reading. Mastering 120 basic Kanji is also a course goal. Prerequisite: JAPN1002 Beginning Japanese II.

JAPN2002
3 Credits
**Intermediate Japanese II**
This course is the continuation of JAPN2001 Intermediate Japanese I. The course focuses on learning more advanced grammar and mastering additional 120 Kanji. Students build stronger skills to use the acquired knowledge in a practical way with additional practice in conversation, writing and reading. Prerequisite: JAPN2001 Intermediate Japanese I.

JAPN2003
3 Credits
**Japanese Conversation I**
Course focuses on conversation through writing, reading, literature and grammar. JAPN2003 Japanese Conversation I and JAPN2004 Japanese Conversation II may be taken in any order.

JAPN2004
3 Credits
**Japanese Conversation II**
This course reviews important grammar topics and discusses contemporary issues in Japan. JAPN2003 Japanese Conversation I and JAPN2004 Japanese Conversation II may be taken in any order.

JAPN2505
3 Credits
**Writing and Conversation Through Japanese Culture**
With this course, students are to develop their language skills in Japanese and gain an understanding of Japanese culture. Prerequisite: JAPN2004 Japanese Conversation II.

JAPN2506
3 Credits
**Japanese Culture and Civilization**
This course, taught in English, introduces key topics in Japanese history, politics, art and literature as well as the sciences. It will also address contemporary issues in Japanese culture.

JAPN2507
3 Credits
**Japanese Politics**
This course addresses sociopolitical and economic similarities and differences between Japan and the West.

JAPN3015
3 Credits
**Japanese Culture Through Film**
Study of the culture of Japan through selected films. It highlights pivotal moments in Japanese history captured in Japanese movies. (Equivalent to CINE3015 Japanese Culture Through Film.)

Literature

Department of Literature, Language, Writing and Philosophy

LITS2001
3 Credits
**The European Tradition I**
Reading and analysis of representative world literary texts; emphasis on narrative and dramatic texts and on common themes and motifs. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry or equivalent.

LITS2002
3 Credits
**World Literature II: 13th–18th Centuries**
Reading and analysis of representative world literary texts; emphasis on dramatic, narrative and poetic texts and on common themes and motifs. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry or equivalent.

LITS2003
3 Credits
**Survey III: Approaches to World Literature**
Reading and analysis of representative world literary texts; emphasis on dramatic, narrative, poetic and visual texts and on common themes and motifs. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry or equivalent.

LITS2004
3 Credits
**Introduction to Literary Criticism**
Introduction to the major schools of literary and cultural criticism developed in the last half-century: new criticism, psychoanalysis, feminism, Marxism, semiotics, cultural studies, post-colonialism and environmentalism; emphasis on the ways in which class, racial, gender, sexual, national or religious identities define interpretive frameworks; analysis of texts drawn from literature and popular culture that illustrate aspects of the theories. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS2005
3 Credits
**The European Tradition II**
The course surveys European literature from the 17th through the 20th centuries, highlighting major authors, texts and literary movements in their historical, cultural and literary contexts. Readings include selections from poetry, drama, essays and fiction.

LITS2007
3 Credits
**Short Story and Film**
This course explores how works of short fiction have been adapted to the big screen; focus on genre, style, plot, symbolism, character and theme; examines the accommodations, alterations, additions and deletions that are undertaken when a short story is made into a film; why and how these stories are effectively transformed into movies, considering differences in plot, the genesis of the screenplay and the finished film product.

LITS2008
3 Credits
**Literary Perspectives on Global Cultures**
Sample literature from a variety of cultures from around the globe, seeking to understand the values, representations of individual experience, relationships to society at large and spiritual truths embodied. Considers how social, economic and political realities find expression in works of the creative imagination and how aesthetic choices are products of cultural identity and social environment. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS2009
3 Credits
**The Bible and its Influence**
The course examines the Old and New Testaments both as literary texts and as a source for later literary inspiration. Texts studied may include both the Bible itself and later poetry, plays
or narrative fiction based upon it, including such works as Milton’s *Paradise Lost*, Bunyan’s *Pilgrim’s Progress*, Archibald MacLeish’s *J.B.*, Joseph Heller’s *God Knows* and Ngũgĩ wa Thiong’o’s *Matigari*.

**LITS2001**
3 Credits
**American Literature I**
Survey of significant works and authors in American literature through the end of the 19th century. Authors include Melville, Hawthorne, Poe, Dickinson, Jacobs, Twain, Chopin.

**LITS2503**
3 Credits
**Topics in Latino Literature**
Major issues in Latino culture and identity in the United States; theoretical readings provide the foundations for close reading of Latino writings; special emphasis on issues of ethnicity, class and race, as represented in selected works of literature.

**LITS3000**
3 Credits
**Literary Tour of England**
Students read several British novels, short stories, novellas and poems in order to see how the literal map of southern literary England gets constructed and traversed. There is a study-abroad component. Students will write short papers and a longer one.

**LITS3012**
3 Credits
**American Literature II**
Survey of significant authors in American literature from the 20th century to the new millennium. Authors from Faulkner, Hemingway and O’Neill to Tennessee Williams and Toni Morrison. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry

**LITS3013**
3 Credits
**African-American Literature**
The course will examine the literary, cultural and social significance of both black characters and black writers and why Afro-centric literature continues to remain on the outside of mainstream literature consumption. Close attention will be paid to specific eras of writing each semester, such as slave literature, Reconstructionist literature, the Harlem Renaissance and the Black Arts Movement. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3014**
3 Credits
**American Dreams, American Tragedies**
This course uses literature to address the question of how Americans have seen themselves and been seen by others over the course of several centuries, focusing around versions of the promise of America initially defined by Crevecoeur and Tocqueville. The class considers how American ideals of equality, opportunity and individual destiny have evolved, been challenged and redefined as expressed in the nation’s art and writing, especially literature. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3015**
3 Credits
**American Writers in Italy**
The course looks at writers who spent time in Italy and at what they wrote while they were there. The course includes texts (full or excerpts) by Hawthorne, Twain, Wharton, James, Hemingway, Dos Passos, Pound and Tennessee Williams. Prerequisite: ENGW1002 Composition II: Research and Argument.

**LITS3020**
3 Credits
**18th-century British Literature**
Representative British verse, drama and prose from the late 17th century to the early 19th century. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3021**
3 Credits
**Victorian Age**
Representative British poetry and prose from 1832 to the early 20th century, consideration of the emergence of popular genres and interaction between popular and literary styles. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3050**
3 Credits
**Classical Tradition**
Study of major ancient Greek and Roman literary, philosophical and historical works and authors from Homer to Ovid; emphasis on the development of literary styles and forms, cultural continuities and comparative analysis. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3051**
3 Credits
**Medieval Literature**
A survey of the major works of European literature from 300–1400 C.E., with emphasis on genre and themes in relation to historical and social forces that shaped these works; comparative study of non-European texts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3052**
3 Credits
**Renaissance World**
Representative European verse, drama and prose of the 15th through 17th centuries; emphasis on the development of various genres and literary forms in relation to historical and social forces that shaped these works; comparative study of non-European texts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3053**
3 Credits
**18th- and 19th-century European Fiction**
Study of leading writers of European fiction from 1700–1900; emphasis on emergence of the novel, novella and short story as genres; development of national literary traditions. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3054**
3 Credits
**Romanticism**
Representative poetry and prose from 1789–1832 in England and Europe; attention to the interaction between social movements and literary styles and other artistic forms such as art and music. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

**LITS3055**
3 Credits
**The Italian-American Experience**
This course examines key moments in the history of Italian immigration, settlement and integration in North America from the end of the 19th century to today, through literature and film.

**LITS3056**
3 Credits
**Italy: Land of Migrations**
In the last two centuries, Italy has been the source of a large migration outward and, in recent years, the destination for a large migration inward. This course explores these migrations to and from Italy through literature, film and documentaries, paying particular attention to the North American experience. (Equivalent to CINE3056/ITAL3056 Italy: Land of Migrations.)

**LITS3061**
3 Credits
**Contemporary World Literature**
Study of international literature at the end of the 20th century and the beginning of the 21st century with emphasis on comparative analysis, common themes and styles and social and cultural texts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.
Course Descriptions

Literature
Maxwell Becton College of Arts and Sciences
Florham Campus

LITS3064 3 Credits
Vietnam in Film and Literature
A one-credit course about the representation of the Vietnam War in film and literature. The course will meet for six two-and-a-half-hour blocks.

LITS3070 3 Credits
Voices of Contemporary India
Reading and analysis of Indian writers in English or indigenous languages (in translation) from the post-independence period to the present; emphasis on the social and cultural developments in the post-colonial period and the emergence of Indian literature as a major influence in world literature. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3071 3 Credits
Contemporary African Literature and Culture
A survey of drama, poetry, fiction and nonfiction from the African continent, in English and English translation, with emphasis on post-colonial period, the African aesthetic, African liberation movements and African religious and cultural values. Texts studied may include works by writers such as Mariama Bâ, Wole Soyinka, Naguib Mahfouz and J.M. Coetzee. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3072 3 Credits
Latin-American Women Writers
Selected readings in translation of significant authors of Latin-American literature.

LITS3073 3 Credits
Irish Literature
This course surveys some 1,500 years of Irish literature in the Irish language (read in translation) as well as Irish literature in English. Students will have the option of learning some modern Irish. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3081 3 Credits
Hispanic Traditions
Study of selected major Hispanic writers in translation from Cervantes to the present. Majors in Spanish need to read in the original language. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3082 3 Credits
Francophone World
Study in translation of selected writers from around the French-speaking world in Africa, the West Indies, Canada, the Pacific Islands and Southeast Asia. Majors in French need to read in the original language. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3101 3 Credits
Greek and Roman Drama
Analysis of ancient drama emphasizing its origins and development and its literary, artistic, historical, psychological and sociological value and significance, as well as its continued influence on modern and contemporary drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3102 3 Credits
Studies in Drama
Analysis of significant plays, focusing on particular themes, playwrights, historical periods or forms of drama. Topics change each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3103 3 Credits
Modern Drama: 1880–1930
The course focuses on the innovative theater of Ibsen, Strindberg and Chekhov at the turn of the 20th century. Other playwrights (such as Pirandello and Brecht) may be considered as well. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3104 3 Credits
Contemporary American Drama
Reading and analysis of selected American plays and playwrights from the 1940s to the present. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3105 3 Credits
Contemporary European Drama
Study of major European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent. (Equivalent to THEA3105 Contemporary European Drama.)

LITS3106 3 Credits
Contemporary World Drama
Study of major non-European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3107 3 Credits
Hispanic Drama
Study and analysis of major works of Spanish theater from the Renaissance to the present. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3111 3 Credits
Studies in Poetry
Reading and analysis of poetry focusing on specific themes, authors, historical periods or poetic forms. Topics change each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3112 3 Credits
20th-century Poetry
Reading and analysis of representative poets and poetry; emphasis on the emergence and influence of modernist poetry. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3113 3 Credits
Women Poets and Poetic Tradition
Survey of poetry by and about women from ancient Greek poet Sappho through the 21st century. Writers to include Sappho, Wroth, Rossetti, Dickinson, Plath, Brooks, Rich and Lorde, among others. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

LITS3121 3 Credits
Studies in the Novel
Reading and analysis of novels and other prose fiction focusing on specific themes, authors, historical periods or forms of fiction. Topics change each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3122 3 Credits
20th-century Novel
Study of representative novelists and novels from the early 20th century to post-World War II; emphasis on the emergence and influence of modernist fiction. Prerequisite ENGW1002 Composition II: Research and Argument.

LITS3123 3 Credits
Contemporary Fiction
Study of developments in the forms and themes of fiction since the 1960s. Prerequisite:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGW1002 Composition II: Research and Argument or equivalent.</td>
<td></td>
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</tr>
<tr>
<td>LITS3125 3 Credits</td>
<td><strong>International Short Story</strong></td>
<td>In this genre course focusing on short stories, students will derive an understanding of the short story form from the 19th century through the present day in global perspective. Emphasis on form, craft, narrative and national traditions (both in English and in translation). Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3150 3 Credits</td>
<td><strong>Comedy, Satire and Parody</strong></td>
<td>This course focuses on sentimental comedy, satire, farce and parody in a variety of genres, from a global perspective, both in English and English translation. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3151 3 Credits</td>
<td><strong>Detective Fiction</strong></td>
<td>Analysis of the way writers have shaped the genre with attention to literary strategies and structure and social-cultural contexts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3152 3 Credits</td>
<td><strong>Science Fiction</strong></td>
<td>A study of the historical, thematic and theoretical development of the genre from the late 19th century to the present; analysis of the way writers have shaped the genre with attention to literary strategies and structure and social-cultural contexts. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3153 3 Credits</td>
<td><strong>Comics and Graphic Novels</strong></td>
<td>Examination of the literary, cultural and social significance of the graphic novel, its initial rise and its rising popularity as a literary medium; emphasis on the origins of the genre and its relationship to comic-book writing; exploration of comparative relationships between the graphic novel and other popular genres such as science fiction, the detective novel, historical fiction and fantasy literature. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3154 3 Credits</td>
<td><strong>Women’s Autobiography</strong></td>
<td>This course examines autobiographical writing by women, particularly autobiographies, memoirs and diaries, and the way autobiographical writing may be shaped by gender. It will pay attention to relationships between public and private writing, fiction and nonfiction and the relationship of the writer to her audience. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3155 3 Credits</td>
<td><strong>The Gothic in Fiction and Film</strong></td>
<td>Examination of the rise and development of the Gothic as a genre and its role in the history of literature, addressing such questions as why the Gothic has been such an enduring art form from its mid-18th century beginnings through Joyce Carol Oates and Stephen King; why it translates particularly well to the medium of film. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3156 3 Credits</td>
<td><strong>The Novel in Letters</strong></td>
<td>Examination of novels in letter form from the 1700s to the present from Europe, America and other countries; analysis of why the letter form has continuing appeal even in today’s culture of email. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3161 3 Credits</td>
<td><strong>Modern Literature</strong></td>
<td>A survey of writing by women from the 11th – 18th centuries, with attention to relationships between public and private writing, fiction and nonfiction and the relationship of the writer to her audience. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3201 3 Credits</td>
<td><strong>British Writers</strong></td>
<td>Reading and analysis of selected major authors assessing their aesthetic achievements and their cultural influence. Topics change with each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3202 3 Credits</td>
<td><strong>American Writers: Race in Black and White</strong></td>
<td>This course focuses on representations of race by American writers from the mid-19th century to the present, with some reference to depictions of race from other media as well. Featured authors may include Harriet Beecher Stowe, Mark Twain, Richard Wright, Randall Kennedy, William Faulkner, August Wilson and Chimamanda Ngozi Adichie. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3211 3 Credits</td>
<td><strong>Dante</strong></td>
<td>Reading and analysis in translation of Dante’s major works, including <em>A New Life</em> and <em>The Divine Comedy</em>; consideration of Dante’s place in Italian and European literatures and his continued influence. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3212 3 Credits</td>
<td><strong>Chaucer</strong></td>
<td>Study of medieval England’s leading poet, emphasizing <em>The Canterbury Tales</em>; attention paid to Chaucer’s language, life and times, his relationship to his contemporaries and his role as innovator in English poetry. Prerequisite: ENGW1002 Composition II: Research and Argument.</td>
</tr>
<tr>
<td>LITS3213 3 Credits</td>
<td><strong>Shakespeare I</strong></td>
<td>A survey of Shakespeare’s major poems, comedies, histories and tragedies; attention paid to Shakespeare’s language, life and times and his role as innovator in English drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3214 3 Credits</td>
<td><strong>Shakespeare II</strong></td>
<td>Consideration of selected major poems, comedies, histories and tragedies, focusing on specific themes or approaches. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
<tr>
<td>LITS3215 3 Credits</td>
<td><strong>Cervantes</strong></td>
<td>Reading in translation and analysis of Cervantes’ major works, focusing on <em>Don Quixote</em>; attention paid to Cervantes’ life and times, his relationship to predecessors and contemporaries and his role as innovator in Spanish literature and world fiction. Spanish majors read texts in the original language. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.</td>
</tr>
</tbody>
</table>
| LITS3221 3 Credits | **Medieval and Renaissance Women Writers** | A survey of writing by women from the 11th-17th centuries in Europe and the Americas;
consideration of the notion of a female voice; cross-dressing, public speaking and other social transgressions; gender and genre; the impact of changing historical conditions on women’s artistic production. Reading in the original language encouraged. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3350
3 Credits
Jane Austen: Fiction and Film
Study of Austen’s six novels published during and after her lifetime and exploration of their context in 18th-century literature, the Regency Era in Britain and the Romantic movements in Europe will lead to understanding her continued appeal in print and in film. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3300
3 Credits
Romance Languages
Origins and development of the Romance languages from Latin; introduction to basic principles of language structure; consideration of similarities and differences among various Romance languages. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3301
3 Credits
The English Language
An introduction to the systematic study of the structure and grammar of English in light of contemporary linguistic theory; survey of the historical development of English with emphasis on etymology; consideration of language in its social context; language acquisition; and recent linguistic controversies (e.g., bilingualism, non-standard dialects, gender differences). Recommended for prospective teachers. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3302
3 Credits
Myth and Sacred Texts
Consideration of the role of myth and sacred texts as the underpinnings of literature; comparative study of myths and sacred texts from different cultures, Western and non-Western; analysis of theories of myth. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3305
3 Credits
World Folk Literature
Study of fairy tales, märchen, wonder tales and legends from diverse cultures; examination of universal patterns in folk narrative; differences in oral vs. written storytelling; roles of the storyteller; function of folk tales in children’s psychological development; modern critical evaluation of folk literature; influence of folk literature in contemporary culture. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3311
3 Credits
Children’s Literature
Survey of mid- to late-20th-century children’s literature to examine how this literature reflects theories and notions of childhood as well as changes within society; texts include picture and chapter books, novels, graphic novels, film adaptations and criticism. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent, junior or senior standing.

LITS3312
3 Credits
Young Adult Literature
Survey of selected literature of the mid- to late-20th century that examines the transition to adulthood, sexuality, conflict between youth and parents, fantasy, responsibility and authority. Texts include commonly taught high school texts, coming-of-age novels, graphic novels, film adaptations and criticism; discussion of censorship and what is appropriate for young adults to read. Prerequisites: ENGW1002 Composition II: Research and Argument or equivalent, junior or senior standing.

LITS3313
3 Credits
Nobel Literature
Focus on Nobel Prize winners in literature, exploring cultural, aesthetic and political dimensions in their works; investigation of the Nobel award process. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3321
3 Credits
Post-modern Literature
Defining post-modern literature through consideration of a range of genres (fiction, film, drama, poetry and essay) from around the world; analysis of key stylistic elements (multiple voices, deeply ironic sense of humor, self-conscious storytelling and a richly allusive range of references to past literature and culture); examination of the changing relationship of popular culture to high culture. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3322
3 Credits
Post-colonial Studies
Exploration of writing by former colonial subjects (e.g., in Asia, Africa, South America): consideration of issues of colonial and post-colonial identity; the dynamics of power relationships between dominant and subaltern cultures (including racial and gender perspectives); role of mainstream literature in constructing colonial identities; analysis of key theories and theorists. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3330
3 Credits
The Age of Discovery in World Perspective
This course looks at the era of European expansion from the mid-16th century through the 18th century from a multicultural perspective, considering cultural differences and cultural intrusion as reflected in literary expression. Writers studied may include: Olaudah Equiano, Mary Prince, Cao Xueqin, Molière, Aphra Behn, Matsuo Basho, Lady Mary Wortley Montagu, Mary Kingsley, Elizabeth Melville, Mary Rowlandson, Immanuel Kant, Jonathan Swift, Alexander Pope, Voltaire, Mary Wollstonecraft, Jean Jacques Rousseau or Friedrich Nietzsche. Oral literature may include the Epic of Sundialta. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3351
3 Credits
Ethnic American Literature
Consideration of poetry, fiction and other writing by members of various ethnic groups in the United States; assessment of contribution of ethnic experience to American cultural diversity. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3341
3 Credits
Queer Literature
This course examines the emergence of gay and/or lesbian literature as a group of text and a field of critical study. Readings may include Sappho and Plato, Michelangelo and Katherine Philips, Forster and Woolf as well as other 19th- and 20th-century writers and contemporary secondary material from gender studies and queer theory. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3350
3 Credits
Monsters and Bad States
An exploration of political and social nightmares and dreamscapes, drawing on literature, political theory and contemporary policy and public affairs. (Equivalent to GOVT3851 Monsters and Bad States.)

LITS3351
3 Credits
Literary Perspectives on the Environment
Examination of narratives of the environment; consideration of the impact of human activity on the environment as reflected in and represented by the stories created; comparative and intertextual readings of literary texts, United Nations
policy papers, news reports, documentaries, photographs and artwork; analysis of how texts construct people’s relations to the environment but also enable them to conceive of future alternatives. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3552
3 Credits
Music and Poetry
This class examines the relationship between poetry (or lyrics) and music throughout history. The class will study the oral tradition, devotional songs in various traditions, ballads and contemporary songwriters such as Bob Dylan, Bruce Springsteen and Joni Mitchell. Prerequisite: ENGW1002 Composition II: Research and Argument.

LITS3590
3 Credits
Italian Mafia in Literature and Film
This class examines the evolution of organized crime in Italy (termed Mafia, Cosa Nostra, Camorra, 'Ndrangheta, etc.) from its beginnings in the second half of the 19th century to the 21st century through the analysis of novels, films, newspaper articles and documentaries. (Equivalent to ITAL3390 Italian Mafia in Literature and Film.)

LITS35441
3 Credits
Latin-American Theater
This class will survey important currents in the development of Latin-American theater. Dramatic texts will be studied to understand how they reflect on social and political issues. Moreover, how Latin-American dramatic discourse emerges within the context of colonialism, in response to other theatrical traditions and in its search for its own identity, will be key concepts explored in this course. Key moments from the early colonial period to the 20th century will form the class discussion.

LITS3562
3 Credits
Topics in Latin-American Literature I
This course focuses on the literature of Latin America from pre-Hispanic texts through the Enlightenment. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

LITS3566
3 Credits
Witches and Warlocks in the West
This course focuses on the definition of who and what is a witch, both in Europe and North America, from the Middle Ages to the 20th century. (Equivalent to ITAL3666 Witches and Warlocks in the West.)

LITS4001
3 Credits
Senior Seminar: English and World Literatures
Advanced study and research on topics in literature and criticism; capstone course required of all seniors majoring in literature. Prerequisite: 12 credits in other literature (LITS) courses.

LITS4498
3 Credits
Internship
Practical experience working in a business, government or nonprofit setting or in the publications field, applying academic knowledge; academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor.

LITS4800
1–6 Credits
Independent Study
Independent study under the direction of a specific faculty member after consultation with the department chairperson. Prerequisites: permission of instructor and approval of department chair.

LITS4900
3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation. Prerequisites: permission of instructor and approval of department chair.

Writing and Creative Writing
See pages 367–369 for course descriptions.

Mathematics
Department of Mathematics, Computer Science and Physics

MATH0100
0 Credits
Intermediate Algebra Lab
Laboratory in coordination with MATH1100 Intermediate Algebra.

MATH0128
0 Credits
Mathematical Methods Lab
Laboratory for MATH1128 Mathematical Methods students to practice problem-solving skills. Corequisite: MATH1100 Intermediate Algebra.

MATH0198
4 Credits*
Computation Algebra Skills
Precalculus mathematics: basic numerical concepts, fractions, operations with signed numbers, introductory algebra, graphs, operations of polynomials, simple and simultaneous linear equations. MATH0198 is designed for students with deficiencies in both computational mathematics and elementary algebra. Placement in MATH0198 is made by the Academic Support Center and based on performance on a placement test. Prerequisite credit only.*

Fall

*Prerequisite credits are credits that do not count toward graduation nor are they averaged into the cumulative grade point ratio (CGPR).
Course Descriptions

Mathematics

Maxwell Becton College of Arts and Sciences
Florham Campus

MATH0298
3 Credits*
Algebra Skills
Precollege mathematics: basic arithmetical concepts, graphs and charts, introductory algebra.
No credit toward graduation requirements.
Prerequisite credit only.*
Fall, Spring

MATH1100
4 Credits
Intermediate Algebra
A course for students who have passed or tested out of MATH0298 Algebra Skills, but need additional preparation for MATH1107 Precalculus or MATH1128 Mathematical Methods.
Topics will range from linear and quadratic equations to exponential and logarithmic functions.
Prerequisite: MATH0298 Algebra Skills or placement.
Fall, Spring

MATH1107
4 Credits
Precalculus
Algebraic operations, factoring, exponents, radicals; quadratic and higher degree equations; systems of linear equations; functions and their graphs; exponential, logarithmic and trigonometric functions and their graphs; trigonometric identities; triangle trigonometry.
Prerequisite: placement or MATH0298 Algebra Skills with a grade of B+ or MATH1100 Intermediate Algebra.
Fall, Spring

MATH1126
3 Credits
Contemporary Mathematics
An introduction to mathematical concepts relevant to the modern world. Topics include graph theory, planning and scheduling, linear programming, analysis of data, probability, social choice, weighted voting systems, game theory, growth and form, the size of populations, measurement and patterns. Meets mathematics core requirement (in place of MATH1128 Mathematical Methods) for Becton College students majoring in humanities or social or behavioral science disciplines.
Prerequisite: placement or MATH0298 Algebra Skills with a minimum grade of B or MATH1100 Intermediate Algebra.
Fall, Spring

MATH1128
3 Credits
Mathematical Methods
Linear and nonlinear equations and functions, exponential and logarithmic functions, simple and compound interest, annuities, matrices and simultaneous equations, sets, introduction to calculus.
Prerequisite: placement or MATH0298 Algebra Skills with a minimum grade of B or MATH1100 Intermediate Algebra.
Fall, Spring

MATH1129
3 Credits
Introduction to Statistics
Elementary probability and statistics, descriptive and visual statistics, elements of probability, sampling distribution, estimation theory, test of hypothesis and other aspects of statistical inference.
Fall, Spring

MATH1155
3 Credits
Mathematical Ideas
Survey of traditional and contemporary mathematics and applications to the real world. The topics are developed within a historical framework and designed to develop an appreciation of the role and universality of mathematics in the global marketplace. Topics include concepts and applications of set theory, symbolic logic, elementary number theory and mathematical reasoning. Offered as a mathematics elective (not for mathematics or computer science majors).
Prerequisite: MATH1100 Intermediate Algebra or MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.
Fall, Spring

MATH1203
4 Credits
Calculus I
Slope of a straight line, equations of lines, slope of curve, rate of change of function, derivatives of algebraic functions, maxima and minima, Mean Value Theorem, indefinite and definite integrals and their applications.
Prerequisite: MATH1107 Precalculus with a grade of C- or better or by placement.
Fall, Spring

MATH1239
3 Credits
Calculus with Business Applications
Slopes and linear functions, other functions and models, limits and continuity, average rates of change, instantaneous rates of change in business and economics, differentiation techniques, maxima and minima values used in graphing and their application to business and economics, inventory cost and marginal analysis and introduction to integration.
Prerequisite: MATH1100 Intermediate Algebra. For Silberman College of Business students only. Permission of instructor required.
Fall

MATH2133
3 Credits
Forensic Mathematics and Statistics
This is a one-semester mathematics course designed for criminology majors. A wide range of mathematics techniques with emphasis on forensic applications would be included. Covered topics would be selected from the following: functions, equations, algebraic manipulations, applications of exponential and logarithmic functions, trigonometric methods, graphs, linear regression, probability and comparative statistics. A large number of examples will be selected from the following applications: ballistic calculations, ricochet analysis, trajectory of a falling body, quantification of drugs and their metabolites, elimination of alcohol from the body, bloodstain shape and formation, bloodstain impact angle, blood phenotype distribution, the matching of hair evidence, genotype frequencies and DNA evidence, probability and uniqueness of fingerprints and human teeth marks. Several group projects on solving cases will be used. Excel will be used in data-analysis projects.
Prerequisite: MATH1107 Precalculus with a grade of C- or better or by placement.
Fall, Spring

MATH2202
4 Credits
Calculus II
Differentiation and integration of transcendental functions, log functions, methods of integration, indeterminate forms, infinite series, Taylor series, Conic sections.
Prerequisite: MATH1205 Calculus I.
Fall, Spring

*Prerequisite credits are credits that do not count toward graduation nor are they averaged into the cumulative grade point ratio (CGPR).
MATH2205
4 Credits
Calculus III
Lines and planes in 3-space. Vectors, functions of several variables, partial derivatives, multiple integrals, line integrals, vector analysis. Prerequisite: MATH2202 Calculus II. Fall, Spring

MATH2255
3 Credits
Discrete Structures
Set theory, algebraic structures, Boolean algebra and propositional logic, graph theory and other aspects of combinatorial mathematics. Prerequisite: MATH1203 Calculus I. Fall

MATH3210
3 Credits
Number Theory
A study of the integers: prime numbers, unique factorization, congruence, theorems of Fermat and Euler, quadratic reciprocity, Diophantine equations and applications to cryptography and coding. Prerequisite: CSC1225 Discrete Structures or MATH2255 Discrete Structures.

MATH3220
3 Credits
Linear Algebra
Vector spaces, linear independence, bases, linear transformation, matrix algebra, inner product, spaces, linear equations, special topics. Prerequisite: MATH2202 Calculus II. Spring

MATH3225
3 Credits
Abstract Algebra
Elements of the theories of groups, rings, integral domains and fields, polynomial rings, factorization theory and field extensions. Prerequisites: MATH2202 Calculus II and MATH3220 Linear Algebra.

MATH3232
3 Credits
Multivariable Advanced Calculus
A survey of functions of several variables, multiple integrals, vector calculus, line integral, surface integral and Green's and Stokes theorem. Prerequisites: MATH1203 Calculus I, MATH2202 Calculus II, MATH2203 Calculus III and MATH3220 Linear Algebra.

MATH3250
3 Credits
Numerical Analysis
Introduction to numerical approximations suitable for computer use. Roots of polynomials, numerical integration, numerical solutions of differential equations, error estimation. Prerequisite: MATH2202 Calculus II.

MATH3251
3 Credits
Introductory Analysis
The real number system, sequences and series, functions and continuity, differentiability, the Riemann integral, sequences and series of functions. Prerequisites: MATH2203 Calculus III and MATH2255 Discrete Structures.

MATH3269
3 Credits
Introduction to Data Mining
This course introduces the fundamental concepts of data mining. Students will gain an in-depth understanding of algorithms in the field, and will learn how to prepare data for learning and classification. Topics covered include data preprocessing, classification, cluster and outlier analysis and text mining. Students will work on projects applying the theory learned. Prerequisite: CSC1225 Discrete Structures or CSC1333 Computer Algorithms or MATH3300 Statistics I or permission of department chair.

MATH3300
3 Credits
Statistics I
A calculus-based introduction to statistics covering a range of topics from descriptive statistics, discrete and continuous probability distributions, sampling distributions, interval estimation, test of hypothesis, linear regression and ANOVA. Prerequisite: MATH1203 Calculus I.

MATH3305
3 Credits
Probability
This course introduces students to the basic theory of probability. Both discrete and continuous probabilistic models are used to solve problems. Concepts and techniques from discrete math such as Boolean algebra are used in discrete cases. Differentiation and integration techniques are used in continuous cases. Students get familiar with common discrete distributions: binomial, geometric and Poisson. Continuous distributions covered include: normal, gamma and chi-squared. Students also learn how to calculate means, variances and moment-generating functions. Prerequisite: MATH2202 Calculus II. Corequisite: MATH3313 Probability Practicum.

MATH3309
3 Credits
Advanced Probability and Statistics
This course exposes students familiar with the basic theory of probability to a few more advanced areas of probability and one special area of statistical analysis. The probabilistic areas include multivariate probability distributions and functions of random variables. The statistical component covers linear models, including both simple and multiple linear-regression analysis. Prerequisites: MATH1203 Calculus I and MATH3303 Probability.

MATH3308
3 Credits
Mathematics of Finance
Students will develop an understanding of the fundamental concepts of financial mathematics with emphasis on applications in calculating present and accumulated values for various streams of cash flows. Topics include valuation of annuities, loan amortizations, bond valuation, the rate of return on investment, asset-liability matching and immunization. Prerequisite: MATH1203 Calculus I.

MATH3312
3 Credits
Theory of Computing
Finite state deterministic and nondeterministic automata, pushdown, linear bounded and infinite automata, formal languages and computability. Prerequisite: MATH2255 Discrete Structures.

MATH3313
0 Credits
Probability Practicum
This is a problem-solving workshop accompanying MATH3303 Probability. Students practice calculating probabilities of events, conditional probabilities, means, variances and moments of random variables. The concepts of independent events and mutually exclusive events are ex-
plored. Bayes’ rule, three diagrams, moment-generating functions and other probabilistic tools are used in solving problems in both discrete and continuous cases. Corequisite: MATH3303 Probability.

MATH3316 3 Credits
**Partial Differential Equations**
Derivation of partial differential equations, boundary conditions, method of separation of variables. Fourier series, curvilinear coordinates, orthogonal functions, generating functions and classification of equations. Prerequisites: MATH2203 Calculus III and MATH2255 Discrete Structures.

MATH3317 3 Credits
**Real Variables**
Real number system. Introduction to measure theory and Lebesgue integration. Convergence theorems and special topics. Prerequisites: MATH3232 Multivariable Advanced Calculus and MATH3251 Introductory Analysis.

MATH3318 3 Credits
**Differential Equations**
First-order differential equations and applications, linear differential equations and applications, Laplace transforms, systems of equations, solutions in terms of power series, partial differential equations. Prerequisite or corequisite: MATH2203 Calculus III.

MATH3331 3 Credits
**Higher Geometry**
The axiomatic approach to Euclidean and non-Euclidean geometry. Affine, projective, inver-
sive, hyperbolic and spherical geometries according to Felix Klein’s Erlangen program. Prerequisite: MATH3220 Linear Algebra.

MATH3335 3 Credits
**Complex Variables**
Analytic functions, Cauchy’s integral and theorem and consequences, calculus of residues, entire and meromorphic functions, conformal mapping. Prerequisite: MATH2203 Calculus III.

MATH3355 3 Credits
**Introduction to Cryptography**
Cryptography is the branch of mathematics that studies the design of systems for communication over non-secure channels. It uses ideas from number theory and abstract algebra to cover topics from classical cryptosystems (ciphers) to 1970s breakthroughs such as Diffie-Hellman’s key exchange and RSA cryptography (public key) to the more recent methods of elgamel and elliptic curves. Prerequisite: MATH2255 Discrete Structures.

MATH3360 3 Credits
**Topology**
Metric and topological spaces, continuity, compactness, connectedness, homotopy, homology and special topics. Prerequisites: MATH3225 Abstract Algebra and MATH3251 Introductory Analysis.

MATH3365 3 Credits
**Mathematics of Operations Research**
A study of the principal mathematical techniques used in operations research, including model formulation, optimization, linear and nonlinear programming, game theory, queuing theory, statistics and applications.

MATH3371 3 Credits
**Modeling and Simulation**
Definition of systems. Input, output and state variables. Continuous and discrete dynamical systems. Differential equations and their use in modeling. The CSMP language and its use. Prerequisites: MATH2203 Calculus III and knowledge of a programming language. Spring

MATH4001, MATH4002 1–3 Credits
**Mathematics Internship**
Supervised practical experience in the field of mathematics in a professional setting. Permission of the instructor and department chair required. Fall, Spring, Summer

MATH4007 3 Credits
**Financial Mathematics II**
The course introduces students to mathematical models used in finance. Topics include arbitrage, the Black-Scholes option pricing model, utility functions, optimal portfolio selection, capital assets pricing model. Prerequisites: MATH3303 Probability and MATH3307 Mathematics of Finance.

MATH4401 6 Credits (5 Credits Each Semester)
**Selected Topics in Mathematics**
Advanced studies in special fields of mathematics.

MATH4420 1–3 Credits Each Semester
**Selected Studies in Mathematics**
Studies in an area of mathematics.

MATH4477 1–3 Credits Each Semester
**Honors Research and Thesis**

MATH4498 1–3 Credits
**Co-op in Mathematics**
Integration of classroom study with specific planned periods of supervised learning in paid and relevant employment experiences. Co-op education combines learning on the job, University course work and career-development skills. Students are encouraged to complete two complementary co-op courses.

MATH4800 1–3 Credits Each Semester
**Independent Study in Mathematics**
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

MATH4999 0 Credits
**Mathematics Assessment**
This course is a level-assessment test for evaluating the breadth of knowledge in the major requirement and major elective courses. No class time is allocated for this course. The test is administered once every semester. Fall, Spring

**Graduate Courses**
Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the department chairperson. Interested students should see the Graduate Studies Bulletin for list of courses and descriptions.

**Music**
**School of the Arts**

**Applied Music**

MUSIC1015 3 Credits
**Basic Vocal Technique**
This course uses a workshop format to teach vocal anatomy, proper breathing, balanced tone as well as work on vocal registers and vocal health. Each student will be assigned pieces from musical theater and/or the classical repertoire. This course is targeted for freshman theater arts majors with a concentration in musical theater and/or other students wishing to improve their singing and gain confidence and skill set for solo singing. (Equivalent to THEA1015 Basic Vocal Technique.)

MUSIC1020 1 Credit
**Chorus**
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.
MUSIC1022
1 Credit
Chorus II
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

MUSIC1023
1 Credit
Chorus III
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

MUSIC1024
1 Credit
Chorus IV
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

MUSIC1025
1 Credit
Chorus V
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

MUSIC1026
1 Credit
Chorus VI
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

MUSIC1027
1 Credit
Chorus VII
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

MUSIC1028
1 Credit
Chorus VIII
A performance ensemble of mixed voices for the rehearsal and performance of choral music. A wide variety of classical and popular songs are performed. Performances scheduled throughout the academic year. No previous singing or musical ability is required.

MUSIC1050
1 Credit
Band
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1052
1 Credit
Band II
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1053
1 Credit
Band III
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1054
1 Credit
Band IV
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1055
1 Credit
Band V
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1056
1 Credit
Band VI
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1057
1 Credit
Band VII
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1058
1 Credit
Band VIII
A performance ensemble, rehearsing each week and performing at selected FDU games and in concerts.

MUSIC1362
1 Credit
Private Instruction in Bass II
A one-semester course seeking greater proficiency in private double bass or electric bass. Prerequisite: MUSIC1362 Private Instruction in Bass.

MUSIC1363
1 Credit
Private Instruction in Bass III
A one-semester course seeking greater proficiency in private double bass or electric bass. Prerequisite: MUSIC1362 Private Instruction in Bass II.

MUSIC1364
1 Credit
Private Instruction in Bass IV
A one-semester course seeking greater proficiency in private double bass or electric bass. Prerequisite: MUSIC1363 Private Instruction in Bass III.

MUSIC1365
1 Credit
Private Instruction in Bass V
A one-semester course seeking greater proficiency in private double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1364 Private Instruction in Bass IV.

MUSIC1366
1 Credit
Private Instruction in Bass VI
A one-semester course seeking greater proficiency in private double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1365 Private Instruction in Bass V.

MUSIC1367
1 Credit
Private Instruction in Bass VII
A one-semester course seeking greater proficiency in private double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1366 Private Instruction in Bass VI.

MUSIC1368
1 Credit
Private Instruction in Bass VIII
A one-semester course seeking greater proficiency in private double bass or electric bass. Music instructor will provide detailed musical curriculum. Prerequisite: MUSIC1367 Private Instruction in Bass VII.
## Music

Maxwell Becton College of Arts and Sciences  
Florham Campus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit</th>
<th>Course Description</th>
</tr>
</thead>
</table>
| MUSIC1375   | 1 Credit | Private Instruction in Piano  
A one-semester course for private instruction in piano. |
| MUSIC1376   | 1 Credit | Private Instruction in Voice  
A one-semester course for private instruction in voice. |
| MUSIC1377   | 1 Credit | Private Instruction in Woodwinds I  
A one-semester course for private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum.  
Fee |
| MUSIC1378   | 1 Credit | Private Instruction in Woodwinds II  
A one-semester course for private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum. Prerequisite: MUSIC1377 Private Instruction in Woodwinds I.  
Fee |
| MUSIC1379   | 1 Credit | Private Instruction in Woodwinds III  
A one-semester course for private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum. Prerequisite: MUSIC1378 Private Instruction in Woodwinds II.  
Fee |
| MUSIC1380   | 1 Credit | Private Instruction in Voice II  
A one-semester course for private instruction in voice. Prerequisite: MUSIC1376 Private Instruction in Voice.  
Fee |
| MUSIC1381   | 1 Credit | Private Instruction in Woodwinds IV  
A one-semester course for private flute, clarinet, saxophone, oboe and other wind instruments. The music instructor will provide detailed musical course curriculum. Prerequisite: MUSIC1379 Private Instruction in Woodwinds III.  
Fee |
| MUSIC1386   | 1 Credit | Private Instruction in Piano II  
Private applied lesson in piano. Prerequisite: MUSIC1375 Private Instruction in Piano.  
Fee |
| MUSIC1387   | 1 Credit | Private Instruction in Piano III  
A continuation of MUSIC1386 Private Instruction in Piano II where students are seeking a greater proficiency.  
Fee |
| MUSIC1388   | 1 Credit | Private Instruction in Piano IV  
A continuation of MUSIC1387 Private Instruction in Piano III where students are seeking a greater proficiency.  
Fee |
| MUSIC1389   | 1 Credit | Private Instruction in Guitar  
A one-semester course for private instruction in guitar.  
Fee |
| MUSIC1390   | 1 Credit | Private Instruction in Guitar II  
Private lesson applied in guitar. Continuation of MUSIC1391 Private Instruction in Guitar. Prerequisite: MUSIC1391 Private Instruction in Guitar.  
Fee |
| MUSIC1391   | 1 Credit | Private Instruction in Guitar III  
Private applied lesson in guitar. Continuation of MUSIC1391 Private Instruction in Guitar and MUSIC1392 Private Instruction in Guitar II. Prerequisite: MUSIC1392 Private Instruction in Guitar II.  
Fee |
| MUSIC1392   | 1 Credit | Private Instruction in Guitar IV  
A continuation of MUSIC1393 Private Instruction in Guitar III. Prerequisite: MUSIC1393 Private Instruction in Guitar III.  
Fee |
| MUSIC1393   | 1 Credit | Private Instruction in Guitar V  
A one-semester course for private instruction in guitar. Prerequisite: MUSIC1394 Private Instruction in Guitar IV.  
Fee |
| MUSIC1394   | 1 Credit | Private Instruction in Guitar VI  
A one-semester course for private instruction in guitar. Prerequisite: MUSIC1395 Private Instruction in Guitar V.  
Fee |
| MUSIC1395   | 1 Credit | Private Instruction in Violin I  
A one-semester course of private instruction in violin.  
Fee |
| MUSIC1396   | 1 Credit | Private Instruction in Violin II  
A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1396 Private Instruction in Violin I.  
Fee |
| MUSIC1397   | 1 Credit | Private Instruction in Violin III  
A one credit course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1397 Private Instruction in Violin II.  
Fee |
| MUSIC1398   | 1 Credit | Private Instruction in Violin IV  
A one credit course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1398 Private Instruction in Violin III.  
Fee |
| MUSIC1399   | 1 Credit | Private Instruction in Violin V  
A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1399 Private Instruction in Violin IV.  
Fee |
| MUSIC1400   | 1 Credit | Private Instruction in Violin VI  
A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1400 Private Instruction in Violin V.  
Fee |
| MUSIC1401   | 1 Credit | Private Instruction in Voice III  
A one-semester course for private instruction in voice. Prerequisite: MUSIC1380 Private Instruction in Voice II.  
Fee |
| MUSIC1402   | 1 Credit | Private Instruction in Voice IV  
A one-semester course for private instruction in voice. Prerequisite: MUSIC1401 Private Instruction in Voice III.  
Fee |
| MUSIC1403   | 1 Credit | Private Instruction in Voice V  
A one-semester course for private instruction for the student seeking continued proficiency in voice. Prerequisite: MUSIC1402 Private Instruction in Voice IV.  
Fee |
| MUSIC1404   | 1 Credit | Private Instruction in Voice VI  
A one-semester course for private instruction for the student seeking continued proficiency in voice. Prerequisite: MUSIC1403 Private Instruction in Voice V.  
Fee |
| MUSIC1405   | 1 Credit | Private Instruction in Voice VII  
A one-semester course for private instruction for the student seeking continued proficiency in voice. Prerequisite: MUSIC1404 Private Instruction in Voice VI.  
Fee |
| MUSIC1406   | 1 Credit | Private Instruction in Voice VIII  
A one-semester course for private instruction for the student seeking continued proficiency in voice. Prerequisite: MUSIC1405 Private Instruction in Voice VII.  
Fee |
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Fee</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSIC1411</td>
<td>Private Instruction in Guitar V</td>
<td>1</td>
<td></td>
<td>A continuation of private instruction for the student seeking continued proficiency in guitar. Prerequisite: MUSIC1399 Private Instruction in Violin IV.</td>
</tr>
<tr>
<td>MUSIC1412</td>
<td>Private Instruction in Violin VI</td>
<td>1</td>
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<td>A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1411 Private Instruction in Violin V.</td>
</tr>
<tr>
<td>MUSIC1413</td>
<td>Private Instruction in Violin VII</td>
<td>1</td>
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<td>A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1412 Private Instruction in Violin VI.</td>
</tr>
<tr>
<td>MUSIC1414</td>
<td>Private Instruction in Violin VIII</td>
<td>1</td>
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<td>A one-semester course of private instruction for the student seeking continued proficiency in violin. Prerequisite: MUSIC1413 Private Instruction in Violin VII.</td>
</tr>
<tr>
<td>MUSIC1415</td>
<td>Private Instruction in Guitar V</td>
<td>1</td>
<td></td>
<td>A continuation of MUSIC1394 Private Instruction in Guitar IV. Prerequisite: MUSIC1394 Private Instruction in Guitar IV.</td>
</tr>
<tr>
<td>MUSIC1416</td>
<td>Private Instruction in Guitar VI</td>
<td>1</td>
<td></td>
<td>A continuation of MUSIC1415 Private Instruction in Guitar V. Prerequisite: MUSIC1415 Private Instruction in Guitar V.</td>
</tr>
<tr>
<td>MUSIC1417</td>
<td>Private Instruction in Guitar VII</td>
<td>1</td>
<td></td>
<td>A continuation of MUSIC1416 Private Instruction in Guitar VI. Prerequisite: MUSIC1416 Private Instruction in Guitar VI.</td>
</tr>
<tr>
<td>MUSIC1418</td>
<td>Private Instruction in Guitar VIII</td>
<td>1</td>
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<td>A continuation of MUSIC1417 Private Instruction in Guitar VII. Prerequisite: MUSIC1417 Private Instruction in Guitar VII.</td>
</tr>
<tr>
<td>MUSIC1425</td>
<td>Private Instruction in Piano V</td>
<td>1</td>
<td></td>
<td>A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1388 Private Instruction in Piano IV.</td>
</tr>
<tr>
<td>MUSIC1426</td>
<td>Private Instruction in Piano VI</td>
<td>1</td>
<td></td>
<td>A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1425 Private Instruction in Piano V.</td>
</tr>
<tr>
<td>MUSIC1427</td>
<td>Private Instruction in Piano VII</td>
<td>1</td>
<td></td>
<td>A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1426 Private Instruction in Piano VI.</td>
</tr>
<tr>
<td>MUSIC1428</td>
<td>Private Instruction in Piano VIII</td>
<td>1</td>
<td></td>
<td>A continuation of private instruction in piano where students are seeking a greater proficiency. Prerequisite: MUSIC1427 Private Instruction in Piano VII.</td>
</tr>
<tr>
<td>MUSIC1435</td>
<td>Private Instruction in Woodwinds V</td>
<td>1</td>
<td></td>
<td>A one-semester course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1381 Private Instruction in Woodwinds IV.</td>
</tr>
<tr>
<td>MUSIC1456</td>
<td>Private Instruction in Woodwinds VI</td>
<td>1</td>
<td></td>
<td>A one-semester course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1435 Private Instruction in Woodwinds V.</td>
</tr>
<tr>
<td>MUSIC1457</td>
<td>Private Instruction in Woodwinds VII</td>
<td>1</td>
<td></td>
<td>A one-semester continued course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1436 Private Instruction in Woodwinds VI.</td>
</tr>
<tr>
<td>MUSIC1458</td>
<td>Private Instruction in Woodwinds VIII</td>
<td>1</td>
<td></td>
<td>A one-semester continued course in flute, clarinet, saxophone, oboe or other wind instruments. Prerequisite: MUSIC1437 Private Instruction in Woodwinds VII.</td>
</tr>
<tr>
<td>MUSIC2015</td>
<td>Vocal Technique II</td>
<td>3</td>
<td></td>
<td>The course continues developing skills for proper and healthy singing. It will concentrate on the emergence of a personal, convincing and appropriate expressive style on the basis of free singing tone and well-supported vocal mechanism. Students will be assigned pieces from musical theater or the classical repertoire. Prerequisite: MUSIC1015 Basic Vocal Technique. (Equivalent to THEA2015 Vocal Technique II.)</td>
</tr>
<tr>
<td>MUSIC2339</td>
<td>Musical Theater Workshop</td>
<td>3</td>
<td></td>
<td>A course designed to offer instructional training in singing for the musical theater. Emphasis will be placed on vocal training, rhythm and presentation, and each student will be helped to choose material suitable for his or her vocal range. (Equivalent to THEA2339 Musical Theater Workshop.)</td>
</tr>
<tr>
<td>MUSIC2340</td>
<td>Advanced Musical Theater Workshop</td>
<td>3</td>
<td></td>
<td>A performance workshop for advanced theater majors and singers. It focuses on improving singing and acting skills in the performances of songs and audition techniques. Prerequisite: MUSIC2339 Musical Theater Workshop. (Equivalent to THEA2340 Advanced Musical Theater Workshop.)</td>
</tr>
<tr>
<td>MUSIC4422</td>
<td>Internship in Music I</td>
<td>1–3</td>
<td></td>
<td>Internship within music that integrates classroom learning with supervised employment in an area relevant to the student's educational and career goals. Interns are expected to work a full semester with hours to be determined by both the academic department and the hiring organization.</td>
</tr>
</tbody>
</table>
Music History

MUSIC2221 3 Credits
Fundamentals of Music Theory
An introduction to music theory, including the development of basic skills in reading and notating music, ear-training, sight-singing and the study of rhythm, melody, scales, keys, intervals and triads.

MUSIC2311 3 Credits
Children’s Musical Theater
This course is designed to bring theater to younger audiences (5th–8th graders) by writing, designing and acting in a production created by students and toured to two to three middle schools in the vicinity. The rehearsal process will occur during the final week of summer break and then tour during the early part of the following fall semester. Students will learn how to create a production from the initial script to final performance in all aspects. (Equivalent to THEA2311 Children’s Theater.)

MUSIC4900 3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

MUSIC4901 3 Credits
Faculty/Student Research
Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: MUSIC4900 Faculty/Student Research.

MUSIH1021 3 Credits
Popular Music and Jazz
A survey of American popular musical styles of the last hundred years. In addition to lectures and discussions, the course makes extensive use of audio and video materials. Note: Fulfills cultural requirement.

MUSIH2205 3 Credits
Music for the Movies
An examination of film from the musical perspective, covering the history of music in films from the silent era to the present; the aesthetics of film music and how music works with (or against) the other elements of a film; and some discussion on the techniques of film scoring.

MUSIH2211 3 Credits
Survey of Music: Ancient to 1800
A survey of art (“classical”) music from the ancient Greek period to the age of Beethoven. The course traces the development of Medieval and Renaissance music, and emphasizes the Baroque and classical eras, particularly Bach, Handel, Haydn, Mozart and Beethoven. Beginning with an introduction to the basic materials of music, the course focuses on the history of art music, the major composers from the 12th through the 18th centuries, their important works, stylistic and formal traits and the cultural-historic setting in which their music was created.

MUSIH2212 3 Credits
Survey of Music: 1800 to Today
A survey of art (“classical”) music from the age of Beethoven to the present day. This course traces the development of music of the Romantic and Modern eras. Beginning with an introduction to the basic materials of music, the course focuses on the history of art music, the major composers from Beethoven to the present, their important works, stylistic and formal traits and the cultural-historic settings in which their music was created.

MUSIH3344 3 Credits
History of the Musical
A survey of the history of contemporary musical theater from its origins in the 19th century through present day. In addition to lectures and discussions, the course makes extensive use of audio and video materials. (Equivalent to THEA2334 History of the Musical.)

MUSIC4402 1 Credit
Performing Ensemble
Open to instrumentalists for the development of ensemble skills. Students will be grouped into appropriate ensembles to include chamber ensembles and/or the Fairleigh Dickinson University Pep Band. Weekly group coachings will culminate in at least one performance per semester.

MUSIC4800 1–3 Credits Each Semester
Independent Study in Music
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

Philosophy

Department of Literature, Language, Writing and Philosophy

PHIL1101 3 Credits
Introduction to Logic
Principles of correct reasoning for understanding, analyzing and criticizing a variety of deductive and inductive arguments. Contents include: informal fallacies, truth and validity, principles of deductive reasoning, natural deduction, truth tables and symbolizations. Fall, Spring

PHIL1102 3 Credits
Introduction to Philosophy
Problems of metaphysics such as the nature of reality, the nature of self, relation of mind and body; and problems of epistemology such as the sources, nature and limits of knowledge, the relationship between knowledge and reality and the nature of truth. In addition, this course aims at enhancing reasoning and critical-thinking abilities as well as reading and writing skills. Fall, Spring

PHIL1103 3 Credits
Ethics
Moral philosophy seeks to answer questions like the following: What is a moral duty? Why is it that human beings are capable of conceiving of moral duties and rights? Why do different cultures impose different moral obligations on their members? Does this mean that there are no universally valid moral codes? Are there any methods, rules or procedures that can help us figure out what our duties are in given situations? Are there any theories that can assist us with determining our moral obligations? Why is there more than one theory? — after all, it sounds plausible that there should be a “right” answer to questions concerning moral duties. What is it that makes a theory “good” — or “bad”?

PHIL1106 3 Credits
Ideas of Happiness
Clarification of personal values and decisions by looking at important ideas of happiness. Examination of Western concepts of happiness in an attempt to clarify implications of personal value commitments. Authors may include Aristotle, Marcus Aurelius, Nietzsche, Camus and Hesse.
PHIL 1107
3 Credits
**Dreams and the Imagination**
Study of a number of theories about dreaming using Freud’s dreams as specimens. Discussion of broader functions of the imagination, its role in human knowledge and in the formation of culture.

PHIL 1112
5 Credits
**Critical Thinking for College and Life**
This course focuses on skills and methods for developing and evaluating arguments in writings and everyday life. It affords, in an introductory way, keys to analytical thinking.

PHIL 1114
3 Credits
**Philosophy Through Movies**
This course draws philosophical issues and positions from a carefully chosen selection of films.

PHIL 1119
3 Credits
**Legal Issues from a Philosophic Perspective**
This course examines philosophical issues underpinning current legal controversies. Understanding the philosophy behind the issues helps plan effective strategies in supporting a side of the issue. Of special interest for prelaw students and those interested in social policy. Questions addressed include the nature of the law, the relationship of law to moral standards, the importance of procedures and institutions for the administration of justice, the features of the American system of justice and the functions of punishment. Also examined are puzzles and dilemmas that confront the jurist, hidden factors that influence results and shape principles in the system of justice and certain issues of social justice.

PHIL 1120
3 Credits
**Language and Communication**
The course examines some of the philosophical issues surrounding language with an eye to helping the student communicate more clearly and effectively.

PHIL 1440
3 Credits
**Biomedical Ethics**
Examination of the moral and ethical questions that advances in biology and medical technology have raised: e.g., about the beginning and ending of life, genetic engineering and stem-cell research. Required for biology majors but open to other majors.

PHIL 2001
3 Credits
**Truth**
This course examines claims and theories about the nature of truth in Western and non-Western traditions. The inquiry encompasses a broad inclusion of texts from such philosophic schools and perspectives as Platonism, religious views, rationalism, pragmatism, intuitionism, moral non-cognitivism, current radical views about truth and contradiction and various strands of postmodernism.

PHIL 2008
3 Credits
**Ethical Issues in the Movies**
Students will watch and discuss films with a view to becoming reacquainted, in depth, with several topics in ethical theory and with specific moral theories. The course covers such phenomena as nihilism, amorality and 20th-century reactions to mortality. Students will examine ethical theories, including subjectivism, moral egoism, moral relativism, utilitarianism, Kant’s moral philosophy, social contract and nature rights, virtue ethics and feminist ethics.

PHIL 2030
3 Credits
**Thinking About the Mind**
This course traces various views and debates about what the mind is. The class studies various schools of thought on the subject and such controversial arguments as the Chinese School Argument and the Zombie Argument.

PHIL 2040
3 Credits
**Knowledge, Belief and Doubt**
An in-depth look at the notions of knowledge, belief and doubt. Collaterally related topics such as the problem of induction, knowledge of the external world, other minds, testimony and memory and the dilemmas that skepticism presents us with.

PHIL 2102
3 Credits
**Space and Time**
Have you ever wondered about the meaning of the word “time”? Or about what is meant by “space”? These concepts are elusive and mysterious; some of the most famous thinkers, artists and scientists have written about the meaning of space and time. In this course students study a few fundamental theories about space and time.

Students read the work of philosophers, scientists and science fiction writers. No advanced knowledge of mathematics or physics is required.

PHIL 2201
3 Credits
**Ancient Philosophy**
The principal philosophers and schools of philosophy from Thales to Hellenistic philosophy (Roman times). Religious and ethical background of Greek philosophy, with primary emphasis on Plato and Aristotle and some consideration of the pre-Socratic, Socratic and post-Aristotelian philosophy.

PHIL 2202
3 Credits
**Modern Philosophy**
Philosophy from the Renaissance to the end of the 19th century, with emphasis on the influence of science and politics on philosophy. Central issues in 17th- and 18th-century philosophy. Rationalism (Descartes, Spinoza and Leibniz). Empiricism (Hobbes, Locke, Berkeley and Hume). Kant.

PHIL 2203
3 Credits
**Contemporary Philosophy**
Movements in 20th-century philosophy such as positivism, pragmatism, phenomenology, existentialism, logical positivism, logical analysis and ordinary language analysis, Bergson, Whitehead — studied through representative works.

PHIL 2205
3 Credits
**Social and Political Philosophy**
Scrutiny of a number of seminal texts in the western political-philosophic tradition. The nature of political authority, legitimation and justice.

PHIL 2207
3 Credits
**Philosophy of Religion**
The nature and functions of religion, conceptions of the supernatural, proofs for the existence of God, varieties of religious experience, mysticism, immortality and evil.

PHIL 2208
3 Credits
**Crime and Punishment**
In this course, students read Crime and Punishment and selected texts as they pay attention to both the fundamental themes of the work and the background issues and philosophies against which the novel’s characters, action and ideas are conceived. The following is a partial list of themes which the course will address: Dostoevsky’s Critique of Modernity, Critique of Capitalism and Theories of Justice and Punishment.
Course Descriptions

Physical Education
Maxwell Becton College of Arts and Sciences
Florham Campus

PHIL2210
3 Credits
What is Radical Politics?
Examination of the philosophical underpinnings of recurrent radical political ideologies; defining the concept of radicalism and recognizing its historical shifts; the connection between metaphysical and conceptual systems and ideological movements; comparison and contrast to moderate or non-radical ideologies; and comparison and contrast to radicalisms both of the left and the right. Philosophical texts studied include Plato, Rousseau, Marx, Nietzsche, Locke, Kant, Mill, and Rawls.

PHIL2211
3 Credits
Philosophy and Film
The aesthetic dimensions of narrative cinema in the classic films of world cinema. Development of various aesthetic theories with the goal of understanding cinema as an art form. In addition, exploration of the methodologies of psychoanalysis, semiotics and certain forms of literary criticism as applied to film.

PHIL2432
3 Credits
Philosophy of Law
Overview of the central theories in philosophy of law; how these theories are applied to real-world conflicts between theory, law and government in such contemporary issues as justice and fairness, criminal culpability and punishment, the death penalty, due process, equality, privacy and the First Amendment rights of free speech and expression.

PHIL2777
3 Credits
 Formal Logic
This is an advanced course in symbolic logic. The class briefly detours through propositional logic and the lower monadic calculus before it continues with relational predicate logic with identity/functions/definite descriptions. Free logic systems and alternative systems with more than the standard quantifiers will be briefly considered. The class moves on to intensional formal languages, covering both natural deduction systems for S1–S5 (and between) as well as Kripke frames and models; noting the problems surrounding completeness results. The class continues with modal predicate logic and examines systems with and without the Barcan formulas. Subjects such as actualist and possibilist quantifiers and Kripke-Rigid designation will be discussed. The class ends with non-normal modal systems, a brief nod to fuzzy reasoning and a review of many-valued logics. Note: Satisfies Tier II math-science requirement.

PHIL2828
3 Credits
Immateriality and Reincarnation
This course examines arguments in support of and against claims that existence can and does continue after death. Relevant texts range from ancient religions and philosophical works to contemporary evaluations of parapsychology. The class will read and discuss representative texts on both sides of the debate on the soul, immortality and reincarnation.

PHIL3005
3 Credits
War and Philosophy
Classical and contemporary philosophic texts will be used to study and discuss definitions, causes and theories of war; claims about the nature and alleged inevitability of war; views about how war is to be explained and justified; moral reasoning applied to the initiation and conduct of war; issues of moral responsibility in waging and not waging war; and the rhetorical and logical structure of arguments used by advocates and opponents of war as an institution and of specific wars.

PHIL3306
3 Credits
The Problem of Evil
One of the oldest problems to have perplexed human beings everywhere is the problem of evil: Is evil a real thing? What does it mean and how does it become possible? How is evil to be understood or explained? How can we reconcile the existence of evil and unnecessary and undeserved suffering with the notion of an all-powerful, all-knowing and benevolent God? How does the existence of evil affect the human quest for the meaning of life? In this course, students will study philosophical responses to the above and related questions offered by thinkers throughout the ages.

PHIL290
3 Credits
Ethical Issues in the Media
This is an applied “moral reasoning” course with the media as the field from which the students will take their cases. The class will evaluate recent and current cases from journalism, broadcasting, advertisement and entertainment. Some of the issues to be discussed include: What responsibilities do media have toward the public? What kinds of moral dilemmas do news media face in reporting stories and in editorializing and how should they respond? What is the morally responsible way for drawing the line between newsworthy information and advertisement or entertainment? Should news media always defer to political and social actors’ right to privacy? How should special audiences be treated by the news media? Under what circumstances and by application of what criteria should news media censor the outflow of information?

PHIL4401
3 Credits
Philosophy Seminar
Intensive study and discussion of selected topics in philosophy which results in the composition and defense of the senior thesis (in consultation with, and upon approval by, faculty member).

PHIL4498
3 Credits
Internship
Course integrates classroom study with specific planned periods of supervised learning in relevant employment experiences. Combines learning on the job, University course work and career-development skills.

PHIL4800
1–3 Credits Each Semester
Independent Study in Philosophy
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

PHIL4900
3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

Physical Education

Associate Dean’s Office

PHED1101
1 Credit
Racquetball
Rules and stroke development including serves, kills and defensive strategy — plenty of play — singles, cutthroat and doubles.

PHED1102
1 Credit
Badminton
Basic strokes, game rules and strategy. Students are expected to display a reasonable level of proficiency by the end of the course.

PHED1113
1 Credit
Golf
Development of a basic consistent swing, emphasizing ball control, is the overall objective. Familiarity with all clubs, rules of the game, as well as the necessary etiquette, also are covered. Equipment, if needed, will be provided by the University.
PHED1121
1 Credit
Volleyball
Basic skills of forearm pass, overhead pass, serve, spike, block, along with offensive and defensive strategy.

PHED1126
1 Credit
Jogging for Fitness
 Begins with stretching exercises and then builds up from one-fourth to approximately seven miles. Individual goals are set for each student. Nutrition and diet studies are included.

PHED1135
1 Credit
Physical Fitness
Geared to the needs of the individual. Includes basic conditioning, isotonics, isometrics and those exercises that aid in developing and maintaining muscle vitality and strength.

PHED1137
1 Credit
Weight Training
Development of knowledge and skills required for a personalized weight-training program emphasizing the use of the Cybex weight machines and free weights.

PHED1139
1 Credit
Cross Training
Use of varied physical activities such as swimming, running and weight training to develop knowledge and skills for lifetime fitness programs.

PHED1144
1 Credit
Aerobics
Specific movements designed to improve cardiovascular endurance and general conditioning of the body through enjoyable activities.

PHED1145
1 Credit
Swimming
Five basic strokes are covered: freestyle, backstroke, elementary backstroke, sidestroke and breaststroke. Emphasis is placed on a basic program for lifetime fitness and enjoyment. The beginning swimmer is taught privately.

PHED1147
1 Credit
Lap Swimming
Development of a safe and effective workout plan useful to an individual’s fitness goal. Training concepts such as distance, repetition, interval and Fartek will be explored as well as various aquatic training equipment.

PHED1149
1 Credit
Tennis
Fundamental skills of the forehand, backhand and serve. Scoring and court etiquette also are covered. Students are expected to demonstrate an understanding of the above strokes, as well as the game situations to which each applies.

PHED1150
1 Credit
Advanced Tennis
Review of the basic skills. Introduction of both singles and doubles strategy using the lob, volley and overhead. Students taking this course should be reasonably proficient in the basic skills and game knowledge.

PHED1152
1 Credit
Water Aerobics
Specific movements in the water using resistance equipment to improve cardiovascular endurance and general conditioning of the body.

PHED1157
1 Credit
Yoga – Level 1
Asthanga Yoga as a means of achieving a healthy body and inner tranquility. The understanding and practice of relaxation, controlled breathing techniques and yoga postures.

PHED1158
1 Credit
Yoga – Level 2
The course builds on learning from PHED1157. Sun salutations, pose sequences, balance poses, backbends and inversions will be part of each class.

PHED1159
1 Credit
Advanced Yoga – Level 4
Advanced poses and breathing techniques.

PHED1160
1 Credit
Yogalates
This course contains a blend of yoga and Pilates moves. It ranges in ability from the introductory level to the ultimate core and stretching workout.

PHED1161
1 Credit
Walking/Jogging
This class will focus on the proper techniques for walking, fast walking and jogging. Individual workouts will be designed and practiced during class time both on the gym track and outdoors.

PHED1162
1 Credit
Yoga – Level 3
Advanced poses and sequences will be added to movements in PHED1157 Yoga – Level 1 and PHED1158 Yoga – Level 2. The class will increase overall fitness through Vinyasa exercises and core strengthening. Breathing techniques and relaxation exercises will complete each class.

PHED1196
1 Credit
Linedance
Previous dance experience is not required. This class will provide the student with a foundation in choreographed dancing. The student will learn dances choreographed for Waltz, Latin, Hip-hop and East and West Coast swing. All genre of music will be used: Latin, pop, hip-hop, country, as well as student favorites.

PHED1198
1 Credit
Zumba
A Latin dance-fitness program based on interval training.

PHED1436
3 Credits
CPR and Emergency Care
This course teaches the student the knowledge and practical skills needed to respond to various emergency situations: burns, wounds, respiratory and cardiac problems, broken bones, poisoning, etc. Certification upon successful completion of course.

PHED1862
1 Credit
Body/Mind Fusion
Movement of the body to reduce the stress of the mind. Using methods to recognize the signs of stress and learning the proper models of exercising to relieve various forms of stress.

PHED4457
1 Credit
Boxercize
Intense cardiovascular workout using a boxer’s training techniques to improve strength, agility and cardio-endurance.

PHED4460
3 Credits
National Coaching Certification
Development of an athlete-centered coaching style using the basics of sport philosophy, psychology, physiology and pedagogy. Sport and risk management and first aid also is included.
Physics

Maxwell Becton College of Arts and Sciences
Florham Campus

PHED4462  
3 Credits  
The Olympics: Yesterday to Today  
This course will examine the cultural, historical, economical, political, philosophical and social aspects of the Olympic movement.

PHED4465  
1 Credit  
Tai Chi  
Ancient system of meditation and physical exercise following a natural pattern of gradual movements and body rotation to develop flexibility, stamina, energy, powers of concentration, serenity, etc.

PHED4465  
1 Credit  
Pilates Matte Class  
Focuses on Pilates floor exercises that will improve core (abdominal and back) stability, flexibility and strength. Students will work to increase coordination, breath capacity and moving from their center.

Physics

Department of Mathematics, Computer Science and Physics

PHYS1001, PHYS1011, PHYS1021  
PHYS1002, PHYS1012, PHYS1022  
8 Credits (4 Credits Each Semester)  
Lecture 3 hours; Laboratory 3 hours; Recitation 1 hour  
General Physics I, II  
This course is for students in the biological sciences and premedical curricula and for non-science majors desiring two semesters of physics. Contemporary topics such as relativity, nuclear, atomic and molecular structure follow classical topics such as mechanics, waves, heat, electricity, magnetism and light. The treatment is generally quantitative but without calculus. Prerequisite: intermediate algebra.  
Fall, Spring  
Fee

PHYS1003, PHYS1013  
3 Credits  
Lecture 2 hours; Laboratory 2 hours  
Physics in the Modern World: How Things Work  
A study of the principles of physics through an examination of various modern technical devices such as televisions, refrigerators, motors, etc.  
Fall, Spring  
Fee

PHYS1005  
3 Credits  
Lecture 2 hours; Laboratory 2 hours  
Basic Electronics  
An introduction to electricity, basic electronics, electronic devices and their applications. The course will provide a level of essential knowledge and practical experience, through laboratory work, for the students to better understand and utilize the electronic tools of their disciplines and electronic products encountered in their general life environment.  
Spring

PHYS1006  
4 Credits  
Basic Electronics with Applications  
An introduction to electricity, basic electronics, electronic devices and their applications, stressing traditional and modern devices such as computers, mobile communications and home theater. The course will provide a level of essential knowledge and practical experience through theory and laboratory work. Students will then better understand and utilize the electronic tools of their disciplines as well as electronic products encountered in their general life environment. Corequisite: PHYS1015 Lab: Basic Electronics with Applications.

PHYS1007  
2 Credits  
Physics of Medical Science  
This course shows how the basic laws of physics are applied to medicine. Topics will include conservation laws, biomechanics, pressure and hydrostatics, sound and hearing, heat and thermodynamics, optics and vision, applications of electrostatics to medicine, current electricity and magnetism, electric and electronic circuits and application to medical instrumentation, atomic and nuclear physics and their application in medicine and radiology.

PHYS1010  
4 Credits  
Physics of Sustainable Energy  
Sustainable energy is one of the great challenges of this generation and will require important decisions by society. In this course, students will learn about the basic physics, such as mechanics, electricity and magnetism, thermodynamics, semiconductor physics and nuclear physics, which underlies sustainable-energy generation and consumption. These topics will be explored as appropriate in the context of electricity generation via wind, solar, hydro and nuclear energy. Corequisite: PHYS1020 Physics of Sustainable Energy Lab.

PHYS1015  
0 Credits  
Lab: Basic Electronics with Applications  
Through hands-on experience, students learn the basic skills of electronics such as soldering, reading schematic diagrams and the use of electronic measuring instruments including digital voltmeters, oscilloscopes, power supplies and signal generators. Students build basic electronic circuits using transistors, resistors, capacitors, diodes, LEDs, integrated circuits and other components and make measurements to confirm their functions as explained in the lecture section of the course. Other experiments include basic optics, light and color, house and appliance wiring, computer maintenance and upgrading. Electronic devices such as CD and DVD drives, digital cameras, monitors, cell phones, iPods and computers are disassembled and examined to identify the mechanical and electronic components and understand how those devices perform their functions. Corequisite: PHYS1006 Basic Electronics with Applications.

PHYS1020  
0 Credits  
Physics of Sustainable Energy Lab  
Lab associated with PHYS1010 Physics of Sustainable Energy. In this course, students will learn about the basic physics, such as mechanics, electricity and magnetism, thermodynamics, semiconductor physics and nuclear physics, which underlies sustainable-energy generation and consumption. These topics will be explored as appropriate in the context of electricity generation via wind, solar, hydro and nuclear energy. Corequisite: PHYS1010 Physics of Sustainable Energy.

PHYS1123, PHYS1023; PHYS1124, PHYS1024  
8 Credits (4 Credits Each Semester)  
Lecture 3 hours; Laboratory 2 hours  
Physical Science I, II  
Elements of five physical sciences are covered in a descriptive way. Physics: motion, force, gravitation, energy, waves, heat, electricity, light, atoms and nuclear energy. Chemistry: the elements, the periodic table, chemical reactions, inorganic and organic compounds. Geology: the earth’s crust, interior and evolution. Meteorology: the atmosphere, climate. Astronomy: the solar system, stars, galaxies and the universe. Prerequisite: one year of high school algebra.

PHYS1125, PHYS1025  
3 Credits  
Lecture 2 hours; Laboratory 2 hours  
Astronomy  
The composition of matter: the principles of motion, including orbital motion; the nature of light; the principles of optics; and the operation of telescopes and auxiliary instruments. Topics in astronomy include stellar astronomy, celestial coordinates, the solar system and its evolution, types of stars, galaxies and the universe. Prerequisite: elementary algebra and geometry.  
Fall, Spring  
Fee

PHYS1126, PHYS1026  
3 Credits  
Lecture 2 hours; Laboratory 2 hours  
Earth Physics  
A laboratory science elective intended for liberal arts students, life science and non-science majors. Can be taken before or after PHYS1125,
PHYS1025 Astronomy. A topical treatment, not highly mathematical. The origin of the earth as a member of the solar system, composition and internal structure of the earth, geophysics, the hydrosphere, the atmosphere, physical oceanography and the related question of natural and artificial pollutants.

PHYS1201, PHYS1202
3 Credits
Lecture 2 hours; Laboratory 2 hours
**Physics for the Global Citizen**
This course provides a basic understanding of physics knowledge and concepts within the context of everyday life and global issues. Topics addressed will include motion, mechanics, thermodynamics, electricity, nuclear energy and modern electronics. There will be an emphasis on sustainable energy, alternate power sources, the environment and other issues relevant to everyday life. Students will develop a basic understanding of physics concepts and being to understand the practical applications of physics.

PHYS2003, PHYS2015, PHYS2023;
PHYS2004, PHYS2014, PHYS2024
8 Credits (4 Credits Each Semester)
Lecture 3 hours; Laboratory 3 hours;
Recitation 1 hour
**General Physics with Calculus I, II**
A calculus-based course for students majoring in physics and other sciences. The first semester covers mechanics, heat and sound; the second semester covers electricity, magnetism, light and atomic physics. Prerequisites: for PHYS2003, PHYS2013, MATH1203 Calculus I; for PHYS2004, PHYS2014, PHYS2003,
PHYS2013 General Physics with Calculus I and MATH2202 Calculus II.
Fall, Spring

PHYS2250
4 Credits
**Electronics I**
The first half of a two-semester course on the fundamentals of electronic circuit theory and practice. The course will concentrate on analog components and devices, DC and AC circuits, diodes, transistors, operational amplifiers and oscillators. Prerequisites: PHYS2004, PHYS2014 General Physics with Calculus II.

PHYS2800
1–6 Credits
**Sophomore Independent Study**
Independent study in physics and photonics at the sophomore level.

PHYS3206
4 Credits
**Modern Physics**
A third semester of a calculus-based physics sequence for science and engineering majors. Topics normally include special relativity, end of classical physics, photons and quantization, wave functions and uncertainty, one-dimensional quantum mechanics, atomic physics, nuclear physics and elementary particles. PHYS2004,

PHYS3210
3 Credits
**Advanced Mechanics**
A study of Newton's laws applied to the motion of particles and systems of particles. Topics will include forced and damped harmonics, oscillators, central-field motion, collisions, conservation laws, Lagrangian mechanics, Hamilton's equations and rigid body dynamics.

PHYS3216
0 Credits
**Lab: Modern Physics**
Experimental physics at an advanced undergraduate level. Includes working in an increasingly independent format on a series of selected projects from a variety of physics areas such as geometrical optics, interference and diffraction, spectroscopy, lasers, fiber optics and quantum phenomena. Specific attention is paid to experimental design, laboratory techniques, computer data acquisition and analysis and error propagation and analysis. Corequisite: PHYS2006 Modern Physics.

PHYS3220
3 Credits
**Mathematical Methods – Physics**
An introduction to methods used in solving problems in physics and other sciences, including calculus of variations and extremum principles, orthogonal functions and Sturm-Liouville problems, Fourier series, series solutions of differential equations, partial differential equations of physics, Green's function methods of solution, nonlinear equations and chaos theory.

PHYS3240
4 Credits
**Optics**
This course will introduce the student to the most significant light phenomena and the basic physical concepts that underlie their interpretation.
Topics covered will include paraxial optics, the wave equation and properties of wave motion, electromagnetic waves, dispersion, absorption, coherence, interference, diffraction, geometrical optics, optical systems and lasers.

PHYS3241
0 Credits
**Advanced Experimental Methods in Optics/Photonics**
This course focuses on advanced laboratory experiments in optics and photonics. It will cover the mechanism of geometrical optics and imaging, the characteristics of the Fourier transform of an optical system, the concept of the frequency spectrum of optical information processing, the physical effect of frequency filtering, the principle of color imaging and the realization of the computer-aided color decoding of an optical image.

PHYS3250
3 Credits
**Thermodynamics**
This course is an introduction to classical thermodynamics and statistical mechanics. Some of the basic concepts such as temperature, heat, internal energy, entropy and multiplicity will be introduced. Also covered will be heat engines, phase transformations, the partition function and statistical thermodynamics, including Maxwell-Boltzmann, Bose-Einstein and Fermi-Dirac statistics, and their applications to an ideal diatomic gas, electrons in metals and monatomic crystals.

PHYS3277
3 Credits
**Solid State Physics**
Fundamental properties of matter in the solid state from quantum mechanical foundations. Crystal structure, lattice vibrations and phonons, lattice imperfections, free electron and band theories of metals and semiconductors, the Fermi surface; electrical, magnetic and thermal properties of matter.

PHYS3530
3 Credits
**Electricity and Magnetism I**
The first half of a two-semester course in the study of advanced concepts in electricity and magnetism with the use of calculus and vector calculus. Areas covered will include electrostatics, Gauss' Law, charges in motion, magnetic fields in vacuum and matter, magnetostatics, electromagnetic induction and Maxwell's equations.

PHYS3800
1–6 Credits
**Junior Independent Study**
Independent study of physics and photonics at the junior level.

PHYS4250
3 Credits
**Quantum Mechanics I**
A study of the concepts, postulates and applications of quantum mechanics (QM). Areas covered will include the Schrödinger equation (SE); the use of operators; application of SE to simple quantum systems; OM postulates; variational and perturbation methods; spin and angular momentum; and topics on atomic, molecular and nuclear structure, bonding, intermolecular forces and reaction mechanisms. Prerequisites: MATH318 Differential Equations and PHYS3206 Modern Physics.
Course Descriptions

Psychology
Maxwell Becton College of Arts and Sciences
Florham Campus

PHYS4401
2 Credits
Physics Seminar
A junior-senior seminar meeting weekly to
discuss current and/or historical topics in
physics. Oral presentations by students on se-
lected readings from such areas as experimental
or theoretical research, government-sciene pol-
icy, pseudoscience and physics education. Prereq-
usites: PHYS2003, PHYS2004 General Physics
with Calculus I, II and PHYS3206 Modern
Physics.

PHYS4430
1–3 Credits
Selected Studies in Physics
Studies in special areas of current interest to
physics.

PHYS4800
1–6 Credits
Senior Independent Study – Physics
Independent study in physics and photonics at
the senior level.

Psychology
Department of Psychology and
Counseling

PSYC1201
3 Credits
General Psychology
An introduction to the field of psychology and
its methods of research. Topics included are the
brain and its relation to behavior and mental
processes, sensation and perception, states of
consciousness, learning, memory, intelligence,
human development, personality, stress and cop-
ing, mental disorders and their treatment and
the influence of people on each other.
Fall, Spring

PSYC2210
4 Credits
Psychological Statistics
An introduction to the basic descriptive and in-
ferential statistical procedures that are useful to
the psychologist in the design and analysis of re-
search methods. Prerequisite: PSYC1201 Gen-
eral Psychology.
Fall, Spring

PSYC2211
4 Credits
Research Methods
An introduction to the methods of scientific
experimentation in psychology by means of
laboratory experiments, studies of problems in
design and control of experiments and analysis
of the experimental literature. Prerequisite:
PSYC2210 Psychological Statistics.
Fall, Spring

PSYC2235
1–3 Credits
Positive Psychology
Positive psychology is the study of how human
beings prosper; a study of human strengths,
optimism, happiness, hope and resiliency. This
course is largely experiential, including many in-
class activities and many assignments between
classes to apply classroom principles to the real-
life setting. The course invites students to
identify core human-character strengths and
virtues and to use these strengths to promote
and maintain well-being and happiness.

PSYC3001
3 Credits
Human Development (Child)
A study of the growth and development of chil-
dren with respect to sensorimotor, intellectual
and social behavior; scientific findings and theo-
retical viewpoints with respect to their implica-
tions concerning the child for the family, school
and community. Prerequisite: PSYC1201
General Psychology.
Fall, Spring

PSYC3004
3 Credits
Psychology of Aging
An exploration of the changing views of aging
from social, developmental, personality, cogni-
tive and psychotherapeutic perspectives. Pre-
requisite: PSYC1201 General Psychology.
Fall

PSYC3005
3 Credits
Abnormal Psychology
An introduction of basic concepts and theories
of abnormal psychology exploring both histori-
cal and current perspectives with an inclusion
of multicultural considerations. A discovery of
the process and importance of clinical assess-
ment, study of clinical and personality disorders
and association to cause and treatment. Prereq-
usite: PSYC1201 General Psychology.
Fall, Spring

PSYC3008
3 Credits
Rehabilitation Psychology
The study of the psychological effects of trauma
and disability on individuals. Diagnosis, treat-
ment and intervention strategies will be explored.
Prerequisite: PSYC1201 General Psychology.
Fall

PSYC3011
3 Credits
Group Dynamics
A study of the dynamics of how people behave
in groups and the relevant factors affecting this
behavior. Topics included are: communication
and process variables, structural factors, reasons
for membership, leadership in groups, problem-
solving methods and factors, environmental
factors and specialized groups (e.g., therapy
groups, focus groups). Prerequisite: PSYC1201
General Psychology.
Spring

PSYC3012
3 Credits
Crisis Intervention
The focus is on the theoretical and practical
responses to traumatic events (e.g., crime, do-
meric violence, natural disasters, medical con-
ditions, substance abuse, suicide and suicide
attempts). It addresses the strategies utilized by
treatment providers and “first responders” (pol-
ice and firemen).

PSYC3013
3 Credits
The Psychology of Developmental
Trauma
Childhood trauma leaves irreparable damage in
its wake. This course will examine the nature
and extent of developmental interpersonal trau-
ma, causes, effects and prevention, intervention
and treatment. With the proposed diagnostic
changes in the diagnostic and statistical manual
(DSM-V), this course will be interesting for any-
one considering clinical work in psychology or
counseling.

PSYC3014
3 Credits
Psychology in Film
The course is designed to help students explore
the range of healthy and unhealthy functioning
based on current theories and research and as
depicted in the cinema. Students will critically
evaluate the accuracy and inaccuracy of the
human condition in movies as well as develop
diagnostic abilities via observation of movie
characters.

PSYC3015
3 Credits
Theories of Personality
This course is designed to help students under-
stand the broad approach to personality theory.
Emphasis will be placed on different theoretical
viewpoints, personality research and the practi-
cal application of personality theories. Pre-
requisite: PSYC1201 General Psychology.
Fall, Spring

PSYC3030
3 Credits
Advanced Experimental Psychology
A further inquiry into the nature of scientific re-
search in psychology. More complex design pro-
cedures and statistical analyses are introduced.
An independent project will be required. Prereq-
usite: PSYC2211 Research Methods.
PSYC3031  
3 Credits  
**Advanced Sensory Processes**  
The course explores the underlying psychobiological and sensory processes. This class uniquely highlights the psychology of elegant dining by presenting principles that make learning and eating ultimately memorable and rewarding. The core of the class material is a presentation of how one's senses work, neuroscience explanations of feeding and drinking underlying health and pathology as well as an exploration of world cuisines. The laboratory portion of the class features four evenings of sampling global cuisine items.

Fee

PSYC3032  
3 Credits  
**Physiological Psychology**  
The study of the relationship between aspects of behavior and physiology. Topics include basic neuroanatomy, neurophysiology and the effects of drugs upon behavior. Prerequisite: PSYC1201 General Psychology.

PSYC3080  
1–3 Credits  
**Contemporary Issues (Leadership)**  
This course will provide exposure to various issues of major concern in psychology today. Specific subjects and number of credits offered will be announced in the semester's course-offering list. Prerequisite: PSYC1201 General Psychology.

PSYC3302  
3 Credits  
**Human Development (Adolescent)**  
A study of the growth and development of adolescents and adults with respect to social, emotional, intellectual and physical behavior; developmental characteristics, goals and personal and interpersonal factors of psychological self-support with respect to their implications concerning education and/or guidance. Prerequisite: PSYC1201 General Psychology.  
Fall, Spring

PSYC3310  
3 Credits  
**Social Psychology**  
A study of the individual’s behavior and experiences under the influence of social processes and institutions; socialization, role perception and role behavior, social norms and conformity; interpersonal attraction, social power, leadership. Prerequisite: PSYC1201 General Psychology.  
Fall or Spring

PSYC3313  
3 Credits  
**The Dark Side of Behavior at Work**  
An exploration of the various forms of counterproductive workplace behaviors including sexual harassment, violence, bullying, theft, sabotage and work withdrawal. Emphasis will be on understanding not only the form of the behavior but also the factors that lead to such behavior (e.g., personality, organizational culture, organizational structures) as well as the impact on the organization and co-workers. Prerequisite: PSYC1201 General Psychology.

PSYC3314  
3 Credits  
**Group Development**  
The place of the small group in a democratic society, the roles played by the various members of the group and the interactions taking place are given particular attention. A task is made to bring out the various aspects of the group by relating them to the actual experiences of the members as they attempt to apply group discussion to the solving of selected problems. Students will be given an opportunity to use the third hour of class to practice group-development techniques and skills.

PSYC3316  
3 Credits  
**Mass Communications**  
Study of social-psychological impact of the media upon the quality of life of the individual, the community and the world. Topics include negative impact of the media, violence and advertising and positive-impact public service and education; potential for development of media in more prosocial directions for the benefit of society. Prerequisite: PSYC1201 General Psychology.

PSYC3317  
3 Credits  
**Psychology and the Law**  

PSYC3318  
3 Credits  
**Psychology of Everyday Persuasion**  
The 21st century is characterized by “information overload.” Individuals in Western democracies are subject to influences and manipulation of representations in all their forms. Democracy, built upon persuasion, has become viewed with cynicism. This course investigates the historical development of the techniques used by public and commercial organizations. Issues such as advertising, public relations will be among the topics studied. Students will be assisted to develop techniques for detecting and resisting propaganda while on the course.

*Offered at Wroxton College.

PSYC3320  
3 Credits  
**Managerial Psychology**  
A study of psychological factors affecting human behavior in an organizational context. Topics examined include communication, perception, group dynamics, individual differences, power and influence in organizations, organizational culture and conflict in organizations. Prerequisite: PSYC1201 General Psychology.  
Spring

PSYC3321  
3 Credits  
**The Interview**  
A study of interviewing principles and techniques, with emphasis on the problem-solving interview, the selection interview and the information-gathering interview. Recommended for students interested in working in the education, business, psychology and clinical areas. Prerequisite: PSYC1201 General Psychology.

PSYC3322  
3 Credits  
**Industrial Psychology**  
This course provides an overview of the field of industrial psychology (i.e., the scientific study of the workplace) and its applications. Rigor and methods of psychology are applied to such topics as job analysis, personnel selection, job performance and workplace behavior. Students will adopt the scientist-practitioner model, studying psychological research and theory as a science while learning how derived psychological principles are applied in work settings. Prerequisite: PSYC1201 General Psychology.  
Fall, Spring

PSYC3327  
3 Credits  
**Career Exploration**  
This course will expose students to possible career opportunities that incorporate their academic, skills, interests, values and personality. Discussion will be on career-development theories and how they apply to job satisfaction. Assessment tools that incorporate personality, values, needs and interests into career satisfaction will be administered and evaluated. Students will be familiarized with all tools available for career development and exposed to the challenges of choosing a career using objective measures.

PSYC3331  
3 Credits  
**Theories of Learning**  
Basic theories and principles of learning such as conditioning, retention, transfer and problem solving will be studied. Prerequisite: PSYC1201 General Psychology.  
Fall, Spring
PSYC3333
3 Credits
**Sensation and Perception**
A study of the theories and issues in the areas of sensation and perception, with emphasis on factors affecting stimulus selection and organization. The processes of detection, discrimination and recognition and major areas of research such as the effects of learning and motivation on perception, and the perception of time, space and motion will be considered. Prerequisite: PSYC1201 General Psychology.

PSYC3334
3 Credits
**Psychopharmacology**
Study in the relationship between drugs and behavior, especially maladaptive behavior and research in human biochemical changes. Prerequisite: PSYC1201 General Psychology.

PSYC3335
3 Credits
**Cognitive Psychology**
Examination of experimental study of topics of attention, memory, imagery and thought as it relates to language, cognitive development and the development of conscious awareness. Prerequisite: PSYC1201 General Psychology.

PSYC3340
3 Credits
**Psychometrics**
This course presents the general theory and practice of psychological testing and considers basic concepts. A survey of representative tests of personality, aptitude, interests and intelligence will be presented. Prerequisite: PSYC1201 General Psychology.

PSYC3345
3 Credits
**Educational Psychology**
A survey of current psychological theories and practices, with special emphasis on their educational applications and implications. Topics include personality development, learning, motivation, perception, measurement and evaluation, teacher-pupil relations, the psychology of the teacher and of the psychologist. Prerequisite: PSYC1201 General Psychology.

PSYC3359
3 Credits
**Sport Psychology**
Learning, motivation and social interaction of sport. Performance enhancement through mental training with the diagnosis and treatment of performance burnout. Prerequisite: PSYC1201 General Psychology.

PSYC3360
3 Credits
**Forensic Psychology**
A study of the basic legal principles will be examined within the context of their relationship to psychology. The following subfields will be covered: criminal profiling; violence of a personal, sexual and domestic nature; jury selection; and psychological autopsies. 

**Fall, Spring**

PSYC3361
3 Credits
**Cross-cultural Psychology**
This course will examine the theoretical, empirical and applied issues in the cross-cultural study of human social behavior. It will also examine aspects of behavior that are universal and others that are culture specific. The class will explore how and why behavior differs across cultures and the impact of these cultural differences on psychological theory and application. Through discussions, readings, experiential learning activities and a short-term, study-abroad component (in Wroxtun College, England), students will be able to develop a broader, global perception of contemporary psychology. The course will assist in developing critical thinking tools with which to analyze and to evaluate psychology from various ethnic, national and religious groups.

**PSYC3510**
3 Credits
**Death and Dying**
A cross-cultural overview of death, dying and bereavement. Topics will include different cultural practices as they apply to individuals and communities. Suicide, assisted suicide, hospice care worldwide, caregivers for Alzheimer’s disease and dementia will be discussed. Prerequisite: PSYC1201 General Psychology.

**PSYC4130**
4 Credits
**Behavioral Neuroscience Methods**
This blended seminar focuses on cutting-edge developments in understanding brain functions. By definition, neuroscience is interdisciplinary and international in its scope. Topics include the biological basis of pain, intelligence, drug action, addiction, mental illnesses and genetic influences on behavior. Prerequisites: PSYC1201 General Psychology, PSYC2210 Psychological Statistics and PSYC2211 Research Methods.

**PSYC4290**
3 Credits
**Psychology Seminar**
Special studies and reports dealing with persistent problems in psychology. Prerequisite: seventh- or eighth-semester standing. 

**Spring**

**PSYC4291**
3 Credits
**History and Systems of Psychology**
This course provides an overview of the history of psychology, its antecedents and philosophies, the basic premises of the major schools and systems and the contributions of the theorists. It will address important issues such as the nature-nurture controversy and the practical applications of the various theoretical orientations. Prerequisites: PSYC1201 General Psychology, PSYC2210 Psychological Statistics and PSYC2211 Research Methods. 

**Spring, Fall**

**PSYC4293**
3 Credits
**Introduction to Art Therapy**
This course will study the history and development of art therapy, the relationship between psychotherapy and art, the use of art as a diagnostic tool and art-therapy methodologies. This course will help students achieve a greater awareness of their own creative strengths and how to utilize them in a therapeutic setting. (Equivalent to ART4293 Introduction to Art Therapy.)

**PSYC4430**
1–3 Credits Each Semester
**Selected Studies in Psychology**
Studies in an area of psychology. 

**Fall, Spring**

**PSYC4447**
3 Credits
**Medical Psychology**
The course provides an intensive understanding of brain function and dysfunction. Emphasis will be on the need for proper diagnosis and appropriate therapeutic strategies. Prerequisite: PSYC1201 General Psychology. 

**Fall, Spring**

**PSYC4477**
1–3 Credits Each Semester
**Honors Research and Thesis (Psychology)**

**Fall, Spring**

**PSYC4498**
3 Credits
**Internship in Psychology**
The integration of academic study with specific planned periods of supervised learning in relevant employment experiences. An internship combines learning on the job, University course work and career-development skills. Grade point ratio (GPR) of 3.00 required and junior or senior status. Prerequisites: PSYC1201 General Psychology, PSYC2210 Psychological Statistics and PSYC2211 Research Methods. 

**Fall, Spring**

**PSYC4800**
1–3 Credits Each Semester
**Independent Study in Psychology**
Studies in an area of psychology under the direction of a specific faculty member after consultation with the department chairperson. 

**Fall, Spring**
Sign Language
Department of Literature, Language, Writing and Philosophy

LANG1001
3 Credits
American Sign Language I
The course is designed to introduce the student to American Sign Language, the visual-gestural language of deaf persons, and deaf culture. The course will develop receptive and expressive communications skills with incorporation of visual-gestural techniques, basic rules of grammar, syntax and some cultural features of the deaf community. Note: American Sign Language does not fulfill modern language requirement.

LANG1002
3 Credits
American Sign Language II
This course continues development of American Sign Language and its application within the deaf community. Taught without voice, it stresses development of conversational skills with emphasis on expanding vocabulary and expressive skills within four basic categories: cultural awareness, grammatical features, vocabulary development and conversational skills. Prerequisite: LANG1001 American Sign Language I. Note: American Sign Language does not fulfill modern language requirement.

Sociology
Department of Social Sciences and History

SOCI1201
3 Credits
Introduction to Sociology
An introduction to sociology that explores society and culture, groups and organizations, socialization, deviance, social stratification, race and ethnicity, the family and education. (Equivalent to CMLGY 1201 Introduction to Sociology.)

SOCI2203
3 Credits
Methods in Social Research
An introduction to the methods of social research: research design, development of testing instruments and sample collection and analysis of data and preparation of reports. Prerequisite: MATH1126 Contemporary Mathematics or MATH1128 Mathematical Methods.

SOCI2204
3 Credits
Qualitative Research Methods
Provides students with practical research skills which will enhance their competitiveness in the job market. The course helps students design qualitative research projects using a variety of techniques such as interviews, ethnography, focus groups and content analysis. In class, students will develop research goals, observe data collection and practice conducting interviews and focus groups.

SOCI2248
3 Credits
Globalization, Culture and Identity
An exploration of the phenomenon of globalization, including its effects on understanding contemporary ethnic, national and cultural identities. The course also examines the impact of technological developments in communication and transportation on our “global village” culture.

SOCI2250
3 Credits
Social Deviance
What is considered deviant behavior and how do certain behaviors become deviant in the eyes of society? This class will examine the social construction of deviance and the different theoretical perspectives that explain deviance. Certain forms of deviance will be examined critically, including drug use, sexual deviance and suicide. (Equivalent to CMLGY 2307 Deviance and Social Control.)

SOCI2257
3 Credits
Men and Masculinities
Being a man is not simply the result of a biological combination of chromosomes, hormones and sex organs. It is also the result of specific cultural understandings of what it means to be a man in different societies. These cultural understandings are never fixed and change in space and time creating different configurations of masculinity. The goal of this course is to engage with these transformations in order to better understand what it means to be a man in contemporary society. The class will do so by closely analyzing the meaning of masculinity in today’s world here in the United States but also in other parts of the world, by exploring how these ideas have changed over time, and finally, by investigating the role played by different social forces, such as race, ethnicity, class, nationality and sex.

SOCI2306
3 Credits
Nationalism and Ethnicity
The course will explore the various meanings of nationalism and ethnicity, historically and in more recent context, and provide examples of where these phenomena have been particularly evident. Special emphasis will be put on the power of modern nationalism as has become all too apparent in various regions of the world including the former Yugoslavia, the Middle East and parts of the Third World. Also, the course discusses nationalism as a political force which has often combined with ethnicity to create conflicts that have had frightful consequences.

SOCI2307
3 Credits
Crime and Criminology
This course provides an understanding of crime and criminal justice. Students will examine theories of crime, individual and group criminal behavior and aspects of criminal justice systems from American and global perspectives. (Equivalent to CMLGY 1306 Introduction to Crime and Criminology.)

SOCI2310
3 Credits
Social Problems
Examines the historical and sociological roots of critical social problems such as poverty, racism, sexism, crime, etc.

SOCI2314
3 Credits
Sex, Knowledge and Power
Sociological exploration of interplay of sex, sexuality, forms and sources of knowledge and power/power relations.

SOCI2316
3 Credits
Sociology of the Family
A study of the American family using comparative materials from other societies. Included are ethnic and class differences in family life and recent developments in family theory and related research.

SOCI2317
3 Credits
Children and Society
Examines the social and historical construction of childhood, as well as related social issues concerning children in the U.S. and other countries.

SOCI2319
3 Credits
Nationalism and Ethnicity
The course will explore the various meanings of nationalism and ethnicity, historically and in more recent context, and provide examples of where these phenomena have been particularly evident. Special emphasis will be put on the power of modern nationalism as has become all too apparent in various regions of the world including the former Yugoslavia, the Middle East and parts of the Third World. Also, the course discusses nationalism as a political force which has often combined with ethnicity to create conflicts that have had frightful consequences.

SOIC2750
3 Credits
Men and Masculinities
Being a man is not simply the result of a biological combination of chromosomes, hormones and sex organs. It is also the result of specific cultural understandings of what it means to be a man in different societies. These cultural understandings are never fixed and change in space and time creating different configurations of masculinity. The goal of this course is to engage with these transformations in order to better understand what it means to be a man in contemporary society. The class will do so by closely analyzing the meaning of masculinity in today’s world here in the United States but also in other parts of the world, by exploring how these ideas have changed over time, and finally, by investigating the role played by different social forces, such as race, ethnicity, class, nationality and sex.
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ularity, in creating, not one, but multiple forms of masculinity. In addition, the class will conduct an intersectional exploration into how masculinity is embodied and lived out in American cultures, sports and media.

SOCI2805
3 Credits
Contemporary Social Issues
A survey and analysis of major current issues in American and international societies and cultures, including such topics as poverty, social justice, culture change and the global economy. Prerequisite: SOCI1201 Introduction to Sociology.

SOCI2900
3 Credits
Artificial Intelligence, Technology and Social Change
Recent developments in technology have created a paradigm shift in societal culture, in the United States and across the globe. This course discusses the impact of human innovation on various forms of behaviors, from modes of consumption through fast-food hubs, to drive-through clinics, banking, online shopping, politics and marriage, to distant learning and interpersonal communication. It also discusses the meaning and impact of technology on traditional social institutions and demonstrates how the recent technologies have blurred the distinction between public and private, rendering individual privacy obsolete. The theoretical goals of this course include raising student awareness of how technology has changed our sense of space, time and social (local and international) relations. In addition, the course aims to help students critically approach the use of technology. Students will be introduced to concepts and theories of social change and to theories on the impact of technology on many social spheres of life across several cultures, e.g. developed and developing countries.

SOCI2901
3 Credits
World on the Move: Contemporary Migration
Over the last four decades, migratory flows both at the global and regional level have changed the face of the societies people live in. This is true for the United States but also for many other countries of the Global North. In this class, students will analyze the reasons behind international migrations and the role that different social actors play in creating, shaping and defining contemporary migration flows. They will also question: Why do people migrate across international borders? Can states control migration, including “unwanted” migrants? And how do people understand the politics of immigration? The analysis of these questions will also help students examine often taken-for-granted conceptions of nationhood, citizenship and nation-state. The course is anchored in the U.S. case but because people live in a world that is increasingly more integrated, the class will also explore migratory flows and policies in other countries and regions of the world.

SOCI2950
3 Credits
Identity Puzzle
“Who am I?” The answer to this question is not simple. Some aspects of one’s identity, such as one’s name, are most often given at birth; others such as occupation, gender, social status, political affiliation, etc., come later. In simple words, identity is the product of multiple forces. It is the product of social and individual claims. Importantly, there is no match between how people perceive themselves and how others perceive them. From a historical perspective, some aspects of identity, such as race, gender, religion, have been more significant than others vis-à-vis access to economic, social and political resources in a given society. These are some of the subjects this course focuses on. With the use of a variety of materials, such as novels, movies, journal articles, case studies, students will learn about various experiences of individual as well as collective identity in the United States and internationally.

SOCI3001
3 Credits
Minorities in the Middle East
The course provides a comprehensive overview of the various minority groups throughout the Middle East. It discusses the political, social, economic and cultural life of those groups and their relations to majority groups within those countries. Some of the case studies included in this course are Egypt, Israel, Turkey, Iraq and Sudan.

SOCI3021
3 Credits
Classical Social Theory
A critical study of the classical theories of society as exemplified in the work of sociologists such as Marx, Durkheim, Weber and Simmel. The course examines the historical development of sociology as a specific field of inquiry. Prerequisite: SOCI1201 Introduction to Sociology or permission of the instructor.

SOCI3022
3 Credits
Contemporary Social Theory
An examination of a variety of modern and contemporary social theories including structural-functionalism, exchange, symbolic interactionism and its variants, conflict theory, neo-Marxism, critical theory, feminism and post-modernism. Prerequisite: SOCI1201 Introduction to Sociology.

SOCI3050
3 Credits
Gender in the Contemporary World
This class will introduce students to issues of gender worldwide, drawing on different disciplines to explore the significance of gender and its construction in different societies. The goal is to enable them to think critically about gender in relation to globalization, the organization of social life on a global scale and the growth of a global consciousness.

SOCI3058
3 Credits
Drugs in American Society
The social and cultural aspects of drug use in American society. Emphasis on the causes and consequences of past and present control strategies. Prerequisite: SOCI1201 Introduction to Sociology.

SOCI3080
3 Credits
Juvenile Delinquency
This course explores the juvenile justice system in the United States, including the role of the courts, police and corrections. Current empirical evidence regarding trends in juvenile delinquency is provided, along with an examination of theoretical explanatory models. Juvenile delinquency is understood within the larger social contexts including the family.

SOCI3102
3 Credits
Ethnic and Race Relations
Analysis of theories of race, with a focus on historical and cultural antecedents. Race in its urban context and sociological ramifications. Prerequisite: SOCI1201 Introduction to Sociology.

SOCI3153
3 Credits
Social Inequality
Examine inequality in the American social structure, with an emphasis on social class. Race
and gender inequalities are also considered, as are comparisons with social inequality in other contemporary societies.

**SOC13314**
3 Credits
**Sociology of Gender**
An analysis of differentiation and stratification on the basis of gender. How definitions of femininity and masculinity are socially created, the relation between sexuality and gender. How gender stratification organizes culture, institutions and social control. Prerequisite: SOCI1201 Introduction to Sociology.

**SOC13350**
3 Credits
**Crime and Inequality**
The study of the relationship between social inequality, crime and the criminal justice system. How inequalities of social class, gender, race and ethnicity affect and are affected by crime and the criminal justice system.

**SOC13355**
3 Credits
**Social Welfare Policy**
An examination of American social welfare policies and their history, values and politics. Contemporary social welfare issues, including poverty, housing, family problems and race relations, are discussed. The course will focus on two questions: What are the objectives of social policy and how well are they being met? and What light does sociological knowledge shed on these issues?

**SOC13362**
3 Credits
**Work and Occupations**
The social significance of work. Analysis of forces changing the contemporary occupation structure, typical career patterns of professions and occupations, the social organization of occupational groups.

**SOC13365**
3 Credits
**Sociology of Religion**
The social functions of religion, institutions and ideologies; the impact of religious problems associated with secularization of religion; economic and political dimensions of religious change and new religious movements.

**SOC14075**
1–3 Credits Each Semester
**Honors Seminar (Sociology)**

**SOC14425**
3 Credits
**The Black Female Experience in America**
This course will explore the black female experience in America from a sociological perspective. In order for students to develop a comprehensive understanding of this experience, theories regarding race, gender, sexuality, love relationships and the various roles inhabited by African-American women will be evaluated. Students will discover the challenges and contributions of African-American women during significant periods of American history including slavery and the Civil Rights movement. The research, literature and artistic works of Patricia Hill-Collins, Tricia Rose, Sheri Parks, Elijah Anderson, Jacqueline Grant, Alice Walker, Angela Davis, Maya Angelou and others will be critically examined. Prerequisite: SOCI1201 Introduction to Sociology.

**SOC14436**
3 Credits
**Environmental Sociology**
An analysis of social and cultural issues raised by environmental changes, including global, local and individual-level causes and effects.

**SOC14477**
1–3 Credits Each Semester
**Honors Research and Thesis (Sociology)**

**SPAN1007, SPAN1008**
6 Credits (3 Credits Each Semester)
**Beginning Spanish I, II**
An introduction to the language with practice in reading, writing and conversation. Corequisites: SPAN1007 Spanish Practicum I and SPAN1008 Spanish Practicum II.
SPAN1007
1 Credit
Spanish Practicum I
This one-credit course is linked to SPAN1001 Beginning Spanish I providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: SPAN1001 Beginning Spanish I.

SPAN1008
1 Credit
Spanish Practicum II
This one-credit course is linked to SPAN1002 Beginning Spanish II providing additional reinforcement through exercises that focus on listening and speaking skills. Corequisite: SPAN1002 Beginning Spanish II.

SPAN2001
3 Credits
Spanish for Medical Personnel
This course addresses the linguistic needs of medical professionals. After recapitulating the foundational material for SPAN1001 Beginning Spanish I and SPAN1002 Beginning Spanish II, including the basic grammar structures, this course trains medical professionals in key vocabulary terms and conversational practices that are relevant to health care and medical practice contexts.

SPAN2003
3 Credits
Spanish Conversation I
This course focuses on conversation through reading, writing, literature and grammar. Note: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II may be taken in any order.

SPAN2004
3 Credits
Spanish Conversation II
This course reviews important grammar topics and discusses contemporary issues in the Spanish-speaking world. Note: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II may be taken in any order.

SPAN2006
3 Credits
Music in Spanish: Writing and Conversation
Song lyrics provide the basis for gaining proficiency in spoken and written Spanish. Students expand vocabulary in a broad variety of content areas through discussions on music. Prerequisite: SPAN1002 Beginning Spanish II.

SPAN2007
3 Credits
Hispanic Current Events: Writing and Conversation
Taught in Spanish, current events are used to gain proficiency in Spanish with emphasis on vocabulary, idiomatic expressions and grammar. Prerequisite: SPAN1002 Beginning Spanish II.

SPAN2008
3 Credits
Hispanic Film: Writing and Conversation
Films from Latin America and Spain inform class conversation and writing assignments. Through film, vocabulary is expanded, culture is addressed and grammar is reviewed. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

SPAN2009
3 Credits
Spanish for Professions
This course teaches students how to diversity their vocabulary as they build proficiency, in specific content areas directly linked to their undergraduate major. More advanced students may also benefit from this course as the focus is on technical language or specific content areas generally not studied in other courses. A hands-on, workshop environment will help students feel comfortable in dealing with common situations specific to their field of expertise. Prerequisite: SPAN1202 Beginning Spanish II or placement at the 2000-level or above.

SPAN2015
1 Credit
Spanish Study Abroad Expansion
Independent study will allow students to explore specific topics directly linked to Spanish culture that may also be enhanced by the study-abroad experience. Topics are defined in consultation with the instructor. This course is taught in English.

SPAN2016
1 Credit
Latin American Study Abroad Expansion
Students will explore specific topics directly linked to study abroad in Latin America. This course is taught in English.

SPAN2020
3 Credits
Spanish Composition
This course helps students improve their writing skills. Students will write on a variety of topics. A review of Spanish grammar and syntax, among other topics, will help students write clearly and effectively. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

SPAN2101
3 Credits
Hispanic Identities: Myths and Realities
Focusing on pivotal moments in literature and history, this course studies how representations of fact have been used to create a Hispanic identity. The purpose of the course is to evaluate the discourses that have been shared as an integral part of Hispanic legacy. Through a study of the creation and evolution of such notions and in comparison to uses of other national discourses — mainly of the United States — the course hopes to arrive at an understanding of the discursive forces that shape national identities.

SPAN2504
3 Credits
Spanish Art and Its Influence in the Americas
Taught in English, this course studies Spanish art from the Middle Ages to the present and its influence on Latin-American art.

SPAN2506
3 Credits
Spanish Culture and Civilization
This course, taught in English, introduces key topics in Spanish history, politics, art and literature as well as the sciences. It will also address contemporary issues in Spanish culture.

SPAN2507
3 Credits
Latin-American Culture and Civilization
This course, taught in English, introduces key topics in Latin-American history, politics, art and literature as well as the sciences. It will also address contemporary issues in Latin-American culture.

SPAN2508
1 Credit
Latin-American Culture and Civilization: Study Abroad
Study-abroad activities linked to SPAN2507 Latin-American Culture and Civilization. Corequisite: SPAN2507 Latin-American Culture and Civilization or permission of instructor.

SPAN2515
3 Credits
Spanish Film
This course surveys Spanish film. Students analyze how cinema represents Spanish history and culture. They also examine how Spanish film has moved from local and national themes to include more global topics for an international audience. (Equivalent to CINE2515 Spanish Film.)

SPAN2530
3 Credits
Latin American Film
Designed to introduce students to culture through film media, the course focuses on the study of 10 films from most countries in Latin America. First analyzed from a general perspective, each film provides a different aspect of the culture of the Spanish-speaking world. (Equivalent to CINE2530 Latin American Film.)
SPAN3008
3 Credits
**Nation, Gender and Ethnicity in Latin-American Cultures and Literatures**
This course reviews discourses informed by issues regarding national identity, race, gender and social class. The course will focus on how these concepts and categories inform Latin-American culture. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

SPAN3009
3 Credits
**Afro-Hispanic Literature**
This course focuses on the literature of the black experience in Hispanic America. Texts are selected from a variety of genres and periods. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

SPAN3015
3 Credits
**Hispanic Identities: Myths and Realities**
This bilingual course focuses on pivotal moments in literature and history. It studies how representations of myth and reality have been used to create a Hispanic identity. The discourses that have been shared as an integral part of the Hispanic legacy are reviewed.

SPAN3016
3 Credits
**Latin-American Classics and Their Film Versions**
A bilingual course designed to acquaint the student with contemporary Latin-American literature and adaptations of major works to film.

SPAN3030
3 Credits
**Hispanic Nobel Prize Writers**
This course focuses on the winners of the Nobel Prize in Literature from the Spanish-speaking world. Study and analysis of the characteristics of the masterpieces created by this elite group of writers and the selection process of the Nobel Prize committee. Examination of the texts from the perspective of Spanish-speaking writers to assess the local as well global significance of the works. Writers include Marques, Paz, Neruda, Asturias and Mistral, among others. The works are read in Spanish. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

SPAN3110
3 Credits
**Latin-American Women Writers**
A study of the works of contemporary Latin-American women writers including Isabel Allende, Elena Castedo, Laura Esquivel, Ann Miranda, Luisa Valenzuela and others. The course is taught in English.

SPAN3410
3 Credits
**Spanish Culture and Civilization**
Taught in Spanish, this course introduces key topics in Spanish history, politics, arts and literature as well as the sciences. It also addresses contemporary issues in Spanish culture.

SPAN3411
3 Credits
**Latin-American Culture and Civilization**
Taught in Spanish, this course introduces key topics in Latin-American history, politics, arts, literature as well as the sciences. It also addresses contemporary issues in Latin-American culture.

SPAN412
1 Credit
**Latin-American Culture and Civilization: Study Abroad**
Study-abroad activities linked to SPAN3411 Latin-American Culture and Civilization. Corequisite: SPAN3411 Latin-American Culture and Civilization or permission of instructor.

SPAN417
1 Credit
**Spanish Study Abroad Expansion**
Independent study will allow students to explore specific topics directly linked to Spanish culture that may also be enhanced by the study-abroad experience. Topics are defined in consultation with the instructor. This course is taught in Spanish.

SPAN418
1 Credit
**Latin American Study Abroad**
Students will explore specific topics directly linked to study abroad in Latin America. This course is taught in Spanish. Prerequisite: SPAN2003 Spanish Conversation I or SPAN2004 Spanish Conversation II.

SPAN431
3 Credits
**Latin-American Short Stories**
Reading and translation of Latin-American short stories.

SPAN441
3 Credits
**Latin-American Theater**
This course will survey important currents in the development of Latin-American theater. Dramatic texts will be studied to understand how they reflect on social and political issues. Moreover, how Latin-American dramatic discourse emerges within the context of colonialism, in response to other theatrical traditions, and in its search for its own identity, will be key concepts explored in this course. Key moments from the early colonial period to the 20th century will inform the course discussion.

SPAN451
3 Credits
**Spanish Translation/Interpretation**
Conversation focuses on current events of interest and significance from the Spanish point of view. Spanish newspapers and magazines form the textbook material. Composition focus is the same. Translation exercises are Spanish to English and English to Spanish. Grammar is reviewed as needed.

SPAN462
3 Credits
**Writing in Spanish**
Students read and write in a wide variety of content areas. Advanced grammar is reviewed as students expand their vocabulary and improve their written expression. Prerequisite: SPAN2003 Spanish Conversation I, SPAN2004 Spanish Conversation II or departmental permission.

SPAN463
3 Credits
**The Hispanic Essay**
This course surveys the development of the essay in Spain and Latin America. It examines major movements in the Hispanic lyric.

SPAN480
3 Credits
**Spanish Classics on Film**
Taught in Spanish, this course surveys Spanish works of literature and adaptations of these works to film.

SPAN502
3 Credits
**Spanish Translation**
This course focuses on translating written material.

SPAN503
3 Credits
**The Short Story in Spanish**
Readings of and essays on selected short stories from Latin America and Spain.
Course Descriptions

Theater and Speech
Maxwell Becton College of Arts and Sciences
Florham Campus

**SPAN3510**
3 Credits
*Introduction to Spanish Linguistics*
This course focuses on the nature of Romance languages with a special emphasis on Spanish. Characteristics of phonological and grammatical systems of the lexicon are explored as well as the evolution of the language.

**SPAN3551**
3 Credits
*Topics in Spanish Literature I*
This course focuses on the literature of the Middle Ages through the Enlightenment in Spain. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

**SPAN3552**
3 Credits
*Topics in Spanish Literature II*
This course focuses on Romanticism, Realism, Modernism and other contemporary themes in Spanish literature.

**SPAN3561**
3 Credits
*Topics in Latin-American Literature I*
This course focuses on the literature of Latin America from pre-Hispanic texts through the Enlightenment.

**SPAN3562**
3 Credits
*Topics in Latin-American Literature II*
This course focuses on the literature of Latin America from Romanticism to the present.

**SPAN3600**
3 Credits
*Cervantes*
Selected works by Cervantes will be studied within their historical context. Careful attention will be placed on literary genre and innovations expanding the possibilities of specific genres. Prerequisites: SPAN2003 Spanish Conversation I and SPAN2004 Spanish Conversation II.

**SPAN3601**
3 Credits
*Advanced Spanish Grammar*
This course focuses on intensive grammar review, sentence structure, building vocabulary and perfecting composition skills.

**SPAN4005**
3 Credits
*Latin-American Women Writers*
Selected readings in Spanish of significant authors of Latin-American literature.

**SPAN4440**
3 Credits
*The Hispanic Novel: From Cervantes to García Márquez*
This course offers a sampling of novels from representative writers of Spain and Latin America. Important literary periods and movements will be studied in their respective contexts — from Spain’s Golden Age period to the Literary Boom in Latin America of the 1960s.

**SPAN4477**
3 Credits
*Honors Research and Thesis*
Senior research and thesis applying students’ knowledge of the Spanish language. Mentorship required.

**SPAN4498**
3 Credits
*Internship*
Practical experience working in a business, government or nonprofit setting or in publications, applying academic knowledge; academic component includes weekly journals and semester- evaluative paper and frequent interaction with department mentor.

**SPAN4600**
3 Credits
*Spanish Theater*
This course surveys 20th-century Spanish theater including plays by Benavente, Valle-Inclan and Lorca among others. It also studies one work by a contemporary playwright.

**SPAN4800**
1–6 Credits
*Senior Independent Study – Spanish*
Independent study in Spanish at the senior level.

**SPAN4900**
3–12 Credits
*Faculty/Student Research*
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

**SPAN4999**
3 Credits
*Senior Thesis Seminar*
Review of research methods as students conduct independent study toward completion of a research paper.

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**Theater and Speech**

**School of the Arts**

**Dance**

**DAN1520**
3 Credits
*Beginning Dance I*
This beginner’s course is designed to introduce students to modern dance, jazz and ballet techniques and the basic terminology of dance steps. Emphasis will be placed on developing proper body alignment necessary for dancing. Prior dance training is not required for this course.

**DAN2020**
3 Credits
*Basic Tap*
An introductory course to tap dancing. Students will have the opportunity to develop and master basic tap and performance skills. Students will participate fully in center floor combinations, audition prep, body conditioning and alignment. Prerequisite: DAN1520 Beginning Dance I.

**DAN2021**
3 Credits
*Ballet I*
This course is designed to provide an opportunity to experience the foundation of dance through the study of ballet. Students will develop alignment, strengthen their ballet vocabulary and increase their knowledge of ballet.

**DAN2022**
3 Credits
*Ballet II*
This course is a continuation of the practice and understanding of ballet technique and vocabulary taught in DAN2021 Ballet I. Students will increase facility and understanding of dance through consistent repetition of exercises and technique. Students will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN2021 Ballet I.

**DAN2023**
1 Credit
*Ballet III*
A continuation of the practice and understanding of ballet technique and vocabulary taught in DAN2022 Ballet II. Students will increase facility and understanding of dance through consistent repetition of exercises and technique. They will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN2022 Ballet II.

**DAN2024**
1 Credit
*Ballet IV*
A continuation of the practice and understanding of ballet technique and vocabulary taught in...
DAN2023 Ballet III. Students will increase facility and understanding of dance through consistent repetition of exercises and technique. They will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN2023 Ballet III.

DAN2505 3 Credits
**Dance II**
A continuation of DAN1320 Beginning Dance I, this course will implement intermediate levels of ballet, modern and jazz techniques. Various dance forms will be studied including traditional, Broadway and contemporary hip-hop. Students will improve their technique, coordination, flexibility and muscular development. Prerequisite: DAN1320 Beginning Dance I.

DAN2506 3 Credits
**Movement for the Actor**
The basic elements of movement will be explored to help actors strengthen individual expression. The course will focus on coordination, grace and improvement of dexterity. Students will work toward creating a physical vocabulary as a basis for developing a character.

DAN2507 3 Credits
**Choreography**
Choreography is the art of making dances. In this course students will practice the skills of creating movement, editing work, notating and rehearsing steps to create choreographic phrases and work. Preclassic dance forms, modern dance forms and musical styles will be explored. Prerequisite: DAN2021 Ballet I or DAN2505 Dance II.

DAN2600 3 Credits
**Theater Dance**
This class covers different dance styles used in the theater, including jazz, tap, modern and character dancing. The course also introduces students to the dance styles of noted choreographers such as Bob Fosse, Michael Bennett, Tommy Tune and Jerome Robbins. They would also be introduced to the choreographers’ signature works, for example, “West Side Story,” “Sweet Charity,” “My One and Only,” etc., and would be taught excerpts from the original choreography. The course will conclude with prepared audition pieces.

DAN3020 3 Credits
**Advanced Tap**
A secondary course in tap dancing designed to give students the opportunity to further develop and learn tap-dancing skills. Students will participate fully in the following: warm-ups that take them through the vocabulary of tap; center floor combinations; audition prep; learning to pick up a combination quickly; body condition-

DAN3021 1 Credit
**Advanced Tap II**
A review of the practice and understanding of tap technique and vocabulary taught in DAN3020 Advanced Tap. Students will increase facility and understanding of dance through constant repetition of exercises. They will improve alignment, stamina and musicality through continued practice. Prerequisite: DAN3020 Advanced Tap.

DAN3316 1 Credit
**Stage Combat I**
This course covers techniques of personal combat used in theatrical staging of actual fights, falls, slaps, punches and duels. Included in this course will be introductory practices in both armed and unarmed combat for stage.

DAN3321 1 Credit
**Stage Combat II**
Students will learn advanced work in both armed and unarmed combat for the stage. Also covered in this course will be sword and dagger, sword and cape, knife and advanced hand to hand. Prerequisite: DAN3316 Stage Combat I.

DAN3800 1–3 Credits
**Independent Study Dance**
Students work on an assigned project with a mentor.

DAN4422 1–3 Credits
**Internship in Dance I**
Internship within dance that integrates classroom learning with supervised employment in an area relevant to the student’s educational and career goals. Interns are expected to work a full semester with hours to be determined by both the academic department and the hiring organization.

DAN4423 1–3 Credits
**Internship in Dance II**
Continued internship within dance that integrates classroom learning with supervised employment in an area relevant to the student’s educational and career goals. Interns are expected to work a full semester with hours to be determined by both the academic department and the hiring organization.

DAN4900 3 Credits
**Faculty/Student Research**
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

DAN4901 3 Credits
**Faculty/Student Research**
Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: DAN4900 Faculty/Student Research.

DANH1322 3 Credits
**Dance History and Appreciation**
This course is designed to cover the history of dance from its earliest forms to the present as well as increase appreciation and awareness of dance as an art form. This course will include viewing and researching dancers and choreographers who helped shape history. Through the viewing of film, video and live dance performances, students will experience the art, culture and universal expression of dance.

**Speech**

SPCH1107 3 Credits
**Fundamentals of Speech**
A class seminar in public speaking as a communicative art. Stress is on personal understanding, projection of self and relationship to listeners. A practical course for all who anticipate speaking before small or large groups.

SPCH1204 3 Credits
**Voice for the Actor**
The class will develop the vocal instrument of the actor. Students will be given special techniques for relaxing the body, deepening the breath and developing resonance, projection and articulation. This will provide students with the tools to possess a voice with the energy, range and clarity required for the stage.

SPCH1205 3 Credits
**Voice for the Actor II**
This class, a continuation of SPCH1204 Voice for the Actor, will use physical and voice exercises to help the student speak clearly and expressively. Emphasis will be placed on articulation and breath support. Work with the international phonetic alphabet will continue and be used to analyze dialects for performance. Prerequisite: SPCH1204 Voice for the Actor.

SPCH2004 3 Credits
**Speech and Diction**
This class will use physical and vocal exercises to help students speak clearly and expressively. Emphasis will be placed on breath support, resonance and articulation. The international phonetic alphabet will be used to help accent reduction. Prerequisite: SPCH1204 Voice for the Actor.
Course Descriptions

Theater and Speech
Maxwell Becton College of Arts and Sciences
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SPCH2006
3 Credits
Speech and Diction II
This course is a continuation of SPCH2004 Speech and Diction and the study of phonetics. Students will focus on phonetics and continued accent reduction, good speech for the stage and the application of IPA (International Phonetic Alphabet) as text. Prerequisite: SPCH2004 Speech and Diction.

SPCH3001
1 Credit
Voice and Speech Combination
A one-credit course to allow students who have already taken preliminary courses in voice production and speech. This course will allow students to continue with their vocal training as well as continue with exercises geared towards performances in Dreyfuss Theater. Preproduction warm-ups will also be featured. Prerequisite: SPCH1204 Voice for the Actor and SPCH2004 Speech and Diction.

SPCH4421
3 Credits
Advanced Acting II: Dialects and Styles
This course will explore language and dialect through advanced scene work. Students will learn to apply dialect and language skills in an audition setting. The course will introduce and familiarize students with advanced techniques for “cold reads” and with style in scene work from a range of historical periods. Prerequisite: THEA4420 Advanced Acting. (Equivalent to THEA4421 Advanced Acting II.)

SPCH4422
1–3 Credits
Internship in Speech I
Internships in speech, including those for theater arts majors, which emphasize use of this facility.

SPCH4423
1–3 Credits
Internship in Speech II
Internships in speech, including those for theater arts majors, which emphasize use of this facility.

SPCH4900
3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

SPCH4901
3 Credits
Faculty/Student Research
Members of the faculty engage in continued research projects with selected students with the goal of professional publication or presentation. Prerequisite: SPCH4900 Faculty/Student Research.

Theater

THEA1005
1 Credit
Makeup for the Stage
The basics of makeup application for the stage.

THEA1010
3 Credits
Vectorworks for Entertainment
This class is designed to give students an introduction into the world of computer drafting. Students will learn how to use the Vectorworks drafting program. This class will also provide working knowledge and understanding of drafting from light plots to scenic ground plans. When complete, students will have an understanding of industry standards, helping them prepare for the professional world.

THEA1015
3 Credits
Basic Vocal Technique
This course uses a workshop format to teach vocal anatomy; proper breathing, balanced tone as well as work on vocal registers and vocal health. Each student will be assigned pieces from musical theater and/or the classical repertoire. This course is targeted for freshman theater arts majors with a concentration in musical theater and/or other students wishing to improve their singing and gain confidence and skill set for solo singing. (Equivalent to MUSIC1015 Basic Vocal Technique.)

THEA1110
3 Credits
Introduction to Acting
This course is designed to provide students with some basic acting techniques. Regardless of previous training and experience, if any, this class will give students a strong foundation on which to build in terms of concentration, focus, motivation and presentation. This course will include physical and vocal warm-ups, improvisation, conflict exercises, monologue and scene work. Emphasis will be placed on practical execution as well as academic theory.

THEA1111
3 Credits
Introduction to Acting II
This course is a continuation of THEA1110 Introduction to Acting. Designed to introduce nonmajors to basic acting theory and to develop their oral communication skills, it will allow students to explore scene work in greater depth. The course will help students develop their improvisational skills and will encourage students to apply what they have learned in the previous semester to rehearsal and performance settings. Vocal and physical exercises will also be introduced. Prerequisite: THEA1110 Introduction to Acting.

THEA1203
3 Credits
Basic Acting I
A course in the fundamentals of acting training, which will emphasize truthful human behavior and creativity on stage. Techniques to be covered will include the use of objectives, subtext, improvisation and rehearsal strategy.

THEA2001
1 Credit
Advanced Makeup for the Stage
Study more advanced makeup techniques including advanced period makeup, aging, facial-hair application, special effects (cuts and bruises) and latex application. Prerequisite: THEA1005 Makeup for the Stage.

THEA2005
3 Credits
Directing I
A study of the basic theories and techniques of directing, organization, basic staging and composition will be studied as well as script analysis, casting and working with actors. Prerequisite: THEA1203 Basic Acting I.

THEA2015
3 Credits
Vocal Technique II
The course continues developing skills for proper and healthy singing. It will concentrate on the emergence of a personal, convincing and appropriate expressive style on the basis of free singing tone and well-supported vocal mechanism. Students will be assigned pieces from musical theater or the classical repertoire. Prerequisite: THEA1015 Basic Vocal Technique. (Equivalent to MUSIC2015 Vocal Technique II.)

THEA2101
3 Credits
Elements of Playwriting
In this introduction to the craft of playwriting, students will complete a series of writing exercises that address characterization, dialogue, conflict and dramatic structure. These exercises will ultimately culminate in the creation of a one-act play by the end of the course.

THEA2203
3 Credits
TV Writing and Screenwriting I
Seminar conducted as workshop. Work submitted biweekly toward the completion of a 50-minute teleplay or film.

THEA2204
3 Credits
Intermediate Acting
A continuation and development of the techniques of THEA1203 Basic Acting I, with a particular emphasis on scene study, monologs and auditioning skills. Prerequisite: THEA1203 Basic Acting I.
THEA2209
3 Credits
**Stagecraft I**
This course has been structured to stress basic design concepts that are then translated into the construction of sets for all plays presented by the department.

THEA2215
3 Credits
**Set Design I**
The principles and techniques of designing scenery for the theater. Students will learn rendering, drafting and model making and create an original design from script to complete model. Participation in campus productions required.

THEA2216
3 Credits
**Set Design II**
Advanced work in scenic design. Students will create original designs and may produce them in workshop productions. Participation in campus productions required. Prerequisite: THEA2215 Set Design I.

THEA2220
3 Credits
**Introduction to Acting II**
This course will follow the same format as THEA2204 Intermediate Acting but will be restricted to non-majors only. (A continuation and development of THEA1203 Basic Acting I, with a particular emphasis on scene study, monologs and auditioning skills.) Prerequisite: THEA1203 Basic Acting I.

THEA2300
2 Credits
**Performance and Production**
A two-credit course open to theater majors only that will work on presentation of scenes, short plays or cabaret acts. Prerequisite: THEA1203 Basic Acting I.

THEA2310
3 Credits
**Stagecraft II**
This course has been designed to incorporate advanced design and construction concepts and techniques. This work will be done in conjunction with problems presented by all department productions. Prerequisite: THEA2209 Stagecraft I.

THEA2311
3 Credits
**Children’s Theater**
This course is designed to bring theater to younger audiences (5th-8th graders) by writing, designing and acting in a production created by students and toured to two to three middle schools in the vicinity. The rehearsal process will occur during the final week of summer break and then tour during the early part of the following fall semester. Students will learn how to create a production from the initial script to final performance in all aspects. (Equivalent to MUSIC2311 Children’s Musical Theater.)

THEA2312
3 Credits
**Children’s Theater II**
An opportunity to build, rehearse and perform with the Youth Theater Project performance of “Possibilities.” Prerequisite: THEA2311 Children’s Theater.

THEA2339
3 Credits
**Musical Theater Workshop**
A course designed to offer instructional training in singing for the musical theater. Emphasis will be placed on vocal training, rhythm and presentation, and each student will be helped to choose material suitable for his or her vocal range. Prerequisite: THEA1203 Basic Acting I. (Equivalent to MUSIC2339 Musical Theater Workshop.)

THEA2506
3 Credits
**Movement for the Actor**
The basic elements of movement will be explored to help actors develop individual expression. The course will focus on coordination, grace and improvement of dexterity. Students will work toward creating a physical vocabulary as a basis for developing character.

THEA3001
3 Credits
**Advanced Playwriting and Drama I**
Seminar conducted as a workshop. For those seriously interested in developing as writers for theater. Work submitted biweekly toward completion of a full-length play.

THEA3006
1 Credit
**Directing II**
This is an advanced course that will require the preparation of scenes that will ultimately lead to performances. Techniques will receive major emphasis.

THEA3101
3 Credits
**Greek and Roman Drama**
The course analyzes some of the seminal works in Greek and Roman tragedy and comedy, looking at the historical, political and philosophical circumstances that inform the plays. A history of stagings through the centuries and attention to contemporary productions will be part of the course as well. Authors considered include Aeschilus, Sophocles, Euripides, Plato, Aristotle, Menander, Aristophanes, Plautus, Terence and Seneca. Prerequisite: ENGW1001 Composition I: Rhetoric and Inquiry.

THEA3102
3 Credits
**Studies in Drama**
Analysis of significant plays, focusing on particular themes, playwrights, historical periods or forms of drama. Topics change with each offering. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

THEA3105
3 Credits
**Contemporary European Drama**
Study of major European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. (Equivalent to LITS3105 Contemporary European Drama.)

THEA3106
3 Credits
**Contemporary World Drama**
Study of major non-European plays, playwrights and dramatic movements since World War II. Emphasis on plays as literature and performance; trends in contemporary stagecraft; social issues in the drama. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

THEA3107
3 Credits
**Hispanic Drama**
Study and analysis of major works of Spanish theater from the Renaissance to the present. Prerequisite: ENGW1002 Composition II: Research and Argument or equivalent.

THEA3110
3 Credits
**Stagecraft II**
This course has been designed to incorporate advanced design and construction concepts and techniques. This work will be done in conjunction with problems presented by all department productions. Prerequisite: THEA2209 Stagecraft I.
THEA3112
3 Credits
**Lighting for the Stage**
Lighting design in theory and practice. From basic electricity to the art of using lighting to support the theatrical designs of the play. Subjects covered will include instrumentation, circuitry, light plots, color, angles and control. Participation in campus productions required.

**THEA3213**
3 Credits
**Shakespeare I**
A survey of Shakespeare’s major plays, comedies, histories and tragedies. Attention is paid to Shakespeare’s language, life and times and his role as innovator in English drama. Prerequisite: ENGW 1002 Composition II: Research and Argument or equivalent or LITS2001 The European Tradition I or LITS2002 World Literature II: 13th–18th Centuries.

**THEA3255**
3 Credits
**Advanced Playwriting**
In this class students will move past the basics of dramatic structure and workshop to longer pieces: full-length plays and screenplays. They will also be reading plays and viewing films with a focus on craft and dramaturgy, narrative structure, subtext and character development. The semester will close with an invited reading of excerpts from the longer works. Prerequisite: THEAH2255 Playwriting and Dramatic Structure or permission of instructor.

**THEA3309**
3 Credits
**Advanced Directing**
For those seriously interested in developing in depth as directors, preparation of scenes will ultimately lead to performance of staged one-act plays. Prerequisite: THEA2005 Directing I.

**THEA3313**
3 Credits
**Scene Painting I**
The basic techniques of painting 2-dimensional and 3-dimensional scenery for the stage. Dry brushing, rag rolling, spattering, spraying and scumbling are taught along with a variety of other faux techniques. Prerequisite: THEA3313 Scene Painting I.

**THEA3314**
3 Credits
**Scene Painting II**
More advanced problems in scene painting for the theater, including painting large drops, perspective, “gridding up” and projections. Prerequisite: THEA3313 Scene Painting I.

**THEA3325**
3 Credits
**Stagecraft III**
Advanced problems in technical theater production. Students head key elements of mainstage theater productions including lighting and sound, wardrobe, props, scene painting and master carpentry. Prerequisite: THEA2209 Stagecraft I or THEA3110 Stagecraft II.

**THEA3356**
3 Credits
**Acting for Film and Television**
This course is designed to instruct the student in the basic techniques of characterization and movement within the confines of the camera lens. Students will recreate scenes from established films, which will be taped using professional techniques, e.g., master shot, two shot and close-up. Prerequisite: THEA2204 Intermediate Acting.

**THEA3350**
3 Credits
**London Theatre Experience II**
This course will provide students who have already taken THEAH3359 The London Theatre the opportunity to revisit London and visit six to seven different professional theater productions and attend lectures and workshops with different actors and theater professionals. Prerequisite: THEAH3359 The London Theatre.

**THEA3351**
1 Credit
**Production and Crew I**
Designed as a hands-on theater experience for students who participate in mainstage production, this course will cover all experiential aspects of production: audition, preproduction, rehearsal and performance. Prerequisite: THEA3351 Production and Crew I.

**THEA3352**
1 Credit
**Production and Crew II**
Designed as a hands-on theater experience for students who participate in mainstage production, this course will cover all aspects of production: audition, live production, rehearsal and performance. Second production. Prerequisite: THEA3351 Production and Crew I.

**THEA3355**
1 Credit
**Production and Crew III**
Designed as a hands-on theater experience for students who participate in mainstage productions, this course will cover all aspects of production: audition, preproduction, rehearsal and performance. Third production. Prerequisite: THEA3352 Production and Crew II.

**THEA3358**
3 Credits
**Acting Shakespeare**
An examination of Shakespeare’s verse structure, analysis of the texts and an exploration of character and common themes in Shakespeare’s plays. The class will include presentation of selected monologs and scenes and will incorporate the viewing of tape and film and visits to professional productions. Prerequisite: THEA1203 Basic Acting I.

**THEA4403**
3 Credits
**Producing for the Theater**
A practical course in theater production. Students are involved in general management practices for actual theater productions including marketing and publicizing the shows and managing the box office and the front of the house.

**THEA4405**
3 Credits
**Senior Seminar: The Working Actor**
A course especially designed for final-semester senior theater majors to prepare them for the professional world. The class will focus on audition techniques and will culminate in a Manhattan showcase in front of professional agents and casting directors. Prerequisite: available to senior theater arts majors only.

**THEA4410**
3 Credits
**Stagecraft IV**
Students are totally responsible (under faculty supervision) for all technical elements of a studio theater production, including set and lighting design, sound, props and costumes. Prerequisites: THEA2215 Set Design I and/or THEA3110 Stagecraft II, THEA3112 Lighting for the Stage and THEA3325 Stagecraft III.

**THEA4415**
3 Credits
**Building the Scenic Model**
The basic techniques and materials for creating scale models for the theater, film and animation. Students learn to work in scale and use a variety of materials and painting techniques to create 3-dimensional models of theatrical sets and environments. Prerequisite: THEA2216 Set Design II.

**THEA4416**
3 Credits
**Rendering and Drafting for the Theater**
Problems in creating 2-dimensional color renderings in perspective. Watercolor, acrylic and marker techniques are taught along with advanced elements of drafting 2-D and 3-D scenery. Focus is on ground plans, elevations and construction drawings. Prerequisite: THEA2216 Set Design II.

**THEA4420**
3 Credits
**Advanced Acting**
This is an intensive course for seniors who plan to pursue acting as a career beyond college. Course work will include character work, opposite point of view, impediments and advanced scene study. Actors will learn to transform their behavior using a range of techniques.
while building on the fundamentals of truth-based acting and play structure.

THEA4421
3 Credits
Advanced Acting II
Advanced scene study and character work; additional course work for students who have progressed beyond THEA4420 Advanced Acting. The course will prepare them for work at the master of fine arts level and will include the study of and work with contemporary dramatic authors. Prerequisite: THEA4420 Advanced Acting. (Equivalent to SPCH4421 Advanced Acting II: Dialects and Styles.)

THEA4422, THEA4423
1–3 Credits
Internship in Theater
Students will intern with a professional theater or theater production office. Prerequisite: permission of instructor.

THEA4800
1–3 Credits Each Semester
Independent Study in Theater
Independent study with a specific faculty member after consultation with the department chairperson.

THEA4900
3–12 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation.

THEA4901
3 Credits
Faculty/Student Research
Members of the faculty engage in research projects with selected students with the goal of professional publication or presentation. Prerequisite: THEA4900 Faculty/Student Research.

THEAH1201
3 Credits
Development of the Theater: Ancient to Elizabethan
Understanding theater as live performance through lecture, discussion and experimentation with old and new ideas on staging and production. The student will explore the use of the stage and function of music, movement, the actor's art and the director's art, based on scripts from the Greeks through the time of Shakespeare. Spring

THEAH1202
3 Credits
Development of the Theater: Restoration to Today
Since the time of Shakespeare, “modern theater” has blossomed and flourished all over the globe. Through lectures, readings, class discussions, viewings of live stage performances and films, students will explore trends that led to modern drama, including The Golden Age of Spain, German Romanticism, the Poetic Realism of Chekov, Asian Theater, the American Musical and Avant-garde Theater. Theater projects and theater trips. Offered every semester.

THEAH2255
3 Credits
Playwriting and Dramatic Structure
Through writing and revising a play, students discover and explore the dramatic form. Emphasis is placed on the nature and development of conflict and strategies for resolution.

THEAH3103
3 Credits
Modern Drama 1880–1930
The course focuses on the innovative theater of Ibsen, Strindberg and Chekhov at the turn of the 20th century. Other playwrights (such as Pirandello and Brecht) may be considered as well.

THEAH337
3 Credits
Night at the Theater
Field trips to the varied and rich theatrical fare in the metropolitan area, including Broadway, Off-Broadway and regional theater. Discussions explore various aspects of the plays and production. Students are responsible for transportation to and from theater location. Tickets are underwritten by grants from the Peter Jay Sharp Foundation.

THEAH5339
3 Credits
The London Theatre
A 10-day trip to London during spring break to see plays and attend theater-related classes at the Globe Theatre. This will be preceded by class study of plays involved and followed by class discussion upon the students’ return to the Florham Campus.

THEAH5344
3 Credits
History of the Musical
A survey of the history of contemporary musical theater from its origins in the 19th century through present day. In addition to lectures and discussions, the course makes extensive use of audio and video materials. (Equivalent to MUSI3344 History of the Musical.) Fee

THEAH5357
3 Credits
Audio Design Concepts
This course will provide an overview of the techniques and the tools of sound design and the sound designer's role in the theater. How sounds move through the air, microphones, as well as speaker choice and placement will be presented. Students interested in live sound for theater presentations or concerts should consider this course. Prerequisite: THEAH3351 Production and Crew I.

Writing and Creative Writing
Department of Literature, Language, Writing and Philosophy
CREW1001
3 Credits
Introduction to Creative Writing
In this course, students will read and discuss contemporary literature in at least three of the four major creative writing genres: fiction, poetry, creative nonfiction and drama. And, in a workshop setting, students will also write in those genres, allowing them the opportunity to discover and explore areas for future study. Note: This is a prerequisite for all CREW 2000-level courses.

CREW2002
3 Credits
Creative Writing: Fiction
Study and practice of writing fiction. The workshop places the focus on student writing. Additional reading provides the context for discussion of craft and form. This course is not for creative writing major credit.

CREW2003
3 Credits
Creative Writing: Poetry
Study and practice of writing poetry. The workshop places the focus on student writing. Additional reading provides the context for discussion of craft and form. Prerequisite: CREW1001 Introduction to Creative Writing.

CREW2004
3 Credits
CNF: What's Your Real Story
This is a writing workshop on literary or creative nonfiction — which means it uses stories from real life, and craft them into literary pieces similar to a short story, using students' own experiences as raw material. Memoirs and collections of personal essays are examples of this genre, and students will read examples of these as well as write their own pieces for the work-
shop. This is a required course for all creative writing majors and minors. Non-creative writing majors and minors are also welcome.

CREW2250  
3 Credits  
Screenwriting I  
Students learn the basics of screenplay structure, character development, rising and falling action and conflict and resolution by writing screenplays. They will develop a short script that may be used in other classes as shooting assignments. Prerequisite: CREW1001 Introduction to Creative Writing. (Equivalent to FILM2250 Screenwriting I.)

CREW2255  
3 Credits  
Playwriting and Dramatic Structure  
Through writing and revising a play, students discover and explore the dramatic form. Emphasis is placed on the nature and development of conflict and strategies for resolution.

CREW2300  
3 Credits  
Fiction Workshop: Vampires, Zombie and Me — Young Adult and Children’s Literature  
In this workshop, students will focus on writing for children and young adults (YA). What is important to consider when writing for a younger audience? How far can one push things in YA? Is there really a difference between young adult and adult literature anymore? This is a fiction-writing workshop to develop one’s own book or start one. The class will also be reading young-adult and middle-grade books: fantasy, dystopia, realism and mysteries. Writing for young people is as complex and challenging as writing for adults. Students should be prepared for an intensive writing workshop, reading and class discussion.

CREW2500  
3 Credits  
Ways of Seeing: Poetry Writing and Visual Arts  
Using contemporary and classic art and writing inspired by art, this course is a multifaceted exploration of the ways students see and how they can express that in their own poetry writing. Among other things, students will learn how to read art (and others) to look at art has led to solving crimes in the real world; how learning such techniques of looking at and understanding art may enrich one’s life, academic experience and career; how contemporary and earlier art have been used to educate, create social change, religious change and so on. Students will write poems and critical responses to art and assigned readings. This course has no prerequisites. Note: For creative writing majors, this course can substitute for CREW3012 Advanced Poetry Writing, with workload adjusted accordingly.

CREW3010  
3 Credits  
Special Topics: Invented Worlds — Speculative and Fantastic Fiction  
In this workshop students will examine various forms of speculative and fantastic fiction and generate a collection of interconnected stories set in a singular world of their own making.

CREW3011  
3 Credits  
Advanced Fiction Writing  
An advanced workshop in the craft and form of writing fiction. Prerequisite: CREW2002 Creative Writing: Fiction.

CREW3012  
3 Credits  
Advanced Poetry Writing  
An advanced workshop in the craft and form of poetry writing.

CREW3013  
3 Credits  
Advanced Dramatic Writing  
Using techniques learned in CREW2255 Playwriting and Dramatic Structure or THEA2255 Playwriting and Dramatic Structure, students will complete a one-act play or one-person show over the course of the semester. Open readings of selected scenes will close the semester. Prerequisite: CREW1001 Introduction to Creative Writing (for creative writing majors) or THEA2255 Playwriting and Dramatic Structure (for theater arts majors).

CREW3017  
3 Credits  
Advanced Creative Nonfiction: It’s All About Me  
In this workshop students will focus on telling their own stories. What is the difference between memoir and autobiography? What are the tools a writer can employ when writing a memoir, and how does a writer develop the “I” as a character? Who is telling this story and what is the role of time and vantage point? Students will be reading memoirs from a wide variety of authors and using structured writing prompts to enter into the story they feel they have to tell. The class should be prepared for an intensive writing workshop, reading and class discussion.

CREW3020  
3 Credits  
Reading as Writers  
An examination of craft and form in literary masterworks, both classic and contemporary, from the practitioner’s perspective. Texts will be analyzed to answer the questions, “How does it work?”; “What narrative techniques or approaches to characterization does the writer employ?”; “What are the works’ stylistic elements?” and “How can these elements be employed in new fiction?” Students will be expected to engage in discussions, write three analytical papers and, using one of the texts studied as a model, generate a short work of fiction. Prerequisite: Any CREW2000-level course.

CREW3025  
3 Credits  
Special Topics: Telling the Truth  
Creative nonfiction walks the line between truth and fiction; in this class, students will write literary nonfiction essays that craft a narrative from that most unreliable source: their own subjective memory. They will embrace the unreliability of their narrations and close read texts that shed light on how to build a character from what Joan Didion calls: “The Immeasurable I.” Prerequisite: CREW1001 Introduction to Creative Writing.

CREW3030  
3 Credits  
Fiction Workshop: Fever Dreams — Pathological Perspectives  
Pathological Perspectives is a special-topics creative writing workshop. Students will examine the ways in which atypical states of consciousness — madness, neurological disorders, dissociation and other unreliable and unusual perceptions of the world are crafted in classic and contemporary fiction and creative nonfiction, and apply the narrative processes discovered in these texts to their own writing.

CREW3046  
3 Credits  
Getting Published  
In this class, students will study the best practices for submitting creative work to literary magazines, agents and editors. They will work with visiting publishing professionals to better understand the current literary landscape and to learn the best strategies for getting published. Students will also have the opportunity to practice editing skills that are necessary in the publishing profession.

CREW3047  
3 Credits  
Literary Publishing  
This hands-on introduction to the world of independent publishing will explore all aspects of the editing, production and publication of a literary journal, as well as give students a broad overview of the literary marketplace. Students will gain practical experience with design, editing, acquisitions, art, proofing, digital publishing, distribution and marketing. The class will combine approaches, moving between small group labs and seminar styles of learning. This course is offered in conjunction with The Literary Review, FDU’s international journal of contemporary literature. Prerequisite: CGD1313 Creative Imagery with Photoshop or CGD1314 Illustrator Graphics and Design or CREW1001 Introduction to Creative Writing. (Equivalent to CGD3047 Literary Publishing.)
CREW3080
3 Credits
Music and Poetry
This course examines the relationship between poetry and music throughout history, while providing students the opportunity to practice writing both poetry and song lyrics as well as critical papers on various related topics. From the Homeric epics to the choral music of Greek tragedy, devotional songs in various traditions, to the ballads of Robert Burns, to the work of Bob Dylan, Bruce Springsteen, Joni Mitchell and Tupac, and to an exploration of the extraordinary success of “Hamilton,” the class will study how language and music work together, how the oral tradition survives in these times, how and when poetry broke away from song and how and when they’ve come back together. The course’s primary method will be the close reading of lyrics and poems, using the tools of poetry analysis to judge them; therefore, a good deal of the students’ time will be spent mastering those techniques and listening to and reading great poetry and music. Note: Open to all students. No prerequisites.

CREW4499
3 Credits
Internship
Practical experience working in a business, government or a nonprofit setting or in the publication field, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor. Prerequisite: CREW4498 Internship.

ENGW1998
3 Credits
Fundamentals of Writing
A developmental writing course focusing on literacy skills necessary for academic success. Emphasis is on strategies for developing academic essays, reading-comprehension skills, basic writing process and understanding the conventions of Standard English.

ENGW1000
3 Credits
Introduction to Composition
This introductory course concentrates on the fundamental skills necessary for academic success. Students practice writing well-organized, sensible and grammatically sound expository prose. Particular emphasis is placed on cultivating effective processes for more thoughtful and developed writing, revising to achieve unity and coherence and self-directed editing and proofreading for clarity and appropriateness. Students also participate in peer review and become more critical readers. (Equivalent to ENWR1002 Composition I: Rhetoric and Inquiry.)

ENGW1001
3 Credits
Composition I: Rhetoric and Inquiry
This course provides students with intensive study and practice in process-oriented writing, critical reading and rhetorical inquiry. Students engage expository texts in order to describe and evaluate the choices writers make and then apply that knowledge to their own compositions. Throughout the course, students give and receive feedback, revise their work and reflect on their growth as writers. (Equivalent to ENWR1001 Composition I: Rhetoric and Inquiry.)

ENGW1002
3 Credits
Composition II: Research and Argument
This course focuses on the study and practice of writing as research-based argument. As a means of arriving at the writing from committed stances, students learn to seek out, engage and interrogate a variety of sources. Students write in academic, professional and/or public forms, including academic essays and rhetorical analyses. Particular emphasis is placed on information literacy, source integration and appropriate documentation. (Equivalent to ENWR1002 Composition II: Research and Argument.)

ENGW1002 Honors
3 Credits
Composition II: Research and Argument, Honors
This course is an accelerated version of Composition II. The focus is on the study and practice of writing as research-based argument. As a means of arriving at the writing from committed stances, students learn to seek out, engage and interrogate a variety of sources. Students write in academic, professional and/or public forms, including academic essays and rhetorical analyses. Particular emphasis is placed on information literacy, source integration and appropriate documentation. In addition to completing advanced research projects, students in the honors section create conference proposals and prepare presentations on research completed that are delivered on Honors Research Day.

ENGW3001
3 Credits
Advanced Writing Workshop
Advanced principles of writing expository prose: focus on style, tone, organization, purpose and audience. Required for communication and writing concentrations. Prerequisites: ENGW1002 Composition II: Research and Argument and junior standing.

ENGW3022
3 Credits
Digital Rhetoric and Writing
This course will focus on the ways in which texts produced for online spaces (video games, blogs, podcasts, websites, etc.) draw on a combination of image, text, sound, color and video in order to communicate ideas. Topics will include access, ownership and identity as they relate to work produced in/form digital spaces. Students will be expected to both analyze and create digital texts. No advanced technical knowledge or special equipment is required for this course.

For journalism courses, see Communication Studies
See pages 306–310.
College of Business
Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; and Vancouver Campus, British Columbia, Canada

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

Accounting

Department of Accounting, Taxation and Law

ACCT2021
3 Credits
Introductory Financial Accounting
An introduction to the concepts underlying an accounting information system. Transactions are analyzed, recorded and summarized into a balance sheet, income statement and cash-flow statement. Additional topics include fixed-asset acquisitions and disposals, patents, franchises, goodwill, bond amortization, bond premiums and discounts, common and preferred-stock issuance, dividends and treasury-stock issuance and retirement.

Fall, Spring

ACCT2022
3 Credits
Introductory Managerial Accounting
An introduction to the concepts of managerial accounting, including fixed/variable-product cost analysis, cost-volume-profit analysis, make vs. buy and other variable-cost analysis, transfer pricing, budgeting and variance analysis. Prerequisite: ACCT2021 Introductory Financial Accounting.

Fall, Spring

ACCT3242
3 Credits
Intermediate Financial Accounting II
This course continues the detailed study of financial accounting begun in ACCT3241 Intermediate Financial Accounting I. Recent pronouncements of the Financial Accounting Standards Board and their applications, such as in the areas of accounting for liabilities, stockholders’ equity, dilutive securities, earnings per share and statement of cash flows. Basic differences in relevant U.S. and international accounting standards are identified. Prerequisite: ACCT3241 Intermediate Financial Accounting I.

Spring

ACCT3245
3 Credits
Cost Accounting: Measurement and Control
This course covers advanced managerial accounting topics such as job order and process costing, cost-volume-profit analysis and variance analysis. Prerequisite: ACCT2022 Introductory Managerial Accounting.

Fall

ACCT3590
3 Credits
Accounting Information Systems
The problems and procedures concerning the design and installation of accounting systems. Development of account classifications and internal controls with emphasis on the accountant’s use of the computer as an aid to management. Prerequisite: ACCT3241 Intermediate Financial Accounting I.

Fall

ACCT4261
3 Credits
Advanced Accounting
This course studies accounting for mergers and acquisitions, consolidations, partnerships, government and bankruptcy. Other timely topics may be covered. Prerequisite: ACCT3242 Intermediate Financial Accounting II.

Fall

ACCT4265
3 Credits
Auditing Concepts
A first course in auditing. This course explores the concepts of evidence and their application to balance sheet and income statement accounts. Additional topics include auditor’s reports, evaluation of internal control and other engagements. Prerequisite: ACCT3242 Intermediate Financial Accounting II.

Fall

ACCT4267
3 Credits
Fundamentals of Federal Taxation
An introduction to federal taxation. This course studies tax principles as they affect the individual. Topics include identification of the taxpayer; income and deductions; deferral and non-recognition transactions; and converting taxable income into tax liability. Expert computer systems will be used in the course. Prerequisite: ACCT2022 Introductory Managerial Accounting.

ACCT4498, ACCT4499
3 Credits Each Semester
Internship in Accounting Studies
This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in an accounting environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisite: requires departmental approval.

ACCT4800
1–3 Credits
Independent Study in Accounting
Independent study under the direction of a specific faculty member after consultation with the department chairperson.

Business (General)

Department of Management and Entrepreneurship

BUSI1000
3 Credits
Foundations of Business
No matter what a student’s major may be, it is important to understand the basics of business and the global economy. In this introductory course, students will learn about a wide variety of business management subjects, such as marketing, economics, finance, entrepreneurship, accounting, human resources and business technology. In particular, the class will focus on...
how business is conducted in a dynamic, global marketplace, and how different cultures, legal systems and economics impact business (and vice versa). Students will develop their critical thinking, communications, research and problem-solving skills through class discussion, assignments and project work.

**Career Studies**

*Department of Management and Entrepreneurship*

**CARR3000**

2 Credits

**Career Strategies**

Career success is more than a matter of luck. Academic preparation, hard work and resilience all matter as does learning career strategies to enhance a student’s performance. This course will help students be more successful in their first jobs after graduation and beyond by providing insights into building a strong relationship with their bosses, finding mentors and sponsors and networking effectively. It will help them better understand career paths, assess career risk and consider the importance and challenges of work-life balance. They will also practice making formal and informal presentations to develop the oral communication skills that are highly valued by employers. Prerequisite/Corequisite: MGMT2600 Organizational Behavior.

**Decision Sciences**

*Department of Marketing, Information Systems and Decision Sciences*

**DSCI1234**

3 Credits

**Mathematics for Business Decisions**

This course provides mathematical concepts and skills for business decisions, including linear and nonlinear functions, rational functions, exponential and logarithmic functions. Elements of calculus such as limits and derivatives are introduced. Business applications include supply, demand and equilibrium, breakeven analysis and financial mathematics. Prerequisite: placement test.

**DSCI1239**

3 Credits

**Calculus with Business Applications**

This course, an alternative to DSCI1234 Mathematics for Business Decisions, emphasizes mathematical applications to business problems. Topics covered include functions and models, limits and continuity, average and instantaneous rates of change in business and economics, differential techniques, maxima and minima values and their applications to business and economics; inventory costs, marginal analysis and introduction to integration. Prerequisite: placement test or precalculus.

**Fall**

**DSCI2029**

3 Credits

**Introduction to Statistics**

An introduction to basic statistical methods to collect, summarize and analyze numerical data. Topics include descriptive statistics, basics of probability, binomial and normal distributions and sampling and sampling distributions. Excel spreadsheets are frequently employed to both graphically illustrate a topic and provide computational capabilities. Prerequisites: DSCI1128 Introduction to Mathematical Methods, DSCI1234 Mathematics for Business Decisions or DSCI1239 Calculus with Business Applications.

**Fall, Spring**

**DSCI2130**

3 Credits

**Business Statistics**

Second semester of a two-semester sequence in business statistics. Topics include confidence interval, hypothesis testing, simple and multiple regression and analysis of variance. Business data is analyzed using Excel spreadsheets. Emphasis is on understanding, interpreting statistical information and explaining statistical ideas to non-specialists. Prerequisite: DSCI2029 Introduction to Statistics.

**Fall, Spring**

**DSCI3152**

3 Credits

**Operations Management**

This course provides necessary concepts and skills on how firms design, produce and deliver goods and services to their customers in a cost-effective way. Management science techniques are utilized in all aspects of operations management including forecasting, capacity, inventory, supply chain, quality and project management. Case studies and computer software are utilized. Prerequisite: DSCI2130 Business Statistics.

**Fall, Spring**

**DSCI3502**

3 Credits

**Value Chain Management for Sustainability**

This course aims to provide the students with a holistic understanding of opportunities and challenges in achieving sustainability in today’s supply chains. The course will survey chain operations and strategies in the face of tightening environmental legislation and increasing expectations of society in terms of environmental performance, health and other social impact. The course adopts a life-cycle view of products across and outside supply-chain business performance. The class format will include lectures and case discussions. Prerequisite/Corequisite: MGMT3400 Managing Sustainability in the Global Context.

**DSCI4800**

1–3 Credits Each Semester

**Independent Study in Decision Sciences**

Independent study under the direction of a specific faculty member after consultation with the department chair.

**Economics**

*Department of Economics, Finance and International Business*

**ECON2001**

Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics are prerequisites to all other economic courses.

**ECON2001**

3 Credits

**Introduction to Microeconomics**

Problems of consumer behavior and demand, the allocation of resources of production, factor pricing and market conduct under pure competition, imperfect competition, oligopoly and monopoly.

**Fall, Spring**

**ECON2102**

3 Credits

**Introduction to Macroeconomics**

A comprehensive introduction to macroeconomics. The concept of national income analysis, the theory of determination of income and employment, problems of fiscal and monetary policy and aspects of international economic activity.

**Fall, Spring**

**ECON2207**

3 Credits

**Introduction to Econometrics**


**ECON4208**

3 Credits

**International Trade**

Theoretical and practical aspects of world trade; studies of comparative cost advantages, tariff policies, balance of payments, foreign exchange market, foreign investments, foreign trade promotion and trade agreements. Prerequisite: ECON2102 Introduction to Macroeconomics.

**Fall, Spring**
Entrepreneurship
Silberman College of Business
Florham Campus, Metropolitan Campus and Vancouver Campus

**Course Descriptions**

**Entrepreneurship**


ENTR3700 3 Credits
**Doing Well Through Doing Good**
Social entrepreneurship is an exciting field of business in which leaders from across society conceive, build and grow mission-driven ventures. Motivated by a desire to make a difference in a community, social entrepreneurs have developed creative solutions to intractable social problems. Students in this course will gain knowledge by studying how social entrepreneurs have used the tools of business and entrepreneurship to create innovative solutions. Through analyzing case studies, participating in lectures, student engagement with guest lecturers and experiential exercises, students will learn the fundamentals of social entrepreneurship. The course focus will be on emerging social business models, leadership of social ventures, measurement of impact and performance and sustainability.

ENTR4100 3 Credits
**Managing Growing Ventures**
This course examines the problems and issues confronting entrepreneurs beyond the nascent stage of a new venture. Entrepreneurship is about creating and building something of value from practically nothing. But beyond this nascent phase of a startup, the issues related to managing a growing organization while considering a multitude of new stakeholders, requires a completely different set of skills. Attracting and retaining a management team, satisfying the demanding requirements of investors and building credibility with customers and suppliers are just a few of the concerns that growth-oriented entrepreneurs must face. This course covers principles and practices of implementing and growing the new businesses, with a focus on the time and resource needs as well as understanding the key tasks/actions and skills required. Key growth topics include: funding, financial management, organizational development and human resource management. Prerequisite: ENTR3160 Launching New Ventures.

ENTR4498, ENTR4499 3 Credits
**Internship in Entrepreneurial Studies**
This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in an entrepreneurial environment. The student is consulted and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisites: ENTR3160 Launching New Ventures and departmental approval.

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**ECON4421**
1–3 Credits Each Semester
**Selected Studies in Economics**
Studies in an area of economics. Prerequisites: ECON2001 Introduction to Microeconomics and ECON2102 Introduction to Macroeconomics.

**ECON4499**
3 Credits Each Semester
**Internship in Economics Studies**
This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in an economics environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisite: requires departmental approval.

**ECON4800**
1–3 Credits Each Semester
**Independent Study in Economics**
Independent study under the direction of a faculty member after consultation with the department chairperson.
Finance

Department of Economics, Finance and International Business

FIN 3250 3 Credits
Principles of Financial Analysis*
This is an introductory business core course in the fundamental principles and techniques of finance. Topics include financial management and shareholder-wealth creation, understanding and analysis of financial statements, time value of money, fixed-income and common-equity valuation, capital budgeting, working capital management and multinational financial management. Prerequisites: ACCT2021 Introductory Financial Accounting and ECON2001 Introduction to Microeconomics.

FIN 3310 3 Credits
Intermediate Financial Analysis**
This is an intermediate financial analysis course in risk-and-return relationships, valuation models, cost of capital, capital structure, capital budgeting, corporate value and value-based financial management and financial planning and forecasting financial statements. Prerequisites: ACCT2022 Introductory Managerial Accounting, DSCI2029 Introduction to Statistics, ECON2102 Introduction to Macroeconomics and FIN 3250 Principles of Financial Analysis.

FIN 3330 3 Credits
Personal Financial Management
The course is designed to identify and examine financial decisions faced by individual consumers and their families at various points throughout their lifetimes. In addition to providing financial-planning techniques useful to students in their own lives, the course provides a foundation upon which interested students can build to prepare for a range of career opportunities in the financial services industry. While there are no formal course prerequisites, students should be familiar with Excel spreadsheets.

FIN 3371 3 Credits
International Business Finance
The balance of payments, foreign exchange, direct investments, international capital markets, managing working capital, taxation, financing international trade, exchange, exposure and international financial controls. Prerequisite: FIN 3310 Intermediate Financial Analysis. Fall, Spring

FIN 3421 3 Credits
Sports Finance
Financial analysis of sports teams, leagues and institutions. Topics include sources of revenue, antitrust issues, economic impact of local professional teams, public funding of sport venues, labor relations, compensation, innovative revenue sources, etc. Prerequisite: FIN 3250 Principles of Financial Analysis or FIN 3310 Intermediate Financial Analysis.

FIN 3503 3 Credits
Finance, Value and Sustainability
This course explores financial methods of valuation in the broader context of the role of the firm in society. Exploration of ideas of shareholder-value maximization as opposed to stakeholder-value maximization given societal and environmental issues will form the core of the course. To have a solid basis for understanding these issues, students will be introduced to the idea of interest rates and discounting, to classic models of discounted cash flow (DCF) valuation as well as to real-options valuation (ROV). Issues surrounding the valuation of distant future and appropriate methods to deal with this valuation will be discussed in the context of Corporate Social Responsibility (CSR) reporting to account for externalities, market imperfections and property rights. The financial performance of Socially Responsible Investing (SRI) will be discussed. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.

FIN 3510 3 Credits
Working Capital Management
This course studies the short-term financial planning and management of a firm via its operating and cash cycles. Cash budget, short-term financing, credit and inventory management, cash and liquidity management and short-term risk management form the major topics. Ethical and international issues will be woven into various topics as they appear instead of being dealt with separately.

FIN 4150 3 Credits
Securities and Investments
Basic principles underlying investment decisions. The structure and operations of the stock exchanges and the over-the-counter markets, as well as the functions of securities dealers and brokers. Examination of the various types of stocks and bonds, government obligations, investment companies, financial statement analysis, forecasting techniques and portfolio management. Prerequisite: FIN 3310 Intermediate Financial Analysis.

FIN 4221 3 Credits
Capital Budgeting
The course examines the commitment of resources for future economic activity. A number of topics will be explored: the economic environment, risk and the cost of capital, capital structure, cash flows, decision-making criteria for determining the rational deployment of capital, quantifying uncertainty with real options and other appropriate and timely topics. The course would use cases, spreadsheet applications and projects to provide a good understanding of relevant topics. Prerequisite: FIN 3310 Intermediate Financial Analysis.

FIN 4251 3 Credits
Portfolio Management
The course studies the process of constructing, managing and revising portfolios of financial assets for wealth maximization. The use of equities, fixed-income assets, treasury securities, options and other derivative securities in portfolio management are discussed along with the theories appropriate for security pricing. Prereq-
Course Descriptions

Financial Planning and Wealth Management

Silberman College of Business
Florham Campus, Metropolitan Campus and Vancouver Campus

Financial Planning and Wealth Management

Department of Economics, Finance and International Business

WMA3335
3 Credits
Personal Financial Management

The course is designed to identify and examine financial decisions faced by individual consumers and their families at various points in their lives. In addition to providing useful financial planning techniques, the course provides a foundation upon which interested students can prepare for a range of career opportunities in the financial services industry. While there are no formal course prerequisites, students should be familiar with Excel spreadsheets.

WMA4265
3 Credits
Personal Tax Planning

This course introduces the basics of personal federal income taxes and strategies for minimizing taxes. The course studies tax principles as they affect the individual's wealth management. Topics include issues relating to a taxpayer's filing status, dependents, income, deductions, tax credits and deferrals. The topics are discussed from the perspective of tax planning. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

WMA4267
3 Credits
Retirement Planning

This course is an introduction to basic principles relating to retirement planning as they pertain to financial planners. The course will familiarize students with the federal estate and gift tax system, the marital deduction and various tools and techniques to consider when implementing an effective estate plan consistent with the client's goals. Documents such as wills, trusts, powers of attorney and powers of appointment are addressed. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

WMA4370
3 Credits
Personal Estate and Gift Planning

This course is an introduction to basic principles relating to estate and gift planning as they pertain to financial planners. Students will become familiar with how the federal estate and gift tax system works. Topics covered include property transfer, tax consequences, methods of property transfer at death, estate-planning documents, probate avoidance, powers of appointment, joint ownership of property, life insurance, charitable dispositions, inter vivos gifts, use of living and testamentary trusts, the marital deduction and various tools and techniques to consider when implementing an effective estate plan consistent with the client's goals. Documents such as wills, trusts, powers of attorney and powers of appointment are addressed. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

WMA4375
3 Credits
Risk Management and Insurance

In this course the student develops an understanding of risk and how to use insurance to manage the consequences of risk. The student will learn about health insurance and health care cost management, disability insurance, long-term care insurance, annuities, life insurance, business uses of insurance, insurance needs analysis, property and casualty insurance, as well as how to select an insurance policy and insurance company. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

WMA4380
3 Credits
Client Relations in Financial Management

In this course students will gain a greater understanding of themselves and how to enhance their effectiveness in client relationships by focusing on the development of emotional-intelligence skills. Aspects include enhanced self-awareness, ability to regulate oneself and empathy in relationships. Integrity and authenticity in relationships, as well as ethical behavior and fiduciary trust, will be emphasized. The course will also focus on the development and maintenance of the client relationship. This includes the steps in developing the counseling relationship, supportive communication, effective interviewing, action planning, decision-making skills and techniques as they apply to financial counseling. Prerequisites: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management and at least one
Course Descriptions

Information Systems • Law

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of the following: WMA4265 Personal Tax Planning, WMA4267 Retirement Planning, WMA4350 Investment Planning or WMA4375 Risk Management and Insurance.

WMA4390
3 Credits
Financial Planning Capstone
This is a required course for the concentration in financial planning and wealth management, and for those preparing to take the CFP® examination. The capstone course will enhance the students’ skills in providing wealth-management and financial-planning services to clients. It integrates work in prior courses including investment planning, tax planning, risk management and insurance planning, estate and gift planning and retirement planning to provide an integrated and comprehensive financial plan for clients. The student is required to develop, present and support a financial plan based on the objectives and risk profile of a client and based on the CFP® Board’s Financial Planning Practice Standards. Prerequisites: WMA3335 Personal Financial Management, WMA4265 Personal Tax Planning, WMA4267 Retirement Planning, WMA4350 Investment Planning, WMA4370 Personal Estate and Gift Planning and WMA4375 Risk Management and Insurance. Corequisite: WMA4380 Client Relations in Financial Management.

WMA4498, WMA4499
3 Credits
Wealth Management Internship
Integration of classroom study with specific planned periods of supervised learning and relevant employment experiences. Education combines learning on the job, University course work and career-development skills. Prerequisite: FIN3330 Personal Financial Management or WMA3335 Personal Financial Management.

Information Systems

Department of Marketing, Information Systems and Decision Sciences

MIS1045
3 Credits
Information Technology for Business
This course provides students with the knowledge and skills to solve analytical business problems using computer-based spreadsheet and other software tools. The goals of this course include developing software and analytical competency, exploring applications in various areas of business and providing students with an overview of information technology/information systems concepts and terminology. Fall, Spring

MIS2001
3 Credits
Management Information Systems
This course provides an overview of information systems with a focus on the current information technologies and the role of information systems in achieving the operational and strategic goals of business organizations. The students also learn to utilize information-technology tools to support business operations and enhance business decision making. Prerequisite: MIS1045 Information Technology for Business. Fall, Spring

MIS4301
3 Credits
Data, Communications and Networks
Course is designed to give the student an understanding of current technology in data communications networks and telecommunications with respect to hardware and software. The process of selecting a communication system with both hardware and software, its implementation, support and effect on a business organization will be discussed. Prerequisite: MIS1045 Information Technology for Business. Fall (Metro), Spring (Flor)

MIS4303
3 Credits
Spreadsheet Applications in Business
Course is designed to give the student a proficiency in the use of spreadsheet software. It introduces advanced spreadsheet commands, formula generation, database operations, importing and exporting data, program modules and menu generation. The course includes case studies of spreadsheet solutions to management programs. Cases include scheduling, surveying, database management, graphic presentation, budgeting and capital management. Prerequisite: MIS1045 Information Technology for Business. Fall (Flor), Spring (Metro)

MIS4304
3 Credits
Database Applications in Business
Course introduces database concepts, including creation, searching, sorting, reporting and maintenance. Database design techniques using structured programming to designate data types, create database structures and document applications. A small business application will be designed and implemented. Prerequisite: MIS1045 Information Technology for Business. Fall (Metro), Spring (Flor)

MIS4305
3 Credits
Systems Analysis, Design and Implementation
Course introduces concepts and methods in the development of business systems. It starts with methods for determining the objectives and feasibility of the target system. Topics include alternative system development and methodologies, cost-benefit analysis, information requirements analysis, structured methodologies, data models and interface design. Prerequisite: MIS1045 Information Technology for Business. Fall (Flor), Spring (Metro)

MIS4307
3 Credits
Introduction to E-business
This course provides a comprehensive introduction to the dynamic field of e-business. Topics include relevant technologies, models, systems, applications of B2B and B2C and other forms of e-business. E-business applications and implementation and their impact on different industries and sectors are covered, along with key topics related to e-business design and development. Course includes case studies and hands-on experience with e-business technologies. Prerequisite: MIS2001 Management Information Systems.

MIS4499
3 Credits Each Semester
Internship in Information Systems
This course will provide the student with an opportunity to gain practical on-the-job experience by applying the academic theory learned in the classroom to a work environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Progress in personal and career development is reviewed at frequent intervals during the program. Prerequisite: approval from department chair.

MIS4800
1–3 Credits Each Semester
Independent Study in Information Systems
Independent study under the direction of a specific faculty member after consultation with the department chair. Prerequisite: approval from department chair.

Law

Department of Accounting, Taxation and Law

LAW2276
3 Credits
Business and the Law
The background and evolution of the American legal system. Special problems of the law and litigation that apply to business. Ethical constraints on business. Basic contract and tort law. Fall, Spring
Management

Department of Management and Entrepreneurship

MGMT2600 3 Credits
Organizational Behavior
Being able to motivate employers, lead teams, handle conflict and effectively communicate are essential skills for all careers, especially for survivors in the business world. This course emphasizes applying theories and developing interpersonal and managerial skills such as understanding individual differences, effectively working in teams, motivating and influencing others, leadership techniques and managing organizational change. Students will learn how highly effective supervisors and companies manage employees through in-class lectures, readings and group exercises as well as through assessing personal strengths and practicing employee-oriented management techniques. This course truly applies “real-world” scenarios and teaches students how best to apply the various organizational methods to create healthy and productive companies.

MGMT3100 3 Credits
Managerial Ethics
Making ethical decisions is an everyday occurrence in organizations. In this course students will explore their own values and moral leadership character. In addition, the class will explore best practices, policies and typical procedures for dealing with common ethical issues in organizations, and how to audit and evaluate an organization. Finally, students will learn how to critically evaluate moral dilemmas that are typically faced by managers.

MGMT3371 3 Credits
International Management
In order to successfully lead projects involving individuals and institutions from different countries, managers must understand the economic, legal, political, technological, cultural and sustainability issues affecting the process of globalization. This course focuses on the role of an international manager, including planning, organizing, leading and coordinating the multinational firm. Emphasis is placed on cross-cultural communication, as well as the impact of international business on society and the environment. Students will gain insight into international management and will apply this knowledge in at least one specific foreign country.

MGMT3400 3 Credits
Managing Sustainability in the Global Context
This course is an introduction to the broad, interdisciplinary field of sustainability management. It focuses on understanding and solving complex world challenges as future civic and business leaders from the whole-systems perspective — recognizing the interaction between environmental, social and economic factors and the interdependence of business and society. It examines the importance of responsible behavior and the potential advantages that sustainability practices can provide to various stakeholders and the types of organizations that serve them. It creates a foundation for understanding how various functional disciplines contribute to effective sustainability behavior, leadership and management and discusses potential sustainability career paths.

MGMT3504 3 Credits
Becoming an Effective Sustainability Change Agent
This course focuses on developing the mindset, skills and techniques to help an organization transition to embedding sustainability into its vision/mission, strategy, culture and day-to-day functioning. The course will emphasize building a commitment to the vision of a sustainable future and to sustainability practices at the individual, team, department and organization levels as well as the tools and techniques for effective change management. Further, the course will stress the importance of organizational learning focusing on continuous improvement and innovation in the context of sustainability. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.

MGMT3610 3 Credits
Leading Teams
Leading in a team-based environment requires a combination of skills. In this course, students will increase their self-awareness and personal effectiveness and learn self-leadership. Strengthening their interpersonal skills, they will come to understand their impact on groups, practice shared leadership and learn how to distribute leadership within their teams. Students will provide real-time consulting or service to a nonprofit organization to learn the process of developing and leading an effective team. Teams will work both face-to-face and virtually to learn how to function effectively in a technological, global environment. Prerequisite: MGMT2600 Organizational Behavior.

MGMT3620 3 Credits
Leadership and Personal Development
Have you ever managed other people? If so, you know it can be very challenging. If you progress in your career, it’s highly likely you will soon be expected to be a good manager and leader, regardless of your functional specialty. So this course is for you. It focuses on developing the skill set and self-awareness that is essential to effective leadership. Self-assessments and guided exercises will provide students with greater insight into their leadership styles. In fact, this course will prepare students to exercise authentic, responsible leadership in all facets of their lives. Prerequisite: MGMT2600 Organizational Behavior.

MGMT3700 3 Credits
Human Resources Management
Are you interested in learning how companies hire, develop and pay their employees? Knowing how these processes work is essential for anyone who supervises others, and can help prepare students for a career in human resources (HR). It gives them a leg up in understanding what employers look for in job candidates and how they make their decisions. In this course, students will learn important aspects of analyzing jobs, as well as recruiting, selecting and training employees in order to find the right candidate for the right job. They also will learn the importance of providing feedback and how compensation, employee retention and organizational success are interrelated. This class uses lecture, discussion, hands-on learning and exposure to HR professionals so that students will learn the basics of various HR functions and understand how HR plays a vital role in business. Prerequisite: MGMT2600 Organizational Behavior.

MGMT3710 3 Credits
Strategic Staffing
Learn the strategies that top companies use to source, recruit, select and retain their best employees. Develop skills in job analysis, interviewing and negotiating that will help students prepare for a career in management or human resources. In addition to lecture and discussion, this course makes extensive use of hands-on learning to help students understand the fundamentals of strategic staffing and gain insights that will make them more effective when they apply and interview for a new job. Prerequisite/Corequisite: MGMT3700 Human Resources Management.
MGMT3720
3 Credits
Training, Development and Performance Management
Students will develop essential knowledge and skills needed for careers in human resource management, specifically in the areas of training and development and performance management. In this project-based class, students will design and implement effective training and development opportunities, gain experience with performance-evaluation techniques (e.g., goal setting, feedback, etc.) and learn how compensation is used to strategically reinforce performance management. Prerequisite/Corequisite: MGMT3700 Human Resources Management.

MGMT4160
3 Credits
Strategic Management
This is a capstone course for all Silberman College of Business students. The course integrates functional knowledge and approaches to business problem solving from the entire business curriculum. Students will apply their knowledge in case studies and other class exercises that reflect the integration of managerial principles into coherent organizational strategies, in a variety of business environments, looking across departments for solutions. Note: Prior to taking this course, a student must have completed 82 credits and is currently registered in a minimum of 15 credits. Prerequisite: ENTR3160 Launching New Ventures (for all majors other than accounting and finance) or FIN3310 Intermediate Financial Analysis (for finance and accounting majors only).

MGMT4490
3 Credits
Guided Internship in Sustainability Management
This individual hands-on guided internship provides an opportunity for students to integrate and apply approaches, tools and techniques for sustainable management from different business disciplines in the context of implementing sustainability projects.

MGMT4498
3 Credits
Internship in Management*
The student will work as an intern in an organizational setting. This internship provides students with the opportunity to apply and integrate theory as well as a faculty mentor to lead the academic component of the internship experience.

MGMT4499
3 Credits
Internship in Human Resources Management*
The student will work as an intern in human resources. The internship opportunity includes the mentorship of a faculty member to lead the academic component of the internship experience.

MGMT4640
3 Credits
Managing Projects and Organizations
This course integrates what students have learned about personal effectiveness, team-management skills and strategic analysis to learn more advanced leadership theories and apply to a challenging project. Organizing the whole class into a single "enterprise," students will take on a more ambitious service project than previously to serve a nonprofit organization or charity. They will encounter the challenge of deciding how to design a complex organization and work out the needed coordination and communication across subgroup lines and up and down a hierarchy. By the end of the course, students will have completed a hands-on experience of leadership and change management, with all the inevitable challenge of discerning a way forward with an unstructured problem and overcoming obstacles to achieve an ambitious goal to benefit a worthy cause. Prerequisite: MGMT3610 Leading Teams.

MGMT4730
3 Credits
Strategic Human Resource Management
Human resource management (HRM) can be an essential driver of business success. In this class, which builds on prior management and HRM course work, students will study human resource strategy. The class will explore how employee-oriented management, HR policies and organizational development are central to implementing organizational strategy and to effectiveness in functional areas throughout business organizations. The class will also discuss the management of workforce changes (i.e., mergers, acquisitions and reductions), HR performance metrics, global HR and corporate social responsibility. Prerequisite: MGMT3700 Human Resources Management.

MGMT4800
1–3 Credits Each Semester
Independent Study in Management
Independent study under the direction of a faculty member after consultation with the department chairperson.

Marketing
Department of Marketing, Information Systems and Decision Sciences
MKTG2120 Principles of Marketing is a prerequisite to all other marketing courses.

MKTG2120
3 Credits
Principles of Marketing
This introductory course is designed to enable students to understand the basic concepts and tools of modern marketing practice and appreciate the importance of marketing decisions dealing with product, price, distribution and promotion. The course will emphasize the interplay among these marketing decisions and environmental forces (competitive, economic, technological, sociocultural and legal-regulatory). The course will also provide the students with an understanding of consumer behavior, market research, market segmentation and positioning. Prerequisite: must have completed 31 credits. Fall, Spring

MKTG3344
3 Credits
Marketing Research*
Course is designed to expose students to the theory and practice of marketing research. Beginning with an overview of the marketing research process, this course provides students with the skills to identify and solve marketing problems. The concepts will be reinforced by requiring students to define a marketing problem, identify the data requirements, gather and analyze data and make marketing recommendations based on the findings. Prerequisites: DSCI2130 Business Statistics.

MKTG3360
3 Credits
Digital Marketing
The course deals with the internet as a marketing medium and explores how marketers may use it to engage and interact with their customers. Students will develop websites, understand Search Engine Marketing and Search Engine Optimization and use several databases to analyze trends and identify opportunities. The course will also address fundamentals of email marketing, web analytics and will apply marketing principles to the use of new technology. Prerequisite: MKTG2120 Principles of Marketing.
Course Descriptions

Organization Studies • Sustainability

Silberman College of Business
Florham Campus, Metropolitan Campus and Vancouver Campus

MKTG3371
3 Credits
Principles of International Marketing
Students are introduced to marketing considerations in international markets. Some of the topics include cultural differences, social patterns, economic and legal environment and channels of distribution. Product attributes, pricing policies and promotional strategies are examined with respect to international considerations. Prerequisite: MKTG2120 Principles of Marketing.

MKTG3385
3 Credits
Social Media Marketing*
This course will examine the strategic uses of social-media tools along with examples of successful social-media marketing campaigns on dominant platforms. Students will learn through the active use of select tools and platforms, culminating in the construction of a framework for creating, monitoring and measuring the effectiveness of social-media campaigns. Prerequisite: MKTG2120 Principles of Marketing.

MKTG3501
3 Credits
Marketing for a Sustainable World
This course provides students with fundamental concepts and principles of sustainability marketing from a global perspective. It will examine ways that marketing processes can be transformed to bring value to people, society and businesses. The course will also address consumer behavior that relates to socially and environmentally responsible actions. Topics include segmentation, positioning, marketing mix and measurement in holistic, sustainable marketing programs. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.

MKTG4272
3 Credits
Consumer Behavior
Course will provide students with a conceptual understanding of the fundamentals of buyer behavior and its role in the development of marketing strategy. This course will examine the psychological, sociological and economic foundations of the field of consumer behavior and the relationship of these theories to managerial decisions. The course will be taught from the perspective of the marketing manager who needs knowledge of buyer behavior to develop, evaluate and implement effective marketing strategies. Prerequisite: MKTG2120 Principles of Marketing.

MKTG4344
3 Credits
Public Relations
This course serves as an introduction to the management and practice of public relations. It provides an overview of the field, teaches skills basic to public relations and applies the theories and skills to various publics. Prerequisite: MKTG2120 Principles of Marketing.

MKTG4565
3 Credits
Marketing Communications
This course is designed to provide an overview of marketing communications, including the management, strategy and creative development of advertising, publicity, sales promotion and other forms of marketing communication. Topics include research, segmentation, branding, positioning creativity and media selection.

MKTG4405
3 Credits
Advanced Marketing Management
Course draws on the cumulative marketing knowledge and analytical techniques acquired in previous courses and applies them systemically to a variety of “real-world” marketing situations. Students will be required to develop a comprehensive marketing plan, including situation analysis, marketing objectives, product positioning, strategies and tactics for the marketing mix and budget. Prerequisites: MKTG2120 Principles of Marketing and MKTG3344 Marketing Research. Corequisite: MKTG4272 Consumer Behavior.

MKTG4498, MKTG4499
3 Credits Each Semester
Internship in Marketing Studies
This course will provide the student with an internship in a growing company and the opportunity to gain firsthand experience in working in a marketing environment. The student is consulted, and his or her academic background, work experience and career goals are carefully reviewed prior to assignment. Personal and career development will be reviewed at frequent intervals during the program. Prerequisite: requires departmental approval.

MKTG4800
3 Credits
Independent Study in Marketing
Students may elect to do an independent study under the direction of a faculty member after consultation with the department chairperson.

Organization Studies

Department of Management and Entrepreneurship

ORGS1100
3 Credits
Ethical Issues in Social Institutions
This course is an introductory applied ethics course to achieve three objectives for students. The first objective is to raise the students’ awareness of the ethical implications of managerial activities in all types of organizations, including business, government and not for profit. The second objective is to teach moral reasoning skills for their application to the analysis of organizational activities. And, third is to acquaint the student with organizational ethics programs and organizational stewardship and responsibility. Students will study how individual psychological differences affect ethical judgments and actions, and will utilize and develop skills in stakeholder analysis and the assessment of organizational culture.

Sustainability

Department of Economics, Finance and International Business

SUST3500
3 Credits
Environmental Economics
This course will introduce students to major ideas and concepts in the field of environmental economics — the supply and demand of environmental quality. The focus of the course is on important applications of microeconomic theory to the environment with an emphasis on the analysis of environmental and government policies. It stresses the importance of science and values in making efficient choices. Topics would include overuse of public goods and common resources, market failure, property rights and efficient resource use, managing renewable resources and consuming nonrenewable resources, the Coase theorem, nonmarket valuation techniques and problems relevant to contemporary environmental policy. Prerequisite: MGMT3400 Managing Sustainability in the Global Context.
Anthony J. Petrocelli College of Continuing Studies

Florham Campus, Madison, New Jersey; Metropolitan Campus, Teaneck, New Jersey; Vancouver Campus, British Columbia, Canada; and Wroxton College, Oxfordshire, England

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

Accounting

ACCT1131 3 Credits
Accounting I
The theory of debit and credit, journalizing, posting to general and subsidiary ledgers, the preparation of working papers, balance sheets, income statements and statements of owner's equity; adjusting, closing and reversing entries; accounting in business and manufacturing concerns.
Fall

ACCT1132 3 Credits
Accounting II
Accounting data in formulating managerial decision analysis and interpreting financial statements; the nature, source and flow of funds; the preparation of fund statements; the safeguarding of assets; special problems in cash, payroll and sales taxes, investments, fixed assets and liabilities. Prerequisite: ACCT1131 Accounting I.
Spring

ACCT1133 3 Credits
Business Law I
An analysis of fundamental branches of law under which business enterprises are organized and activities conducted; state and federal laws and administrative agency regulations that authorize, limit or control the conduct of business.
Spring

Anthropology

ANTH2515 3 Credits
Cyber Technology: Introduction to Cultural Anthropology for a Global Age
This course is about the relationship between people and technology in the contemporary world. Topics will include the evolution of technology from stone tools to nanotechnologies; the use of social media for the “Arab Spring”; cyber-bullying, online ethics and education; artificial intelligence and moral values; information technology and public dissemination; and the debate on how digital media builds or hinders communities. The course project will center on the creation of an ethnographic “digital artifact” for the web — building upon course themes that involve text, image and sound.

Biology

BIOL1108 3 Credits
Ecology for Life: Building a Lifestyle for a Sustainable Planet
This course will provide the student with a basis for making lifestyle choices that are consistent with the goal of building a society that sustains the resources of earth for future generations. Both a survey of the principles of environmental science and practical applications will be covered. Group laboratory exercises, individual exploration of internet resources and live and moderated online discussions will supplement conventional content delivery.
Fall, Spring

BIOL1121 3 Credits
Topics in Modern Biology
This course will introduce students to the scientific method and help them to understand the basic concepts present in biology today and how they affect us in today's world. Students will gain proficiency in these concepts through the writing of papers and participation in online discussions.

BIOL2051 3 Credits
Biology of Nutrition
The nature and functions of components of the human diet. Topics in energy productions, weight control, hunger and malnutrition are studied along with the influence of alcohol, smoking, exercise, aging and illness on nutrition. Health maintenance is stressed. Laboratory includes diet evaluation, menu planning and chemical aspects of nutrients. Includes laboratory.

BIOL2053 3 Credits
Thinking the Environment
Students explore “how” people think about the environment by examining the works of explorers, scientists, philosophers and artists from the 18th century to the present. Authors including Darwin, Thoreau and Muir set the background for the primary focus on contemporary writers such as John Elder, Aldo Leopold, Edward Abbey, N. Scott Momaday and Barry Lopez.

Business

BUSI0405 0 Credits
Financial Management
This course highlights and introduces the principles and concepts employed in the accounting, forecasting and budgetary areas of a hospitality business. It primarily focuses on assessing financial information to increase the students’ understanding, knowledge and skills throughout the financial managerial decision-making process.

BUSI2162 3 Credits
Business Management and Entrepreneurship
The course will provide a balanced introduction to both entrepreneurship and small-business
Course Descriptions

Business

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

Management with a focus on achieving and maintaining a sustainable competitive advantage as a small organization. Current issues, including global opportunities, service, quality and technology are highlighted throughout the class. Students will create an online business plan for their own business as a final project.

BUSI2450
3 Credits
Seminar on Business in the 21st Century

History of business, business gurus past and present, the new politics of business, global diversity, digital capital: the internet, new marketing, business values, power of knowledge, Eastern management practices and business decisions to remember.

BUSI2450
3 Credits
Business Dynamics

This course’s objective is to explain what system dynamics is and how it can be successfully applied to solve business and organizational problems. System dynamics is both a currently utilized approach to organizational problem-solving at the professional level and a field of study in business, engineering and social and physical sciences.

BUSI2460
3 Credits
Corporate Governance

This course explores how America's corporations are governed. Primary emphasis is on the roles of shareholders, officers and directors. Other topics include accountants and auditors, investment banks and securities analysts and the Securities and Exchange Commission.

BUSI2540
3 Credits
Risk Management and Insurance

The course is geared toward consumers, providing students with a broad, descriptive survey of the insurance field, covering topics such as legal aspects, life and health and property and liability. Also included in the class is how to incorporate a stronger business-risk management component while maintaining a consumer orientation. Finally covered are aspects of insurance contracts and the insurance industry, providing a substantially more conceptual analysis and attention to business-risk management and public policy issues that exist in the current business world.

BUSI2545
3 Credits
Integrated Risk Management: Techniques and Strategies for Managing Corporate Risk

Over the years, risk management has developed separately in both the insurance and financial fields. Today, the two are finding value in each other's tools and techniques. Integrated risk management combines the best of the two notions of risk management — insurance and financial — to develop solutions ideal for today's complex risk environment. Tools go beyond hedging strategies to also examine leveraging post-loss financing and contingent financing.

BUSI2550
3 Credits
Data Communications and Computer Networks for Business

This course maintains a balanced approach between the technical and practical aspects of data communications, providing a solid understanding not only of how things work, but of how they can be applied to create business solutions. Updated to reflect new technologies, this class covers current concepts such as voiceover wireless LAN, convergence, MPLS (Multiprotocol Label Switching) and PPP (Point-to-Point Protocol), while maintaining the pedagogical elements that have been successful for students in the past.

BUSI2555
3 Credits
Inside the Art Market

Large fortunes have been made buying and selling artwork. Increasingly, the wealthiest person from every country diversify their portfolios by investing in art (alongside more conventional investments in stocks, bonds, real estate, etc.). One would expect old art, accepted by historians, to be the most lucrative but, surprisingly, contemporary art (produced after World War II) is the most expensive and sought-after segment of the art marketplace. This course examines how the art world operates — how art is produced, branded, collected, valued and sold on the international market. (Equivalent to ART2555 Inside the Art Market.)

BUSI2565
3 Credits
Fundamentals of Entrepreneurship

Have you ever dreamt of being your own boss? This course will cover the basic steps required to establish and successfully operate a new business. Topics include business-idea generation and initial evaluation, basic financial considerations, building a business plan, setting up the business, marketing and operations and exit strategy.

BUSI2640
3 Credits
Principles of Marketing

The course will familiarize students with the basic concepts and tools of modern marketing. Students will learn the basic ingredients — product, price, distribution and promotion — of effective marketing decisions. The course will also consider the importance of environmental factors, especially those driven by cultural, regulatory, competitive or technological forces. Other topics include consumer behavior, market research, market segmentation and product positioning.

BUSI2645
3 Credits
Principles of Management

An introduction to management concepts and the role of management in business and other organizations. Designed for potential and new managers, the course focuses on the essential managerial functions — planning, organizing, motivating, communicating, directing, decision making, staffing — and how they relate to one another. A learner-centered, problem-based approach is used with an emphasis on the development of skills necessary to achieve success in a wide variety of organizations in the public and private sectors. Students will gain a solid grasp of how effective managers coordinate human resources and their own skills to contribute to the mission of an organization.

BUSI2646
3 Credits
Advanced Business Practices

Topics include: employee-management issues, marketing development and implementation, pricing products and services, distribution, promotional techniques, financial management and technology and management information.

BUSI2648
3 Credits
Comparative Buyer Behavior

Buyer motivation and behavior in Latino commercial activity in America; complexities of the Latino marketplace; advertising and media influence on purchasing decisions; consumer-affairs issues; interdisciplinary approach incorporating economic, social and psychological aspects; impact of e-commerce and the internet; and other considerations.

BUSI2650
3 Credits
The Business of Media

This course is designed to provide students with an appreciation of how various forms of media (print, electronic, entertainment, etc.) function as a business. The course examines how changes in technology, consumer behavior and deregulation have transformed the media industry and its production, distribution and consumption of content in a digital environment. Media issues, practices, trends and models are examined.

BUSI3001
3 Credits
Personnel Administration

This course will examine personnel management: supervision, oversight, management and leadership among individuals in the workplace as it relates to such issues as alcoholism, drug addiction in the work setting, workplace vio-
lence, harassment, lack of diversity, developing environmentally friendly policies and the need to meet global challenges. This will be accomplished via case-study analysis, in-class participation and interaction with peers and the faculty. This course can be repeated as topics change.

BUSI3045
3 Credits
Human Resources Management
Theories and practices of human-resources administration, formulation and application of human-resources policies for a cohesive workforce within an organization. Job analysis and evaluation, recruiting, selecting and training employees and executive development.

BUSI3050
3 Credits
Legal Issues in Human Resource Management
This course is designed to expose students to legislation and court rulings that impact the management of human resources in the organization. Topics include, but are not limited to, equal employment, privacy, employee selection and testing, wage/hour regulations, safety and health, worker’s compensation, unemployment insurance, intellectual property and other emerging issues in employment law.

BUSI3200
3 Credits
Topics in Leadership I
This course will examine changing topics in leadership. Students will examine current practices and policies which promote high-impact leadership.

BUSI3210
3 Credits
Career Management Seminar
Career management seminar in Latino workforce; theory for career problem solving and decision making; an interdisciplinary approach to influence career planning and management interventions; understanding the steps leading to employability; and other considerations pertinent to career development. Prerequisites: ENGL1003 Introduction to Academic Writing and ENGL1004 Introduction to Academic Writing II. Corequisites: SPC1111 Standard American-spoken English and SPC1112 Standard American Speech Patterns.

BUSI3620
3 Credits
Human Resource Systems
New approaches and techniques in human resource systems go beyond the theories and principles of personnel administration. A hands-on experience that utilizes case studies in each topic allows students to devise solutions. This course will use case studies, lectures, assigned readings and recent rulings. State and Federal Court decisions that impact public, private and not-for-profit sector organizations will be thoroughly examined.

BUSI3645
3 Credits
Principles of Management II
This course presents a thorough and systematic coverage of management theory and practice, from a macroeconomics approach. Thus, providing students with the most current and up-to-date account of the changes taking place in the world of business management such as effective communication, managing conflict, politics and negotiation and using advanced information technology. Prerequisite: BUSI2645 Principles of Management.

BUSI3850
3 Credits
Business Practicum
Practical work placement of at least 150 hours in areas related to business studies. This placement is formally evaluated for academic credit by an academic adviser and will be based on an evaluation from the workplace, regular assignments and completion of a final report.

BUSI4200
3 Credits
Topics in Leadership II
Continued discussion and active collaboration regarding policies and practices which promote high-impact leadership. This course may be repeated for credit.

Communications
COMM1111
3 Credits
Introduction to Corporate Communications
Examination of contemporary communications practices and techniques in a distinctly corporate environment; problems, situations and opportunities unique to large and complex business organizations; incorporation of emerging technologies; communication and global economic interdependence; discussion of necessary financial, organizational and human resource commitments.

COMM1115
3 Credits
Principles and Processes of Adult Learning
Theories of adult learning and goal creation. Comparing prior study skills with present courses. The course assesses skills in critical thinking, mathematics, writing and computer literacy. The course covers the challenges and the opportunities that diversity and multiculturalism present when returning to the classroom. Finally, the course will help adult learners with informational literacy to adapt to the changing world of education.

COMM2140
3 Credits
New Technologies in Communication
An examination of new and incipient technologies in the communications industries: the internet, e-commerce, e-publishing, videoconferencing and the development of “electronic villages”; the expansion of asynchronous and synchronous corporate training programs; technology as a communication aid for handicapped individuals; social, economic and cultural ramifications of technological changes in communications.

COMM2240
3 Credits
Blogging: Sharing Ideas in Web 2.0
While many people consider blogging an enjoyable way to stay in touch with friends and family, a growing number of people and organizations recognize the “blogosphere” as a new venue for communicating and collaborating in an instantaneous, relevant and, in some cases, profitable manner. The advent of Web 2.0 and social-networking tools provide a global audience, as well as global participation in varied fields, including business, politics, education and news media. The course examines the history and features of a web log (blog) and its evolving applications.

COMM2862
3 Credits
Communication Through Social Media
Using the various applications, this class will explore the contemporary tools for social-media communications in business, education and for personal use, i.e., LinkedIn, Pinterest, Facebook, etc.

COMM3031
3 Credits
Digital Storytelling
Create stories, presentations and more using 21st-century technology and media as a means of communication, promoting learning and enhancing critical thinking skills in both the educational and global business environments. This course includes media literacy, copyright and Fair Use Practices.

COMM3080
3 Credits
Mass Media Law
This course provides the student with the basic legal framework of mass media law in order to understand the legal challenges inherent in the field.
COMM3118  
3 Credits  
**Social Media — Branding and Leading in the Digital World**  
Understanding and using best practices in social media marketing for branding and implementing an effective branding strategy. During this course, students will explore how to listen and monitor online competition and manage various online tools and processes for effective communication.

COMM3143  
3 Credits  
**Internet Research and Communication**  
As an introduction to the structure, function and impact of the internet on research and communication, students will acquire information fluency (learn to find, analyze and effectively use information sources in select domains). The course will use basic research tools, including scanning and surveys.

COMM3144  
3 Credits  
**Visual and Media Literacy**  
This course introduces the visual “ecology” (the role of media and visual image) in contemporary culture. Students will critique and manipulate representations among multiple media.

COMM3145  
3 Credits  
**Digitization, Visualization and Presentation**  
An introduction to the method and purpose of digitization using basic visualization tools to manipulate and display both data, images and representations to accelerate cognitive learning and enhance one's ability to persuade others.

COMM3146  
3 Credits  
**Interactive Communication and Networking**  
This course explores networking and cyber tools (groupware) to enhance collaboration skills, support diversity and build intellectual capital.

COMM3147  
3 Credits  
**Organization Development and Strategy**  
This course introduces organizational dynamics, quality-process improvement practices, the role of technology on competitive strategy and professional leadership responsibility.

COMM3148  
3 Credits  
**Self Knowledge, Action Research and Intellectual Capital**  
Students will learn to understand personal learning styles, their impact on groups and their importance in the workplace; develop learning plans; know “how to learn”; and understand experiential and collaborative learning in order to create organizational and domain knowledge.

COMM3150  
3 Credits  
**Professional Presentations**  
Advanced communication techniques in the professional environment, collaborative presentations, effective written and oral styles and audience analysis, among other topics.  
*Fall, Spring*

COMM3111  
3 Credits  
**Customer Service**  
This course will focus on the theory of customer service and the practices that “best-in-class” companies apply to differentiate themselves from the competition. The course includes practical information and activities designed to teach students how to respond to customers, resolve problems and provide quality customer service.  
*Fall, Spring*

COMM3122  
3 Credits  
**Customer Service for Help-desk Professionals**  
This course is designed to provide individuals interested in the field of technical customer support with a guide to the “soft skills” and the “self-management skills” needed to deliver excellent customer support at the help desk. It provides the student with a better understanding of what a career in customer support would entail with strong real-world computer support, examples, case studies and exercises.

COMM3124  
3 Credits  
**Intercultural Communication in the Global Workplace**  
This course offers students the solid theoretical foundation they need, and a highly engaging writing style filled with personal examples culled from the personal experience of living and working abroad. The course zeroes in on the specific needs of a firm, from broad cultural and business values to the influence of culture on negotiations, to the structure of the firm. Part of the course focuses on applying cultural concepts to real-life situations. It also emphasizes teamwork in intercultural groups. Legal issues in intercultural business communication are covered extensively. The first part of the course contains a detailed discussion of cultural values that influence intercultural business communication.

COMM3129  
3 Credits  
**Communication in a Changing World**  
A new course for the basic distance-learning class, this course is distinguished by its emphasis on ethics and civility in communication; its original, comprehensive and integrated treatment of computer-mediated communication; and its authentic, engaging examples drawn frequently from popular culture. The course regards communication as integral to the development of students as responsible citizens in a diverse world. Its goal is to help create good communicators who are skilled in their construction, presentation, understanding and evaluation of messages, and who also have the knowledge and willingness to take responsibility for their communication behaviors.
**Computer • Decision Sciences • Economics • English**

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**Computer Management**

**MIS3351**
3 Credits

*Leadership Communication*

This course guides current and potential leaders in developing the communication capabilities needed to lead organizations effectively. It brings together managerial communication and concepts of emotional intelligence to create a new model of communication skills and strategies for corporate leaders. It begins with sections on the core communication skills of developing strategy, analyzing an audience, writing all types of business documents and correspondence and designing and delivering effective PowerPoint presentations—all from a leadership perspective. The course takes students through sections on emotional intelligence, cultural literacy and meeting management and team leadership before concluding with chapters on internal and external organizational communication.

**COMMS840**
3 Credits

*Media Ethics*

Examination of ethics in print and broadcast media using current news articles, programming, video portrayal and commercials. Students participate in collaborative activities and reviews of contemporary topics. Emphasis on class discussion and critical review.

**COMMS850**
3 Credits

*Communications Practicum*

Practical work placement of at least 150 hours in areas related to communication studies. This placement is formally evaluated for academic credit by an academic adviser and will be based on an evaluation from the workplace, regular assignments and completion of a final report.

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**Decision Sciences**

**DSCI1128**
3 Credits

*Introduction to Mathematical Methods*

This course focuses on mathematical and algebraic concepts in relationship to business applications, including linear and nonlinear functions, national functions, exponential and logarithmic functions. Elements of calculus such as limits and derivatives are introduced. Business applications include supply, demand and equilibrium, break-even analysis and financial mathematics.

**DSCI1142**
3 Credits

*Introduction to Statistics*

Collection and presentation of data; descriptive measures; sets; probability theory; random variables; mathematical expectations; discrete and continuous probability distributions, including Binomial, Poisson and Normal; sampling distributions; introduction to regression and correlation. (Equivalent to DSCI2029 Introduction to Statistics.)

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**Economics**

**ECON1121**
3 Credits

*Macroeconomics*

Basic macroeconomics. An introduction to the nature of economic analysis and reasoning, institutions and issues of economic policy; emphasis on aggregate economics, including national income, monetary and fiscal policy and international trade.

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**English and Literature**

**ENGL0097**
3 Credits*

*Basic English*

Stresses the structure of the language and the basics of grammar, standard usage, vocabulary building, reading comprehension and fundamental writing skills; course work focuses on the production of clear and effective paragraphs.

**ENGL1000**
1 Credit

*Developing Academic Skills*

This interdisciplinary course focuses on the development of essential academic and interpersonal skills and strategies which facilitate academic learning. Topics include: study techniques, note taking, time management, test preparation, test taking, critical thinking and decision-making skills, motivation, stress management, relaxation techniques, learning styles, library and internet research and advocacy skills. Classroom instruction, discussion and application. For Educational Opportunity Fund students only. Corequisite: PADM1001 Leadership Seminar.

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*Prerequisite credits that do not count toward graduation nor are they averaged into the cumulative grade point ratio (CGPR).*

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Course Descriptions

English and Literature

Anthony J. Petrocelli College of Continuing Studies
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ENGL1002
1 Credit
Developing Academic Skills II
This interdisciplinary course focuses on providing students with advanced academic and psychosocial skills and strategies that are essential to their academic success and personal development. Topics include self-assessment and self-monitoring; critical thinking; college reading; research libraries and information literacy; inquiry into personal, academic and societal values; exploration of career opportunities; and their academic and social requirements. Classroom instruction, discussion and application. For Educational Opportunity Fund students only. Prerequisite: ENGL1000 Developing Academic Skills.

ENGL1003
3 Credits
Introduction to Academic Writing
An introductory course in essentials of effective English writing, including exercises in grammar, idiomatic expression, organization of ideas, contemporary usage and rhetorical styles. Prerequisite: ENGL1111 Literature and Composition I.

ENGL1004
3 Credits
Introduction to Academic Writing II
This course is a continuation of ENGL1003 Introduction to Academic Writing. The course expands the students' writing experience in different modes of essay writing, basic report writing and interpretive writing after reading selected stories from the textbook. Prerequisite: ENGL1003 Introduction to Academic Writing.

ENGL1006
1 Credit
Critical Reading and Critical Thinking
The practice of close reading of academic texts, with focus on analysis, annotation, comprehension and insightful questioning; emphasis also on making interdisciplinary connections; class discussion, journal keeping and essay writing.

ENGL1101
3 Credits
English Composition I
Intensive study and practice in expository writing; readings to stimulate student writing are drawn primarily from the essay. Fall, Spring

ENGL1102
3 Credits
English Composition II
Intensive study and practice in critical writing, emphasizing documentation and the process of research; readings are drawn primarily from poetry, the essay and short works of fiction and drama. Prerequisite: ENGL1101 English Composition I. Fall, Spring

ENGL1111
3 Credits
Literature and Composition I
Principles of grammar, rhetoric and style; expository writing; introduction to literary forms, especially short fiction. Prerequisite to all other English courses. Fall, Spring

ENGL1112
3 Credits
Literature and Composition II
Expository writing; literary criticism; introduction to literary forms, especially drama, poetry and the novel; research techniques. Prerequisite: ENGL1111 Literature and Composition I. Fall, Spring

ENGL2209
3 Credits
Business Communications
Clear and effective business communication, both oral and written. Appropriate style, tone and organization for reports, memos and letters.

ENGL2211
3 Credits
Masterpieces of Literature I
Readings in Greek, Roman and Hebrew masterpieces. Fall

ENGL2212
3 Credits
Masterpieces of Literature II
Reading in medieval, renaissance and modern masterpieces. Spring

ENGL2221
3 Credits
Sports and the Athlete in American Literature
The sports figure and athlete as literary figures; the metaphorical/symbolic use of the sports theme by American writers. Readings from Twain, Hemingway, Updike, Malamud and others. Fall, Spring, Summer

ENGL2224
3 Credits
Career Women in Literature and Films of the 1940s and 1950s
Career women in American popular and literary culture during the 1940s and 1950s, as portrayed in films, novels and short fiction; the influence of the Depression, World War II and the emerging women's movement; films discussed include “Mildred Pierce,” “All About Eve,” “Adam's Rib,” “A Star Is Born” and “Snake Pit.” Fall, Spring

ENGL2227
3 Credits
CyberVoices: Internet Literary Communities
CyberVoices students will visit various internet literary communities, including electronic magazines (e-zines), chat rooms and web rings and explore the dynamics of these writer communities and read their members' short fiction, poetry and essays. Through assigned readings, students will begin by learning the fundamentals of each literary genre so that, when reading cyber literary works, they will do so with an adequate level of sophistication and discrimination.

ENGL2231
3 Credits
African-American Literature
A survey of the writings of black Americans, with emphasis on the Harlem Renaissance and major figures. Readings from Richard Wright, Gwendolyn Brooks, Ralph Ellison, Langston Hughes, Zora Reale Hurston and others. Fall, Spring, Summer

ENGL2234
3 Credits
A Literary Tour of New York City
Take a virtual tour of literary New York (with a side trip to New Jersey)! In this course, students will read and discuss one or two short stories a week — some classic, some destined to be classics — and follow in the footsteps of authors and their characters as they walk the streets of New York (and yes, some streets in New Jersey). In-depth online discussion of a variety of literary issues raised in the stories including focus on the New York and New Jersey locations described. Prerequisite: ENGL1111 Literature and Composition I.

ENGL2237
3 Credits
Italian-American Literature: In and Out of the Kitchen
This course will introduce students to Italian-American literature beyond the Mafia and other common (mis)interpretations of everyday Italian-American life that are often portrayed in film. Through verse and prose, students will read examples of female voices that sway toward the kitchen and family. They will consider tradition, culture, assimilation, gender, stereotypes and the male gaze. By the end of the course, students will have an understanding of the Italian-American women's experience and voice, which will allow them to later expand their understanding of the male and female immigrant experience in America.
ENGL2241
3 Credits
Politics in Modern Literature
Political ideology in 20th-century fiction and drama. Among others, readings from Orwell, Dostoevsky, Koestler, Malraux, Silone, Maier, Brecht, Claudel and Sartre.
Fall, Spring, Summer

ENGL2257
3 Credits
American Literature
Significant works and authors in American literature from the colonial period through the 20th century. Writers of the 19th century will be stressed.

ENGL2259
3 Credits
Creative Writing
A workshop in imaginative literature providing sustained practice in individual writing projects. Summer

ENGL2261
3 Credits
Strategies and Skills for Academic Success
An interdisciplinary course focusing on the development of skills in college writing, computation, reading comprehension, vocabulary, terminology, logical thinking, study techniques, note-taking, time management and library use. Classroom instruction, workshop sessions, field trips, computer-assisted instruction and individual tutoring.
Summer

ENGL2294
2 or 3 Credits
Speech
Voice and diction; practice in enunciation, production of voice tone and the sounds of standard English speech.
Fall

ENGL2811
3 Credits
Women Voices International Survey
Through novels, short stories and nonfiction, students are offered an international survey of attitudes, perceptions and ideals of women from 11th-century Japan to 20th-century Nigeria. Discussions explore the status of women as well as promote an understanding of common themes found in all cultures.

ENGL2822
3 Credits
Modern Drama
Plays by the greatest dramatists of the 20th century. Class discussion and short critical essays about a number of these plays.
Fall

ENGL2824
3 Credits
Popular Literature
This course examines various popular literary genres which may include the Gothic narrative, mystery, science fiction, fantasy, romance, bestseller, nonfiction bestseller and Young Adult Fiction, which tends to be a cross-generational phenomenon, among others. Topics that may be considered will be what makes something "popular," development of these popular genres, meanings and messages characteristic embedded in the various popular genres, stereotypes, popular images, the significance and values associated with so-called "high" and "low" and "middle-brow" literature, context of the popular narrative, revelation of its time/culture/belief system within the text and narrative patterns characteristic of popular genres. A film adaptation may be investigated as well as a type of popular literature.

ENGL3100
3 Credits
Steps in Research and Writing
This course will define students' techniques in developing writing for varied purposes, especially for research. An introduction to the various types of research papers and content to be presented. Style and organization of writing a paper, locating and evaluating information from traditional library resources and online databases, primary sources and the internet will be explored.

ENGL3111
3 Credits
Introduction to Memoir Writing
Everyone has a unique story to tell about their past as they remember it. A memoir takes real events from one's life and conveys them through a fictional style of writing. This course consists of reading and analyzing popular memoirs while building the skills necessary to complete one's own memoir. Literary styling and the ability to critique writing are used throughout the course. Prerequisite: ENGL1102 English Composition II or ENGL1112 Literature and Composition II.

ENGL3115
3 Credits
Food Writing
Do you enjoy reading food magazines and talking about what you ate or are planning to eat? This course will focus on how to write precisely about food. Taste, restaurant environment and the history of the dishes will be considered in pieces. (No cooking skills required!) Ultimately, good writing is the basis for any strong piece of writing, and the skills developed in this class can be transferred to other subjects. Readings will include published magazine articles as well as a current book on the subject.

ENGL3121
3 Credits
Detective Fiction
Readings in classic detective fiction as well as critical readings analyzing the genre. An investigation of the way well-known detective writers such as Edgar Allan Poe, Arthur Conan Doyle and Agatha Christie, among others, have shaped the genre of detective fiction with attention to classic literary strategies and structure.

ENGL3131
3 Credits
20th-century American Worker in Literature
Students will explore three American novels focusing on the world of work in America during the first half of the 20th century. Students will read Upton Sinclair's The Jungle, John Steinbeck's The Grapes of Wrath and Sloan Wilson's The Man in the Gray Flannel Suit and discuss these works in their social, historical and political contexts.

ENGL3141
3 Credits
Travel Writing
The art and practice of travel writing, explored through contemporary travel essays. The class will write and discuss a range of essays — from personal essays to commercial reviews. Students will write about where they are, where they have been or where they would like to be. Prerequisite: ENGL1112 Literature and Composition II or equivalent.

English as a Second Language

Course Descriptions

Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

ENGLISH as a Second Language

Anthony J. Petrocelli College of Continuing Studies

ESL0101
0 Credits
Speaking and Structure Practice
This course combines creative and dynamic learning activities with grammar study and listening exercises to improve students' ability to communicate in English.

ESL0102
0 Credits
Reading and Writing
Instructors help students with reading comprehension, writing styles and sentence structure using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and magazines.
Course Descriptions

English as a Second Language

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

ESL0105
0 Credits
Guided Research
Students approach research topics in various fields of study, generating ideas, collecting information, framing a thesis statement, developing an outline and finally writing a research paper.

ESL0104
0 Credits
Speaking and Structural Practice II
This course continues the grammar study begun in ESL0101 Speaking and Structure Practice via dynamic learning activities and listening exercises to improve a student's ability to communicate orally in English. Prerequisite: ESL0101 Speaking and Structure Practice.

ESL0105
0 Credits
Reading and Writing II
A continuation of ESL0102 Reading and Writing consisting of the study of reading comprehension and writing styles using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media. Prerequisite: ESL0102 Reading and Writing.

ESL0106
0 Credits
Guided Research II
A continuation of ESL0103 Guided Research in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing. Prerequisite: ESL0103 Guided Research.

ESL0107
0 Credits
Speaking and Structural Practice III
This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104 Speaking and Structural Practice II via dynamic learning activities and listening exercises to improve a student's ability to communicate orally in English. Prerequisite: ESL0104 Speaking and Structural Practice II.

ESL0108
0 Credits
Reading and Writing III
A continuation of ESL0105 Reading and Writing II consisting of the study of reading comprehension and writing styles using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media. Prerequisite: ESL0105 Reading and Writing II.

ESL0109
0 Credits
Guided Research III
A continuation of ESL0106 Guided Research II in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

ESL0110
0 Credits
Speaking and Structural Practice IV
This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104 Speaking and Structural Practice II and ESL0107 Speaking and Structural Practice III via dynamic learning activities and listening exercises to improve a student's ability to communicate orally in English.

ESL0111
0 Credits
Reading and Writing IV
A continuation of ESL0108 Reading and Writing III consisting of the study of reading comprehension and writing styles using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media.

ESL0112
0 Credits
Guided Research IV
A continuation of ESL0109 Guided Research III in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

ESL0113
0 Credits
Speaking and Structural Practice V
This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104, ESL0107 and ESL0110 Speaking and Structural Practice II, III and IV via dynamic learning activities and listening exercises to improve a student's ability to communicate orally in English.

ESL0114
0 Credits
Reading and Writing V
A continuation of ESL0111 Reading and Writing IV consisting of the study of reading comprehension and writing style using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media.

ESL0115
0 Credits
Guided Research V
A continuation of ESL0112 Guided Research IV in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

ESL0116
0 Credits
Speaking and Structural Practice VI
This course continues the grammar study begun in ESL0101 Speaking and Structure Practice and continued in ESL0104, ESL0107, ESL0110 and ESL0113 Speaking and Structural Practice II, III, IV and V via dynamic learning activities and learning exercises to improve a student's ability to communicate orally in English.

ESL0117
0 Credits
Reading and Writing VI
A continuation of ESL0114 Reading and Writing V consisting of the study of reading comprehension and writing style using a wide variety of topics and themes. Materials include textbooks, short stories, newspapers and other print media.

ESL0118
0 Credits
Guided Research VI
A continuation of ESL0115 Guided Research V in terms of the study of research and information literacy, including thesis statements, outline writing and research paper writing.

ESL0120
0 Credits
U.S. Business ESL — Writing/Grammar
Advanced-level ESL writing and grammar with a focus on U.S. business. Materials include textbooks, newspaper articles, case studies and multimedia tools.

ESL0121
0 Credits
U.S. Business ESL — Listening
Advanced-level ESL listening with a focus on U.S. business via dynamic learning activities and listening exercises.

ESL0122
0 Credits
U.S. Business ESL — Speaking
Advanced-level ESL speaking and pronunciation with a focus on U.S. business via dynamic learning exercises to improve a student's ability to communicate orally in English.

ESL0123
0 Credits
U.S. History ESL — Writing/Grammar
Intermediate-level ESL writing and grammar with a focus on U.S. history. Materials include textbooks, newspaper articles, case studies and multimedia tools.
English Writing • Environmental Science

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ESL0124
0 Credits
**U.S. History ESL — Listening**
Intermediate-level ESL listening with a focus on U.S. history via dynamic learning activities and listening exercises.

ESL0125
0 Credits
**U.S. History ESL — Speaking**
Intermediate-level ESL speaking and pronunciation with a focus on U.S. history via dynamic learning exercises to improve a student's ability to communicate orally in English.

ESL0126
0 Credits
**U.S. Culture ESL — Writing/Grammar**
Beginner-level ESL writing and grammar with a focus on U.S. culture. Materials include textbooks, newspaper articles, case studies and multimedia tools.

ESL0127
0 Credits
**U.S. Culture ESL — Listening**
Beginner-level ESL listening with a focus on U.S. culture via dynamic learning activities and listening exercises.

ESL0128
0 Credits
**U.S. Culture ESL — Speaking**
Beginner-level ESL speaking and pronunciation with a focus on U.S. culture via dynamic learning exercises to improve a student's ability to communicate orally in English.

ESL0129
0 Credits
**American Film and Culture ESL — Writing/Grammar**
ESL writing and grammar with a focus on American culture through the use of films linked to American history and American cultural icons. Films include “Some Like It Hot,” “Shane,” “The Best Years of Our Lives” and “In the Heat of the Night.”

ESL0132
0 Credits
**TOEFL ESL — Writing/Grammar**
ESL writing and grammar with a focus on TOEFL reading comprehension, vocabulary and composition.

ESL0133
0 Credits
**TOEFL ESL — Listening**
ESL listening with a focus on TOEFL via dynamic learning activities and listening exercises.

ESL0134
0 Credits
**TOEFL ESL — Speaking**
ESL speaking and pronunciation with a focus on TOEFL via dynamic learning activities and listening exercises.

ESL0135
0 Credits
**Short Stories and Songs ESL — Writing/Grammar**
ESL writing and grammar with a focus on American short story writers such as O. Henry, Nathaniel Hawthorne, Edgar Allan Poe, Mark Twain, Maya Angelou, Sandra Cisneros and others. Students also will work with lyrics of contemporary songs.

ESL0136
0 Credits
**Short Stories and Songs ESL — Listening**
ESL listening with a focus on American short story writers such as O. Henry, Nathaniel Hawthorne, Edgar Allan Poe, Mark Twain, Maya Angelou, Sandra Cisneros and others. Students also will work with lyrics of contemporary songs.

ESL0137
0 Credits
**Short Stories and Songs ESL — Speaking**
ESL speaking and pronunciation with a focus on American short story writers such as O. Henry, Nathaniel Hawthorne, Edgar Allan Poe, Mark Twain, Maya Angelou, Sandra Cisneros and others. Students also will work with lyrics of contemporary songs.

ESL0140
0 Credits
**Conversation in English**
Students will demonstrate the ability to read and speak English appropriately so they can serve as language and literary models for their community. Students will participate actively in responding to topics introduced during classroom discussions.

ESL1301
3 Credits
**Effective Business Communication**
This course uses a workshop approach to focus on clear and concise writing, vocabulary and oral communication for international students looking to do business with multinational organizations. The course will introduce the basics of good business writing, including papers using the APA format, documenting sources and internet usage, as well as the culture and etiquette of business. (Equivalent to HRTM1301 Effective Business Communication.)

Fall, Spring

English Writing

ENGW3006
3 Credits
**Persuasive Writing**
Analysis of and practice in forms of persuasive writing; study of major rhetorical theories as they relate to public relations, advertising, proposals and position papers.

Environmental Science

ENVR1104
3 Credits
**Principles of Physical Geography**
This course studies the major elements of the natural environment and their interrelation. The principles and processes essential to the understanding of the natural environmental system and their significance are stressed. The elements studied include: atmosphere, weather and climate, continents, landforms, river systems, ocean currents and tides, soils, vegetation, animal and marine life. Non-laboratory science only.

ENVR3001
3 Credits
**Principles of Energy**
An introduction to the production of conventional and alternative energy resources. Topics include renewable energy resources (solar, wind, hydro, biomass, geothermal); passive and active solar-energy building designs; and home-energy efficiency, nuclear power and fossil fuels (coal, oil and natural gas). Modern approaches to energy efficiency and electricity production and storage (e.g., hydrogen fuel cells) and the effects of energy use on the environment will also be examined.
Course Descriptions

Finance • Fine Arts

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

Finance

FIN2201
3 Credits
Business Finance I
Financial management, funding, assets and liabilities, financial analysis and planning, financial services, budgeting, capital and other relevant topics will be covered.

FIN2202
3 Credits
Business Finance II
Principles of valuation; capital budgeting, risk analysis, dividend policy, corporate mergers and other reorganizations; and securities, managing working capital, capital structuring, analysis of financial statements and related topics. Prerequisite: FIN2201 Business Finance I.

FIN2203
3 Credits
Personal Finance
Efficient management of personal and family finances; family financial planning; tax, insurance, mortgage and investment issues; protection of assets and credit management; and retirement and estate planning.

FIN2211
3 Credits
Real Estate Finance and Investments
The course is designed to be authoritative, rigorous and trustworthy, making it a classic in the field. It will provide students with the tools they need to understand and analyze real estate markets and the investment alternatives available to both debt and equity investors.

Fine Arts

ART1061
2 or 3 Credits
Cultural Arts
Studies in the fine arts, complemented by visits to the theater, opera, ballet and art museums.
Fall, Spring

ART1062
3 Credits
Latino Cultural Arts
This course is an overview of the cultural and artistic contributions of the Latin-American countries. Topics include art from the Mesoamerica, Inca, Mayan and Aztec civilizations; colonial-era and social revolution art; modern surrealism; and national symbolism.

ART1071
2 or 3 Credits
Film and Society
The film from the earliest years to the present, as a reflection of the social, political and psycho-logical ideas defining the modern world; the film as an art form.
Fall, Spring

ART1110
3 Credits
New York Art World
This course acquaints students with the unique stimulus that only firsthand encounters with actual art objects can provide. It includes extensive field-trip experiences to New York City museums and galleries.

ART2071
3 Credits
Films of John Ford and the American Landscape
The films of John Ford with emphasis on his vision of the American frontier and the American personality; the director as artist; screening and discussion of “Grapes of Wrath,” “My Darling Clementine,” “Fort Apache,” “The Searchers” and others.
Fall, Spring, Summer

ART2075
3 Credits
Approach to Latin-American Art
This course will provide students with an understanding of Latin-American artistic movements, the history of major tendencies in Latin-American art and its relationship to Latin-American political and social structures.

ART2081
3 Credits
History on Film
Historical events and personalities as seen through the filter of the film industry; issues of historical accuracy and artistic license; political, social and cultural factors; films include both current and past productions. The course may be repeated for credit. (Equivalent to HUMN2081 History on Film.)
Fall, Spring, Summer

ART2082
3 Credits
Shakespeare on Film
Shakespeare’s plays as rendered on film by the British and American film industries; films with Olivier, Welles, Branagh, Brando, Gielgud, Richardson and Cugney, among others, screened and discussed.
Fall, Spring, Summer

ART2083
3 Credits
Crime Literature and Film
Fall, Spring, Summer

ART2085
3 Credits
Cinematic History: Films of the 1950s
Cinematic experiences, historical perspectives and movie techniques are examined in the decade encompassing discovery of the art of moving pictures. The films of the period will cover the actors of the decade, the films and topics that were relevant to the time period, the directors and their message, societal moods and ideologies, as well as the “movie houses” that presented these timeless classics.

ART2091
3 Credits
American Cinema/American Culture
This course offers a cultural examination of the American moviemaking industry, with particular attention to the economic and aesthetic institution of Hollywood. It covers the birth of American cinema as it was known then and as it is known today. Movies, which include all aspects of the “creation process,” are examined and are related to culture in the 20th and 21st centuries.

ART2211
3 Credits
History of Photography from Daguerreotype to Digital
This course follows the history of the early pioneers of photography and traces the technical advancements up to and including modern digital imaging. In addition to the historical aspect of the photographic medium, the course will also cover the basic elements of design, composition and camera manipulation that go into the creation of a good photographic image.

ART2411
3 Credits
Art History: Renaissance to Contemporary
In order to help students gain a greater appreciation and understanding of art from the Renaissance up to today, this course will consider how artists of the past (and present) viewed the world and communicated their visions. Students will learn to critically describe and analyze visual objects using art-historical vocabulary and methodologies. Students will utilize a variety of online media resources and gain significant experience in improving their writing through peer and instructor feedback.

ART2555
3 Credits
Inside the Art Market
Large fortunes have been made buying and selling artwork. Increasingly, the wealthiest person from every country diversify their portfolios by investing in art (alongside more conventional investments in stocks, bonds, real estate, etc.). One would expect old art, accepted by histori-
ans, to be the most lucrative but, surprisingly, contemporary art (produced after World War II) is the most expensive and sought-after segment of the art marketplace. This course examines how the art world operates — how art is produced, branded, collected, valued, and sold on the international market. (Equivalent to BUSI2535 Inside the Art Market.)

**ART2650**
3 Credits
**Cinematic History: Films of the 1930s**
Cinematic experiences, historical perspectives and movie techniques are examined in the decade encompassing discovery of the art of moving pictures. The films of the period will cover the actors of the decade, the films and topics that were relevant to the time period, the directors and their messages, societal moods and ideologies, as well as the “movie houses” that presented these timeless classics.

**ART2655**
3 Credits
**Cinematic History: Films of the New Millennium**
Cinematic experiences, current perspectives and movie techniques are examined as today’s filmmakers mold and shape the vision for societal views of the present. The films of the period will cover the actors of the time, the films and topics that are relevant to the time period known as the New Millennium. Directors and their messages, as well as current societal moods and ideologies, will be examined and discussed.

## History

**HIST1123**
3 Credits
**Business History**
The evolution of business institutions from the period of the ancient Greeks to present multinational corporations; topics include medieval concepts, the Protestant ethic, capitalism, the age of business expansionism and the advent of the big firm of modern business.

**Spring**

**HIST2115**
3 Credits
**The Revolutionary Nation: U.S. History I**
The history of the United States can be classified and described as a record of numerous upheavals and revolutions in ideals and actions. The purpose of the course will be to examine American history in this manner. The course can be described as a thematic survey of American history. While all major events and people throughout the first half of America’s past will be addressed, there will also be a consistent overall theme of revolution and social upheaval that will be discussed and debated in detail. Thus, students will gain a better understanding of America’s past as not merely a chronological chain of events, but as a malleable and active discussion on change and progress.

**HIST2116**
3 Credits
**The Revolutionary Nation: U.S. History II**
This course is the second part of a two-semester sequence that examines American history from the perspective of its numerous upheavals and revolutions in ideals and actions. Students will gain a better understanding of America’s past, not merely as a chronological chain of events, but as a malleable and active discussion on change and progress beginning with the Gilded Age and ending with the current day. Prerequisite: HIST2115 The Revolutionary Nation: U.S. History I.

**HIST2118**
3 Credits
**Ethical Issues in History**
Examines critical ethical debates that have shaped the American mind for more than 200 years. Ethical debates occur in historical places and contexts and have changed American conception of ethics and morality. Issues may include religious tolerance, slavery and anti-slavery, civil rights, feminism, privacy, labor and capital multiculturalism.

**HIST2231**
3 Credits
**The Heritage of the Past I**
Basic topics of Western civilization, origin of the universe and man, dynamics of civilization, the ancient Middle East, Greco-Roman civilization, the development of Christianity and the Middle Ages.

**Fall**

**HIST2232**
3 Credits
**The Heritage of the Past II**
Basic topics in Western civilization, the Renaissance, Reformation, the Enlightenment, the French Revolution and the Age of Napoleon, 19th-century national and ideological revolutions, the Industrial Revolution and the roots of the 20th century. Prerequisite: HIST2231 The Heritage of the Past I.

**Spring**

**HIST2233**
3 Credits
**The Modern World**
World history from 1848 to the present day. Topics include imperialism, World War I, the emergence of totalitarian systems, World War II, the Cold War, postwar decolonization and the challenges of our time.

**Fall, Spring**

**HIST2282**
3 Credits
**Government and the Individual**
The nature and functions of government; the Constitutional framework; Federalism; civil rights; public opinion and public information; interest groups and political pressures; campaigns, voting and elections; bureaucracy; the courts, the president and Congress.

**Intersession**

**HIST2285**
3 Credits
**New Jersey History**
In this course, students will study New Jersey both chronologically and thematically from an interdisciplinary viewpoint. The themes — geography, industrialization and farming, population and immigration, transportation — will help students list important concepts regarding New Jersey, which the chronology will anchor the course into a historical timeline. The course also will present an accurate, comprehensive profile of the state of New Jersey and its identity, leaving students with a better understanding of and appreciation for the Garden State.

**HIST2292**
3 Credits
**Asian Cultural History**
Basic historical eras of China, India and Japan from ancient times to the 19th century; their influence on contemporary Eastern civilization.

**Intersession**

**HIST2297**
3 Credits
**History of Science and Technology**
The history of science and technology from premodern times to their preeminence in the 20th century; concentration on important developments: harnessing of energy sources, mechanical devices, use of natural resources, increases in scientific knowledge and methodology, development of modern medical practices, etc.

**Fall, Spring, Summer**

**HIST2391**
3 Credits
**Political History of Latin America I**
Spanish conquest, colonial and early national periods of selected Latin-American countries with emphasis on social, economic and political development.

**HIST2392**
3 Credits
**Political History of Latin America II**
Main political, economic and social events of Latin America during the 20th and 21st centuries as well as sector analysis such as demography, environment, poverty, public debt, ideologies and social movements. Specific countries will be used as case studies.
Course Descriptions

Honors • Hotel and Restaurant Management

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

HIST2852
3 Credits
Modern Cultural History
A presentation and analysis of Western cultural concepts, trends and issues and their relationship to and effect upon political and economic developments. This concentration will develop, in depth, culture and ideology in relation to modern society.

HIST2853
3 Credits
The Political Vision of Abraham Lincoln
An examination of Abraham Lincoln’s views on the American experiment; his understanding of the dynamics of politics; his positions on major issues; his political campaigns; his creative use of language to define America and American values; his legacy and importance today.

HIST4562
3 Credits
Leadership of the Founding Fathers
This course will examine 10 of the nation’s founding fathers — their lives, their roles in the development of the early government and the impact their individual leadership still has on the United States today. (Equivalent to PADM4562 Leadership of the Founding Fathers.)

Honors

HON2251
3 Credits
Honors Seminar
An interdisciplinary seminar that focuses on a single topic or theme, examining it from a variety of academic perspectives, including literature, philosophy, psychology, history, economics, fine arts and science. Special features include guest lectures, panel discussions, field trips, independent study and films. Spring

Hotel and Restaurant Management

International School of Hospitality and Tourism Management

Core Courses

HRTM2210
3 Credits
Sales and Marketing for Hospitality Managers
This course provides hospitality students with an understanding of marketing plans, market segmentation, positioning, sales strategies, consumer behavior, advertising and promotion, pricing theory and group sales as they apply to the hospitality industry.

HRTM2211
3 Credits
Accounting for Hospitality Managers
This course emphasizes specific accounting information and procedures needed by hospitality students to become productive managers. Topics include Uniform System of Accounts, budgeting, cost behavior and standard costs as related to various areas of the industry. Prerequisite: ACCT2021 Introductory Financial Accounting.

HRTM2223
3 Credits
Quantity Food Production
Management of volume food production in catering, health care, institutional, commissary and airline applications. Menu and production planning and organization, control, analysis and performance improvement are emphasized.

HRTM2225
3 Credits
Sustainability and Ecotourism
This course will introduce tenets of sustainability and how environmental organizations, local communities, businesses and governments can work together to benefit from natural resources while preserving them. The concept and origins of ecotourism will be critically examined. Ecotourism as a source of foreign exchange will be explored and how tourism businesses can benefit from sustainable tourism development.

HRTM3108
3 Credits
Nutrition, Sanitation and Food Safety
This course is designed to provide students with the basic food-service knowledge needed to supervise staff in this segment of the hospitality industry. Students gain an understanding of food-borne illness and prevention of it. Additional topics covered include: food spoilage, storage, transportation, government regulations and sanitation codes. This course will also focus on basic nutrition information necessary for the food-service professional in any environment. What are the legal and ethical responsibilities to guests?

HRTM3208
3 Credits
Financial Management in the Hospitality Industry
Quantitative techniques of control and analysis, including computer applications in all aspects of the hospitality industry are studied. Such diverse areas as inventory, restaurant and retail point-of-sale, rooms marketing and cash management are included in a comprehensive study of the concepts, strategies, processes, hardware and software by which operational performance is improved.

HRTM5209
3 Credits
Human Resource Management
A comprehensive approach to the management of human resources and supervision in hospitality organizations. The course includes techniques of labor planning, job specifying, scheduling, dealing with organized labor, training, supervising, motivating and improving productivity.

Hotels Operations Tactics and Strategy

HRTM4109
3 Credits
Hospitality Operations Tactics and Strategy
The objective of this assimilative course is to provide juniors and seniors with a reflective and action-oriented experience in the hospitality/strategic-management process. In addition to traditional classroom activities, students will work with a virtual learning technology known as HOTs (Hotel Operations Tactics and Strategy). It is a unique tool for management training and development which is currently utilized by many major hospitality corporations. Students will simulate the operation of a full-service hotel in a variety of competitive environments. Through the simulation of realistic business situations, HOTs provides learning with an opportunity to analyze the cause and effect of decisions in the areas of business planning, operations, finance and revenue management, cost control, sales and marketing, customer service and human resources.

HRTM4114
3 Credits
Research in Ethical Management
This research-based course will focus on managing in the hospitality and tourism fields in an ethical manner. The course will begin with the fundamentals of research writing and the peer-review process. Several experts have been enlisted to create an exceptional learning experience in topical areas for students about to embark on their hospitality careers. For hotel and restaurant majors or permission of the instructor.

HRTM4204
3 Credits
Property Management
Hospitality facilities and systems are studied, stressing the roles of the manager in designing, maintaining and troubleshooting the operations. Competencies are developed in organization of property management records and routines; protection of public and employee comfort, health and safety; conservation of physical assets; productivity standards; training; specific building facilities; land-use planning; and engineering utility systems.

390
Professional Development Series

HRTM101
1 Credit

Work Term Experience I
This summer work experience is the first of three and represents 400 of the 1,200 hours of approved fieldwork experience in the hospitality industry.

HRTM1100
1 Credit

Professional Development Sequence (PDS) Work Experience 1
The Professional Development Sequence (PDS) Work Experience 1 is an introductory, one-credit work experience course designed to provide students with the opportunity to apply theoretical, classroom course work to “real-life” hospitality employment. Regardless of whether students have worked previously in the industry or they are embarking on their first job, this experience requires them to complete 400 hours of employment and is typically completed during the summer. Students choose their own place of employment after being prepared during the spring-semester PDS class to construct a résumé, explore and develop interpersonal skills and practice interview techniques.

HRTM1101
1 Credit

career Orientation and Professional Development
Provides an overview of various hospitality management career areas, defines professionalism and investigates each student’s specific interests in relation to these areas. This course includes a lab experience.

HRTM1102
1 Credit

Professional Skill Development
Students develop job-acquisition, problem-solving, interpersonal, stress and time-management skills and prepare for a monitored work experience, generally in the following summer (400 hours). This course includes a lab experience.

HRTM2011
1 Credit

Work Term Experience II
This summer work experience is the second of three and represents 400 of the 1,200 hours of approved fieldwork experience in the hospitality industry.

HRTM2100
1 Credit

Professional Development Sequence (PDS) Work Experience 2
The Professional Development Sequence (PDS) Work Experience 2 is an intermediate, one-credit work experience course designed to build on students’ previous work experiences and accumulating hospitality-related course work. Students will complete the same model of 400 hours of employment at locations of their choosing, with an emphasis placed on not necessarily returning to both the previous employers and position. Instead, at this level, students are asked to seek positions that require them to move toward managerial responsibilities. Students are asked to examine the management and leadership styles demonstrated by employers and compare and contrast some of the theoretical models of management and leadership that were introduced in the classroom. Students prepare for this experience by undertaking PDS classes in both the fall and spring semesters, which focus on leadership and legal issues relative to the hospitality industry.

HRTM2103
2 Credits

Management Values and Professional Standards
Focuses on management and attitudes consistent with professional standards and the manager’s role in the business and community. This course includes a lab experience.

HRTM2104
2 Credits

The Hospitality Manager and Law
Students examine various legal considerations in a professional hospitality management environment and prepare for a monitored work experience, generally in the following summer (400 hours). This course includes a lab experience.

HRTM2500
0 Credits

Professional Development Sequence (PDS) Lab
Provides specific time slots for Professional Development Sequence (PDS) activities concurrent with formal classes. Students may register for this class multiple times throughout their education at FDU. Corequisites: HRTM1101 Career Orientation and Professional Development, HRTM1102 Professional Skill Development, HRTM2103 Management Values and Professional Standards, HRTM2104 The Hospitality Manager and Law, HRTM3105 Managerial Challenges in the Workplace, HRTM3106 The Manager and the Group: Work Experience, HRTM4107 Concepts in Transportation and Travel and HRTM4108 Global Issues in Hospitality Management.

HRTM3011
1 Credit

Work Term Experience III
This summer work experience is the last of three and represents 400 of the 1,200 hours of approved fieldwork experience in the hospitality industry.

HRTM3100
1 Credit

Professional Development Sequence (PDS) Work Experience 3
The Professional Development Sequence (PDS) Work Experience 3 is an advanced, one-credit work experience course also designed to build on students’ previous work experiences and accumulating hospitality-related course work. Students will complete the same model of 400 hours of employment at locations of their choosing, with an emphasis placed on not necessarily returning to both the previous employers and position. At this level, students are fully immersed in hospitality course work, and are beginning to consider their specific area of career interests as they begin their transition toward graduation or graduate school. The students’ interpersonal skills have been refined and course work has become more sophisticated, preparing them to think about advanced issues such as total quality management (TQM), cultural diversity in the workplace, leadership paradigms, etc. Students prepare for this experience by undertaking PDS classes in both the fall and spring semesters, which focus on business issues relative to the hospitality industry.

HRTM3101
2 Credits

Professional Development Sequence (PDS) Work Experience in China
This two-credit, work-experience course is designed to build on students’ previous work experience and accumulating hospitality-based course work. Students will complete 800 hours of employment with the Intercontinental Hotel in Chengdu, China.

HRTM3105
1 Credit

Managerial Challenges in the Workplace
Focuses on professionalism applied to the workplace, emphasizing contemporary issues, challenges and opportunities. This course includes a lab experience.

HRTM3106
1 Credit

The Manager and the Group: Work Experience
Focuses on professionalism with an emphasis on leadership development and preparation for a monitored work experience, generally in the following summer (400 hours). This course includes a lab experience.
Course Descriptions

Hotel and Restaurant Management

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

HRTM253 3 Credits
*Guest Service Strategies*
This course examines the role and responsibilities of hospitality employees in creating and sustaining quality guest relationships. Commonly used customer relationship management (CRM) software utilized in the industry will be taught as will specific guest-relations strategies.

HRTM4107 2 Credits
*Concepts in Transportation and Travel*
Various modes of transportation are studied with specific emphasis on their impact on travel and hospitality. Transportation and travel and their interactions with the hospitality industry are studied as models of the manager's role and responsibilities in a highly regulated society. This course includes a lab experience.

HRTM4108 2 Credits
*Global Issues in Hospitality Management*
Management approaches, techniques and strategies as practiced in the United States in specific hospitality areas such as human resources, systems organization and planning, control and analysis are examined and contrasted with their counterparts abroad. The course requires participation in class sessions and conferences abroad for which there is a surcharge. This course includes a lab experience.

HRTM4112 3 Credits
*Hospitality in China*
This course will examine the growth and context of hospitality, particularly restaurants and hotels in China. General concepts, techniques and strategies in the organization and management of operations such as business systems, standards, controls, marketing and product delivery will be explored. Emphasis is on quality assurance, customer satisfaction and process improvement.

HRTM4200 2 Credits
*International Cultural Seminar*
This course will explore intercultural communication and how cultural differences between selected countries in the European Union and the United States impact the hospitality and tourism industry relative to individual, team and organizational performance. Students are required to research and deliver a comprehensive term project on the role of intercultural communication in the United States including the influence of stereotyping, demography and globalization.

Casino and Gaming Management

HRTM2250 3 Credits
*Casino Management*
This course analyzes casino and gaming management as a discipline and introduces students to a more traditional theoretical approach of strategic market planning and then places the different aspects of casinos within that framework. Students will study the history of gaming and gaming development, casino organization and operation, the mathematics of casino games and casino management, as part of the broader study of hospitality management. This course first explores the casino's external environments and external environment influences and their impact on the consumers and the competition. The course then moves to the internal control factors of product, price, place and promotions, and concludes with a discussion of the future of gaming.

HRTM4232 3 Credits
*Mathematics of Casino Games*
This course will introduce the mathematical and logical framework of the casino operation. Skills will be developed to conduct analysis such as the techniques and methods utilized in computing the probabilities, expected outcomes and house percentages of casino games. Students will learn to compare and contrast casino game rules and payoff odds. Students will relate the casino operations' mathematics to the overall profitability of the casino and generate strategies to increase gaming revenue.

HRTM4238 3 Credits
*Gaming Regulations and Control*
The course will examine various forms of casino gaming and the political/economic background of casino gaming and the effects of casino gaming on communities, lifestyles and value systems. The course explores gaming regulations and controls in the global marketplace. Students will compare, contrast and analyze gaming jurisdiction regulations and rules to determine the political, cultural and societal impact of casino gaming. Students will be exposed to the historical, legal and regulatory environment of casino gaming.

Food-service Management

HRTM2212 3 Credits
*Dining Service and Etiquette*
This course familiarizes students with service and dining skills needed in a dining room and in other hospitality sites. Areas covered include service techniques for food and beverage, including French, Russian, Butler and American. Also what should a server know and what should a diner expect? Topics included are table setting, personal dining etiquette and business social skills. *Fall, Spring*

HRTM2230 3 Credits
*Introduction to the Study of Wine*
This course provides an overview of various topics related to wine. These include: history, production, service and distribution. Open to nonhospitality majors.

HRTM2235 3 Credits
*Nutrition for Hospitality Managers*
Provides an overview of nutrition principles for hospitality managers and other individuals working in a service environment. *Fall, Spring*

HRTM2260 3 Credits
*Events Planning*
A systematic approach to the process of planning and executing a corporate or social event in a hotel environment. It includes a comprehensive understanding of the event from point of sale through its conclusion.

HRTM3203 3 Credits
*Food and Beverage Management*
The course emphasizes the food and beverage concepts essential to all hospitality managers. Areas such as menu planning, beverage operations, food-production systems, food-service and delivery systems are studied. Prerequisites: HRTM221 Accounting for Hospitality Managers and MIS1135 Introduction to Computers
or MIS1045 Information Technology for Business.

**HRTM3206**
3 Credits
**Spirits and Beverage Management**
This course is intended to provide students with product knowledge on alcoholic beverages. The course will also provide current information regarding management skills required of a bar/beverage manager.

**Lodging Management**

**HRTM1301**
3 Credits
**Effective Business Communication**
This course uses a workshop approach to focus on clear and concise writing, vocabulary, and oral communication for international students looking to do business with multinational organizations. The course will introduce the basics of good business writing, including papers using the APA format, documenting sources and internet usage, as well as the culture and etiquette of business. (Equivalent to ESL1301 Effective Business Communication.)
Fall, Spring

**HRTM2209**
3 Credits
**Conflict Resolution and Collaborative Negotiation**
This experiential course helps participants develop skills in collaborative negotiation and conflict resolution in hospitality settings. The course considers how differences such as world view, class, power, culture, race and gender can affect the conflict resolution and negotiation process.

**HRTM2213**
3 Credits
**International Human Resources**
This course discusses expatriate behavior, culture of the host countries and repatriation to parent countries and provides a global experience for the student considering accepting an assignment with a multinational corporation.
Fall, Spring

**HRTM2221**
3 Credits
**Rooms Division Management**
Front-office relations to other departments, functions of the front office, sales and marketing in the front office, reservations, the guest cycle and reports and statistics unique to the front office. Discussion of the functions of housekeeping, the responsibilities of the housekeeper and manager, systems for cleaning rooms and public areas and housekeeping relations with other departments.

**HRTM2224**
3 Credits
**The Professional Meeting Market**
This survey course provides a comprehensive overview of the meeting-planning business, including the corporate, incentive, association, convention and trade show areas. Topics cover program development and budgeting, negotiations and contractual issues, participant profiling, site selection, the planning process, menu planning, technology options, safety and security, cultural protocol of international meetings and the use of outside vendors. This course also looks at meeting planning through the eyes of the end-user as well as the supplier, their relationship to each other and the needs of each to quantify results and manage resources to ensure mutual success. Guest speakers, handouts and interactive discussions of current meeting trends provide each student with an understanding of meeting planning as a business as well as a possible career choice.
Spring

**HRTM2236**
3 Credits
**Cultural Tourism of Latin America and Cuba**
This course will explore the region of Latin America with a focus on Cuba, in the role that cultural tourism plays as a pathway for foreign recreation, local entrepreneurship and political stability. The class will analyze the encounter of foreign visitors with local populations, ecology and the cultural imaginaries and identities born of those interactions. Specifically, this course examines the way in which culture is crafted, performed and marketed to visitors in keeping with (and, at times, in opposition to) their own culturally shaped notions of authenticity, purity, preservation and desire. It will also question the reliance of particular modes of cultural and recreational tourism (including architectural, music and dance tourism and sex tourism) as viable/ethical forms of sustainable development. Finally, students will reflect on tourism’s conflicting role as a force for political and economic advancement on the one hand and retrogression on the other (or both).

**HRTM5004**
3 Credits
**Introduction to Franchising**
Franchising in the hospitality industry is designed to provide students with an understanding and appreciation of the role that franchising plays in the hospitality industry. The course will review the franchising model from the perspective of both the franchisor and franchisee, highlighting the importance of the symbiotic relationship. Focus will be placed on the selection process, the contract process and the roles and responsibilities of each of the parties in the relationship. On a macro level, the impact of franchising on the overall economy also will be discussed.

**HRTM5207**
3 Credits
**Lodging Operations and Revenue Management**
Techniques and strategies in the organization and management of hospitality systems such as business, finance, marketing, reservations, food service, guest service, supply and control are studied. The course emphasizes quality assurance, guest satisfaction and process improvement.

**HRTM324**
3 Credits
**Social Media in the Hospitality Industry**
This course is designed to teach students the conceptual foundation and practical techniques necessary for creating a comprehensive and effective social media marketing plan after a detailed study of the social media marketing, goals and strategies. In addition, extensive consideration will be given to monitoring and measuring the progress made in reaching social media goals. The most useful quantitative and qualitative social media measurements are introduced and explained in detail.

**HRTM3250**
3 Credits
**Club Management**
This course introduces the hospitality student to the unique world of private club management. Emphasis is given to the analysis of skills required in managing different club operational areas such as human resources, food and beverage, information systems and excellence in service.
Fall, Spring

**HRTM3252**
3 Credits
**Spanish for Hospitality Managers — Study Abroad**
This course provides hospitality students an opportunity to enhance their Spanish language skills. Classes will be held in a practical setting with major emphasis on learning terms and Spanish jargon utilized in hospitality businesses and necessary for the interaction with Spanish-speaking employees. Prerequisites: SPAN2103, SPAN2104 Intermediate Spanish I and II.
Spring

**HRTM3555**
3 Credits
**Meeting and Conference Planning Management**
This course provides an overview of the meeting and conference planning segments of the hospitality industry. Specific emphasis is placed on the selling, planning, organizing and operating of meeting and conference facilities from a management perspective.
HRTM4101
3 Credits
Sustainable Tourism Development
The course will examine the role international organizations such as the International Monetary Fund (IMF) and the World Bank play in the development of tourism in developing countries as a source of foreign exchange. The impact of mass tourism in a sustainable manner will also be studied. A trip to Costa Rica will introduce a model for sustainable tourism development in action.

HRTM4110
3 Credits
New Venture Management in the Hospitality Industry
The course is designed to encourage students to net upon their entrepreneurial ideas in the hospitality business. The course will teach the fundamental concepts of how to start and run a successful hospitality business. Individuals/learners will develop an understanding of business plans, budget analysis, legal review and how to evaluate new ventures. Prerequisites: Hospitality Core Courses.

HRTM4111
3 Credits
Global Issues and Tourism
This course will examine the impact of globalization on the practice of tourism and its development. The impact globalization has on human resources, the sustainability of tourism development, the utilization of technology for tourism operations and the impact on the environment.

HRTM4112
3 Credits
Topics in Quality and Revenue Management
This course explores the theories and best practices in quality and revenue management with an emphasis on Cendant Hotel Division constructs. Students will be exposed to guest speakers and panel discussions featuring subject-matter experts from across the span of Cendant Hotel Division. Revenue management is a vital process and it often determines the success or failure of a hospitality/service enterprise. Cendant Hotel Division revenue management schema will be identified. Students will gain a practical understanding of pricing/capacity utilization and RevPar optimization. Market-performance measurement tools such as the STAR and Host reports will be reviewed and linked to Cendant Hotel Division contexts. Total quality management and continuous improvement are essential ingredients in successful hospitality enterprises. To this extent, the course will examine theories and applications across the contexts and brands of Cendant Hotel Division.

HRTM4113
3 Credits
Topics in Diversity
This course explores the theories and best practices in diversity management with an emphasis on Cendant Hotel Division constructs. Students will be exposed to guest speakers and panel discussions featuring subject-matter experts from across the span of Cendant Hotel Division. For Cendant employees only.

HRTM4227
3 Credits
Seminar in Lodging Management
Current issues in lodging management are examined.

HUMN2005
3 Credits
World Food and Culture
This course is a study of international foods and cultures and their influence in the humanities and social sciences. Through the use of text, research articles, films and various media, students will examine food patterns of the world from a cultural, geographical, anthropological and historical perspective as it relates to the evolution and advancement of the human condition.

HUMN2205
3 Credits
Sustainable Tourism Development
This course explores the theories and best practices in diversity management with an emphasis on Cendant Hotel Division constructs. Students will be exposed to guest speakers and panel discussions featuring subject-matter experts from across the span of Cendant Hotel Division. For Cendant employees only.

HUMN2211
3 Credits
Technology and Literature
The image of the scientist in literature: hero, villain and madman; the scientist/engineer as creative writer; scientific writing as objective and subjective expression.

HUMN2215
3 Credits
Understanding Human Diversity
Americans live in an increasingly diverse society within a global economy. Understanding and valuing the diversity of others will contribute to the student’s strategies for successfully dealing with diversity in personal and social contexts. The course will focus on issues of class, ethnicity and gender in a global society. Fall, Spring

HUMN2216
3 Credits
American Culture Through Film
An in-depth look at the images of social life and social relationships contained in popular movies. Film will be used to illuminate the contradictions among issues of social stratification (class, race, equality, wealth, gender, values, etc.) in our pursuit of the American dream. Fall, Spring

HUMN2221
3 Credits
The Travel Writer: From Herodotus to Theroux
Travel writing as unique literary expression; the travel writer as observer and cultural influence. Readings from historical sources and from more modern travelers such as Cooper, Twain, Orwell, Waugh, Hemingway and Steinbeck. Fall, Spring, Summer

HUMN2241
3 Credits
Greek Civilization
This course will explore the history and culture of Greece during the fifth century BC. Topics will include Greek constitutional history (especially the development of Greek democracy), the Persian Wars, the rise of the Athenian Empire and the Peloponnesian Wars.
HUMN2250  
3 Credits  
**History of Global Warfare**  
In this course students will examine the changing nature of war in western civilization and its relationship to the development of various cultures and societies. Rather than focus simply on winners and losers, the focus will be on the relationship between wars and the culture, laws, governments and societies of those involved and affected.

HUMN2252  
3 Credits  
**How Soccer Explains the World: Sports, Nationalism and Globalization in the Modern World**  
The global power of soccer might be a little hard for Americans — living in a country that often views the game with the same skepticism used for the metric system — to grasp fully. But in Europe, South America and elsewhere, soccer is not merely a pastime but often an expression of the social, economic, political and racial composition of the communities that host both the teams and their throngs of enthusiastic fans. Yet some say the United States is the most sports-crazy society in the world, with nearly every sport ever invented being played here. What do sports say about societies and cultures, about globalization? Soccer is not the only sport with such powerful impact in the modern world, and the class will explore others as well, especially baseball.

HUMN2281  
3 Credits  
**Christianity: Foundation and Early History**  
The course will trace the foundation of Christianity and its growth through the reign of Constantine (306–337 A.D.). Topics include origins of the religion within the Jewish tradition, the background of the Roman Empire, the early Christian/Pagan Dialogue and persecutions and its evolution into a state religion.

HUMN2510  
3 Credits  
**War on Film**  
War challenges the most fondly held convictions and beliefs and provides the setting and subject matter for an examination of the parameters of human behavior. The course will present a number of the best war films from different periods and different nations. Films discussed will include "All Quiet on the Western Front" (1930), "Sergeant York" (1941), "The Sands of Iwo Jima" (1949), "The Bridge on the River Kwai" (1957), "Paths of Glory" (1957), "Where Eagles Dare" (1968), "M*A*S*H" (1970), "Apocalypse Now" (1979), "Saving Private Ryan" (1998), "Three Kings" (1999), "Lord of War" (2005) and "The Hurt Locker" (2009).

HUMN2511  
3 Credits  
**Sports on Film**  
Sports, whether on an organized and professional level, the scholastic and intercollegiate levels, on a Little League field — or disorganized in a playground — has become the subject of cultural inquiry, exploration and criticism. Some of the more creative and interesting examinations of the meaning of sports in people's lives have been on film. Sports as a builder or revealer of character; sports as an obsession; sports as a metaphor for political, economic, ethnic and racial conflict or war itself; sports as an agent of corruption — all these aspects and more have provided subject matter for great sports films. This course will examine films like "Knute Rockne — All American" (1940), "The Pride of the Yankees" (1942), "Body and Soul" (1947), "Jim Thorpe — All American" (1951), "Brian's Song" (1971), "Rocky" (1976), "The Natural" (1984), "Hooisers" (1986), "A League of Their Own" (1992), "When We Were Kings" (1996), "Miracle" (2004), "Cinderella Man" (2005), "The Express" (2008) and others in light of these considerations.

HUMN2512  
3 Credits  
**Culture and Conflict in the Middle East**  
Cultural realities in the contemporary Middle East: religion, social, political and economic determinants in Middle Eastern culture; revolution and change; the Arab Spring, clash of cultures and sects; the Arab world and modernity.

HUMN3000  
3 Credits  
**Dealing with Diversity**  
This course will explore demographic stereotypes among various American cultural groups. Students will be challenged to think through the various definitions of feminism, race, multiculturalism, social class, gender issues and diversity from a cross-cultural perspective. The class also will reflect on the significance of these topics and how they have shaped the lives of today's American groups. Students will be challenged to think about their personal experiences in reference to course topics and gain a better understanding of self. Prerequisites: ENGL1101 English Composition I and ENGL1102 English Composition II. Only for University partnership students.

HUMN3002  
3 Credits  
**Table Talk: The Literature of Food**  
This course will examine the writings of various chefs, food-industry gurus and those whose lives have an effect on the restaurants, menus and food environs. The purpose is to reexamine what influenced these notable chefs and food-industry personnel as well as the outcomes of their journey in the food industry.

HUMN3004  
3 Credits  
**Table Talk: Literature of Food II**  
This course will examine the writings of various chefs, food-industry gurus and those whose lives have an effect on the restaurants, menus and food environs. The purpose is to examine what influenced these notable chefs and food-industry personnel as well as the outcomes of their journey in the food industry. Readings will vary. Course topics vary each offering; may be repeated for credit. Expands on topics found in HUMN3002 Table Talk: The Literature of Food.

HUMN3005  
3 Credits  
**The Collapse of Cities, Empires and Great Civilizations**  
From the destruction of Pompeii in 79 AD to hurricanes and tsunamis in the modern world, this course explores how environmental, economic and social disasters contribute to the decline of great civilizations. The class will investigate the choices that civilizations face when catastrophes strike, and how global communities have dealt with disasters to endure through the ages.

HUMN3008  
3 Credits  
**Prejudice, Bigotry and Hate**  
This course will examine the politics, religion, immigration, fear and individual experiences related to violence in America. It will include an opportunity to deepen the understanding of various individual beliefs. A history of hate leading to violence, to current activities of the Islamic State of Iraq (ISIL) will be researched and investigated. With a clear perspective of religion, immigration, politics and terrorism, an analysis will be conducted of the current threat of violence in America.

HUMN3030  
3 Credits  
**Life and Times of Outstanding Americans**  
This course will examine the roles of various individuals in American society, their contributions to history, culture and heritage. Such individuals include, but are not limited to, Susan B. Anthony, Margaret Mead, Louis Armstrong, Steve Jobs, Bill Gates, Oprah Winfrey and others.

HUMN3040  
3 Credits  
**Icons and Their Influence on Culture**  
This course will examine various icons and their effect on music, movies and popular culture in modern times. Singers such as Frank Sinatra and Judy Garland, actors such as John Wayne and Humphrey Bogart, musicians such as Duke Ellington and Louis Armstrong and others will be examined. Note: For adult learners (SUCCESS).
knowledge — what E.D. Hirsch has called upon which relationships and connections are necessary in the business world. It’s the foundation “cultural literacy” — is indeed essential to success. As anyone in business recognizes, shared learning process is enhanced by using spread-

HUMN3218
3 Credits
Current Ethical Issues
This course will address a diverse array of ethical and moral issues in today’s society. The class will discuss contemporary readings and current media. Practical application will involve group projects and review of current literature. For adult learners.

HUMN3221
3 Credits
Coming of Age in America
This course is a sociocultural examination of the teenager as expressed in American film. The course follows the development of the concept of teenagers in American society over the past five decades in order to gain an understanding of the role of teenagers in influencing and directing social change.

HUMN3224
3 Credits
Literature and Pop Culture
This course will utilize contemporary readings that reflect the various genre of the time. Students will engage in participatory activities focused on the selected readings. The class will explore American literature of the new millennium in an effort to “take the pulse” of what’s going on in the most contemporary literature. Readings will vary. Prerequisite: ENGL1101 English Composition I.

HUMN3225
3 Credits
Literature and Pop Culture II
This course will utilize contemporary readings that reflect the various genre of the time. Students will engage in participatory activities focused on the selected readings. The class will explore American literature of the new millennium in an effort to “take the pulse” of what’s going on in the most contemporary literature. Readings will vary. Course topics vary each offering; may be repeated for credit.

HUMN3310
3 Credits
Cross-cultural Literacy
As anyone in business recognizes, shared knowledge — what E.D. Hirsch has called “cultural literacy” — is indeed essential to success in the business world. It’s the foundation upon which relationships and connections are built. It’s the foundation upon which people communicate with each other — not only in the business world but in all of their daily interactions. The goal of this course is to provide a foundation in “cultural literacy” or, as Hirsch’s well-known Dictionary of Cultural Literacy suggests, “What every American needs to know.” At the same time, however, the class will interrogate what defines “cultural literacy.” In an America that is defined by diversity and in a world that is increasingly global, who decides what constitutes “cultural literacy?” And isn’t it really “cross-cultural literacy” that is called for in today’s world? If so, how should “cross-cultural literacy” be defined? This course will explore these questions and help build the class’s own Dictionary of Cultural Literacy.

HUMN3540
3 Credits
Portraits of Power: Leaders on Film

HUMN4210
3 Credits
Violence and Culture: World of Entertainment, Film, TV and Video Games
This is a thought-provoking look at the complexity and contradiction involved in violence within society through an examination of the impact of the film, television and video game industries on violence in society. This course will examine the industry — from cartoons to video games.

HUMN4590
3 Credits
Religion and Terrorism
Religion has a significant impact on cultures and even governments. Historically, there have been periods of time when religion has been the basis of conflict and wars. This course will investigate how religion has been linked to terrorism. (Equivalent to PADM4590 Religion and Terrorism.)

Information Systems

MIS2101
3 Credits
Management Information System
Course is an overview of information systems specifically addressing their management and the current technology. The evolving role of information systems and related technology within a business organization are studied. The learning process is enhanced by using spread-sheet and database management software on personal computers for business applications.

MIS2110
3 Credits
New Perspectives on the Internet
This course offers challenging projects and key reinforcement exercises. This is a “browser-generic” full-semester course on the internet that takes a step-by-step approach to basics through more advanced internet concepts. New interior design helps students easily identify the case and the steps necessary to complete the course effectively. It offers coverage of the different email packages including Netscape Messenger, Microsoft Outlook Express, Hotmail and Eudora. Designed for adult learners who want to get more “user friendly” with the internet.

MIS2121
3 Credits
Introduction to Adobe Photoshop®
The course covers the introductory to intermediate aspects of the powerful photo-restoration and creation software. This application is used in graphical and multimedia areas of print and video. The areas covered in the course include color techniques, working with layers, special effects and filters, creating web documents, manipulating colors and creating clipping groups. Hands-on laboratories offered online will be utilized to teach these techniques.

MIS2123
3 Credits
Office®: Introductory Concepts
This course offers a step-by-step approach to learning the fundamentals of Microsoft Office®. Contains 15 projects on computer concepts, Windows®, Word®, Excel®, Access®, PowerPoint, Outlook® and Office Integration®. Includes sufficient material for a first course on Office® applications. Projects and exercises take full advantage of the new features of Office®. Introduction to computer users section has been revised to start students with the most up-to-date introduction to computer concepts.

MIS2151
3 Credits
Introduction to Final Cut® Pro
This course is designed to work with the Apple system. Final Cut Pro® is the predominant video-editing system for professional editors. The software covers areas including video intake, video cutting, video effects, video compression and video output. The class will utilize labs and video-creation techniques used in the professional industry. Layering, cutting and color manipulation will be covered.

Fall, Spring
MIS2141  
3 Credits  
**Advanced Adobe Photoshop®**  
Advanced Adobe Photoshop® creative workshop not only shows the latest and more advanced features of the software, but it also gives the student practical applications of the features, including new creative options to produce the highest-quality image for print, the web and anywhere else. Prerequisite: MIS2121 Introduction to Adobe Photoshop®.

MIS2151  
3 Credits  
**Electronic Commerce and Beyond: Special Topics for a Global Marketplace**  
This course addresses the use of e-commerce technologies for competitive advantage within a global market economy. Emphasis is placed on the ramifications of the use of a business tool that does away with the old notions of time and space. Interaction of students with international companies and business professionals in other countries through the virtual environment will give them the advantage of a real-world view of a globally-connected economy and provide concrete examples of how business can take advantage of this web of connections for substantial growth, progress, success and profit. Topics to be discussed include e-commerce basics and components; e-commerce strategy; e-commerce web-presence development; online marketing; online security; online legalities.

Fall, Spring

MIS2161  
3 Credits  
**Introduction to Adobe Premiere® Pro**  
This course offers complete coverage of basic to advanced Premiere skills such as animating clips and using advanced video-effect techniques to create polished, professional-looking videos. This course includes video effects, animation, editing and more. A full-color Director’s Cut sidebar teaches students about editing techniques used in classic films like “The Godfather” and “The Birds.” Numerous end-of-unit exercises and projects throughout the text provide not only additional opportunities for practice and reinforcement but also a way to build a student’s portfolio.

MIS2171  
3 Credits  
**Creating E-portfolios**  
Learn to increase efficiency in the office, classroom, organization and beyond in this course designed to utilize the latest in production technology. Get started with the latest technological advancements in multimedia and produce documents and outputs designed for the web and more. Organize work and assignments in media-rich PDF Portfolios. Improve collaboration and security using powerful commenting tools and password protection. Easily bring together documents, spreadsheets, presentations, webpages, videos, photos and more in a polished PDF file or PDF Portfolio. Prerequisite: MIS1135 Introduction to Computers or equivalent.

MIS2181  
3 Credits  
**Global Information Technology**  
This course will review and discuss information-management strategies as they pertain to global markets and operations. Operation-technology requirements in various global locations will be explored. This involves an external and internal information analysis, which would explore technology concepts, human resource requirements and the integration of all components to achieve a successful outcome.

MIS2191  
3 Credits  
**Digital Design for Business**  
The ever-increasing demand for high-quality documents in print and on the internet requires a new set of graphics related to technological skills. The resulting computer-generated images should enhance a document’s appearance and reinforce its overall message to the audience. In this course, students will study the history of digital design, learn the basic design principles of contrast, repetition, alignment and proximity, and apply these principles to various print, presentation and web documents.

MIS2245  
3 Credits  
**Current Technology Issues**  
This course explores a variety of issues involving the social, environmental, economic and political impact of technology. Specific content may vary from semester to semester.

MIS3121  
3 Credits  
**Introduction to Adobe Illustrator®**  
This course, which is part of the design professional series, teaches students the basic through more advanced features of Adobe Illustrator® including preparing illustrations for print production. Dual-platform instruction for both Mac and PC. Includes rich end-of-chapter materials — meant to engage students and give them the chance to practice and review their work.

MIS3123  
3 Credits  
**Adobe Photoshop® Forensics**  
Thanks to television’s crime-scene investigation shows, forensic technology has entered popular culture. Combining puzzle solving and a dramatic story line, these shows fascinate audiences as high-tech procedures uncover the truths hidden in seemingly insignificant clues. What many people may not realize is that forensic teams also use items they probably have in their own homes — digital cameras, computers and Adobe Photoshop® image-editing software. This course shows students how Photoshop® is used to create many types of fakery and fraud, including scientific, counterfeiting, art, journalism and political propaganda. Students will discover that with some basic training in Photoshop’s manipulation capabilities in a critical eye, they, too, can see through photographic hoaxes. Follow along as each chapter explores a different genre of real-life frauds — both historical and current — and explains how the fakery was or could be detected. A featured case file in each chapter carefully deconstructs a fake image so students can see the methods and processes followed by the image-editing professionals who solve — and the perpetrators who commit — a variety of crimes. Even if students have never considered altering an image or becoming a crime-scene investigator, they will enjoy discovering the “how” and “why” behind both famous and common acts of image fraud.

MIS3125  
3 Credits  
**Adobe Illustrator®: Advanced Artistic Design**  
The course is designed to take the basic features of Adobe Illustrator® and bring them to a more advanced area. Areas included are: using the new symbol feature to create and update repeating elements quickly, transforming images and designing objects with the improved liquify tool, mastering Adobe Illustrator® quickly and easily through example projects and applying the great variety of Illustrator features to the students’ work.

MIS3131  
3 Credits  
**Adobe Web Collection**  
Part of a Design Professional Series, this course offers basic to more advanced skills in Adobe Photoshop® 7.0, LiveMotion® 2.0 and GoLive® 6.0, making it a great reference for the future. Coverage includes image editing, animation and website design and development as well as the integration of all three applications. Full-color coverage of basic through more advanced features makes it a great reference for future use. Dual-platform instruction for both Mac and PC. Clear focus on how multimedia is taught in the classroom. Provides in-depth explanation behind the skills — answers the “why.”

MIS3141  
3 Credits  
**Office® Advanced Concepts**  
Course Descriptions

Information Technology • Interdisciplinary Studies

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

MIS3142 3 Credits
Information Security
The course introduces the concepts of information security, the security assessment and the implementation of security via minimal technical terminology and acronyms to appeal to a broader audience. It includes real-world examples and case studies for illustrations. Hands-on projects help to shape the scope of information security, and its application in the business world today.

MIS3151 3 Credits
Office®: Post-advanced Concepts
This course covers more advanced Microsoft Office® functionality for skilled users including working with master documents, working with macros and Visual Basic for applications, formula auditing, date validation, complex problem solving, pivot charts, importing data, administering a database system and creating self-running presentations. Designed to prepare the student for MOS Certification. Prerequisite: MIS3141 Office®: Advanced Concepts.

MIS3161 3 Credits
Multimedia for the Web
This comprehensive course covers introductory multimedia concepts. It gives students a solid foundation in the planning process and design considerations, while covering industry standard applications and emerging technologies. It is designed to cover both theory and practical applications for web design, implementation and creation. FDU NetID (formerly Webmail) account required.

MIS3165 3 Credits
Principles of Web Design
The course will help students build their HTML (Hypertext Markup Language) skills to enhance webpages and gain a critical eye for evaluating website design. Updated for the latest web-design technologies, this course has increased coverage of XHTML (Extensible Hypertext Markup Language) and Cascading Style Sheets to keep the curriculum up to date. Screenshots and browser information reflect the latest, most current web trends and technology. This class will provide the solid foundation needed to help students build successful websites.

MIS3171 3 Credits
Database Security and Auditing
This course is separated into three sections: security, auditing and implementation. Students will fully understand how to implement database security on modern business databases using practical scenarios and step-by-step examples throughout the course. Each topic provides students with exercises and hands-on projects to reinforce and showcase the topics learned. The final project allows the students to apply their knowledge in a presentation of four real-world cases using security and auditing.

Information Technology

INFO3850 3 Credits
Applied Technology Practicum
Practical work placement of at least 150 hours in areas related to applied technology studies. This placement is formally evaluated for academic credit by an academic adviser and will be based on an evaluation from the workplace, regular assignments and completion of a final report.

Interdisciplinary Studies

INTER1007 3 Credits
Gender and Identity
This course looks at gender studies from an interdisciplinary lens. Disciplines the class will uncover include, but are not limited to, science, art, literature, history and sociology. This course will take into consideration the meaning of identity and gender cross-culturally. It will also look at the decline of tradition and the continuum of sexuality.

INTER1008 3 Credits
Women and Leadership
This course is designed to empower women to create their own unique leadership style while recognizing challenges to women in leadership positions and developing strategies to overcome or circumvent them.

INTER1009 3 Credits
Perspectives on the Individual
The purpose of this course is to stimulate personal reflection by carefully examining situations in which individuals struggle to come to grips with some very important features of self—integrity, purity of heart, the ability to make choices. Individuals seek to find meaning in their consciousness of their own morality and to forge understandings of themselves through consciousness of their relation to nature. The effects of genetics, internal conflict, the totalitarian state and social prejudice pose challenges to the very survival of the individual self, but the challenges show individuals’ courage to grow and to survive. Readings include Plato’s Apology and Crito, Gilgamesh, Freud’s Civilization and Its Discontents, Atwood’s The Handmaid’s Tale, Wiesel’s Night and Haley’s The Autobiography of Malcolm X.

INTER1100 1 Credit
Introduction to Interdisciplinary Studies I
In a world of specialists, why interdisciplinary studies? The definition, history, reasons for and significance of an interdisciplinary approach to knowledge, problem solving and decision making in a complex world.

INTER1121 3 Credits
The Image of the Artist in Film
Students will examine cinematic representations of artists. With their English professor, students will explore the filmmakers’ narrative techniques, processes of biographical selection and employment of or arguments against stereotypes. With their psychology professor, students will investigate psychological theories relevant to the personalities and works of the artists. With both professors, students will confront the complexities of creative representation.

INTER2007 3 Credits
Language, Logic and Culture Seminar
Expository writing and research methods correlated with an investigation of the interrelations of language, logic and culture, with readings in disciplines such as cultural studies, philosophy, linguistics and psychology. Prerequisite: 6 credits of any first-year English writing or composition course.

INTER2008 3 Credits
Literature and Culture Seminar
Expository writing and research methods correlated with an investigation of literature as an expression of culture, with readings in disciplines such as philosophy, history, anthropology and linguistics. Prerequisite: 6 credits of any first-year English writing or composition course.
INTER2012
3 Credits
Evolutionary Psychology
What makes humans different from other animals? The class will explore topics such as self-awareness, culture, sociality, language, art, morality and cognition (knowing and thinking) from the perspectives of philosophy, literature, psychology and neuroscience. Prerequisite: INTER3001 Evolution, Ecology and Climate Change.
Spring

INTER2013
3 Credits
The American Experience
Citizens of the United States have had, since the country’s beginning, a vision of the future which has in its various meanings come to be called The American Dream. This course explores this idea through four questions: Who is to be included in and who is excluded from the Dream? Can the individual’s pursuit of the Dream be harmonized with the claims of the state? Does American art expose a melancholy tension in The American Dream, a tension between nostalgia for the past and a lust for innovation? Lastly, how do the aspects of the Dream that stress wealth, fame and power affect the polity and image of America in the world? Texts include the U.S. Constitution, Franklin’s autobiography, selections from de Tocqueville’s Democracy in America, Narrative of the Life of Frederick Douglass: An American Slave, The Great Gatsby and selections of the artwork from the Whitney Museum of American Art’s collection, The American Effect.

INTER2015
3 Credits
Studies in Women’s Leadership
This course explores women in power and highlights the strategies and the steps women must take to turn an interest in leadership positions. It also takes a look at current topics in leadership studies.

INTER2016
3 Credits
Gender and Diversity in the Workplace
This course discusses the concepts of gender, diversity and inclusion in the workplace. Inequality and subordination of roles are discussed throughout the semester.

INTER2017
3 Credits
Cultural Difference
As workers, people must deal with cultural difference and understanding. This course engages the differences and similarities of cultures across the globe. A cross-cultural purview of difference might challenge what students believe to be similar and different.

INTER2019
3 Credits
Art and Religion
An analysis of art and architecture from the world’s major religions with an emphasis on the evolution and commonality of art and symbolism across time and belief.

INTER2020
3 Credits
Creativity and the Arts
A course on the psychology and philosophy of creativity, imagination and beauty in the arts and nature — their sources in the mind/brain and their meaning in people’s lives.

INTER2022
3 Credits
Design and Culture Seminar II
A continuation of INTER2021 Design and Culture Seminar I, this course should be taken concurrently with INTER2024 Design and Culture Workshop II.

INTER2023
3 Credits
Design and Culture Workshop I
To gain a fuller understanding of the elements of design employed in various cultures, students will create work in the style of the cultures examined in INTER2021 Design and Culture Seminar I. No prior knowledge of computer graphics is required. Instruction in using graphics software will be provided as necessary.
Fall

INTER2024
3 Credits
Design and Culture Workshop II
This course is a continuation of INTER2023 Design and Culture Workshop I and should be taken concurrently with INTER2022 Design and Culture Seminar II.
Spring

INTER2025
3 Credits
Music and Culture
This course will examine how music is an expression of culture. It will take a cross-cultural and cross-disciplinary approach to looking at music and cultures that thrive on music. No prior musical knowledge is necessary for this course. The course objective is to develop a competency in examining culture through the lens of music makers and production.

INTER2026
3 Credits
Drugs, Alcohol and Addiction
Anything that we tangibly or psychologically consume can affect and influence how we think, feel and behave. Legal or not, we alter our brains by what we choose to feed it. In our increasingly complex society a number of questions abound. It is now vitally important that we safeguard ourselves with at least a basic understanding of the psychoactive effects of drugs, nutrients and other potentially addictive vehicles. This course aims to do just that. Additionally, be prepared to be armed with the awareness, skills and know-how needed to keep your brain and body function optimally. Learn the difference between a stimulant and a depressant. Discover why the line of food and drugs is becoming increasingly blurred. Find out how the contents of our physical and mental diets impact our understanding of the world. Explore this journey of hidden surprises. The wisdom offered in this course may one day save your life.

INTER2041
3 Credits
Technology and Literature
The image of the scientist in literature: hero, villain and madman; the scientist/engineer as creative writer; scientific writing as objective and subjective expression. (Equivalent to HUMN221 Technology and Literature.)
Fall, Spring

INTER2101
3 Credits
Globalization: Nature, Causes and Consequences
What is globalization? Is it something new? Can it be defined? What exactly is happening in the world economy, culture, social relations and the environment? To understand these issues, the methods of the historian, artist, economist, sociologist and natural scientist will be employed.
Fall

INTER2103
3 Credits
Ethics, Human Rights and Globalization Seminar
Has globalization created the need for a global ethic? If so, what would such an ethic entail? Do rich individuals, communities, nations and/or multinational corporations have an obligation to help poor nations develop their economies? What, if anything, is wrong with large inequalities of income, wealth, property and power? Are Western nations adopting a form of “cultural imperialism” when they push their values on non-Western cultures? These questions, among others, are explored in the process of understanding and integrating the insights of important economists, philosophers, ethicists, business management experts, industrial psychologists and social and political theorists. Ancient and modern works will be used to
Course Descriptions

Interdisciplinary Studies

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examine the nature of justice, freedom and equality in a global context.

INTER2107
3 Credits
Real World Statistics
This course will focus on developing the students’ mathematical and statistical literacy as applied to real-world problems.

INTER2121
3 Credits
Objects of Desire in Film
Film as an artistic expression occupies a unique and privileged place among the arts of our time. If it is true, as it has so often been said, that rock and roll is the soundtrack of our lives, then films are the montage. This course will develop an elementary understanding of the language of film, allow the class to discuss selected current and classical films and try out some of their significance to the times.

Fall, Spring

INTER2125
3 Credits
The Nature of Evil
An interdisciplinary course that helps students examine the complexities of “evil,” a word we freely use without being able to pinpoint its meaning. By looking through various lenses — psychology, religion, literature, sociology — students will gain a more thoughtful appreciation of the definition of evil and perhaps a greater awareness of how humankind has had to confront evil throughout history.

Fall

INTER2201
3 Credits
Technology and Modern Medicine
An examination of the impact of technology on modern medicine; advances in diagnosis and treatment of disease; recent developments in fiber optics, computerized imaging, robotics, endoscopy, drug and radiation treatment; DNA and gene therapy; social and ethical considerations.

INTER3001
3 Credits
Evolution, Ecology and Climate Change
Nature and culture are opposites, or are they? Is the very concept of nature a cultural construct? Or isn’t it? Is nature the same thing for the scientist, artist, poet, naturalist and philosopher? Do the world’s religions understand nature in the same way?

INTER3005
1 Credit
Introduction to Interdisciplinary Studies II
A more detailed investigation than INTER1100 Introduction to Interdisciplinary Studies I of ways of knowing, problem solving and decision making. An investigation of the subject matter and methods of the liberal arts, sciences and professions vital to life in a globalized world. Why should students care to know? Prerequisite: INTER1100 Introduction to Interdisciplinary Studies I.

INTER3011
3 Credits
Perspectives on Globalization
This online course will examine the historic, economic, political, technological, social and cultural dimensions of globalization. It will address questions such as: What is globalization? Is globalization something new? When did it start? To what extent have technology, free-market ideology, multinational corporations, state actions and human nature been instrumental in causing globalization? What are its effects on the distribution of power, income and wealth within and among nations, on the family, on workers and working conditions, on the environment, on local cultures, etc.? The responses to globalization also will be examined. Prerequisite: A course in economics or the permission of the instructor.

Spring

INTER3015
3 Credits
Legal Issues in Gender Studies
Gender equality provides an essential context and precondition for inclusive human development. This course delves into legal issues that encompass the terms gender and gendered space.

INTER3016
3 Credits
Women and Power
The dynamics of power are situational, cultural, developmental, political, economic and gendered. This course explores the dynamics of power in their many forms as they relate to women in leadership positions.

INTER3017
3 Credits
Leadership Development
This course is designed to uncover the specific strengths and qualities of the individual as they intersect and support attitudes of and roles in leadership positions. Students in this class will develop inventories of their strengths and weaknesses as they relate to their specific goals for a future leadership position.

INTER3018
3 Credits
Career Planning for Women in Leadership
The students in this course will engage with the myriad options available to them as women seeking a leadership position. The course includes a semester-long project that is designed to allow students to develop a personalized career plan, including benchmarks and evaluation tools to help the student measure, reflect upon and adapt to changing circumstances.

INTER3041
3 Credits
Technology and Values
The course will include, but not be limited to, a short history of industrial and postindustrial technology, technology as value neutral and value-laden, positive and negative ethical consequences of technology, ethical challenges created by technology (e.g., genetic engineering, cloning, artificial intelligence), ethics and responsibility in a high-tech age and humanism vs. science and technology. Ethical issues in a computerized society (e.g., privacy, private property, power concerns related to the global information highway, quality of work, work possibilities in a computer age and computers and the self) will also be examined. (Equivalent to PHIL3310 Human Perspectives in a Computerized Society. Credit cannot be given for both courses.)

Fall, Spring

INTER3100
3 Credits
Introduction to Organizational Development
Organizational Development (OD) is a field that provides skills to future leaders to create successful organizations and high-performing teams. Students will learn the history of OD, develop self-awareness and learn management skills.

INTER4000
1 Credit
Introduction to Interdisciplinary Research
This course explores the nature, methods and importance of interdisciplinary research. It will prepare students for their capstone experience. Prerequisites: completion of 75 credits and junior standing.

INTER4001
3 Credits
Senior Capstone Experience I
A required course for majors in interdisciplinary studies. Students, under the supervision of a faculty member, will prepare an individual or group project as a culmination of their studies.

INTER4002
3 Credits
Senior Capstone Experience II
An elective for students who wish to further develop and expand their work in INTER4001 Senior Capstone Experience I. Prerequisite: INTER4001 Senior Capstone Experience I.
unique aspects of leadership in the business world. Students will also explore the parallels, overlap and divergences of alternative forms of both business and non-business leadership positions. Specific business leaders and their styles will be emphasized and studied.

INTER4400
3 Credits
Integrated Learning Project
After sessions on methodology, expectations and evaluation, students will write analytic reports that synthesize materials covered in courses completed toward a specialization and/or certification, combining it with experiences gained outside of the classroom in an organizational setting. The objective of the report is for students to demonstrate a deepened and enhanced understanding of their chosen specialization. Note: B.A. in interdisciplinary studies only.

INTER4438
3 Credits
Ethics and Public Affairs
This course explores the nature and validity of moral arguments for contemporary public policy issues, such as abortion, capital punishment, racial profiling and the rules of war.

INTER4439
3 Credits
Questioning Religion
Discussion of readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore issues of doubt and faith, reason and religion, for and against the major religious traditions — and in people's own lives.

INTER4505
3 Credits
Psychology of Terrorism
An in-depth analysis of terrorism, the terrorists' beliefs and reasons for actions against a certain group or government agency both here and abroad. What beliefs cause terrorist practices and the psychology of the suicide bomber syndrome. (Equivalent to PADM4503 Psychology of Terrorism.)

International Business
IBUS2252
3 Credits
Latin America and the Global International Trade
This course will provide an analysis and understanding of the new international trade in a global economy, its impact on the economies of Latin-American countries and how they may benefit from this new economic reality.

Law
LAW2151
3 Credits
Principles of Immigration Laws
The study of U.S. immigration laws. The course will examine the impact of U.S. immigration laws on business decisions for employment strategies. Visas and immigration consequences of criminal activities will be covered. Current and proposed legislation will be discussed.

LAW2152
3 Credits
Introduction to Criminal Law
This course provides the philosophical and historical background of the agencies that comprise the criminal justice system. It focuses on the development of justice and law, crime and punishment, the administration of laws, the agencies’ functions, career orientation and public relations.

LAW3001
3 Credits
Advanced Business Law
This course will focus on corporate law, contracts, commercial leases and employment law. The class will analyze cases related to these subject matters as well as the practical aspects related to the legal issues in these areas.

LAW3002
3 Credits
Family Law, Divorce and Custody
This course will focus on the grounds for divorce in the states of New York and New Jersey; equitable distribution; and issues related to child custody, alimony and child support. Other parental-rights issues and adoption will also be discussed.

Management
MGMT1110
3 Credits
Business in a Global Society
A survey of the functions and operations of business organizations in a global marketplace. Organizational structure, operations and financing of business firms are studied in light of the legal, social, regulatory and environmental issues affecting business on a global basis. Critical thinking, communication, research and problem-solving skills are emphasized in individual and group settings.

MGMT1111
3 Credits
Introduction to Business Management
The principles of management; planning, organizing, staffing, directing and controlling public
and private organizations; the functions common to all managers; communication, motivation and decision making.
*Fall*

**MGMT3105**
3 Credits
**Money Laundering and the Finance of Terror**
This course will examine the history of money laundering and terrorist financing with the impact on the global economy. The purpose is to examine the evolution of the financial activity involved to disguise criminal funds.

**MGMT3111**
3 Credits
**Management and Labor**
This course will establish a framework for the analysis of labor-relations problems; appreciation of the role of management and labor in our society; an understanding of the grievance, mediation and arbitration procedures; analysis of the changing role of labor; and the concept of participatory or shared management.
*Spring*

**MGMT3200**
3 Credits
**Contemporary Managerial Issues**
This course allows for the presentation and discussion of current managerial issues. All aspects of management are potentially included in the course content, i.e. managing teams, human resource management, ethics, organizational behavior, etc. Topics change; may be repeated for credit.

**Marketing**

**MKTG2050**
3 Credits
**Introduction to Marketing Management**
The development of comprehensive marketing programs and managerial techniques, including assessment of the environment, target markets, roles forecasts, advertising and promotional strategies, budgeting and marketing objectives, among other topics.
*Fall, Spring*

**MKTG2040**
3 Credits
**Advertising and Promotion**
As the field of advertising and promotion continues to dramatically change since the dominant days of high-powered Madison Avenue agencies, marketers must look beyond traditional media in order to achieve success. In order to best communicate with consumers, advertisers must utilize a myriad of tools (advertising, public relations, direct marketing, interactive/internet marketing, sales promotion and personal selling). The course underscores the importance of recognizing that a firm must use all promotional tools available to convey a unified message to the consumer.

**MKTG2050**
3 Credits
**Search-engine Marketing**
Based on real-world case studies and interviews with experts at Google, Yahoo!, Microsoft and other top search-engine companies, this course reveals how to exploit technical web marketing tools to reach customers and increase sales. This is the definitive class to search-engine optimization (SEO), pay-per-click (PPC) advertising and web analytics — the three critical tools marketing experts need to understand as marketing and sales move to the internet.

**MKTG2121**
3 Credits
**Fundamentals of International Marketing**
Functions and behavior of international marketing; import and export; currency and pricing matters; political, social, legal and cultural influences; exchange rates; tariffs; and other matters pertinent to international commerce.

**Mathematics**

**MATH0096**
3 Credits*
**Basic Mathematics**
Basic computational skills and basic numerical concepts; includes basic arithmetical concepts, real numbers, linear equations, polynomials, quadratic equations and introductory algebra.
*Fall, Spring*

**MATH0097**
3 Credits*
**Basic Algebra**
Set of real numbers, linear equations and inequalities, relations and functions, graphing of linear systems, polynomials, relational expressions, quadratic equations and functions.
*Summer II, Fall*

**MATH1105**
4 Credits
**College Algebra**
Signed numbers, algebraic expressions, factoring, fractions, first-degree equations, radicals, graphical methods, quadratic equations, quadratic systems, variation, binomial theorem. Prerequisites: elementary algebra and geometry.
*Fall, Spring*

*MATH1106* 4 Credits
**Trigonometry**
Solutions of right triangles by natural functions, logarithms, solution of right triangles using logarithms, functions of angles in any quadrant, solution of oblique triangles, trigonometric identities, variation, graphs of trigonometric functions, inverse functions, trigonometric equations. Prerequisites: intermediate algebra and plane geometry.
*Spring, Summer I*

**MATH1111**
3 Credits
**Introduction to Mathematics I**
The metric system and exponential notation, set theory, symbolic logic, numeration systems, number theory.
*Fall*

**MATH1112**
3 Credits
**Introduction to Mathematics II**
Graphing and linear programming, counting, permutations, combinations, probability, statistics.
*Spring*

**MATH1131**
3 Credits
**College Mathematics I**
Set theory, number sets, coordinate geometry, matrices, number theory.
*Fall, Spring*

**MATH1132**
3 Credits
**College Mathematics II**
Permutations, combinations, probability, introductory concepts in statistics, descriptive measures of central location, normal curve.
*Fall, Spring*

**MATH1135**
3 Credits
**Mathematics and Civilization**
This course will study the development of mathematics from number systems through algebra, geometry, probability and statistics. It will explore the relationship between the needs of society and the mathematics needed to satisfy those needs. By the end of the course, the student will be proficient in elementary algebra and geometry, be able to grasp mathematical reasoning and have a practical grasp of probability and statistics. For adult learners only. Prerequisite: department chair approval.

**MATH1141**
3 Credits
**Introduction to Mathematical Methods**
Linear and nonlinear equations and functions, exponential and logarithmic functions, simple
and compound interest, annuities, matrices and simultaneous equations, sets, introduction to calculus. Prerequisites: two years of college-preparatory mathematics.

Fall, Spring

MATH1142
3 Credits
Introduction to Statistics
Collection and presentation of data; descriptive measures; sets; probability theory; random variables; mathematical expectations; discrete and continuous probability distributions, including Binomial, Poisson and Normal; sampling distributions; introduction to regression and correlations. Prerequisite: MATH1141 Introduction to Mathematical Methods or equivalent.

Fall, Spring

MATH1143
3 Credits
Statistical Application of Business
Estimation, Type I and II errors, testing of hypotheses, analysis of variance, regression and correlation, time series analysis, index numbers, parameter and interval estimation. Prerequisite: MATH1142 Introduction to Statistics.

Fall, Spring

MATH2153
3 Credits
Production Techniques
An analysis of production techniques. The elements of production including capital, machines, methods, management and human resources are considered. Quantitative techniques such as inventory models, linear programming, scheduling, PERT and queuing theory are investigated.

Fall

Music

MUSIC1029
3 Credits
The Latino Musical Revolution
This course offers a historical overview of Latino music, including a closer look at musical text and musicians. Primarily, however, course materials and discussions will center around an attempt to gain a deeper understanding of the origins of the music, what inspired the changes, and the social context and cultural/political significance throughout the 20th century to today. Students will examine the works in which Latino music reflects the rich culture from which it is born, as well as artists’ attempts to affirm ethnic and racial identities, to influence U.S. pop culture and music and to illustrate a realistic portrait of gender, racial and class relations.

Philosophy

PHIL1101
3 Credits
Introduction to Logic
The nature and functions of language, semantic fallacies, truth and validity, principles of correct reasoning, types of propositions and their logical relations, immediate inferences and syllogistic reasoning, formal fallacies, empirical knowledge and the principle of causality.

Spring, Summer I

PHIL1178
3 Credits
Philosophy of Literature
The types of rational justification found in literature; philosophical opinions expressed by famous writers; literary works of philosophical significance.

Interession

PHIL2255
3 Credits
Business Ethics
Ethical theories and moral concepts in their application to business. Moral issues in regard to justice, social responsibility, regulation vs. free enterprise, the right of consumers, corruption and conflict of interest, advertising, environmental and ecological problems.

Fall, Spring

PHIL2258
3 Credits
Ethical and Moral Analysis in the Sciences
This course will introduce students to the field of ethics through discussion of different ethical theories. Students will also formulate ethical principles relevant to medical practice, doctor-patient relationships and related areas of concern.

PHIL2261
3 Credits
Ethical Issues in Computer Information Technology
This course provides a foundation for understanding the legal and ethical issues that have arisen as a result of the use of computer information technology. Current topics such as identity theft, employee surveillance, freedom of expression, computer crime, copyright infringement, social networking and the ethics of information technology corporations will be examined to better prepare individuals for making decisions in today’s workplace.

PHIL2271
3 Credits
Philosophy
A study of philosophers’ attempts to formulate and solve fundamental problems in various philosophical disciplines: metaphysics, epistemology, ethics, political philosophy and philosophy of religion.

Fall, Spring

PHIL2351
3 Credits
Medical Law and Ethics
This course is an introduction to the relationship between law and ethics applicable to the health care industry. Emphasis will be placed on understanding and properly employing the patient-health care provider relationship, maintaining patient right-to-privacy considerations, examining various ethical issues in health care and understanding the parameters of liability and malpractice.

Physics

PHYS1008
3 Credits
Physics of Medicine and Science
This course shows how the basic laws of physics are applied to medicine. Topics will include conservation laws, biomechanics, pressure and hydrostatics, sound and hearing, heat and thermodynamics, optics and vision, application of electrostatics to medicine, current electricity and magnetics, nuclear physics and their application in medicine and radiology.

PHYS1126
3 Credits
Lecture 2 hours, Laboratory 2 hours
Earth Physics
The origin of the earth as a member of the solar system, composition and internal structure of the earth, geophysics, the hydrosphere, the atmosphere, physical oceanography and the related question of natural and artificial pollutants. A topical treatment, not highly mathematical.

Fall, Spring

Political Science

POLS2266
3 Credits
Cuba: What Future?
This course presents a historical overview of Fidel Castro’s Cuba and focuses on current challenges in its imminent transition. It focuses on salient topics such as the U.S. embargo, Cuba’s political and economic future and the political strength and views of the Cuban-American community.
Psychology
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POLS3003
3 Credits
Contemporary Issues in Law and Society
This course will examine a diverse array of issues related to topics associated with the laws by which people govern themselves individually and as a society. The class will explore topics via case studies and current readings, examining how laws affect everyday life, as well as society as a whole. Students will develop critical, analytical thinking skills as they examine the laws and judicial system which serve them through collaborative activities and class requirements.

POLS3005
3 Credits
Contemporary Issues in Law and Society II
This course will examine a diverse array of issues related to topics associated with the laws by which people govern themselves individually and as a society. The class will explore topics via case studies and current readings, examining how laws affect everyday life, as well as society as a whole. Students will develop critical, analytical thinking skills as they examine the laws and judicial system which serve them through collaborative activities and class requirements. Readings will vary. Course topics vary each offering; may be repeated for credit. The course extends the topics of POLS3003 Contemporary Issues in Law and Society.

POLS3006
3 Credits
Deceit, Fraud and Identity Theft
This course will examine the different types of fraud and their effects on society and the individual. The crimes to be covered include identity theft, insurance fraud, bank fraud, credit-card fraud and employee theft. While learning the different types of fraud, the class will also cover how to avoid being a victim.

POLS3009
3 Credits
Financial Institutions, Criminals, Terrorism and Money Laundering
This course will examine the role that corporations have played in corporate fraud, money laundering and terrorist financing with the impact on the global economy. The purpose is to examine the evolution of the financial activity involved to disguise criminal funds and the responsibility of the corporations. Examining the lessons learned from recent corporate activity, e.g., banking and investment industries (Wells Fargo, Bernie Madoff, etc.), the pharmaceutical industry (Mylan, Martin Shkreli, etc.).

POLS3801
3 Credits
Government and Political Systems
This course will explore fundamental concepts of governmental and political systems in various countries. It will introduce students to the role governments play in identifying and addressing issues that impact their citizens. The impact of the political system on governments and its actions will also be investigated. (Satisfies the international-perspective course requirement in the B.A. in individualized studies degree program or may be used as an elective.)

POLS3802
3 Credits
Civil Leadership and Political Empowerment
With this class, students will deepen their understanding of how the economic and political landscapes of an individual and, more generally, the United States can generate opportunities for Hispanic participation and representation.

POLS4510
3 Credits
Emergency Management and Public Policy
Develop an understanding of how social science can be used as a basis for modifying public policy in relation to emergency management.

Psychology

PSYC1141
3 Credits
Psychology I
Topics in developmental, abnormal and experimental psychology.
Fall, Spring

PSYC1142
3 Credits
Psychology II
An expansion of basic principles of psychology. Topics include learning, motivation, perception, stress and sensation.

PSYC1143
3 Credits
Parenting 101: Effective Child-rearing
Theoretical, research and applied topics in parenting. Parenting infants through adolescents. Includes family communication systems, child and adolescent development, cultural child-rearing practices, intergenerational parenting, legal issues, parenting exceptional children and current topics.

PSYC1173
3 Credits
Group Dynamics
The process and dynamics of the small group studied via the development of the group and the solution of problems arising in that development.
Spring

PSYC1181
3 Credits
Mind Over Brain: An Introduction to Focused Thinking
This course is designed to help students learn how to make the most of their thinking abilities by developing the crucial but often-neglected skill of directing one's thinking to the right issue at each step of every thought process. Participants learn when and how to refocus their thinking; (1) to “step back” from a thought process, (2) examine their thinking to identify any important gaps in it, (3) bridge the gaps by formulating and answering the right questions and (4) return to the original thought process with increased effectiveness. The technique of refocusing will be used to enhance students' abilities to solve problems creatively, comprehend difficult material quickly and completely, analyze logical arguments insightfully and achieve top performance without anxiety on tests.

PSYC1801
1 Credit
Careers and Life
An examination of viable careers in the 21st century with a focus on the life skills that are necessary to be competitive in the future job market.

PSYC1802
3 Credits
Career Development: Theory and Reality
Factors in establishing, changing or confirming career goals; skills development for ongoing careers and life planning; exercises to promote the development of academic, interpersonal and job-readiness skills; analysis of appropriate sources of information.

PSYC2001
3 Credits
Psychology for Success
This course is designed to increase students' success in school, at work and in their personal lives via assigned readings, class activities and discussions that focus on topics such as self-awareness, self-esteem, self-motivation, self-discipline, positive thinking, goals and obstacles, managing resources and communication and relationships. Techniques of developing skills toward achieving goals will be illustrated to enhance students' success.

PSYC2002
3 Credits
Child and Adolescent Development
The growth and development of children in terms of sensorimotor, intellectual and social behavior; the child in family, school and community. Prerequisite: PSYC1141 Psychology I.
Fall
Public Administration

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PSYC2006
3 Credits

Emotionally Healthy Lifestyles
The purpose of this course is to provide students with an opportunity to examine stress at home, at work and in the community. It will explore the physical and emotional impact of stress on the mind and body. Effective and empirically supported coping strategies will be presented in detail.

PSYC3009
3 Credits

Street Drugs: Types and Treatments
This course is focused on the types and actions of representative street drugs (stimulants, depressants and hallucinogens). Course materials include explanations of how drugs of abuse work in the human brain, the variety of drugs of abuse, their classification(s) and the drugs’ origins. Materials will highlight drug use as a disease, including tolerance, dependence, withdrawal and brain reward. Materials covered will not include legal prescription medications, caffeine, alcohol or nicotine.

PSYC3010
3 Credits

Greater Than 50 Human Senses
This course develops an understanding of the variety of the greater than 50 human sensory systems. The class will review their underlying anatomy, functional limits, ranges and their exploration from historical origins to recent research evidence. It will also review the experimental and theoretical evidence of how perception is believed to be generated and, lastly, to address how alterations in one’s senses reveal how brains function to construct one’s subjective reality.

Public Administration

PADM1001
1 Credit

Leadership Seminar
This course will provide students with the opportunity to develop their academic and social leadership skills. Participation in experiential learning activities and challenging service project learning will allow students to practice key success and leadership concepts and develop essential hands-on skills. Students will examine exemplary leadership practices: model the way, inspire a shared vision, challenge the process, enable others to act and encourage the spirit and the heart. Self-assessment, awareness, communication skills, performance appraisal, personal responsibility, perseverance and values clarification are typical of the skills examined and practiced. The importance of volunteerism and community service is also emphasized as it relates to leadership and the students’ development of their sense of meeting or purpose. Corequisite: ENGL1002 Developing Academic Skills.

PADM1002
1 Credit

Leadership Seminar II
This course will provide students with the opportunity to further develop and enhance their academic and social leadership skills. Participation in experiential learning activities and challenging service project learning will allow students to practice key success and leadership concepts and develop essential hands-on skills. Students will examine exemplary leadership practices: model the way, inspire a shared vision, challenge the process, enable others to act and encourage the spirit and the heart. Self-assessment, awareness, communication skills, performance appraisal, personal responsibility, perseverance and values clarification are typical of the skills examined and practiced. The importance of volunteerism and community service is also emphasized as it relates to leadership and the students’ development of their sense of meeting or purpose. Corequisite: ENGL1002 Developing Academic Skills II.

PADM1003
1 Credit

Sophomore Leadership Seminar
This course will provide students with the opportunity to further develop and enhance their academic and social leadership skills. This course is a continuation of PADM1001, PADM 1002 Leadership Seminar I, II. Participation in experiential-learning activities and challenging service-project learning will allow students to continue to practice key success and leadership concepts and develop essential hands-on skills. Students will examine historical and contemporary concepts of leadership. Students will explore the traits, strategies and techniques that define leadership. Selected case studies will be analyzed and applied to actual situations in the contemporary world.

PADM1004
1 Credit

Sophomore Leadership Seminar II
This course will provide students with the opportunity to further develop and enhance their academic and social leadership skills. This course is a continuation of PADM1003 Sophomore Leadership Seminar. Participation in experiential-learning activities and challenging service-project learning will allow students to continue to practice key success and leadership concepts and develop essential hands-on skills. Students will continue to examine historical and contemporary concepts of leadership, with particular emphasis on women and leadership. Students will explore the traits, strategies and techniques that define leadership. Selected case studies will be analyzed and applied to actual situations in the contemporary world. Students will engage in a dialogue on educating women for leadership.

PADM1005
2 Credits

Leadership Seminar V
This course will provide students with the opportunity to increase self-awareness and self-confidence in a group context, with particular emphasis on how to improve one’s interpersonal skills. Emphasis is placed on self-leadership, team dynamics and a learning-community approach to project management. Leadership principles learned in prior courses form the foundation for a large community-service project. Challenging projects provide real-world leadership practice and critical hands-on skills. Participants will continue to develop their mentoring skills, while working with students in the other leadership courses. Reflection on one’s individual behavior and group performance allow participants to increase personal competence and team-management skills. The importance of volunteerism and community service is also a major emphasis.

PADM1006
2 Credits

Leadership Seminar VI
This course will continue to provide students with the opportunity to increase self-awareness and self-confidence in a group context, with particular emphasis on how to improve one’s interpersonal skills. Emphasis is placed on self-leadership, team dynamics and a learning-community approach to project management. Leadership principles learned in prior courses form the foundation for a large community-service project. Challenging projects provide real-world leadership practice and critical hands-on skills. Participants will continue to develop their mentoring skills, while working with students in the other leadership courses. Students will also consider leadership ethics and personal conduct. Reflection on one’s individual behavior and group performance allow participants to increase personal competence and team-management skills. The importance of volunteerism and community service remains a major emphasis. Note: For Educational Opportunity Fund students.

PADM1102
3 Credits

Computers, Crime and Forensics: Today’s Criminal Investigation
If students have been fascinated by the television show “CSI” or have ever thought of being a crime-scene technician or criminal investigator, this seminar will enhance their interest as they receive a firsthand account of the step-by-step problems and procedures of a criminal investigation of crimes ranging from theft to homicide.

Note: For Educational Opportunity Fund students.
Public Administration

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Course Descriptions

**PADM1115**
3 Credits
**Latino Promise® Leadership Seminar**
The course gives Latino Promise® students an in-depth view of what it takes to succeed in life by meeting with successful Hispanic leaders from the fields of business, politics and the arts. The students will also explore these worlds by visiting and observing successful Latinos in their environment. The goal is to create Latino leaders for the future.

**PADM1116**
3 Credits
**Latino Promise® Leadership Seminar II**
The course will explore Hispanic leadership on a national level. The students will interact with Hispanic leaders who have an impact on business, art, sciences and government on a national level. The class will include trips to the U.S. Capitol, U.S. Supreme Court, Philadelphia, Boston and New York. Prerequisite: PADM1115 Latino Promise® Leadership Seminar.

**PADM1117**
3 Credits
**Sophomore Latino Leadership Seminar — Project I**
The course will build on the foundational principles learned in the first-year Latino Leadership Seminar courses and apply them to local communities and volunteer organizations. Problem solving, conflict resolution, public speaking and strategic planning are some of the skills learned in the first part of the Sophomore Latino Leadership Seminar.

**PADM1118**
1 Credit
**Sophomore Latino Leadership Seminar — Project II**
This course continues to apply PADM1115 Latino Promise® Leadership Seminar strategies to local communities and volunteer organizations. Self-assessment, communication techniques and personal responsibility are skills that are examined and practiced.

**PADM1119**
1 Credit
**Junior Latino Leadership Seminar I**
This course will focus on improving students’ public-speaking skills. Students will learn to overcome public-speaking anxiety, organize their ideas and maximize their effectiveness in audience communication. Speeches by world-renowned leaders will be used to illustrate these techniques.

**PADM1120**
1 Credit
**Junior Latino Leadership Seminar II**
Continuation of PADM1119 Junior Latino Leadership Seminar I with a focus on public-speaking skills through preparation and presentations of speeches.

**PADM1121**
1 Credit
**Senior Latino Leadership Seminar Project I**
The capstone Latino Leadership Seminar with advanced projects with leadership strategies learned in all previous seminars.

**PADM1122**
1 Credit
**Senior Latino Leadership Seminar Project II**
The final Latino Leadership Seminar Project that culminates the entire advanced leadership series learned in all previous seminars.

**PADM1123**
1 Credit
**Career Exploration and Planning**
This course is designed to assist students in self-assessment, career exploration, development and management. Students will participate in learning experiences and activities, tailored to individual needs and designed to promote their career development.

**PADM1124**
1 Credit
**Veteran New Student Seminar**
The purpose of this course is to provide student-veterans with a learning experience that supports their transition from military to civilian and college life. Topics such as academic success, self-care and planning one’s education, career and future will be emphasized.

**PADM2247**
3 Credits
**Law Enforcement Report Writing**
An intensive course focused on the skills involved with note taking, interviewing and law-enforcement professionals in the preparation of reports. Particular emphasis will be placed on report procedures and the technical writing skills required of law-enforcement officers, security personnel, corrections officers, probation officers and scientific personnel.

**PADM3300**
3 Credits
**Public Policy and Administration**
This course provides students with an overview of public policy and administration in the United States, including the formulation, implementation and assessment of public policy initiatives at the national, state and local levels.

**PADM3301**
3 Credits
**Public Sector Budgeting**
In this course, students learn the theoretical foundations and the practice of various approaches to governmental budgeting, with particular attention to the role of the budget as a policy instrument.

**PADM3302**
3 Credits
**Ethics and Values in the Public Service Administration**
In this course, students examine various theories of values and ethical systems, with a view toward understanding the influence of ethics and values on public service administration.

**PADM3303**
3 Credits
**Public Personnel Administration**
Students are introduced to public personnel administration at the national, state and local levels of government, including the history and development of civil service and the merit principle, the functions and operations of a public personnel system and basic concepts and techniques in public personnel administration.

**PADM3304**
3 Credits
**Public Sector Collective Bargaining and Labor Relations**
This course examines collective bargaining and contract administration in the public sector, including grievance arbitration, with special emphasis on the implications of collective bargaining for public sector managers and employees of public service organizations.

**PADM3305**
3 Credits
**Local Government Administration**
Students are familiarized with the structure, functions and administrative processes of municipal and county governments, including taxing and spending powers, service delivery systems and political and legal constraints facing government administrators.

**PADM3306**
3 Credits
**Health Care Management**
This course provides an overview of how health care institutions are organized and governed; the role of the management staff, physicians, nurses and other clinical and support staff; and the effective operation of the management systems. This course will equip students with a strong foundational understanding of the American health care system, along with the basic management skills to make informed decisions to improve the quality and cost of the health care you or your organization provides.

**PADM3307**
3 Credits
**Compliance, Regulatory and Legal Issues in Health Care**
This course covers the broad range of topics affected by health law and regulation ranging from patient rights to corporate responsibilities. Public and private health-care regulatory agencies are examined as well as their impact on the operation of health care as a business. Legal
issues ranging from professional malpractice to corporate wrongdoing are also discussed. This course will provide a foundational understanding of health-care advocacy, law, regulatory issues as well as compliance.

**PADM3410**

3 Credits

**Leadership, Change and Lifestyle Modifications**

This course will provide the students the opportunity to explore areas that will assist the individual with balancing the workforce demands with beneficial lifestyle choices. Topics will include: leadership qualities, personal and global sustainability habits, community responsibilities, personal and professional goal setting, nutrition and exercise, self care and stress-management techniques.

**PADM3400**

1 Credit

**Curricular Practical Training**

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

**PADM3340**

3 Credits

**Inside the United Nations**


**PADM3342**

3 Credits

**Comparative Leadership Studies**

This course uses case studies to explore leadership theories and their practices throughout the world. Public, private and not-for-profit leaders throughout the world will be the subject of discussions and research. Students will be expected to select two government, business, military or religious leaders who are from different countries to study.

**PADM3345**

3 Credits

**Personnel Administration**

Personnel administration is examined for public, not-for-profit and private sector organizations. The functions and operations of personnel systems are studied through the use of case studies, lectures and contemporary events.

**PADM3400**

3 Credits

**Administrative Law**

This course examines the law and legal principles governing the administration and regulation of government agencies. Focus is on the administrative rules, regulations and procedures of government agencies and bodies and the scope of agency authority. Emphasis is on how administrative agencies implement legislative policy through rule-making and enforcement as well as the judicial review of administrative-agency action; legislative and executive control of administrative action; legislative and executive control of administrative action; and the forms and organization of administrative agencies.

**PADM3410**

3 Credits

**Leadership, Change and Lifestyle Modifications**

This course will provide the students the opportunity to explore areas that will assist the individual with balancing the workforce demands with beneficial lifestyle choices. Topics will include: leadership qualities, personal and global sustainability habits, community responsibilities, personal and professional goal setting, nutrition and exercise, self care and stress-management techniques.

**PADM3401**

3 Credits

**Basic Chinese Language and Culture I**

Within the global context, the course will allow students to achieve a basic understanding of the written and spoken Chinese language. Also, the important and practical aspects of Chinese culture will be presented, especially as they relate to the workplace.

**PADM3402**

3 Credits

**Global Culture for Public Services**

The course delineates the aspects of global culture, including linguistics, which are relevant to and assist in, the dimensions and responsibilities of the areas of public service. Emphasis is placed also on the effects of globalization on public service and its various components.

**PADM3403**

3 Credits

**Cyber Law**

This course provides students with a grounding in the fundamental aspects of the sophisticated field of cyber law. Students will learn how to protect organizations from potential legal liabilities by implementing the best possible legal practices.

**PADM3404**

3 Credits

**Administrative Law**

This course examines the law and legal principles governing the administration and regulation of government agencies. Focus is on the administrative rules, regulations and procedures of government agencies and bodies and the scope of agency authority. Emphasis is on how administrative agencies implement legislative policy through rule-making and enforcement as well as the judicial review of administrative-agency action; legislative and executive control of administrative action; legislative and executive control of administrative action; and the forms and organization of administrative agencies.

**PADM3440**

3 Credits

**Seminar on Leadership Development**

In this seminar, participants study leadership theories in their application to employment settings, with a view toward developing their individual leadership skills.

**PADM3441**

3 Credits

**Building Personal Leadership**

This course explores situational leadership from a theoretical and practical view. Students apply the situational leadership model to instances with which the students are familiar to improve their skills for diagnosing readiness of the followers. Case studies, group projects and role playing will be used in the course.

**PADM3451**

3 Credits

**Leadership, Change and Lifestyle Modifications**

This course will provide the students the opportunity to explore areas that will assist the individual with balancing the workforce demands with beneficial lifestyle choices. Topics will include: leadership qualities, personal and global sustainability habits, community responsibilities, personal and professional goal setting, nutrition and exercise, self care and stress-management techniques.

**PADM3452**

3 Credits

**Introduction to Networking and Internet Traffic Flow**

Students will learn the basic structure of the internet and the fundamental concepts behind networks, both large and small. The course also includes the basic concepts of how devices communicate on the internet and how the physical components such as routers, switches, firewalls, web servers and DNS make up the backbone of the internet. This is a hands-on course that emphasizes lab-based learning.

**PADM3453**

3 Credits

**Cyber Law**

This course provides students with a grounding in the fundamental aspects of the sophisticated field of cyber law. Students will learn how to protect organizations from potential legal liabilities by implementing the best possible legal practices.

**PADM3454**

3 Credits

**Global Culture for Public Services**

The course delineates the aspects of global culture, including linguistics, which are relevant to and assist in, the dimensions and responsibilities of the areas of public service. Emphasis is placed also on the effects of globalization on public service and its various components.

**PADM3455**

3 Credits

**Weapons of Mass Destruction: Political Issues**

Examine the types and methods of distribution of weapons of mass destruction and the effect and message the terrorist is attempting to deliver. The most effective target the terrorist may identify and the desire to cripple certain industries, communications and travel and important political figures to make the strongest statement.
Course Descriptions

Public Administration

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

PADM4504
3 Credits
Hazardous Risk Analysis
Examine how to identify the most vulnerable and/or most damaging target the terrorist may focus upon to cause the widest and most damaging interference with normal operation of a certain area or industry. By using the mitigation and preparedness process, safety measures may be put into place to reduce or eliminate a certain target from experiencing loss or damage.

PADM4505
3 Credits
Psychology of Terrorism
An in-depth analysis of terrorism, the terrorists’ beliefs and reasons for actions against a certain group or government agency both here and abroad. What beliefs or causes the terrorists practice and the psychology of the suicide-bomber syndrome.

PADM4506
3 Credits
Domestic Preparedness for Terrorism and Catastrophic Emergencies
What can be done to prepare cities and communities from suffering the effects of a violent attack? What measures can be put into place to recover quickly and efficiently with the least loss of life and property? An in-depth analysis of terrorism, the terrorists’ beliefs and reasons for actions against a certain group or government agency both here and abroad and what beliefs or causes does the terrorist practice and the psychology of the suicide-bomber syndrome are explained. Fall

PADM4507
3 Credits
Business and Industry Crisis Administration
This course identifies, examines and integrates the diverse crisis-management, disaster-recovery and organizational-continuity issues facing the private-sector organization. The main focus will be on crisis management, disaster recovery, organization and continuity/resumption of business. Spring

PADM4508
3 Credits
Technology and Emergency Management
This course will clarify the nature and extent of emerging technology, demonstrate its use in emergency management in relationship to mitigation, preparedness, response and recovery; and examine the problems and issues associated with the emerging technology and address the problems.

PADM4509
3 Credits
Political and Policy Basis of Emergency Management
To introduce the concepts and basic descriptive information about the political system and processes and demonstrate how political policies and procedures affect the role of emergency management.

PADM4510
3 Credits
Principles and Practices of Mitigating Hazards
To provide an understanding of the principles and practices of hazard mitigation in the United States on all levels of government in relationship to preventing future and recurring losses of life and property. To familiarize students with the tools, resources, techniques, programs, etc., to be used in hazard mitigation.

PADM4511
3 Credits
Social Dimensions of Disaster
To develop skills in applying sociological principles and research methodology to the practice of emergency management. To acquire an introduction to current research pertaining to the sociological aspects of disaster. To develop an understanding of how social science can be used as a basis for modifying public policy in relation to emergency management.

PADM4512
3 Credits
Safety and Emergency Administration
An overview of emergency management and an in-depth analysis of planning and administration of emergency management for the public and not-for-profit sectors. Identification of resources, natural and manmade disasters, Federal Emergency Management Agency (FEMA) and state agencies, Occupational Safety and Health Administration (OSHA) and Public Employees’ Occupational Safety and Health Act (PEOSH) regulations, incident (event) command procedure and safety in the work environment.

PADM4513
3 Credits
Emergency Management: Principles and Application for the Tourism, Hospitality and Travel Industries
This course considers the policy and behavioral issues with regard to emergency management and tourism in the broadest sense. It introduces emergency managers to issues, needs and planning that is relevant to this important sector of community life.

PADM4515
3 Credits
Advanced Fire Administration
Examines organization and management in the fire service, including new technologies, changing organizational structures, personnel and equipment, municipal fire protection planning, manpower and training and financial management.

PADM4516
3 Credits
Personnel Management for Emergency Services Community
This course examines issues and relationships in personnel administration and human resource development within the content of emergency services organizations. Topics include discussion of key concepts in personnel management, organizational development, productivity and motivation, recruitment and selection, performance management system discipline, workplace safety, resolving conflicts and grievances and collective bargaining.

PADM4518
3 Credits
Managerial Issues in Hazardous Materials
Examines regulatory issues; hazard analysis; multi-agency contingency planning; response personnel; multi-agency response resources; agency policies, procedures and implementation; public education and emergency information systems; health and safety; command-post dynamics; strategic and tactical considerations; recovery and termination procedures; and program evaluation.

PADM4522
3 Credits
Fire Prevention
Examines the administration, legal authority and compatibility with respect to state statutes, fire prevention codes, fire safety codes, enforcement and dealing with the construction of a board of appeals and hearings.

PADM4523
3 Credits
Fire Protection and Building Construction
Overview of BOCA building codes and enforcement, general building limits, types of construction, heights, area modifications, special uses and applications, occupant loads, means of egress, fire rating and construction, fire walls, fire areas, special hazards and finishes, overview of protection signaling and alarm systems.

PADM4527
3 Credits
Fire Protection Systems
The design, installation and maintenance of portable and fixed fire-suppression systems, including fire extinguishers, fire protection hydraulics and water supplies, test procedures, hydraulic calculations and flow through pumps, pipes and hoses.
PADM4534 3 Credits
**Fundamentals of Fire Investigation**
Examines the organization's responsibilities and authority of the fire investigator, fire behavior, basics of construction as it relates to the investigator, basic electricity for the investigator, recognition of hazardous materials, examining and securing the fire scene, documenting, evidence collection and preservation, determination of the exterior and interior of the scene, determination of the area of origin, debris examination removal, reconstruction, determination of ignition source, interviewing and interrogating analysis of the findings and presentation.

PADM4536 3 Credits
**Motor Vehicle Fire Investigation**
Examines the method of evidence collection, documenting and preservation, determining the origin and cause of the fire, research in relationship to the vehicle manufacturer, recognizing the need for more qualified assistance to determine cause, interviewing and interrogating investigation of the financial status of the victim.

PADM4537 3 Credits
**Transit System Safety**
The course promotes an understanding and implementation of the system-safety concept: people, procedures, facilities and environment. Students study organizational relationships, including coordination across functions and departments, and their impact on the safety department. The steps necessary in the development and implementation of a system-safety plan using engineering and behavioral safety approaches are applied.

PADM4538 3 Credits
**Transit System Security**
This course examines the tools needed to develop a system plan and implement the program, using resources to reduce crime and improve passenger and employee security. Included in the course are basic security terms, the five steps in threat and vulnerability identification and the resolution process. Assesses the security plan, design and construction, agency policies and procedures and various types of transit-security staffing.

PADM4539 3 Credits
**Effectively Managing Transit Emergencies**
The course examines the method used to develop and implement transit-emergency management and response programs, the nature of emergencies and disaster and emergency concepts.

PADM4540 3 Credits
**Transit Explosives Incident Management**
The course examines the preparation and initial-response planning to acts of terrorism, understanding how to implement the plan and the procedures to respond to an explosive incident. The identification and general security awareness in the transit environment, identification of flaws in facility or vehicle design and how to discourage criminal activity are addressed.

PADM4543 3 Credits
**Municipal Budgeting**
The course examines the budget function and process of county- and municipal-finance systems, the methods used to determine the needs of the community and individual agency, measuring the capability and benchmarking of the agency, preparing and presenting the budget and selling the budget and needs to the county or city administration.

PADM4544 3 Credits
**Geographical Information Systems and Emergency Response**
The implementation of geographical information systems (GIS) for mitigating planning, response and recovery for emergency responders. A general understanding and overview of what GIS is, how data is displayed and how to design and manage a database to assist in mitigation, preparedness and planning, response and recovery. Basic mapping concepts to deliver information in an easy-to-read display will enable the student to use real-time decision-making skills based on information gathered. Illustrations on how to use GIS in all phases of emergency service, including ingress/egress routes for evacuation efforts and quicker response.

PADM4545 3 Credits
**Effective Risk Communications for Leadership**
Developing better oral and writing skills with the use of modern technology, learning how to deal with the media as a public relations officer and to use the media as an effective tool, writing press releases, fostering good relationships with the media, developing better public relations skills to inform and educate the public and how to handle damage control.

PADM4547 3 Credits
**Global Issues in Health and Human Services**
This course is held in the United States with the option of taking the course overseas, when scheduled, including at FDU’s Wroxton College in Oxfordshire, England. An instructor will facilitate guest lectures to provide information on relevant issues affecting clients of health and social service providers. Global differences in service priorities in the areas of health care, mental health, disease control, inoculations, geriatrics, domestic-violence prevention, child-abuse prevention, early childhood learning and services for persons with disabilities.

PADM4548 3 Credits
**Legal Issues in Health and Human Services Administration**
There are many legal issues specific to the health care and human services clients. This course provides an overview of the legal process and dealing with patient rights, rights of the mentally ill, health care directives, family law, domestic violence laws and other relevant topics.

PADM4549 3 Credits
**Public Policy for the Health and Human Services Community**
Legislation and government policy have a major impact on program priorities and funding for special-needs populations. This course addresses the legislative process, how a bill is introduced, gatekeepers, special interest groups, political action committees, the media, research methods and the role of advocacy and lobbying within the political system.

PADM4550 3 Credits
**Program Design and Implementation for Health and Human Services Organizations**
Designing new programs to serve varied populations will be the focus of this course. The student will develop a program from idea to implementation, including conducting a needs analysis, drafting outcome measures, determining requirements and recommending a financing plan including the role of fundraising and grants from private and government sources.

PADM4551 3 Credits
**Budgeting and Finance for Health and Human Services Professionals**
This course provides students with an understanding of the fundamentals of budgeting and finance, budget preparation, distinctions between operating and capital budgets and the role of donations and grants from government and private foundation sources.
Public Administration

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

**PADM4552**
3 Credits
**Complementary and Integrative Medicine**
The practice of medicine is changing. A new paradigm called integrative medicine is emerging. It is a holistic healing model that combines western (allopathic) medicine with complementary modalities. For health care professionals and lay persons seeking information, this course is designed to introduce students to what the National Center for Complementary and Alternative Medicine (NCCAM) refers to as CAM modalities. These include whole medical systems rooted in traditional practices as well as chiropractic, acupuncture, herbs, massage, foods and spirituality.
*Fall, Spring, Summer*

**PADM4553**
3 Credits
**Foundations of Emergency Medical Service Administration**
This course will introduce the basic management components of an emergency service system. Topics of discussion will include planning, budgeting and revenue sources, scheduling, team building, problem solving and communication, quality improvement, customer services, managing clinical matters, continuing education, medical control, managing a communication center, the role and impact of regulations, community development, developing a culture of excellence.

**PADM4554**
3 Credits
**Quality Improvement for the Emergency Medical Services Community**
Developing a comprehensive ongoing program of quality improvement for emergency management services organizations is a challenge to administrators. During this course, students will be introduced to both quantitative and qualitative methods of developing and implementing programs that utilize meaningful data and performance measurement, staff participation and quality benchmarking in the context of emergency management services provision.

**PADM4555**
3 Credits
**Public Policy and Politics in Emergency Medical Services**
Public policy and politics impact emergency management services delivery on many levels. Discussion and course work will examine how public policies are developed; how emergency management services organizations can initiate or become involved in the policy and political process; and the administrative or operational impact of recently adopted (or proposed) federal, state and local policies.

**PADM4556**
3 Credits
**Legal Issues in Corrections**
This course provides an overview of the legal policies and practices that govern adult correctional institutions; legal issues pertinent to facility operations and standard operating procedures; security, custody and control. The course reviews a history of correctional law and the evolution of prisoners’ rights; a review of the United States Supreme Court cases that directly impact on prisons and prisoners; due process; inmate lawsuits and requisite; and other relevant legal topics.

**PADM4557**
3 Credits
**Inmate Behavior Management**
The basic components of inmate behavior management provide the focus for this course. Topics include: assessing risk and needs of individual inmates and developing classification processes; supervising inmates; alternatives for engaging inmates in productive activities; expectations of inmate behavior and management; high-risk prisoners; security-threat groups; special-management prisoners; managing the first-time offender and different methods for addressing problems with the inmate population.

**PADM4558**
3 Credits
**Critical Incident Management in Corrections**
Critical incidents in a correctional setting require specific strategies. This course will investigate potential episodes and approaches to address resulting issues and concerns. The course of study includes: hostage situations, hostage survival for staff, suicides, terrorist situations, equipment- and training-needs assessment, emergency-response planning and protocol, tactical assault, critical-incident stress and coordinating outside-agency responses.

**PADM4559**
3 Credits
**Health Issues in Correctional Institutions**
This course addresses the various medical and mental health issues that may arise in a correctional setting. Topics will include: infectious diseases, substance abuse, sexually-transmitted diseases, tuberculosis, hepatitis, chronic physical illness, mental disorders, psychotropic medications, appropriate treatment options, acute medical care, care for the elderly inmate, special-needs offenders and suicide prevention.

**PADM4560**
3 Credits
**Diversity in the Correctional Environment**
Balancing and managing a diverse environment are important factors in a correctional environment. Issues such as multicultural values, gang behavior and mentality, extremists, the multiple offender, multigenerational populations, the antisocial personality in prison, staff and inmate subcultures, gender and race issues and cults will be explored.

**PADM4561**
3 Credits
**School Emergency Management**
Students will learn the principles of school safety and security essentials with a special focus on the security-assessment process, developing crisis preparedness and response guidelines, analyzing security issues and working collaboratively with students, parents, police and the community. The course also will examine specific security assessment components, security policy and procedures, security staffing and operations, physical security, education, training and strategy.

**PADM4562**
3 Credits
**Leadership of the Founding Fathers**
This course will examine 10 of the nation’s founding fathers — their lives, their roles in the development of the early government and the impact their individual leadership still has on the United States today. (Equivalent to HIST4562 Leadership of the Founding Fathers.)

**PADM4563**
3 Credits
**Violence and Culture**
A thought-provoking look at the complexity and contradiction involved in violence within society through examination of global societies. The course will examine the contrasts between violent and nonviolent societies around the globe.

**PADM4564**
3 Credits
**Managing Culture, Diversity and Change in the Global Workplace**
Both the internal and external work environments of organizations in the United States are changing rapidly. Many of these changes require managers to understand how and why diversity influences organizational behavior. This course focuses on the sources of changes that necessitate the effective management of diversity; how work forces, constituencies, clients, consumers and markets are changing; and how more diverse work groups differ from relatively homogeneous work groups. This course will emphasize culture and cultural differences in employee, management and organizational behavior.
*Spring*

**PADM4565**
3 Credits
**White-collar Crime Issues**
White-collar crime has both direct and indirect impacts on individuals. This course will examine
the nature of corporate and nonprofit white-collar criminal organizations. Students will gain an understanding of the nature and problems of white-collar crime as well as the detection and deterrence aspects of white-collar criminals, which will include criminal-liability sanctions and policing strategies. Areas to be addressed include: money laundering, securities fraud, political corruption, professional misconduct, organizational misconduct and numerous other related topics. This course will also explore legal, law enforcement and societal responses to white-collar crime.

**PADM4566**
3 Credits
**Introduction to Cyber Crime and Computers**
This is an introduction to the basics of cyber crime and computer forensics. This course will help the student define, categorize and fight cyber crime. The student will also have an understanding of what computer forensics is and its relation to solving cyber crime.

**PADM4567**
3 Credits
**Introduction to Gangs and Gang Behavior**
The growing phenomenon of street gangs in communities is a national concern. With the presence of gangs comes an increase not only in violent activity by the youths involved but also a general increase in criminal activity such as narcotics, theft and substance-abuse violations. The first step in initiating a program to combat gangs in the community is recognizing the problem and identifying the specific threat. This course acquaints the individual with the history and organization of gangs, legal definitions, identifiers, graffiti, hand signs and drug-dealing activities. It also explores local street gangs, nationally affiliated gangs, gangs within the prison systems, the relationship between the Department of Corrections and Law Enforcement and gang investigations using the Racketeer Influenced and Corrupt Organizations (RICO) Act system.

**PADM4568**
3 Credits
**Airport Operations Safety**
In this course, students will have the opportunity to learn the principles related to airport operations and safety as it applies to day-to-day operations. Students will review the U.S. Federal Regulations as they apply to different aspects of airport operations and safety, airport operations procedures, airport security, Aircraft Rescue and Fire Fighting (ARFF) and related entities involved in airport mishaps. Textbook(s) and federal regulations will be utilized throughout this course and the body of knowledge elements required to complete airport operations safety.

**PADM4569**
3 Credits
**Computer-incident Response and Handling**
Coverage of computer-incident response and incident handling, including identifying sources of attacks and security breaches, analyzing security logs, recovering the systems to normal, performing post-mortem analysis and implementing and modifying security measures.

**PADM4570**
3 Credits
**Human Resource and School Resource Officer**
The establishment of an effective School Resource Officer (SRO) Program requires effective recruitment, selection and training. Although in other business arenas the human resource department has been responsible for these management initiatives, law enforcement has traditionally not utilized human resource theories to accomplish such initiatives. This course is designed to merge the two and examine the components of recruitment, selection, training and evaluations from a human resource perspective. Human resource theories will be studied, and upon completion of this course, attendees will have a working knowledge of the role of human resource and have a management program that can be implemented to create an effective system that includes the elements of recruitment, selection, training and evaluation of the SRO and the SRO Program.

**PADM4571**
3 Credits
**Real Estate Law**
Survey of the law affecting real estate transactions. Various forms of ownership, instruments of conveyancing, brokerage, Ohio real estate law, landlord-tenant relationships, fair-housing legislation and land-use control are covered. Emphasis will be put on housing discrimination, desegregation issues and methods of eliminating the effects of prior discrimination.

**PADM4572**
3 Credits
**Security Concepts**
In this course, students apply principles of management to security administration within the private sector and contract security. Topics include personnel management, security planning, organizational leadership, communication and recruitment and training.

**PADM4573**
3 Credits
**Introduction to Security Management**
This course includes basic information on asset management, physical security and human-resource safety, including information assets. The need for documentation of policies, standards and procedures to reduce issues is also reviewed.

**PADM4574**
3 Credits
**Corporate Security and Loss Prevention**
This course investigates methods for protecting critical business assets from a wide range of threats. This area requires the protection of people first and then the development of a comprehensive security plan.

**PADM4575**
3 Credits
**Incident Command Systems**
This course will explore incident command systems and their uses. The course will review the administrative, logistical, financial and reporting aspect related to incident operations. Incidents are varied in size from HazMat issues to planned events to accidents and mutijurisdictional incidents, for example.

**PADM4576**
3 Credits
**Threat Assessment**
This course views assessment processes that focus on actions, communications and specific situations that an individual may pose a threat of violence.

**PADM4577**
3 Credits
**Basics of Executive Protection**
This course will explore the concepts of executive protection in various venues, including residence, travel and office. The course will explore the concepts and procedures for perimeter security, emergency or contingency planning and response procedures and other concerns for the individual charged with protection of the executive.

**PADM4578**
3 Credits
**Fundamentals of Sustainability**
This course will provide the fundamentals of what sustainability is and how it can be applied. Defining sustainability and identifying the key themes that are associated with them will provide the basis for making decisions in the area. As specific themes are explored, participants will learn why these themes are important and how they impact decision making as well as leadership roles in organizations.

**PADM4579**
3 Credits
**Carbon Footprint and Climate Influence**
Climate has been impacted by the increase in greenhouse gas. As participants seek to improve the climate, it is necessary to address issues such as greenhouse gas of organizations and individuals, also referred to as the carbon footprint. Organizations and individuals need to be aware of their emission sources and how to improve their climate action.
Public Administration

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

Course Descriptions

PA D M 4 580
3 Credits
Public-Private Partnerships
Environmental changes involve more than technology changes, regulations and awareness campaigns. Effective change of a large magnitude requires individuals with aligned goals to work in concert to make change happen. This course will explore the skills needed to develop effective partnerships as well as how processes can be developed through a partnership when organizations have similar goals.

PA D M 4 581
3 Credits
Water, Ecosystems and Agriculture
Water, an essential element of life, covers more than two-thirds of the planet. It also links the forest ecosystem with the bays and estuaries as well as carrying nutrients and other biological organisms. This course explores the importance of water in the ecosystems and how these relate to agriculture. Laws, rules and regulations will also be studied. (Equivalent to SCIE2010 Contemporary Environmental Issues.)

PA D M 4 582
3 Credits
Sustainable Design and Construction
As buildings are designed and built, they have an impact on the way people behave and live, and they also have an impact on the ecosystem in which they are situated. This course will explore sustainable products and designs used in domestic and commercial construction. Students will diagnose the potential economic, cultural and environmental concerns for such projects.

PA D M 4 583
3 Credits
Brownfields Identification, Cleanup and Redevelopment
Environmental awareness and economic necessity have led to various laws and actions to correct industrial contamination of land. As a result of these activities, remediation, reclamation, reuse and redevelopement of land that was classified as brownfields have occurred in cities and mining areas. This course will explore the laws and their implications, how brownfields have been identified and cleaned up and redevelopment policies and actions.

PA D M 4 584
3 Credits
Energy and the Environment
Clean and affordable energy sources are essential for sustainable development. Issues of ozone-layer depletion and global climate change have been associated with the use of certain energy sources such as gasoline and natural gas. This course will explore other sources of energy such as solar, wind and wave that can be utilized as a source of clean energy at a reasonable price.

PA D M 4 585
3 Credits
Biodiversity: Its Concepts and Implications
The term biodiversity is used to describe the variety of all forms of life in a specific ecosystem. As the ecosystem changes, so do the forms of life in that system. This class will explore different methods for conservation of ecosystems and how such efforts have succeeded or failed.

PA D M 4 586
3 Credits
The Green Movement: Past, Present and Future
Early in the 20th century, different advocates of the stewardship of the environment and the sustainable management of resources started the environmental movement. Through the last century, this movement has broadened its focus to a larger green movement. This course will explore the basis for the conservation movement and the evolution of the green movement. Some implications of the current policies and practices will provide insight into where this movement is going in the near future.

PA D M 4 587
3 Credits
Introduction to Homeland Security
This course will explore the basic issues and concepts relative to homeland security from the domestic and international perspectives. Included in the course will be the sources and nature of threats, basic issues and national policies. The course will also study defense-strategy formulation.

PA D M 4 588
3 Credits
Comparative Governmental Homeland Security Systems
The concept of homeland security and the evolution of these systems is relatively new, having developed as the United States developed its system. This course will investigate various national policies and practices.

PA D M 4 589
3 Credits
Legal Issues in Homeland Security
The U.S. Constitution provides the framework for all laws in the United States, but there are state laws, executive orders, rules and regulations and other vehicles that establish a legal system. The threats of terrorism and natural disaster have impacted the legal base of American society. This course will explore legal issues in homeland security.

PA D M 4 590
3 Credits
Religion and Terrorism
Religion has a significant impact on cultures and even governments. Historically, there have been periods of time when religion has been the basis of conflict and wars. This course will investigate how religion has been linked to terrorism. (Equivalent to HUMN4590 Religion and Terrorism.)

PA D M 4 591
3 Credits
Changing Policing Philosophies: From Traditional Policing to Intelligence-led Policing
Police operations have changed significantly in the last decade. Where tactical patrols were common, law enforcement has moved from being reactive to proactive. The current model involves appropriate use of information and intelligence, and this course will explore this change as well as introduce students to intelligence-led policing.

PA D M 4 592
3 Credits
Introduction to Network Security
A guide to network security is provided in this course. General security concepts discuss authentication methods, common network attacks and how to safeguard systems. Communication security covers remote access, email, the web, directory and file application of border controls such as DMZs, extranets and intranets. Operational security details disaster recovery, forensics and continuity. The lab component provides the student with hands-on experience with securing networks, intrusion detection and installing and configuring a wireless network.

PA D M 4 593
3 Credits
Introduction to Computer Crime and Data Forensics
This is an introduction to the basics of cyber crime and computer forensics. This course will help the student define, categorize and fight cyber crime. The student will also have an understanding of what computer forensics are and their relation to solving cyber crimes.

PA D M 4 594
3 Credits
Computer Networking and Data Communication: Implications for Law Enforcement
This is an introduction to the basics of computer networking and how data is communicated. The student will understand the concepts of computer networking and will be able to form a small workable network system. An understanding of how data is communicated from system to system and machine to machine will be gained. Coupling these two methods will help the student understand how the criminal element can use the system to commit crimes or to create havoc on a network. This understanding will be very important in computer forensics and cyber crime.

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There is an introductory guide to find out how internal and external hackers operate and how hacking happens. Students will discover where and why a system is weak and how they can strengthen their system and their defenses. They will also create a safety plan and test their system with their own ethical hacking methods.

**PADM4596**
3 Credits
**Introduction to Computer Security and Current Problems**
Computers have a greater role in people's lives. People get many benefits from these systems but there are others who use these systems for other than legitimate purposes. In addition, there are issues that arise as part of new hardware and software that impact everyone. This course will explore current cyber issues, the problems they cause and security measures that are in place to address such problems.

**PADM4597**
3 Credits
**Global Issues for Not-for-Profit Administration**
Changing demographics, globalization, technology and economics are a few of the areas that are impacting not-for-profits as they attempt to provide services. Changes in how the public and private sectors provide services impact the not-for-profit sector. This course is designed to explore the issues that are impacting the not-for-profit sector and how this sector is addressing them.

**PADM4598**
3 Credits
**Public Policy for Not-for-Profit Organizations**
Not-for-profit organizations provide essential services to a large part of the population. The role of the not-for-profit sector is influenced by public policy as government moves to either provide less direct services or, at times, more services. This course will explore the relationship between public policy and the not-for-profit organizations.

**PADM4599**
3 Credits
**Program Design, Implementation and Evaluation for Not-for-Profit Organizations**
When organizations develop programs to meet a need, there are a number of aspects that need to be considered. In addition to clearly stating what the organization is trying to accomplish, there has to be a good design of what and how the organization plans to accomplish its goals, an implementation plan that will provide the specifics of how this plan will be accomplished and an effective evaluation to ensure the organization is doing what it said it would do. This course is designed to look at how this process takes place in a not-for-profit organization.

**PADM4600**
3 Credits
**Budgeting and Finance for Not-for-Profit Organizations**
The areas of budgeting and finance are complex areas for any organization. In addition to the key elements of accounting and budgeting, there are other areas of concern, such as planning and control, auditing and linking the budget to the program and its outcomes. This course will explore the concepts used in the budgeting and finance process in not-for-profit organizations.

**PADM4601**
3 Credits
**Internship/Co-op**
This course is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student's background and specific goals. It will provide the student with an opportunity to work within a not-for-profit organization, which is helpful for those wishing to enter this field of employment.

**PADM4602**
3 Credits
**Port, Bridge and Tunnel Security**
In the current environment, there is the threat of terrorist activities that may target areas where the most human casualties and disruption to lives will occur and where concerns of safety and security are threatened. The transportation systems are major targets of terrorists. This course will explore the safety and security of the ports, bridges and tunnels throughout the country. Examples of issues involving other systems around the world will be used for discussions.

**PADM4627**
3 Credits
**Introduction to Translation and Interpreting in a Health Care Setting**
This course explores how translation and interpreting occurs in health care settings, especially in hospitals, medical offices and government agencies. Primary emphasis is on medical terminology and production of clear and accurate oral communication and written texts on medical topics. Other topics include comparative health care systems and practices, ethical and legal issues and career pathways.

**PADM4628**
3 Credits
**Introduction to Translation and Interpreting in a Legal Setting**
This course explores how translation and interpreting occurs in a legal setting especially in courtrooms, government agencies and law offices. Primary emphasis is on legal terminology and production of clear and accurate oral communication and written texts on legal topics. Other topics include comparative legal systems and practice, ethical and legal issues and career pathways.

**PADM4640**
3 Credits
**Strategic Administration**
Formulas and strategies to allow institutions, in both the corporate and public sectors, to adapt to inevitable changes in social, economic and technological landscapes. Specific techniques include forecasting the evaluation of trends and goal setting, with the objective of making the institution more viable and productive in ever-changing environments.

**SCIE2004**
3 Credits
**Science: Pollution, Prevention and Sustainability**
The course focuses on environmental hazards and human health, pests and pest control, water pollution, municipal solid waste, hazardous chemicals, atmospheric pollution and a sustainable future.

**SCIE2008**
3 Credits
**Chemistry in Everyday Life**
Designed specifically for non-science majors, this course explains the importance of basic chemical principles and the impact they have on people's daily lives within a framework of relevant, real-world applications. Included may be topics such as the nutritional basis of healthy living, medicines and drugs, pollution and the conservation of natural resources and the agricultural production of food for an ever-expanding world population.

**SCIE2010**
3 Credits
**Contemporary Environmental Issues**
Water, an essential element of life, covers more than two-thirds of the planet. It also links the forest ecosystem with the bays and estuaries as well as carrying nutrients and other biological organisms. This course explores the importance of water in the ecosystems and how these relate to agriculture. Laws, rules and regulations will also be studied. (Equivalent to PADM4581 Water, Ecosystems and Agriculture.)

**SCIE2012**
3 Credits
**Conceptualizing Science Exploration**
An introduction to the physical sciences geared towards the non-science student. This class is an introduction to critical thinking and a survey of
modern science wrapped into one package. Students will learn what science really is and how to survey the world through the lens of scientific scrutiny. A foundation in the ideas of physics, geology and planetary science will be provided. While the course is largely conceptual, basic mathematical skills will be used.

SCIE2015 3 Credits
The Scientific Study of Yoga in the Modern World
This class will explore the history of yoga and the application of yogic philosophy in the context of today’s society. The class will include the physical practice of hatha yoga, the study of basic anatomical principles in yogic postures, the kinesiology of the asana practice, the philosophy of the eight limbs of yoga and the practice of modern mindfulness.

SCIE2016 3 Credits
Modern Meditation Practices and the Relevance of Yoga in Today’s World
This course will cover the physiology of the breath in reference to yogic meditation, the study of the nervous and endocrine systems and their response to stress, the neuroscience behind motivation and human behavior, the philosophy behind ancient yogic text and its pertinence to today’s culture and the physical practice of restorative yoga.

Sociology

SOCI2241 3 Credits
Sociology I
An examination and application of basic sociological ideas; topics include education, urbanization, religion, culture, population, collective behavior, delinquency, social stratification, social organizations and associations. Fall, Spring

SOCI2242 3 Credits
Sociology II
Role conflict and socialization; identification and definition of contemporary social problems, their causes, implications and possible solutions. Spring, Even Years

SOCI2243 3 Credits
Cultural Studies: Science, Technology, Work and Belief
This course looks at different areas of culture and culture change, asking the question: “How did we get to where we are now in our lives, given the cultural foundations of the past?” It emphasizes the cultural forces exerted on people and their responses via work, technology and belief systems to those forces. This course, though framed in a traditional classroom format, will be highly participatory in nature. Student surveys, collaborative projects, journal-histories and observations are some of the ways in which active student response to ideas will shape the outcomes of this course.

SOCI2244 3 Credits
Society: Disaster and Disease
The influence of disease and other natural events on human history; political, social, cultural and military developments affected by plague, infestation and natural disaster; human responses to such events. Fall, Spring, Summer

SOCI2245 3 Credits
Crime Detection: A Historical Overview
An examination of how crime was prevented, detected, investigated and solved in other historical periods. Fall, Spring, Summer

SOCI2246 3 Credits
Communications and Gender
This course will explore the differences and similarities in communication styles by gender, analyzing communication situations and the effect that culture and socialization play on the development of communication styles, behaviors and attitudes. Fall, Spring, Summer

SOCI2247 3 Credits
Popular Culture
This course will be structured around the general framework of the text: Popular Culture. Aside from readings in the text, the class will experience films, music, television shows, advertising and popular literature. In addition, pop art will be discussed as the melding of fine art and mass culture, and dress will be explored as a form of popular material culture. Fall, Spring

SOCI2250 3 Credits
Sociology of Small Groups
Microsociological analysis of group dynamics, interaction and social structure in personal and institutional settings in modern society with an emphasis on experiential learning. Fall, Spring

SOCI2251 3 Credits
Race and Ethnicity
A theoretical and historical analysis of racial and ethnic groups in the United States with emphasis on the nature of social interaction and change. Attention will be paid to the themes of ethnic and cultural identity, cross-cultural communications, causes of ethnic conflict and problem-solving efforts. The course will also examine the history of immigration within the United States, and how diversity continues to influence life in the United States.

SOCI2310 3 Credits
Social Problems I
Examines the historical and sociological roots of critical social problems such as poverty, racism, sexism, crime, etc.

SOCI2311 3 Credits
Social Problems II
The second half of SOCI2310 Social Problems I continues the examination of the historical and sociological roots of critical social problems such as race, class and gender in the United States.

SOCI3211 3 Credits
Political Sociology
Analysis of the major sociological variables associated with political decision making and other political processes.

SOCI3370 3 Credits
Women and Work
This course will explore the ways in which gender affects paid and unpaid work, the kinds of occupations historically associated with each sex, changes in those gender-work patterns by marital and parental status, gains in occupational equality and persistent inequalities.

SOCI3470 3 Credits
Modern Courtship and Marriage
Examines the way in which modern couples find each other, how marriage plans are made, experiences of marriage and eventual family formation, internet dating and the new rules for meeting potential partners.
Standard American-spoken English.

Students will examine how cultural differences that result from race, class, gender and sexual orientation impact behaviors and attitudes. The existing systems of power and privilege that maintain the social constructions of race, gender and sexual orientation within the United States will be analyzed. Historical and current perspectives on race, class, gender and sexual orientation will be presented.

Cultural Studies in the Dominican Republic

This course, held in the Dominican Republic, will provide students with an opportunity to study aspects of Dominican culture including history, religion, folklore, gender roles, education and world of work. Students will explore cross-cultural comparisons of American and Dominican culture through arranged experiential activities and with experts from the Pontificia Universidad Católica Madre y Maestra.

Speech

Standard American-spoken English

Standard American speech patterns and usages, including idiomatic expressions, figurative language, localisms, colloquialisms and regional dialects will be discussed. Concentration on the physiology, phonetics, word and sentence stress patterns and topical vocabularies from vocational to academic will also be covered.

Standard American Speech Patterns

Continued emphasis on speech patterns, usage, idioms, figurative language, regionalisms; focus on audition factors, such as rhythm, stress, intonation; vocabulary-building, reading comprehension; application to professional and academic settings. Prerequisite: SPCH1111 Standard American-spoken English.

Sports Administration

SPAD1800, SPAD2800, SPAD3800, SPAD4800

1–3 Credits

Independent Study

Independent study in sports administration.

SPAD2004

3 Credits

Introduction to Sports Administration

This course provides an overview of the business and organizational facets of sports administration. As with any business or organization, there are administrative tasks required, such as planning, organizing, coordinating, controlling and budgeting. Topics include sports management, career potentials, marketing, public relations, event planning, facilities management and recreational offerings.

SPAD2010

3 Credits

Legal Aspects in Sports Administration

This course explores legal concepts relative to sports administration. Topics include constitutional due process; athlete participation and eligibility requirements; contracts for facilities, coaching and employment; and tort laws applicable to participants and spectators. Case studies will be used.

SPAD2012

3 Credits

Nutrition and Wellness

This course explores the theoretical and practical aspects of nutrition and its relationship to wellness. Topics include nutrition and disease, physical fitness, weight management, stress management, addictions and lifestyle and their relationship to wellness.

SPAD2013

3 Credits

Exercise Science for the Sports Administration Professional

This course will expose the sports administration professional to all aspects of the exercise field including, but not limited to, the following: human anatomy, human physiology, the multiple disciplines and professions of the exercise science field and the common professional dynamics between sports administration professionals and exercise physiologists.

Ethical Issues in Sports

This course will investigate ethical issues in sports activities, including regulations of intercollegiate athletics as well as professional sports. Topics covered will include drug testing, academic requirements, Title IX, differences in National Collegiate Athletic Association divisions and financial concerns of the athlete. This course will use current case studies as well as lectures.

Team Development

The concept of team is critical to many sports activities, yet many groups of people do not develop into a cohesive team. This course will explore how to effectively develop teams for maximum performance.

Stress Management

This course will explore the effects of stress on the individual. Stress can be categorized as good stress and bad stress, and there is a need to understand how stressors can be understood and addressed.

Team Development

This course will explore the effects of stress on the individual. Stress can be categorized as good stress and bad stress, and there is a need to understand how stressors can be understood and addressed.

Sports Internship

This is a practical experience of previously assigned work. The internship assignment will depend on the student’s background and goals.

Sports, Marketing, Public Relations

Concepts of marketing, promotions and public relations for various components of the sports industry; strategic planning and coordination of efforts; marketing strategies and varying consumer behaviors in different sports venues; social and economic issues related to buying and selling of sports; the inclusion of sponsorships and endorsements into marketing efforts.
Course Descriptions

Sports Administration
Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

SPAD2020
3 Credits
Fundraising in Sports
An examination of the skills, strategies and techniques needed for successful fundraising and revenue generation, especially in collegiate and amateur athletic programs. Areas covered include donor characteristics and research, direct-mail strategies, phone solicitations, event and activity organization, gifts, corporate sponsorship, marketing plans and ethical and legal issues.

SPAD2021
3 Credits
Strength and Conditioning
This course will explore the theory and practice behind weight training and conditioning of sports participants. The course is designed to provide a comprehensive overview of strength and conditioning. Emphasis is placed on a basic understanding of nutrition, exercise technique, program design, organization and administration and testing and evaluation. Students will also explore the principles of supervising a safe training environment according to National Strength and Conditioning Association guidelines.

SPAD2022
3 Credits
Facility Management
Management of the various types of sports and recreational venues, facility operations, event planning and management, personnel and human-resource issues, budgeting and equipment purchasing, marketing of events, maintenance and inventory and regulation and safety issues.

SPAD2023
3 Credits
Sport in Contemporary Society
Sports are integrated into society and enjoyed throughout the world on a cultural and competitive level. This course examines the social, political, cultural, philosophical, psychological, historical and practical aspects of sport history and evolution. This course also allows students to identify the role of sport in contemporary society both nationally and internationally, through discussion of sports-related scenarios.

SPAD2024
3 Credits
Economics and Finance in Sports
Economics and financial markets impact all areas of people’s lives. This course will explore how these factors affect the sports and recreation communities. The topics include attendance and attendance modeling, salary structure and salary caps and financing stadiums, among others. The course also looks at the private versus public financing of sports teams and venues.

SPAD2025
3 Credits
Global Perspectives in Sports
Sports extend beyond national boundaries. This course will explore the sports from a global perspective by examining the similarities and differences between various national sport cultures. The course will also investigate the types of sports activities found in specific cultures in order to determine the potential for expansion of activities into other international venues.

SPAD2030
3 Credits
Ultimate Sports Marketing
Sports marketing is heralded as one of the most prestigious, exciting and popular fields in contemporary marketing. The number of related programs in colleges and universities has exploded, and companies tied with sports marketing handle thousands of avid career hopefuls each year. This course goes behind the scenes and outlines a strategic, integrated approach to effective and innovative sports marketing. It also provides detailed strategies on entering the sports-marketing field, acquiring funding, managing event logistics and more. This comprehensive class covers a wide range of topics including: use of the internet as a sports marketing tool, negotiations and contracts with sponsors and suppliers and specifics of licensing deals.

SPAD2032
3 Credits
Sports and the Community
This course will explore the relationship between sports teams and their surrounding communities. Course content focuses on customer/fan relations, effective communication, different ways to give back to the community and player interaction. The course aims to prepare students with a day-to-day glimpse into the community relations department of a sports team.

SPAD2033
3 Credits
Exercise Physiology
This course explores the human body’s response to exercise. As the body exercises, there are anatomical and physiological responses that impact specific cells, muscles, organs and the complete body.

SPAD3000
3 Credits
Fiscal Concept in Sports
This course is designed to provide an understanding of financial methods and procedures in the sports industry. Topics include the development and management of budgets, financial statements, fundraising, sponsorship, facility financing and economic impact. The financial concepts, theories and their application will be related to youth, high school, intercollegiate, professional and commercial sports organizations.

SPAD3001
3 Credits
Theory, Philosophy and Principles of Coaching
This course examines the challenges of the coaching profession and provides an overview of the concepts that are essential in the preparation of sport coaches. Students will evaluate the current theoretical perspectives and critically examine the current research in coaching sports. Topics include developing a coaching philosophy, evaluating theories in motivation, understanding team dynamics, communicating effectively and improving player performance.

SPAD3002
3 Credits
Human Kinesiology
This course is designed to provide an understanding of the principles of mechanics and anatomy in relation to human movement. Topics include motor behavior, biomechanics and physiology.

SPAD3003
3 Credits
Sports and Society
This course is designed to provide an understanding of the different sociological issues facing sports. Issues relating to race and ethnicity, gender, deviance, violence, politics, religion and future trends and how they relate to youth, high school, college and professional sports will be discussed.

SPAD3004
3 Credits
Youth Program Administration
This course is designed to provide the foundational knowledge of developing sustainable youth programming in a recreational or commercial setting. Students will learn the practices for recruiting, selecting, educating and evaluating coaches. Topics include youth philosophy, managing coaches, parents, risk, finances and events.
SPAD3005 3 Credits
Management in Athletic Training, Athletics and Health
This course will focus on the management concepts in athletic training. Students will study the standards, policies and practices, supervision and administration of athletic training and health-related programs. The course examines various issues, policies and procedures involved with the administration of athletic training in the traditional and nontraditional settings.

SPAD3010 1 Credit
Job-search Strategies
In addition to researching job requirements and projected opportunities, this class will explore how to develop appropriate documents to enable students to market themselves to potential employers, such as résumés and cover letters. Interviewing skills and how to effectively communicate and sell themselves will be included, as will concepts of networking and social media. Note: This course must be taken before SPAD4001 Sports Internship II.

SPAD3024 3 Credits
Special Topics in Sports Industries
This special-topic course involves active learning in an appropriate sports venue. Industry specialists will focus on functions in sports organizations. The class will involve site visits as well as classroom activities. Students must attend all activities, including the class as well as the site visits that may be in the metropolitan area. They are expected to make their own arrangements for the site visits. This does not substitute as an internship. Prior to registration contact Dr. JC Kim, associate professor of sports administration and co-director of sports administration, or Dr. Robyn Lubisco, assistant professor of sports administration and co-director of sports administration for the specific site for the term.

SPAD3030 3 Credit
Human Resource Administration in Sports
The course will provide students an introduction in human resource administration in a sports environment. Students will explore practices involving employers and employee relationships and apply these concepts to the day-to-day practices and skills required of a manager in a sports organization. The content will focus on areas such as human resource policies, recruiting, hiring, job analysis, creating position descriptions, performance evaluation, training, career development and supervision of staff members and volunteers.

SPAD3000 3 Credits
International Sports Administration*
This course is a study-abroad course that includes exploring various issues related to the governance of international sport organizations and events throughout the world and their impact on operations and management within the sport industry. Areas covered include the Olympics, World Cup, Paralympics, international marketing, culture, politics and ethical dimensions. Students will gain a deeper understanding of the various facets of conducting sport business in the international marketplace. Students will be required to complete a research paper approved by the instructor after completing the course, and this paper will be used as a senior thesis. It will also be used as a writing sample for the learning-outcomes assessment.

SPAD4001 3 Credits
Sports Internship II
This is a practical experience of previously learned skills and knowledge. The internship assignment will depend on the student’s background and goals and should be taken toward the end of the program. Prerequisite: SPAD3010 Job-search Strategies.

SPAD4500 3 Credits
Coaching Certification
This national certificate is offered through the National Federation of State High School Associations (NFHS). Students will be required to have satisfactory completion of the following four NFHS courses: Fundamentals of Coaching; First Aid, Health and Safety for Coaches; Concussion in Sports; and NCAA Eligibility. In addition, they will be required to complete a research assignment as determined by their instructor.

SPAD3001 3 Credits
Introduction to Strength and Conditioning
Students will be exposed to the world of strength and conditioning at all levels — the private sector, scholastic, collegiate as well as the professional sports world. This course will delve specifically into the profession as a whole as well the essentials for future successful strength and conditioning coaches.

SPAD3000 3 Credits
Biomechanics
This course will cover in-depth arthokinetic/arthrokinematic and biomechanical principles of weight training and conditioning.

SPAD3001 3 Credits
Clinical Experience in Strength and Conditioning I
Students will be studying specific anatomy and physiological principles related to the strength and conditioning profession. Topics include flexibility, mobility, actin/myosin cross bridging and muscle contraction as well as planning for successful strength and conditioning experiences. Prerequisite: BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and STRC3001 Introduction to Strength and Conditioning. Corequisite: STRC1001 Introduction to Strength and Conditioning.

SPAD3002 3 Credits
Clinical Experience in Strength and Conditioning II
Students will continue to study anatomical and physiological principles related to the strength and conditioning profession. Among the topics are body composition, warm-up and cool down, flexibility and performance assessment. Prerequisite: STRC3001 Clinical Experience in Strength and Conditioning I.

SPAD3005 3 Credits
Upper Body Exercise Techniques and Program Design
Technique, teaching, program design integration, safety procedures and injury modification for upper-body exercises. Use of various exercises, equipment and training programs to attain desired effect on the upper-body musculature. Prerequisites: STRC1001 Introduction to Strength and Conditioning and STRC3001 Clinical Experience in Strength and Conditioning I.

*Students may substitute an independent research project approved by the program director if they are unable to travel with the class.
Course Descriptions

Sustainability

Anthony J. Petrocelli College of Continuing Studies
Florham Campus, Metropolitan Campus, Vancouver Campus and Wroxton College

STRC3006
3 Credits
**Lower Body Exercise Techniques and Program Design**

Technique, teaching methods, safety procedures and injury modifications for lower-body resistance training techniques.

STRC3007
3 Credits
**Kinesiology**

Detailed study of the structure, function and kinesiology of each body region as well as quality-of-movement analysis. Prerequisite: STRC1001 Introduction to Strength and Conditioning.

STRC4007
3 Credits
**Aerobic/Anaerobic Development**

Students will study the in-depth processes of both aerobic and anaerobic metabolism. Students can also expect to have to demonstrate this knowledge through the creation of a sport-specific condition program geared at enhancing cardiorespiratory reactivitying as well as anaerobic/aerobic performance.

Sustainability

SUST1000
3 Credits
**Introduction to Sustainability**

The fundamental dimensions of sustainability are: a) to look back to its ecological roots, which is a reminder of the uncomfortable topic of limits to the use of the earth’s resources; b) the unappreciated challenge of integrating one field, environmentalism, with two previously almost entirely separate ones: economy and human society; and yet another big challenge, the need for a new relationship between the world’s wealthier countries and those with severe poverty.

SUST1001
3 Credits
**Environmental Science**

A foundation course for the sustainability curriculum. Through lectures, field trips and lab work, students will learn the basics of environmental science, the different sorts of environments, the relations between the human species and their surroundings. Community issues, future concerns and economic issues will be raised.

SUST3000
3 Credits
**Geomapping GIS**

An interdisciplinary approach, GIS incorporates the collection and documentation of data with storage and retrieval components for analysis and discovery to implement critical decision-making techniques. First responders have access to life-saving and life-threatening information that is stored and retrieved from GIS. Using spatial-analysis tools like ArcGIS software, online map servers and database-management systems, students in this program will gain a different point of view from their general course of studies.

SUST4000
3 Credits
**Environmental Policy/Law/Ethics**

This class will focus on the interrelationship of the environment (in its natural state) and humanity (as an embodiment of intelligent actors) acting upon the environment with consumptive and preservation forces leading to the establishment of rules, laws and policies to balance their coexistence.
University College: 
Arts • Sciences • Professional Studies

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

Africana Studies
School of Criminal Justice, Political Science and International Studies

AFST1101
3 Credits
Africa and Africans I: History and Traditions
This is an introductory survey course on Africa. This course provides students with insights into the history, traditions and the African society before 1800. The course will focus on the family, ideas, linkages, kinships and ways of life of the African people.

AFST1102
3 Credits
Africa and Africans II: Communities and Culture
This survey course will introduce students to the diversity of the African continent. It will introduce students to African communities and cultures as well as focus on the relationship among African societies and between Africa and the rest of the world. It will provide insights into contemporary Africa (since 1800) including its arts, economy, ideas, literature, music, politics, etc. Prerequisite: AFST1101 Africa and Africans I: History and Traditions.

Arabic
School of the Humanities

ARAB1101
3 Credits
Elementary Arabic I
An introduction to contemporary spoken and written Arabic.

ARAB1102
3 Credits
Elementary Arabic II
A continuation of ARAB1101 Elementary Arabic I. Prerequisite: ARAB1101 Elementary Arabic I or equivalent.

ARAB2103
3 Credits
Intermediate Arabic I
A continuation of conversation and reading in contemporary Arabic with emphasis on the cultural context of the language. Prerequisite: ARAB1102 Elementary Arabic II or equivalent.

ARAB2104
3 Credits
Intermediate Arabic II
A continuation of ARAB2103 Intermediate Arabic I. Prerequisite: ARAB2103 Intermediate Arabic I or equivalent.

Anthropology
School of Psychology

ANTH5101
1 Credit
Introduction to Mayan Civilization
This course provides an overview of Mayan history, culture, art and archaeology, as well as field experiences at several ancient Mayan cities, excavation sites and caves (e.g., Baking Pot, Cahal Pech, Caracol and Xunantunich). Students will have an opportunity to explore everything from the jade-filled tombs of rulers to post-classic period refuse dumps, as well as the opportunity to learn about excavation techniques, mapping and methods for surveying cultural remains. Specific topics include Mayan household archaeology, Mayan ideology and post-classic Mayan achievements. A field course in Belize, Central America (in cooperation with FDU's sister institution, Galen University).

Art
School of Art and Media Studies

ART1101
3 Credits
Art History and Lecture

ART1103
3 Credits
Principles of Art Appreciation
This course is designed to introduce students to the language of art through an examination of the elements and principles of design. Eastern and Western styles will be included in discussions of masterworks. Aesthetic judgment, compositional organization and artistic methodology will be examined in each case. Emphasis will be on the viewing and discussion of works within a specific context involving some demonstrations and hands-on studio experiences. Museum visits and art experiences will be designed to reach the ultimate goal, i.e., an appreciation of art.

Fall, Spring

ART1107
3 Credits
Development of Art I
History of art from ancient through medieval times. Required of all art majors.

ART1108
3 Credits
Development of Art II
History of art from the Renaissance through the present. Required of all art majors.

ART1112
3 Credits
Medieval Art
Painting, sculpture, architecture and minor arts from the early Christian through the Gothic periods.

ART1120
3 Credits
Modern Art to Mid-century
The major movements in painting, sculpture and architecture in Europe and America in the late 19th and early 20th centuries.

ART1131
3 Credits
History of Graphic Design and Illustration
A survey of visual-communication systems from early global civilization through book and magazine illustration, poster and advertising art from the 19th century to the present. (Equivalent to COMM1131 History of Graphic Design and Illustration.)

ART1133
3 Credits
History of Photography
History of photography from Niépce to the present day.
ART1155
3 Credits
Cinema I: The Director's Vision
Cinema theory, technique, technology and style. Weekly screenings of important films. May be repeated, but student may not repeat topic.
Fall  Fee

ART1156
3 Credits
Cinema II: Themes in Films
Major films in historical and contemporary cinema and their unique contributions to film theory, technique, technology and style. May be repeated, but student may not repeat topic.
Spring  Fee

ART1137
3 Credits
History of Fashion Design
This course is a study of the history of fashion through the ages — from Egypt and ancient Greece to the present day. Sketching, written assignments and observation will be used to gain knowledge on the subject. FDU NetID (formerly Webmail) account required.

ART2137
3 Credits
Global Roots of American Architecture
This survey course introduces students to American architecture with the emphasis on global influences brought by a unique makeup of the population of immigrants. Prerequisite: ENWR1001 Composition I: Rhetoric and Inquiry. Corequisite: ENWR1002 Composition II: Research and Argument.

ART2238
3 Credits
The Global Art World
Via the internet as virtual art world, the purpose of this course is to acquaint students with visual art from around the world. The class will travel the globe to visit museums, galleries and artists. Students will become acquainted with relationships between historical and contemporary work and how it interconnects all continents and countries.

Art Studios

ART1141
3 Credits
Two-dimensional Design
Basic elements and principles of two-dimensional design and composition. (Freshman art major foundation.) Prerequisite: ART1141 Two-dimensional Design.
Fall  Fee

ART1144
3 Credits
Color Theory I
The physical and psychological properties of color and the application of these phenomena in the creative arts.
Fee

ART1147
2 Credits
Introduction to Studio Arts I
Drawing, painting and composition for non-art majors. Basic techniques and practical application of elements and principles of design. (Cannot be counted toward a fine arts major.) Fee

ART1151
3 Credits
General Drawing I
Basic techniques and concepts in creative drawing from observation and imagination. (Freshman art major foundation.)

ART1153
3 Credits
Life Drawing I
Basic concepts and techniques of drawing the human form through observation of live models. (Freshman art major foundation.)

ART1157
3 Credits
Printmaking I
Basic printmaking techniques and their aesthetic possibilities. Monoprints, linocuts and woodblocks.
Fee

ART1158
3 Credits
Silk-screen Printing I
Serigraphy: The artistic use of silk-screen method of printing. Basic techniques of single and multicolored printing.
Fee

ART1159
3 Credits
Monotype Printmaking
This course will explore Monotype technique using Xerox copy transfer, stencil masking, texture transfer, paper collage and brayer method on unique rubber plate and paper lithography. All processes will be demonstrated in class and applied through printing sessions and critiques.
Fee

ART1161
3 Credits
Painting I
Painting in acrylic or oil media. Problems of form, expression and technique.
Fall, Spring

ART1167
3 Credits
Collage and Mixed Media
Constructing works of art from paper and castoff materials, including three-dimensional objects and boxes in assemblage.

ART1169
3 Credits
Watercolor Painting I
Fundamentals of transparent watercolor painting. Stretching, wash techniques and brush manipulation.

ART1170
3 Credits
Advertising Design
Principles of design applied to commercial layouts. (Equivalent to COMM1170 Advertising Design.)

ART1172
3 Credits
Designing with Color
With online lectures, offline reading, uploaded graphics and computing conferences, students will explore the way of using the computer to design with color, developing color schemes and design projects.

ART1174
3 Credits
Desktop Publishing I
Fundamentals of layout, design and typography on the computer. Introduction to publishing on the computer using Quark Xpress®, Adobe® Illustrator® and Adobe® Photoshop®. (Equivalent to COMM1174 Desktop Publishing.)

ART1177
3 Credits
Introduction to Digital Media
Fundamentals of using the computer as a drawing/painting medium. Digitizing, video imaging and manipulation of digital information to create visual art. (Equivalent to COMM1177 Introduction to Digital Media.)

ART1178
3 Credits
Multimedia on the Internet
Fundamentals of interactive design for the web using Macromedia Flash. Useful in multimedia and web design. Three contact hours required for all students. Extended laboratory of two contact hours required for art majors only.
ART1179
3 Credits
Digital Illustration and Design
The use of the computer as a primary tool in illustration and design. Extended laboratory for art majors only.

ART1181
3 Credits
Sculpture I
Developing perceptual skills through clay, plaster and mixed media.

ART1187
3 Credits
Ceramics I
Clay structure; methods of coil, slab and wheel construction; firing and glazing.

ART1189
3 Credits
Jewelry I
Basic design concepts and creation in metal jewelry.

ART1192
3 Credits
Digital Photography I
Fundamentals of electronic imaging to input photographic materials and manipulate them in a digital environment for creative use and commercial application.

ART1830
3 Credits
Adobe® Photoshop® for Illustration
Using Adobe® Photoshop®, Traditional illustration techniques are revised to enable the artist to work directly on the computer.

ART1832
3 Credits
Alternative Art I
A study of underground and outsider art forms beyond the scope of the traditional, including body-art (tattoos, piercing, etc.), Performance art, folk art and rituals. Winter Session

ART1834
3 Credits
Alternative Art II
Building on concepts covered in ART1832 Alternative Art I.

ART1837
3 Credits
Alternative Art III
Utilizing basic skills covered in ART1832 and ART1834 Alternative Art I and II. Students will be expected to create finished pieces of alternative art.

ART1838
3 Credits
Elementary Digital Video
A hands-on class in the creation of short videos utilizing video download to digital files, nonlinear editing and postproduction on the computer. Students will make their own videos from concept to completion. (Equivalent to COMM1838 Elementary Digital Video.)

ART1841
3 Credits
Pastel Drawing I
An introduction to drawing techniques using color.

ART1843
3 Credits
Design for the Web
Introduction to design issues specific for the web. The course includes an overview of how the internet functions. It covers basic website interactivity and navigation, image adjustment and compression, as well as basics of multimedia on the web.

ART2182
3 Credits
Wood Sculpture
Basic shop practices and production for building wood sculpture.

ART2189
3 Credits
Basic Jewelry II
Introduction to basic casting techniques and model making for jewelry and small sculpture. Prerequisite: ART1189 Jewelry I or permission of instructor.

ART2215
3 Credits
Photoshop® for Advertisement and Illustration
The use of Photoshop® in the creation and manipulation of digital artwork for editorials and advertising in print media. Student projects are modeled after real-world commercial assignments.

ART2247
2 Credits
Introduction to Studio Arts II
Sculpture and graphics for nonart majors. Basic techniques. Elements and principles of design applied to three-dimensional forms and printmaking. (Cannot be counted toward a fine arts major.) Prerequisite: ART1147 Introduction to Studio Arts I.

ART2253
3 Credits
Life Drawing II
Continued practice of drawing the human figure through observation of live models. Emphasis on lectures and outside projects on skeletal and muscular structures. Prerequisite: ART1153 Life Drawing I or permission of instructor.

ART2257
3 Credits
Printmaking II
An extension of and further study of skills and techniques covered in ART1157 Printmaking I. Students will be encouraged to develop their own projects.

ART2258
3 Credits
Silk-screen Printing II
Various stencil methods of silk-screen reproduction including photographic film. Techniques of multicolor printing emphasized. Prerequisite: ART1158 Silk-screen Printing I or permission of instructor.

ART2261
3 Credits
Painting II
Continuation of ART1161 Painting I. Prerequisite: ART1141 Two-dimensional Design, ART1161 Painting I or permission of instructor.

ART2269
3 Credits
Watercolor Painting II
Advanced techniques in water-soluble media. Emphasis on original procedures for painting various subjects including still life and landscape. Prerequisite: ART1169 Watercolor Painting I or permission of instructor.

ART2271
3 Credits
Adobe® After Effects: Broadcast Graphics
This course is an introduction into the world of broadcast motion graphics for television and the web using an industry-leading software, Adobe® After Effects. Students learn basic animation techniques while creating short movies — animated logos, titles and openings.

ART2274
3 Credits
Computer 3-Dimensional Modeling
Students will learn the design aspects of creating three-dimensional graphics for broadcast applications and design tools for creating virtual sets.

ART2275
3 Credits
Computer Animation II
Continuation of animation principles with a focus on three-dimensional animation.


**Course Descriptions**

**Art**

University College: Arts • Sciences • Professional Studies

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**ART2277**

3 Credits

**Illustration**

Book, magazine, editorial, advertising and humorous illustration. Prerequisite: ART1151

General Drawing I, ART1153 Life Drawing I or

ART1161 Painting I, ART1169 Watercolor Painting I or permission of instructor.

**ART2281**

3 Credits

**Sculpture II**

Continued problems in three-dimensional art using clay, plaster and mixed media. Prerequisite: ART1142 Three-dimensional Design or

ART1181 Sculpture I.

**ART2287**

3 Credits

**Ceramics II**

Advanced problems on potter's wheel and additional work in glazing and firing. Prerequisite: ART1187 Ceramics I or permission of instructor.

**ART2294**

3 Credits

**2-D Computer Animation**

Development of storyboards and characters, introduction of two-dimensional animation on the computer for online games and short movies.

**ART2295**

3 Credits

**3D Computer Animation**

Fundamentals of creating three-dimensional animation from conception to final presentation on the computer. (Equivalent to COMM1175 Computer Animation I.)

**ART2648**

3 Credits

**Basic Video Editing**

Introductory video/audio editing techniques, procedures and theory. A hands-on approach utilizing nonlinear video-editing equipment to edit video projects. Corequisite: ART2649 Basic Video Editing Laboratory. (Equivalent to COMM2648 Basic Video Editing.)

**ART2649**

0 Credits

**Basic Video Editing Laboratory**

Video/audio editing with the professional AVID digital nonlinear editing system. These labs will emphasize a hands-on approach in the editing of video projects. Corequisite: ART2648 Basic Video Editing.

**ART2673**

3 Credits

**Basic Video Production**

Classroom and hands-on field production course introducing students to the principles and techniques of video/digital production and postproduction. This includes camera shooting and digital video editing. (Equivalent to COMM2673 Basic Video Production.)

**ART2841**

3 Credits

**Pastel Drawing II**

This course builds on the basic media and color techniques of ART1841 Pastel Drawing I and includes experimental pastel techniques. Prerequisite: ART1841 Pastel Drawing I.

**ART3255**

3 Credits

**Drawing for Animation II**

Using two-dimensional animation, advanced cell drawing and storyboarding to make an animation. Prerequisite: ART2294 2-D Computer Animation.

**ART3552**

3 Credits

**General Drawing III**

Advanced exploration of both the students' environment and selected drawing media.

**ART3553**

3 Credits

**Life Drawing III**

Advanced media and techniques in drawing human figures from live models. Emphasis on expressive content, form and style. Prerequisites: ART1153 Life Drawing I and ART2253 Life Drawing II.

**ART3561**

3 Credits

**Painting III**

Solutions to problems of form and content in painting through individual creative development. Prerequisite: ART2261 Painting II or permission of instructor.

**ART372**

3 Credits

**Motion Graphics: Broadcast and Web Animation**

Working with Adobe® After Effects and Macromedia Flash, students will explore computer animation and motion graphics. Students will produce animations that can be recorded onto video or exported to the web.

**ART387**

3 Credits

**Ceramics III**

Continued problems in clay. Prerequisite: ART2287 Ceramics II or permission of instructor.

**ART3675**

3 Credits

**Advanced Video Production**

The study of video/digital preproduction, production and postproduction with an emphasis on professional techniques, procedures and theory. (Equivalent to COMM3675 Advanced Video Production.)

**ART3749**

3 Credits

**Advanced Video Editing**

This is a project-oriented, hands-on course that emphasizes enhanced editing techniques, procedures and theory. Prerequisite: ART2648 Basic Video Editing. (Equivalent to COMM3749 Advanced Video Editing.)

**ART4430–ART4449**

1–3 Credits

**Selected Studies in Art**

Studies in an area of art.

**ART4472**

3 Credits

**Senior Seminar**

Preparation for the extensive exploration of a specific topic in one's area of concentration under the guidance of a faculty mentor.

**ART4473**

3 Credits

**Senior Project**

Extensive exploration of a specific topic in one's area of concentration under the guidance of a faculty mentor.

**ART4475, ART4476**

Variable Credits

**Honors Art**

Independent study in art for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

**ART4498**

3 Credits

**Internship in Art**

Consult with department for further information. Prerequisites: upper-division standing and permission of school director or internship adviser. Maximum of 6 hours for all internships.

**ART4821**

3 Credits

**Portfolio**

Students will learn to prepare a professional portfolio for presentation after college. Portfolios for specialized needs will be addressed.

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422
### Biological Sciences

**School of Natural Sciences**

#### Courses for Nonmajors

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
<th>Lecture/Laboratory</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL1001</td>
<td>Principles of Modern Biology</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIOL1011</td>
<td>General Biology I</td>
<td>0</td>
<td>Laboratory 2</td>
<td></td>
</tr>
<tr>
<td>BIOL1060</td>
<td>Genetics and Society</td>
<td>3</td>
<td>Lecture 2</td>
<td></td>
</tr>
<tr>
<td>BIOL1061</td>
<td>Genetics and Society</td>
<td>0</td>
<td>Laboratory 2</td>
<td></td>
</tr>
</tbody>
</table>

**Laboratory: Principles of Modern Biology**

- **BIOL1061**: Laboratory exercises supplementary to concepts examined in BIOL1060 Genetics and Society. Corequisite: BIOL1060 Genetics and Society.

**Laboratory: General Biology I**

- **BIOL1251**: Introduction to microbial world, bacteriology, virology, mycology, parasitology and immunology. Suitable for students planning a career in health sciences. Prerequisites: CHEM1107 Chemistry for Health Sciences and CHEM1117 Laboratory: Chemistry for Health Sciences. Corequisite: BIOL1254 Laboratory: General Biology II.

**Laboratory: General Biology II**

- **BIOL1252**: Modern biological principles and processes relating to organismal diversity, evolution, ecology and behavior. Cell structure and function, cell metabolism and genetics biochemistry will be covered. Corequisite: BIOL1254 Laboratory: General Biology II.

**Laboratory: Microbiology for the Health Sciences**

- **BIOL2125**: Introduction to microbial world, bacteriology, virology, mycology, parasitology and immunology. Suitable for students planning a career in health sciences. Prerequisites: CHEM1107 Chemistry for Health Sciences and CHEM1117 Laboratory: Chemistry for Health Sciences. Corequisite: BIOL2126 Laboratory: Microbiology for the Health Sciences.

**Laboratory: Microbiology for the Health Sciences**

- **BIOL2126**: Isolation and identification of common pathogenic and nonpathogenic organisms, staining, culturing, fermentation reactions and microscopic examinations. Prerequisites: CHEM1107 Chemistry for Health Sciences and CHEM1117 Laboratory: Chemistry for Health Sciences. Corequisite: BIOL2125 Microbiology for the Health Sciences.
# Biological Sciences

University College: Arts • Sciences • Professional Studies

Metropolitan Campus and Vancouver Campus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
<th>Lab: Introduction to Aquaculture and Hydroponics</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL2120</td>
<td>3 Credits</td>
<td>Lecture 2 hours</td>
<td>4 hours</td>
<td>Introduction to Aquaculture and Hydroponics</td>
<td></td>
</tr>
</tbody>
</table>

An introduction to aquaculture and hydroponics to illustrate the practices of biological sustainability. Discussions will focus on the biological requirements of aquaculture organisms and the engineering requirements of typical manmade flowing-water systems. Mathematical models and calculations will be employed to create sustainable business models for aquaculture and hydroponics. Corequisite: BIOL2121 Lab: Introduction to Aquaculture and Hydroponics.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
<th>Laboratory: Ecology and Field Biology</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL2150</td>
<td>0 Credits</td>
<td>Laboratory 4 hours</td>
<td>4 hours</td>
<td>Lab: Ecology and Field Biology</td>
<td></td>
</tr>
</tbody>
</table>

Fieldwork illustrating the topics discussed in BIOL2150 Ecology and Field Biology. Corequisite: BIOL2150 Ecology and Field Biology.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
<th>Laboratory: Genetics</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL2211</td>
<td>0 Credits</td>
<td>Laboratory 4 hours</td>
<td>4 hours</td>
<td>Laboratory: Genetics</td>
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</tr>
</tbody>
</table>

Laboratory exercises emphasize experimental design and methods and enhance understanding of principles of genetics through problem solving. Prerequisites: BIOL1251 General Biology I; BIOL1252 General Biology II; BIOL1253 General Biology Laboratory; BIOL1254 General Biology Laboratory; General Biology II, CHEM1201, CHEM1203 General Chemistry, and CHEM1204 General Chemistry Laboratory. Corequisite: BIOL2210 Genetics.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
<th>Laboratory: General Microbiology</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL2237, BIOL2239</td>
<td>4 Credits</td>
<td>Lecture 3 hours; Laboratory 2 hours</td>
<td>4 hours</td>
<td>Laboratory: General Microbiology</td>
<td></td>
</tr>
</tbody>
</table>

Human Structure and Function I

Study of the structure and adaptive homeostatic control of organ systems. Contemporary problems in the environmental and health sciences are related to the human body. Laboratory includes organ dissection. Open to sophomore and junior biology majors. Prerequisites: BIOL1251 General Biology I and BIOL1253 Laboratory: General Biology I. Fall, Spring

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
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<tbody>
<tr>
<td>BIOL2250</td>
<td>0 Credits</td>
<td>Laboratory 4 hours</td>
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</table>

Ecology and Field Biology


<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
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</thead>
<tbody>
<tr>
<td>BIOL2210</td>
<td>4 Credits</td>
<td>Lecture 2 hours</td>
<td>4 hours</td>
<td>Experimental Design</td>
<td></td>
</tr>
</tbody>
</table>

This course examines the scientific research process, with hands-on exercises in statistical data analysis and the analysis of original research procedure using Excel, SAS and SPSS technologies. The analysis of experimental design in original research papers is through the identification of experimental variables, graphical representations, statistical techniques, data interpretation and research theses. Prerequisites: BIOL1251 General Biology I; BIOL1252 General Biology II; BIOL1253 Laboratory: General Biology I and BIOL1254 Laboratory: General Biology II.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
<th>Laboratory: General Microbiology</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td>BIOL2300</td>
<td>3 Credits</td>
<td>Laboratory 2 hours</td>
<td>4 hours</td>
<td>General Microbiology</td>
<td></td>
</tr>
</tbody>
</table>

Introduction to microorganisms' structure, biochemistry, genetics and physiology and their interactions with animals and other organisms. Prerequisites: BIOL1251 General Biology I, BIOL1252 General Biology II, BIOL1253 Laboratory: General Biology I, BIOL1254 Laboratory: General Biology II, CHEM1201 General Chemistry I, CHEM1202 General Chemistry Laboratory I, CHEM2261 Organic Chemistry I, CHEM2262 Organic Chemistry II, CHEM2263 Organic Chemistry Laboratory I and CHEM2264 Organic Chemistry Laboratory II. Corequisite: BIOL3326 Laboratory: General Microbiology.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
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<tbody>
<tr>
<td>BIOL2225</td>
<td>4 Credits</td>
<td>Laboratory 2 hours</td>
<td>4 hours</td>
<td>General Microbiology</td>
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</tr>
</tbody>
</table>

H uman Structure and Function II

Intensive study of the structure and function and adaptive homeostatic control of organ systems. Emphasis will be on problem-solving techniques and applications of concepts to clinical situations. Prerequisites: BIOL1251, BIOL1252 General Biology I; BIOL1253 General Biology II; BIOL1254 General Biology II; and BIOL2237, BIOL2239 Human Structure and Function I. Corequisite: BIOL3325 Laboratory: Human Structure and Function II.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL2357</td>
<td>4 Credits</td>
<td>Laboratory 3 hours</td>
<td>4 hours</td>
<td>General Microbiology</td>
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</table>

Human Structure and Function II

Intensive study of the structure and function and adaptive homeostatic control of organ systems. Emphasis will be on problem-solving techniques and applications of concepts to clinical situations. Prerequisites: BIOL1251, BIOL1252 General Biology I; BIOL1253 General Biology II; BIOL1254 General Biology II; and BIOL2237, BIOL2239 Human Structure and Function I. Corequisite: BIOL3358 Laboratory: Human Structure and Function II. Fall, Spring

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Lectures</th>
<th>Laboratory: General Microbiology</th>
<th>Fee</th>
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<tbody>
<tr>
<td>BIOL2357</td>
<td>4 Credits</td>
<td>Laboratory 3 hours</td>
<td>4 hours</td>
<td>Human Structure and Function II</td>
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</table>

Human Structure and Function II

Intensive study of the structure and function and adaptive homeostatic control of organ systems. Emphasis will be on problem-solving techniques and applications of concepts to clinical situations. Prerequisites: BIOL1251, BIOL1252 General Biology I; BIOL1253 General Biology II; BIOL1254 General Biology II; and BIOL2237, BIOL2239 Human Structure and Function I. Corequisite: BIOL3358 Laboratory: Human Structure and Function II. Fall, Spring
BIO L3358
0 Credits
Laboratory 2 hours
Laboratory: Human Structure and Function II
Laboratory exercises include the study of physiological control mechanisms. Emphasis will be on basic physiological principles covering muscular, cardiovascular, pulmonary and central nervous system. Prerequisites: BIO L1251, BIO L1253 General Biology I, and BIO L1254 General Biology II. Corequisite: BIO L3357 Human Structure and Function II. Spring

BIO L3417
3 Credits
Lecture 3 hours
Introduction to Recombinant DNA
DNA structure and function, methods of creating and cloning recombinant DNA molecules in prokaryotic and eukaryotic systems and applications of these manipulations in biology, medicine, agriculture and industry.

BIO L4000
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.

BIO L4220
4 Credits
Lecture 2 hours
Histology
Understanding of normal microscopic form and function of human tissues through lectures and discussions which require introduction to microscopic techniques and microscopic work. Prerequisites: BIO L1251 General Biology I, BIO L1252 General Biology II, BIO L1254 Laboratory: General Biology I, BIO L1254 Laboratory: General Biology II. Corequisite: BIO L4221 Laboratory: Histology.

BIO L4221
0 Credits
Laboratory 4 hours
Laboratory: Histology
Microscopic analysis of the structure of normal human and animal tissues as related to their functions. Prerequisites: BIO L1251 General Biology I, BIO L1252 General Biology II, BIO L1253 Laboratory: General Biology I,

BIO L1254 Laboratory: General Biology II. Corequisite: BIO L4220 Histology. Fee

BIO L4235
4 Credits
Lecture 2 hours
Developmental Biology
Life cycles and the evolution of developmental patterns, principles of experimental embryology, genes and development techniques and ethical issues, genetic core of development, differential gene expression, cell-to-cell communication in development. Prerequisites: BIO L1251 General Biology I and BIO L1253 Laboratory: General Biology I. Corequisite: BIO L4236 Laboratory: Developmental Biology.

BIO L4236
0 Credits
Laboratory 4 hours
Laboratory: Developmental Biology
Examining early and late embryonic development in selected invertebrates, amphibians, fish, birds and mammals in addition to metamorphosis, regeneration and aging as related to environmental regulation of animal development and mechanisms of evolutionary change. Prerequisites: BIO L1251 General Biology I and BIO L1253 Laboratory: General Biology I. Corequisite: BIO L4235 Laboratory: Developmental Biology. Fee

BIO L4240
4 Credits
Lecture 2 hours
Molecular Cell Biology
This course investigates the central concept of gene expression, DNA to RNA to protein and cell structure/function by integrating structure/function of biomolecules, biotechnology/molecular techniques, regulatory mechanisms for gene expression, protein targeting, signals/signal transduction pathways, cell cycle, cell/extracellular matrix organization, stem cells, cell birth, cell death and cancer. Prerequisites: BIO L1251 General Biology I, BIO L1252 General Biology II, BIO L1253 Laboratory: General Biology I, BIO L1254 Laboratory: General Biology II. Corequisite: BIO L4241 Laboratory: Molecular Cell Biology.

BIO L4241
0 Credits
Laboratory 4 hours
Laboratory: Molecular Cell Biology
Experiments illustrating the topics discussed in BIO L4240 Molecular Cell Biology. Prerequisites: BIO L1251 General Biology I, BIO L1252 General Biology II, BIO L1253 Laboratory: General Biology I, BIO L1254 Laboratory: General Biology II. Corequisite: BIO L4240 Molecular Cell Biology. Fee

BIO L4405
3 Credits
Lecture 3 hours
Ethics in Science
Studies relating to the ethical application of advances in sciences to humans, other living organisms, ecosystems and the planet. Prerequisites: BIO L1251 General Biology I, BIO L1252 General Biology II, BIO L1253 Laboratory: General Biology I and BIO L1254 Laboratory: General Biology II.

BIO L4414
1 Credit
Laboratory 4 hours
Laboratory: Animal Behavior
Experiments illustrating the topics discussed in BIO L4414 Animal Behavior. Corequisite: BIO L4414 Laboratory: Animal Behavior. Fee

BIO L4420
3 Credits
Lecture 3 hours
Evolution
Evolutionary biology at all levels of organization (molecular to societal). Established principles of evolution, why and how evolutionary reasoning follows from the scientific method. Prerequisites: BIO L2210, BIO L2211 Genetics and MATH 1201 Calculus I.

BIO L4432
3 Credits
Selected Studies in Biology
Recent developments in special fields of biology.

BIO L4476, BIO L4875
Variable Credits
Honors Biology
Independent study in biology for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

BIO L4800
1–3 Credits
Independent Study
Independent study under the direction of a faculty member after consultation with the school director. Fee
Course Descriptions

Chemistry

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

BIOI4803
3 Credits
Research in Biological Sciences I
This course will explore a specific topic within either ecology and environmental biology, cell and molecular biology, anatomy and physiology and microbiology or biochemistry. Using a project-based approach, the course progresses from a survey of basic lab techniques to the application of current techniques in the specific areas of study. Topics will change with each course offering and will be chosen for their relevance and importance within the field.

BIOI4804
1–4 Credits
Research in Biological Sciences II
This course is a continuation of a topic initiated in BIOI4803 Research in Biological Sciences I. This course will explore a specific topic within either ecology and environmental biology, cell and molecular biology, anatomy and physiology and microbiology or biochemistry using a project-based approach, where students master the application of current techniques in the specific area of study. Topics will change with each course offering and will be chosen for their relevance and importance within the field. Prerequisite: BIOI4803 Research in Biological Sciences I.

BIOI4855
4 Credits
Molecular Biology Techniques
Lecture 3 hours
The concepts of molecular techniques including DNA isolation and analysis (DNA isolation, plasmid preparation, spectrophotometry, agarose gel electrophoresis, southern blotting, DNA profiling); RNA isolation and analysis (chromatography, RT-PCR, microarrays); protein expression (ELISA, polyacrylamide gel electrophoresis, western blotting); and genomic cloning, screening, sequencing and bioinformatics (expression vectors, databases). Corequisite: BIOI4856 Lab: Molecular Biology Techniques.

BIOI4856
0 Credits
Lab: Molecular Biology Techniques
Lecture 3 hours; Laboratory 2 hours
Experiments illustrating the topics discussed in BIOI4855 Molecular Biology Techniques. Corequisite: BIOI4855 Molecular Biology Techniques.

BIOI4900, BIOI4901
1 Credit Each Semester
Biology Seminar I and II
A series of lectures by invited speakers on topics of current interest. Exposure of students to research developments and techniques in selected areas of specialization.

Graduate Courses
Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the school director. A list of courses and descriptions is contained in the Graduate Studies Bulletin.

Chemistry

School of Natural Sciences

Courses for Nonmajors

CHEM1107
4 Credits
Lecture 3 hours
Chemistry for Health Sciences
Chemical principles with examples taken from health sciences. Organic compounds significant for the medical field and biochemical processes with human focus. Corequisite: CHEM1117 Laboratory: Chemistry for Health Sciences. Fall, Spring

CHEM1117
0 Credits
Laboratory 2 hours
Laboratory: Chemistry for Health Sciences
Illustration of the principles discussed in CHEM1107 Chemistry for Health Sciences. Corequisite: CHEM1107 Chemistry for Health Sciences. Fall, Spring

CHEM1118, CHEM1119
3 Credits
Lecture 2 hours; Laboratory 2 hours
Forensic Science
The forensic analysis of substances such as glass, bullets and drugs will be discussed along with the basic, analytical and organic chemistry on which they are based. Corequisite: CHCHEM1135 Laboratory: Science and Art.

CHEM1135
5 Credits
Lecture 2 hours
Science and Art

CHEM1136
0 Credits
Laboratory 2 hours
Laboratory: Science and Art
Experiments illustrating the topics discussed in CHEM1135 Science and Art. Corequisite: CHEM1135 Science and Art.

CHEM1201, CHEM1202
6 Credits (3 Credits Each Semester)
Lecture 3 hours each semester
General Chemistry I, II
The fundamental laws, theories and principles of chemistry, with emphasis on atomic structure, chemical bonding, periodic classification of the elements, solutions, equilibrium, reaction kinetics and the theory and practice of the qualitative chemistry of the common ions. Prerequisites: elementary algebra and for CHEM1202 General Chemistry II grade of C- or higher in CHEM1201 General Chemistry I. Corequisites: CHEM1203, CHEM1204 General Chemistry Laboratory I, II. Fall, Spring, Summer

CHEM1203, CHEM1204
2 Credits (1 Credit Each Semester)
General Chemistry Laboratory I, II
Practical applications of the fundamental laws, theories and principles of chemistry through problem solving and laboratory experiments. Prerequisite: elementary algebra. Corequisites: CHEM1201, CHEM1202 General Chemistry I, II. Fall, Spring, Summer

Courses for Majors

CHEM2211
3 Credits
Lecture 5 hours
Inorganic Chemistry I
Principles of atomic and molecular structure, stereochemistry, periodicity and bonding, with emphasis on the main group elements and their descriptive chemistry. Also covers topics such as hydrogen bonding, acid-based chemistry, inorganic polymers, geochemistry and metallic bonding. Prerequisites: CHEM1201 General Chemistry I and CHEM1203 General Chemistry Laboratory I.

CHEM2261, CHEM2262
6 Credits (3 Credits Each Semester)
Lecture 3 hours each semester
Organic Chemistry I, II
Structure and chemical properties of aliphatic and aromatic compounds of carbon, with emphasis on electronic theory, mechanisms of reaction and principles of synthesis. Prerequisites: CHEM1202, CHEM1204 General Chemistry II and for CHEM2262 Organic Chemistry II grade of C- or higher in CHEM2261 Organic Chemistry I. Corequisites: CHEM2263, CHEM2264 Organic Chemistry Laboratory I, II. Fall, Spring, Summer

CHEM2263, CHEM2264
4 Credits (2 Credits Each Semester)
Laboratory 4 hours each semester
Organic Chemistry Laboratory I, II
A laboratory course taken concurrently with CHEM2261, CHEM2262 Organic Chemistry I,
II, which illustrates important principles of
structure and reactivity, synthesis and analysis of
organic compounds. Corequisites: CHEM2261,
CHEM2262 Organic Chemistry I, II.
Fall, Spring, Summer Fee

CHEM3231, CHEM3232
4 Credits
Lecture 2 hours; Laboratory 4 hours
Analytical Chemistry
Theoretical principles of quantitative analysis
with applications to gravimetric and volumetric
methods. Prerequisite: CHEM1202,
CHEM1204 General Chemistry II.
Fall Fee

CHEM3241
3 Credits
Lecture 3 hours
Physical Chemistry I
The principles of physical chemistry from the
molecular and microscopic aspects; kinetic
typey, quantum mechanics, spectroscopic
studies and statistical concepts; thermody-
namics, chemical phase equilibria, electro-
trolytes and electrochemistry. Prerequisites:
CHEM2262, CHEM2264 Organic Chemistry II
and MATH2202 Calculus II, Corequisite:
CHEM3243 Physical Chemistry Laboratory I.
Fall

CHEM3242
3 Credits
Lecture 3 hours
Physical Chemistry II
The principles of physical chemistry from the
molecular and microscopic aspects; kinetic
typey, quantum mechanics, spectroscopic
studies and statistical concepts; thermody-
namics, chemical phase equilibria, electro-
trolytes and electrochemistry. Prerequisites:
CHEM3241, CHEM3243 Physical Chemistry I.
Corequisite: CHEM3244 Physical Chemistry Laboratory II.
Spring

CHEM3243, CHEM3244
4 Credits (2 Credits Each Semester)
Laboratory 4 hours each semester
Physical Chemistry Laboratory I, II
Laboratory experiments demonstrating funda-
mental laws, concepts and mathematically
derived relationships involving selected physico-
chemical properties of matter and energy. Co-
requisites: CHEM5241, CHEM5242 Physical
Chemistry I, II.
Fall, Spring Fee

CHEM3281
3 Credits
Lecture 3 hours
Biochemistry I
Chemistry of substances of biological signifi-
cance, with particular emphasis on proteins,
enzymes, nucleic acids, sugars, lipids, hormones
and vitamins. Prerequisite: CHEM2262,
CHEM2264 Organic Chemistry II.
Fall, Spring

CHEM3282
3 Credits
Lecture 3 hours
Biochemistry II
Study of metabolism, storage and expression of
gene information and other current aspects of
CHEM4000
1 Credit
Curricular Practical Training
A curricular practical training (CPT) require-
mert for work experience course/independent
study registration in most academic programs at
FDU. The training experience is integral to the
course and the detailed course objectives will be
on a separate independent study proposed form.
The student's work or training experience will be:
part-time (20 hours or less per week) or full-
time (more than 20 hours per week). A non-letter grade of “P” for Pass or “NC” for No Credit
will be applied to degree audit as this course will
be excess credit and not counted toward a
degree requirement.

CHEM4235
3 Credits
Lecture 3 hours
Instrumental Analysis
Theory and applications of absorption, emission
and interpretative spectroscopy, electrochem-
istry and chromatography to problems of chemi-
cal analysis. Introduction to interfacing, data
d acquisition and data manipulations.
Spring

CHEM4236
2 Credits
Laboratory 4 hours
Instrumental Analysis Laboratory
Practical laboratory experiments in absorption,
emission and interpretative spectroscopy elec-
troanalytical methods, chromatography and ele-
mentary interfacing.
Spring Fee

CHEM4314, CHEM4314
3 Credits
Lecture 2 hours; Laboratory 2 hours
Inorganic Chemistry II
Application of molecular orbital theory, solid
state theory and ligand field theory to inorganic
systems with emphasis on the properties and
reactions of compounds of the transition ele-
ments. Laboratory demonstration of current
techniques of preparing and characterizing
inorganic compounds.
Spring Fee

CHEM4430
1–3 Credits Each Semester
Selected Studies in Chemistry
Recent developments in special fields of
chemistry.
Fall, Spring

CHEM4800
1–3 Credits Each Semester
Independent Study in Chemistry
An individual research project undertaken
under a faculty supervisor. A final research
report must be submitted. Open only to upper-
level students.
Fall, Spring

Graduate Courses
Graduate courses may be taken by seventh- or
eighth-semester students with the approval of the
school director. A list of courses and descriptions
is contained in the Graduate Studies Bulletin.

Chinese
School of the Humanities

CHIN1009
3 Credits
Basic Chinese for Business Purposes
This course is designed to support students
enrolled in internships in China who want to use
Chinese as a tool to communicate with the
Chinese people, especially for business purpos-
es. Such students are assumed to have no previ-
ous background in Mandarin. The course will
focus on business Chinese, as well as some use-
ful words and expressions for the daily life.
Listening and speaking skills are emphasized
and extensively practiced in the classroom.

CHIN101
3 Credits
Elementary Chinese I
Selections that encourage conversation, reading
and writing.

CHIN102
3 Credits
Elementary Chinese II
Continuation of CHIN101 Elementary Chinese
I. Prerequisite: CHIN101 Elementary Chinese I or equivalent.

Civil Engineering
Lee Gildart and Oswald Haase
School of Computer Sciences and
Engineering

CENG1205
3 Credits
Lecture/Laboratory 4 hours
Surveying I
The first of a two-course sequence in surveying
as applied to the construction industry. Such
areas as layout and control of buildings and
roads, earthwork measurements, horizontal and
vertical curves, super elevation on curves, com-
puter applications to surveying and electronic
measurements will be studied. Prerequisite:
MATH1107 Precalculus or equivalent.
Fall
Course Descriptions

Civil Engineering

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

CENG1206
3 Credits
Lecture/Laboratory 4 hours
Surveying I
The second of a two-course sequence in surveying as applied to the construction industry. Such areas as layout and control of buildings and roads, earthwork measurements, horizontal and vertical curves, superellipse on curves, computer applications to surveying and electronic measurements will be studied. Prerequisite: CENG1205 Surveying I.
Spring

CENG1245
3 Credits
Lecture/Laboratory 4 hours
Construction Materials and Systems
An introduction to the methods, equipment and personnel employed in constructing buildings and subsystems of buildings such as foundations, walls, floors and roofs. The types and physical properties of construction materials.
Fall

CENG3250
3 Credits
Structural Analysis
Classical analysis methods of determinate and indeterminate structures. Deflection calculation of beams and trusses, work-energy methods, influence line concept for moving loads. Prerequisite: ENGR2228 Strength of Materials.
Fall

CENG3256
3 Credits
Steel Structures
The application of the principles of statics and strength of materials in the design and analysis of structural steel beams, columns, trusses and frames, connections and base plates, all in accordance with current AISC (American Institute of Steel Construction) specifications. Prerequisite: CENG3250 Structural Analysis or permission of instructor.
Fall

CENG3257
3 Credits
Concrete Structures
The analysis and design of reinforced concrete beams, girders, slabs and columns, all in accordance with current ACI (American Concrete Institute) code and standards. Corequisite: CENG3250 Structural Analysis.

CENG3260
3 Credits
Lecture/Laboratory 4 hours
Environmental Engineering
Water and water-resources management in natural and urban areas. Design and management of facilities for water supply and wastewater treatment, development of watersheds, hydrographs, flow routing, stormwater quality and quantity control and other topics related to water resources. Utilization of water resources simulating models and tools, including Arc-GIS, HEC-HMS and HEC-RAS. Prerequisite: ENGR4254 Fluid Mechanics.
Spring

CENG3261
3 Credits
Estimating I
The development of a procedure (including check and balance) for preparing a quantity survey of materials, labor and equipment for both general and specialty contractors. Prerequisite: MATH1107 Precalculus or equivalent.
Fall

CENG3270
3 Credits
Environmental and Land-use Planning
Environmental laws and pollution, environmental-impact analysis, land-usage laws and economics will be covered. Prerequisite: ENGR1301 Engineering Practices, Graphics and Design.
Spring

CENG3271
3 Credits
Environmental and Land-use Planning
Environmental laws and pollution, environmental-impact analysis, land-usage laws and economics will be covered. Prerequisite: ENGR1301 Engineering Practices, Graphics and Design.
Spring

CENG3276
3 Credits
Advanced Concrete Design
Design of a complete reinforced concrete building including beams, girders, slabs, columns and footings; preparing set of design notes, structural drawings and shop drawings. All in accordance with codes, industry standards and ACI (American Concrete Institute). Prerequisite: CENG3257 Concrete Structures.
Spring

CENG4280
3 Credits
Finite Element Analysis
Spring

CENG4320
3 Credits
Transportation Engineering
Spring

CENG4321
3 Credits
Bridge Design

CENG4385
3 Credits
Senior Design Project
Students work on capstone design projects using the knowledge gained through past course work, following professional practice, applying
design methodologies and exercising sound engineering judgment. Prerequisites: Senior standing and ENGR2210 Technical Communications.

Spring

Communication

School of Art and Media Studies

COMM1000
3 Credits
Digital Storytelling
This course explores the practice of reporting across media platforms. The instruction allows students to construct narratives using a mix of text, photography, audio, video and graphics. The course emphasizes development of multimedia offerings for online presentation.

COMM1101
5 Credits
Mass Media: Image, Sound and Text
The process and social effects of mass communication in historical and contemporary settings. The impacts of print media, such as newspapers, magazines and books, and electronic media, such as radio, movies, television and the internet, are examined.

COMM1105
5 Credits
Intercultural Communication
Focuses on cultures and subcultures as well as their impact on perception, communication and behavior. Explores similarities and differences between cultures and barriers to intercultural communication. Examines principles of and skills in effective communicating and intercultural settings.

COMM1106
3 Credits
Interpersonal Communication
Basic concepts of human communication; the observation and analysis of sending and receiving verbal and nonverbal messages.

COMM1131
3 Credits
History of Graphic Design and Illustration
A survey of visual communication systems from early global civilization through book and magazine illustration and poster and advertising art from the 19th century to the present. (Equivalent to ART1131 History of Graphic Design and Illustration.)

COMM1170
3 Credits
Advertising Design
Principles of design applied to commercial layouts. (Equivalent to ART1170 Advertising Design.)

COMM1174
3 Credits
Desktop Publishing
Fundamentals of layout, design and typography on the computer. Introduction to publishing on the computer using Quark Xpress®, Adobe® Illustrator® and Adobe® Photoshop®. (Equivalent to ART1174 Desktop Publishing I.)

COMM1175
3 Credits
Computer Animation I
Fundamentals of creating two- and three-dimensional animation from the conceptual to the final presentation on the computer. (Equivalent to ART2295 3D Computer Animation.)

COMM1177
3 Credits
Introduction to Digital Media
Fundamentals of using the computer as a drawing/painting medium. Digitizing, video imaging and manipulation of digital information to create visual art. (Equivalent to ART1177 Introduction to Digital Media.)

COMM1838
3 Credits
Elementary Digital Video
A hands-on class in the creation of short videos utilizing video download to digital files, nonlinear editing and post-production use on the computer. Students will make their own videos from concept to completion. (Equivalent to ART1838 Elementary Digital Video.)

COMM2102
3 Credits
International Communication
This course discusses issues such as images of foreign countries, (mis)understanding of different cultures, the flow of information and cultural invasion/imperialism. By taking this course, students will (1) gain a better understanding of the relationship between international communication and globalization, (2) grasp the role mass media play in global communication and (3) enhance critical awareness of problems mass media pose. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM2103
3 Credits
Culture and Communication in Film
The course will discuss domestic and foreign films that analyze (1) the ways that they present similarities and differences between cultures, (2) how different cultures influence people to interact differently in the same similar situations, (3) how and in what ways filmmakers are constrained by but also display their culture while amusing and persuading audiences and (4) what functions films perform in global communication. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM2104
3 Credits
Language, Culture and Communication
Language and its relationship to culture and communication. The nature and function of language at the conceptual, syntactic, semantic and pragmatic levels. How a language shapes the characteristics of a culture and how the culture determines the features of its language. The impact of language on (mis)understanding in intercultural/international interactions. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM2204
3 Credits
Understanding Human Communication
An introduction to a wide range of theories and research about effective communication in contexts such as friendship, small groups and organizations. Special emphasis on interpersonal and intercultural communication issues. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM2210
3 Credits
Popular Culture and the Media
Investigation of the interrelationships of the mass media and popular culture, analyzing the ways in which mass media mirror and affect popular culture.
COMM2211
3 Credits
**Mental Health Issues and the Media**
This course will identify and evaluate common, media-promoted perceptions of mental health, addressing how images perpetuated by film, print and broadcast media influence families, the health care industry, the political establishment and others responsible for the wellness of individuals with mental illness. The course is suitable for nursing and psychology majors, as well as communication majors and others interested in media or mental-health concerns.

COMM2215
3 Credits
**Photoshop® for Advertisement and Illustration**
The use of Photoshop® in the creation and manipulation of digital artwork for editorial and advertising in print media. Student projects are modeled after real-world commercial assignments.

COMM2272
3 Credits
**Layout and Typography**

COMM2321
3 Credits
**Advertising Principles**
Study of the role of advertising in the marketing mix, concepts and methods used in the setting of advertising goals, budgeting, planning and implementation of a creative strategy, considerations of media and evaluation of campaign plans. Economic, social, legal and ethical issues of advertising are discussed.

COMM2415
3 Credits
**Sports and Popular Culture**
The significance of sports’ contributions to popular culture during the 20th and 21st centuries. The primary focus will be on the United States, but contemporary globalization will also be considered. The primary mode of inquiry will be through discussions that examine sports in a variety of cultural forms including, but not limited to, literature, film, television, advertising, cartoons, the internet and music. Prerequisites: ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument.

COMM2443
3 Credits
**Ethics in Media**
Ethics in the print and broadcast media, using current newspaper articles and news programs as resources. Students participate in the decision-making process of reviewing and selecting information for mass audiences. Emphasis on class discussions.

COMM2557
3 Credits
**Radio Broadcast Workshop**
Radio station operations. Selection and editing of news and musical materials, including practical assignments.

COMM2558
3 Credits
**Basic Radio Station Engineering**
Practicum in broadcast audio equipment theory, wiring, operation, studio design, construction and maintenance. Emphasis on the current digital revolution in broadcasting with areas of discussion including the digital production studio, editing tools, the on-air studio and HD digital radio transmission (both conventional and satellite).

COMM2648
3 Credits
**Basic Video Editing**
Introductory video/audio editing techniques, procedures and theory. A hands-on approach utilizing the AVID nonlinear video-editing equipment to edit video projects. Corequisite: COMM2649 Basic Video Editing Laboratory. (Equivalent to ART2648 Basic Video Editing.)

COMM2649
0 Credits
**Basic Video Editing Laboratory**
Video/audio editing with the professional AVID digital nonlinear editing system. These labs will emphasize a hands-on approach in the editing of video projects. Corequisite: COMM2648 Basic Video Editing.

COMM2659
3 Credits
**Broadcast News**
Writing and rewriting news for radio and television broadcast. A studio course. Prerequisite: COMM2833 News Reporting.

COMM2673
3 Credits
**Basic Video Production**
Classroom and hands-on field production course introducing students to the principles and practices of video/digital production and postproduction. This includes camera shooting and digital video editing (with AVID) of video projects. (Equivalent to ART2673 Basic Video Production.)

COMM2685
3 Credits
**Scriptwriting for Television, Film and Audio Visuals**
Preparation of concepts, treatments and scripts suitable for production. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM2743
3 Credits
**History of Film: Special Topics**
Selected topic: intensive study of one particular aspect of film history such as directors, studios or genres. May be repeated, but student may not repeat a topic. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM2745
3 Credits
**Introduction to Film**
The art of the motion picture, using selected films, and including screenwriting, camera, performance, music and sound, editing and the roles of producer and director.

COMM2833
3 Credits
**News Reporting**

COMM2835
3 Credits
**Feature Article Writing**
Recognizing, reporting, writing and editing quality feature stories, based on sound journalistic practice and drawing from contemporary and classic examples. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM2851
3 Credits
**Photojournalism: Technique, Theory and History**
Emphasis on weekly student photography assignments in the style of a photojournalist. Students will shoot and modify/print weekly shooting assignments. Professional photojournalistic techniques and procedures will be stressed. Photojournalistic theory and history will complement the hands-on assignments. Note: Students must own or have access to a digital camera with a zoom lens or a 35mm film camera with zoom or set of prime lenses as well as photo-editing software such as Adobe Photoshop/Adobe Photoshop Elements, Adobe PhotoDeluxe or Corel Paint Shop Photo Album 5 Deluxe.

COMM3101
3 Credits
**Investigating Communication: Research Methods**
An introduction to the research procedures and techniques used in such fields as advertising and journalism. Emphasis on understanding the rationale for survey, experimental and ethnographic research methods.
COMM102
3 Credits
**Media, History and Society**
The relationship of media to history and society: how media shapes culture, leads to social change and affects human history. An interdisciplinary approach that includes philosophy, history, sociology, linguistics, semiotics, art, education, communications and cultural studies.

COMM216
3 Credits
**Myth, Symbol and Media**
The ways in which words, pictures, symbols and myths affect communication.

COMM295
3 Credits
**Theories of the Press**
Survey of relationships between the freedom of speech and press, and the right to know (in terms of contemporary theories of the press). Prerequisite: COMM1101 Mass Media: Image, Sound and Text or permission of instructor.

COMM324
3 Credits
**Intercultural Communication in the Global Workplace**
This course offers students the solid theoretical foundation they need and an engaging writing style peppered with examples culled from the personal experience of living and working abroad. The course zeroes in on the specific needs of a firm — from broad cultural and business values to the influence of culture on negotiations and the structure of the firm. Part of the course focuses on applying cultural concepts to real-life situations. It also emphasizes teamwork in intercultural groups. Legal issues in intercultural business communication are covered extensively. The first part of the course contains detailed discussion of cultural values that influence intercultural business communication.

COMM345
3 Credits
**Advertising Copywriting and Layout**
Study of the creative functions of advertising in print and broadcast. Students develop advertisements, including all visual and verbal elements, to develop creative ability and critical judgment. Prerequisite: COMM231 Advertising Principles.

COMM346
3 Credits
**Advertising Media Strategies**
Evaluation, selection and characteristics of mass media as used in advertising channel strategies. Media comparisons and cost calculations. Matching media audiences with target markets and groups. Prerequisite: COMM231 Advertising Principles.

COMM348
3 Credits
**Broadcast Advertising**
A practical and informative course describing the various aspects of the television advertising business (programming, sales, rating, negotiations) with special emphasis on network television. Prerequisite: COMM231 Advertising Principles or permission of director.

COMM360
3 Credits
**Digital Audio Editing**
Radio and television station and network operations, with emphasis on business considerations, roles and functions of various positions; practical work in campus radio and television facilities.

COMM362
3 Credits
**Advertising Campaigns**
Analysis of case-history studies of advertising campaigns. Preparation of an actual campaign. Prerequisite: COMM231 Advertising Principles.

COMM3441
3 Credits
**Sports Information Writing**
Examination of and practical exercises in sports information writing; gathering news and writing basic sports stories and press releases; designing and writing brochures and other publicity material; interviewing techniques; information sources and outlets; setting up and operating “gameday” activities.

COMM3452
3 Credits
**Sports Journalism**
This course is concerned with the news and feature writing of sports events, including reportorial skills, photography and opinion writing. Attention given also to public relations and promotion of sports and sports events.

COMM3444
3 Credits
**Public Relations**
An introduction to the purposes and practices of public relations and its role in administration and in society. The essentials of different activities in public relations and various media are studied, basic skills are taught and applications are made to case studies.

COMM3500
3 Credits
**Senior Communication Seminar**
The capstone course that brings together the various areas — media theory, advertising, public relations, film, broadcasting and journalism — that make up the field of communication. Required of all communication majors. Prerequisite: upper-division standing (a minimum of 64 credits earned).

COMM3558
3 Credits
**Advanced Radio Broadcast Workshop**
Refinement of on-air performance and procedures, conducted at WFDU (FM). Permission of department required. Prerequisite: COMM2557 Radio Broadcast Workshop.

COMM3665
3 Credits
**International News: The Views Beyond Our Borders**
Analyzing the way news is reported and covered in countries outside the United States and how they shape world news and the image of the United States. Prerequisite: ENWR1002 Composition II: Research and Argument.

COMM3666
3 Credits
**Television Around the World**
Intensive examination of the use of world television to inform, to mold opinion and to affect attitudes toward government and institutions.

COMM3668
3 Credits
**Television News: The Big Issues**
Television’s coverage of the major social, economic, political and philosophical issues of our times.

COMM3675
3 Credits
**Advanced Video Production**
The study of video/digital preproduction, production and postproduction with an emphasis on professional techniques, procedures and theory. The course requires students to shoot and edit independent projects. Students are encouraged to produce a portfolio/reel for future professional endeavors. Prerequisite: COMM2673 Basic Video Production. (Equivalent to ART3675 Advanced Video Production.)

COMM3678
3 Credits
**Video Moviemaking**
Basic video moviemaking. Independent student projects emphasizing preproduction (planning), production (camera shooting) and postproduction (nonlinear digital editing with AVID). Prerequisite: COMM2673 Basic Video Production.

COMM3679
3 Credits
**Advanced Video Editing**
A project-oriented, hands-on course that emphasizes enhanced editing techniques, procedures and theory with the AVID digital production systems.
nonlinear editing system. Editing projects are produced by the students through self-produced video camera shoots, graphic media and audio media. Students are encouraged to add these projects to their portfolios/reels. Prerequisite: COMM2648 Basic Video Editing. (Equivalent to ART3749 Advanced Video Editing.)

COMM3801
3 Credits
Community, Computers and Cyberspace
Impact of computers and communication technology on individuals, communities and societies.

COMM3834
3 Credits
Advanced News Reporting
Additional emphasis given to practical assignments. Prerequisite: COMM2833 News Reporting.

COMM3853
3 Credits
Advanced Journalism
News gathering, interviewing, preparation of copy and critical story analysis. Prerequisite: COMM2833 News Reporting.

COMM3997, COMM3998
1–3 Credits
Internship in Communication
Consult with department for further information. Prerequisites: upper-division standing and permission of school director. Maximum 6 credits for all internships.

COMM3999
1–3 Credits
Internship: Equinox
Practical work on student newspaper or yearbook. Consult the school for further information. Maximum 6 credits for all internships. Prerequisites: upper-division standing, permission of school director and COMM2521 Advertising Principles or COMM2833 News Reporting.

COMM4468
3 Credits
Bollywood and Beyond: India in Film
As India responded to major cultural and technological shifts during the 20th century, Bollywood was crucial to the creation and reinforcement of the nation’s changing images of itself and its people. This study of Indian film reflects these changes and looks at the ways that cultural identities are shaped with reference to popular art, technology, history and contemporary politics. (Equivalent to HUMN4468 Bollywood and Beyond: India in Film.)

COMM4470
3 Credits
The Television Newsroom
The inner workings of the television newsroom: operations, structure, personnel and crew. This approach is used in conjunction with an in-depth study of TV news field reporting. Students will produce, shoot and edit on-the-scene news stories using professional broadcast techniques and procedures.

COMM4800
1–3 Credits
Independent Study in Communication
Independent study under the direction of a specific faculty member. Prerequisites: upper-division standing and approval of school director.

COMM4930, COMM4952–COMM4970
1–3 Credits
Selected Studies in Communications (Sports Ethics and Leadership, Communication and Sport)
Studies in an area of communications.

Computer Science

Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

CSCI1105
3 Credits
Survey of Computers and Computer Software
History of computers, hardware and software systems, files and databases, algorithms, personal computers, computer communications and networking, computers and society: applications, issues and responsibilities. (No credit for computer science majors.)

CSCI1110
3 Credits
Visual Basic
The visual basic (VB) programming environment, projects, forms, VBX controls, modules and DLLs. Language Building Blocks, Setting properties, using methods and programming events. Writing code for subroutines and functions. Working object variables. MDI child forms. Controlling the Windows environment through the API. Accessing and reporting on databases with the data control. Prerequisite: working knowledge of Windows.

CSCI1201
3 Credits
Contact Hours
Computer Programming I
Elements of algorithm design and problem solving. Elementary data types and arrays. Basic control structures: sequential, conditional, iterative. Assignment statements. Basic input/output. Elements of methods. Design, coding and implementation of programs in various areas using a language such as Java. (Equivalent to INFO2101 Computer Programming for Information Technologists I.)

Fall, Spring

CSCI1202
3 Credits
5 Contact Hours
Computer Programming II
Stepwise refinement as a programming tool. Objects and classes, Inheritance and polymorphism. Character string manipulation. Advanced input/output. Elements of debugging and testing. Design, coding and implementation of programs in various areas using a language such as Java. Prerequisite: grade of C or better in either CSCI11201 Computer Programming I or INFO2101 Computer Programming for Information Technologists I. (Equivalent to INFO2102 Computer Programming for Information Technologists II.)

Fall, Spring

CSCI12215
3 Credits
Introduction to Computer Science
Introduction to computer hardware and software, their interaction and trade-offs. Essentials of computer organization and arithmetic, assemblers, I/O devices, operating systems, databases and files. Basic ideas in the areas of computer networks, system organization and computer theory. Foundation for more advanced courses. Prerequisite: elementary knowledge of a programming language.

Fall, Spring

CSCI12232
3 Credits
Data Structures
Implementation of abstract data types used in computer science. Arrays, character strings, stacks, queues, one-way and two-way linked lists, trees, graphs and file structures. Searching, sorting, storage management, structure and selection. Prerequisite: a grade of C or better in CSCI1202 Computer Programming II or INFO2102 Computer Programming for Information Technologists II.

Fall, Spring

CSCI12235
3 Credits
Survey of Computing Security
This course surveys various topics in the emerging field of computing and information security. The field is ever changing and is of national importance. Topics include first principles of security, access control, security policies, file permissions and security, system monitoring, authentication methods, encryption techniques,
networking, gateways and firewalls and security management. Students will be able to identify different methods and tools appropriate for cyber defense. Prerequisite: CSCI1201 Computer Programming I.

CSCI2243 3 Credits
**Statistical Programming**
This is an in-lab SAS programming course, including importing and exporting files, predictive-data modeling and exploration (mixed-models analyses, multivariate statistical analysis, longitudinal analysis and survival analysis) and a programming approach to report writing. Prerequisites: MATH1105 College Algebra and elementary knowledge of a programming language.

CSCI2247 3 Credits
**Assembly Language Programming**

Fall, Spring

CSCI3240 3 Credits
**Computer Networks**
Introduction to the theory and practice of computer networking. Protocol design and analysis. Topics include layered protocol architectures, packet and circuit switching, multiplexing, routing, congestion and flow control, error control, sequencing, addressing and performance analysis. Examples from current data networks. Prerequisite: CSCI2215 Introduction to Computer Science. Corequisite: MATH2253 Discrete Structures or permission of instructor.

CSCI3246 3 Credits
**Wireless LANS**
Introduction to wireless LANS and their technology and use. Topics include design, installation, troubleshooting, security and 802.11 frames. Prerequisite or corequisite: CSCI3240 Computer Networks.

CSCI3249 3 Credits
**Computer Organization**
Introduction to computer architecture: instruction sets, data types and addressing modes. Design of control unit of CPU; microprogramming; memory hierarchies; registers, caches, main, secondary and archival memories. Input/output functions and control. Introduction to arithmetic-logic unit. Prerequisite: CSCI2247 Assembly Language Programming.

CSCI3251 3 Credits
**Design of Software Systems**
Systems-development life cycle: requirements analysis, system design, system implementation, software testing and maintenance. Program documentation. Team projects. Prerequisite: CSCI2252 Data Structures. Spring

CSCI3255 3 Credits
**Mathematical Foundations of Computer Science**

CSCI3268 3 Credits
**Database Systems**
Overview of the function and architecture of database systems. Study of storage structures and their implementation. Survey of the current types of data models with emphasis on relational databases. Examples of data definition and data manipulation languages. Specific database management systems will be studied to support the database concepts. Prerequisites: CSCI1201 Computer Programming I and CSCI2215 Introduction to Computer Science or permission of instructor.

CSCI3274 3 Credits
**Linux System Administration**
The course introduces the concepts of system administration as they apply to the Linux operating system. Topics include operating-system concepts; directories and file systems; users, groups and permissions; Linux and Windows; hash shell and editing; regular expressions and scripting processes and services; network, network software and the Internet; and database security and installation. Students will be able to install and maintain Linux-based computing systems in the lab. Integrated laboratory experience. Corequisite: CSCI3268 Database Systems.

CSCI3278 3 Credits
**Operating Systems**

CSCI3314 3 Credits
**Mobile Application Development**
Introduction to application development for mobile platforms using Android. Topics include graphic user interface design with Android Development Tools; Android's API for video, audio, graphic and animation; touch-screen handling; and fundamentals of game development. Prerequisite: CSCI1202 Computer Programming II.

CSCI3317 3 Credits
**Computer Game Programming**
Introduction to computer game development. Topics include fundamentals of Microsoft DirectX® game and graphics libraries, 2D graphics and animation, audio output, keyboard/mouse handling and fundamentals of 3D modeling and programming. Prerequisite: CSCI1202 Computer Programming II.

CSCI3318 3 Credits
**Cloud Computing**
This course provides a comprehensive introduction to cloud computing. Topics include cloud computing models and technologies, IaaS, PaaS, SaaS, security and privacy issues. Hands-on projects include the use of cloud services, such as Amazon Web services and Google APP Engine.

CSCI3320 3 Credits
**Introduction to Computer Simulation**
Systems and models; classifications of simulation types. An introduction to continuous simulation, discrete simulation, simulation languages and games. Prerequisites: proficiency in a programming language and MATH2202 Calculus II.

CSCI3331 3 Credits
**Advanced Database**
Study of database recovery, reorganization, performance and space management. Issues of integrity, transaction processing, concurrency and logical and physical database design. Prerequisite: CSCI3268 Database Systems.

CSCI3338 3 Credits
**Advanced Oracle SQL Performance and Tuning**
Performance measurement and tuning of Oracle SQL applications. Analysis of Oracle database architecture with regard to optimizer modes. Interaction of SQL language and database engine. Prerequisite: CSCI3268 Database Systems.

CSCI3339 3 Credits
**Voice-over IP Technologies**
This course gives an introduction of voice-over IP technologies. Topics include the Public
Switched Telephone Network (PSTN), signalling specifications, modulation and compression of voice, Quality of Service (QoS), H.323 architecture and protocol suite, Session Initiation Protocol (SIP), gateway protocols and voice and data network convergence. Prerequisite: CSCI3240 Computer Networks.

CSCI3340
3 Credits
Advanced Switching and Internet Routing
This course focuses on advanced switching and internet routing protocols. Topics include switch design and operation, VLANs, port security 802.1x, trunking, port aggregation, high availability and redundant switched network design, advanced IP addressing architectures, routing algorithm concepts and routing protocols: RIP, OSPF, BGP, multicasting, protocol tunnelling and routing security. Prerequisite: CSCI3240 Computer Networks. FDUnetID (formerly Webmail) account required.

CSCI3342
3 Credits
Client-server Computing
An introduction to the theory and technology of client-server computing. General software architecture and component-based software system development, n-tier architecture, sockets, Remote Procedure Call (RPC), JAVA Remote Method Invocation (RMI), Common Object Request Broker Architecture (CORBA), Component Object Model (COM)/Distributed COM (DCOM) and their applications. Prerequisite: CSCI2252 Data Structures.

CSCI3345
3 Credits
Firewalls and Intrusion Detection Systems
This course covers the theoretical and practical aspects of firewalls and intrusion detection systems. Some aspects of VPNs and routers also will be covered. Prerequisites: CSCI3240 Computer Networks, CSCI3278 Operating Systems or permission of instructor.

CSCI3350
3 Credits
SAS-I
Based on commercial software SAS, this course is a foundation for writing SAS programs to accomplish data processing and statistical analysis. Topics include reading raw data files, SAS data sets, subsetting data; combining multiple SAS files; creating SAS variables and recording data values; and creating and linking HTML and summary reports. Prerequisites: knowledge of a high-level programming language and basic knowledge of statistics.

CSCI3360
3 Credits
Software Reuse
Retrieving and integrating library units (code, documentation, etc.) into the design of reusable software systems. Creating reusable assets for incorporation into a software library. Programming in Ada 9x or another object-oriented language. Programming projects are assigned. Prerequisite: CSCI2232 Data Structures.

CSCI3375
3 Credits
Concepts of Programming Languages
Fundamental concepts underlying different paradigms of programming languages. Syntactic and semantic aspects, including attribute binding, storage management, control and data abstraction. Programming in various languages. Prerequisite: CSCI2232 Data Structures.

CSCI3380
3 Credits
UNIX Shell Programming
To enable students to derive maximum benefits from using shells. The course will cover shells for the novice, shells programming for results and shells programming for mastery. The skills to create whole applications together with the steps into the world of software developers and systems administrators. Prerequisite: CSCI2215 Introduction to Computer Science.

CSCI3381
3 Credits
Compiler Theory

CSCI3385
3 Credits
Artificial Intelligence
A general introduction to the ideas and methods that enable computers to be intelligent. Topics include search algorithms, expert systems, natural language processing, methods of knowledge representation and machine learning. Programming projects. Prerequisite: CSCI2232 Data Structures.

CSCI3391
3 Credits
Network and Information Security
Coverage of potential threats to a stand-alone or networked computer. The course includes strategies to harden the system against these threats and discusses the liability of the network administrator for crimes committed via the network. Business issues considered include social engineering, continuity, data backup and recovery and risk analysis. Prerequisite: CSCI3240 Computer Networks or EENG4342 Data Communications and Computer Networks or INFO4101 Data Communications and Computer Networks I. (Equivalent to INFO4891 Network and Information Security.)

CSCI3410
3 Credits
Foundations of Cybersecurity
The topic of Information Assurance and Security (IAS) has become of increasing importance as computer systems are being subjected to continuous and more sophisticated attacks. This course presents an introduction to the application and management of mechanisms for cybersecurity and information assurance in computing, communication and organizational systems. Topics covered include malware and social engineering, vulnerability assessments, network security, authentication, basic cryptography and risk analysis. Prerequisite: CSCI3240 Computer Networks or EENG4342 Data Communication and Computer Networks or INFO4101 Data Communications and Computer Networks I. (Equivalent to INFO4410 Foundations of Cybersecurity.)

CSCI3420
3 Credits
Cryptography
Cryptographic techniques are chief mechanisms for protecting the security services of confidentiality and integrity. This course covers cryptographic primitives, including secret and public key encryption, cryptographic hash functions, digital envelopes and the key distribution problem. Prerequisite: CSCI3410 Foundations of Cybersecurity or INFO4410 Foundations of Cybersecurity.

CSCI3444
3 Credits
Programming for the Internet
This course introduces students to the fundamentals of Microsoft.NET framework, the ASP.NET development environment and C# programming. It also covers XML web services, SQL Server database and Microsoft web server IIS (Internet Information Services). Students study how to develop powerful websites and web applications that access databases using dynamic, server-side programming in C#. They also learn how to deploy such applications over various servers. Prerequisite: CSCI3268 Database Systems. (Equivalent to INFO4844 Programming for the Internet.)

CSCI3460
3 Credits
Data Warehouse and Data Mining
Students will study the fundamentals of the data warehouse, including architecture and decision making. Techniques like online analytical processes and data mining will also be studied. Tools and techniques to help make business decisions will also be covered. Prerequisite: CSCI3268 Database Systems.
CSCI3470
3 Credits
Enterprise Computing for the IBM zSeries
Students will study the software, architecture, security, network capabilities and data management of the IBM zSeries computers. There will also be a fundamental study of DB2 and the zSeries control language. Prerequisites: CSCI1202 Computer Programming II and CSCI2215 Introduction to Computer Science.

CSCI3783
3 Credits
Information Security
This course will study the important area of information security. It will cover both security management and the technical components of security. Topics will include many of these areas: security analysis, logical security design, physical security design, implementation of security systems and security maintenance. Prerequisite: CSCI3268 Database Systems.

CSCI4030
3 Credits Each Semester
Current Topics in Computer Science
Topics selected from recent advances in computer science. Content to vary from year to year. Prerequisite: permission of the instructor.

CSCI4573
3 Credits
Distributed Database Systems
Theory of distributed databases and comparison to centralized databases. Methodologies to provide transparent access to and updating of local databases. Study of global locking and deadlocking strategies. Prerequisite: CSCI3268 Database Systems.

CSCI4580
3 Credits
Systems Development with Java
This course introduces students to advanced Java programming and how object-oriented systems development is realized in Java language. The topics covered include graphical user interface (GUI) design and programming, Java Swing Components, graphics, exception handling, multithreading, Java database connectivity (JDBC), Java networking programming, remote method invocation (RMI), Java Servlets and Java Server Pages (JSP). It also exposes students to the applications of entity objects, boundary objects and control objects in programming. It enables students to do programming in database, networking, windows, multithreading and the web development using Java. Prerequisites: CSCI3251 Design of Software Systems and CSCI3268 Database Systems.

CSCI4475, CSCI4476
Variable Credits
Honors Computer Science
Independent study in computer science for students in the University Honors Program under the direction of a faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

CSCI4498, CSCI4499
3 Credits Each Semester
Co-op in Computer Science
Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of director of co-op.

CSCI4800
1–6 Credits Each Semester
Independent Study in Computer Science
Independent study under the direction of a faculty member after consultation with the school director.

Graduate Courses
Students may take selected graduate courses in computer science with the permission of the instructor and the school director.

Criminal Justice and Legal Studies

School of Criminal Justice, Political Science and International Studies

CRIM1101
3 Credits
Introduction to Criminal Justice
This course provides a comprehensive overview of the United States criminal justice system. In context to the philosophical underpinnings of the U.S. Constitution and the historical, social and political development of the United States, this course will examine the three major components of the criminal justice system: (1) police and law enforcement, (2) the court and adjudications and (3) corrections. The framework of the course revolves around the concepts of social order and control; theories of criminality; the legislation, enforcement and adjudication of criminal laws; the remediation of criminal behavior; and the influence of public policy in the administration of justice.

CRIM1102
3 Credits
Criminology and Social Theory
This course examines the theoretical perspectives on the nature and causes of crime, criminal behavior and criminality. Topics include the nature of law, types of crimes, deviancy, crime statistics, crime-prevention strategies and issues in the administration of justice. It will examine the biological, psychological and sociological theories of crime causation.

CRIM1105
3 Credits
Criminal Law
The objective of this course is to provide the student with the general principles of criminal law as a whole, in contrast to the specific definition of crimes (which vary from jurisdiction to jurisdiction). These general principles will be applied to: 1) classify and understand the varied elements of specific crimes; 2) formulate the bases for specific crimes that prosecutors must prove; 3) touch upon constitutional requirements; and 4) understand the recognized defenses to justify or explain alleged criminal conduct.

CRIM1112
3 Credits
Minorities, Women and the Criminal Justice System
This course examines the history and experiences of minorities within the criminal justice system. An examination of how each component of the criminal justice system relates and responds to minorities and women in the capacity of defendants, victims, citizens and public employees. Specific attention will be directed to constitutional protections and matters of discrimination, differential treatment, recent court decisions and the future of women and minorities in the criminal justice system.

CRIM1120
3 Credits
Introduction to Jurisprudence
Jurisprudence is the study of legal theory and the practical application of the law. The approach to this class is twofold: (1) to make the student aware of the history and nature of the law and the major philosophical approaches to the study and practice of law (a "classic" intellectual examination of jurisprudence); and (2) to critically apply those philosophies to the practice of law. The class will examine the tenets of criminal law, contract law, civil and criminal procedure, torts, property law and family law. Those principles will be practically applied by the student in order to gain insight into the function of the law as practiced in courts today.

CRIM1125
3 Credits
Introduction to Social Service Advocacy
This course introduces students to the fundamental concepts and theories of social service advocacy and social work and explores the practical implication of these on organizations, communities, groups, families and individuals (the client). The course is centered on three major components of social-work practice: 1) inequality and social justice, 2) social welfare policy and 3) social practice methods. The course will also
explore human behavior and development as well as needs and services within the legal and organizational context of the discipline. (Equivalent to PSYC1125 Introduction to Social Service Advocacy.)

CRIM1130 3 Credits
Working with Children and Families
This course is designed to prepare students with the knowledge, skills and ethics for effective practice in the field of child and family welfare. The course will explore the history, evolution and current status of child-welfare policies, the service continuum provided to families and children and the sociocultural context of child-welfare practice. Empowerment and strengths-based perspectives will form the theoretical framework for practice skills. An emphasis will be placed on understanding public policies that support the basic needs of families as well as policies governing the child-welfare system and selected policies governing juvenile justice, adult criminal justice, mental health and educational systems.

CRIM1135 3 Credits
Social Justice and Structural Inequality
This course will examine the intersections of inequality as it relates to race, class, sexuality and gender and how they intersect with social justice advocacy and social institutions. Students will be introduced to specific problems and their connection to broader theoretical and policy implications.

CRIM1700 3 Credits
Introduction to Security Operations
Beginning with the historical development of private security, this course provides a conceptual overview of the security industry to include crime control, loss-and-risk prevention, asset protection, physical and electronic security and the use of integrated technologies. Specifics include personnel and physical security, barriers, protective lighting, locking mechanisms, Intrusion Detection Systems (IDS), access/entry control, Closed Circuit Television Systems (CCTV) and Crime Prevention through Environmental Design (CPED).

CRIM2100 3 Credits
Professional and Legal Writing
This course is designed to prepare students for the characteristic style and format of writing letters and reports within the various professions of the criminal justice system. Emphasis will be on developing cogent, analytical and legally sustainable documents with particular attention to format, structure, grammar and literary style. This course meets the requirements of the law school preparation curriculum. Prerequisite:

ENWR1002 Composition II: Research and Argument.

CRIM2201 3 Credits
Police and Society
The objective of this course is to provide the student with a comprehensive understanding of the role, responsibility and interdependent relationship of the police and law enforcement within American society. Inherent to the responsibility for maintaining order and public safety, enforcing society’s laws, preventing crime and providing social-related services, there exists dichotomy, controversy and challenges. Beginning with a historical perspective, contemporary policing will be examined from a variety of operational, managerial and administrative perspectives taking into consideration the many social, cultural, legal, political, economic and technological changes that influence a free, democratic and capitalist society.

CRIM2202 3 Credits
Corrections, Parole and Probation
This course encompasses an analysis of formal institutions involved in the correction, punishment and rehabilitation of criminal offenders. Topics include the prison as a sociocultural system, the efficacy of penal institutions and the emergence of alternative systems of punishment and control. In addition, the course will examine the functions of probation, parole and community corrections within the context of the rehabilitative, crime prevention and reintegration models.

CRIM2204 3 Credits
Juvenile Justice and Delinquency
The objective of this course is to offer the student a comprehensive overview of juvenile delinquency and its impact on society. It will examine the demands that delinquency places on schools, police, the courts, corrections and the community. Attention will focus on the history, trends, patterns and extent of delinquency, along with the role gangs, family, peers, gender and schools play in its development. The impact of the police, the courts and juvenile corrections on reducing juvenile delinquency will also be examined.

CRIM2205 3 Credits
Criminal Justice Research Methods
An introduction to research design and methodology within the frame of criminal justice studies. Hypothesis development, experimental design, surveys, testing and the gathering and presentation of information are covered. Participants will develop facility in using the library’s online database. Students will critically analyze theoretical materials and review bibliographic information. Using written assignments, partici-
the military and law enforcement. Particular attention will be focused on the history of terrorism and its impact on modern-day society both in the United States and abroad. Students will also examine the ever-changing training and preparedness that the criminal justice system must continually engage in. The class will study and discuss other issues that governments must address in their efforts to remain prepared to respond to the horrific devastation that potentially may occur as a result of terrorist actions.

CRIM2214
3 Credits
Criminal Procedure Law
The objective of this course is to provide the students with the general principles of criminal procedure law as a whole, and how the United States Constitution's guarantees of the rights of individuals to life, liberty, privacy and property are balanced against the government's power to enforce criminal law. The course will critically examine the application of these principles to real problems, specifically: 1) an individual's right to due process of the law; 2) the balancing of the end result versus the process by which that end is achieved; 3) the requirements which must be met before there is a lawful invasion of privacy by the government; and 4) remedies for constitutional violations.

CRIM2215
3 Credits
Crime and Forensics
This course examines the philosophical considerations of the integration of forensic science disciplines with criminal investigation. It will encompass an overview of crime scenes, physical evidence and the examination of the major forensic disciplines of pathology, toxicology, odontology, anthropology, art, firearms, tool marks, criminalistics, serology, DNA and questioned documents.

CRIM2216
3 Credits
Sex, Deviance and the Law
This course will examine the causes and treatments of sexual offenders, beginning with an exploration of the historical perspectives of sexual behavior, the etiology of sexual deviant behavior, the cycle of offending, types and typologies of sexual offenses, juvenile offenders and victims. The course will also examine policy implications of research outcomes, responses to assessment and treatment of sexual offenders, the management of sexual offenders in the community and the future direction of research of sexual offenders.

CRIM2218
3 Credits
Computer Technologies and Cyber Crime
This course introduces students to the use and application of computer, digital and information technologies within the fields of criminal justice and security. Topics will examine the use of computer and related technologies in committing crimes and conducting criminal investigations, including intelligence gathering, crime-mapping and analysis, predictions, biometric and biological (DNA) identification and personnel management and administration. It will also examine the motives of the cyber offender, the forensic analysis of a computer to assist in the development of a suspect's psychological profile, the role of computer forensics in investigations and the protection and processing of digital data and computer crime scenes.

CRIM2230
3 Credits
The Death Penalty
This course will examine the historical basis of capital punishment, leading up to its practical application today in the United States and in selected countries throughout the world. Students will be exposed to arguments for and against the death penalty and will be encouraged to critically assess their own feelings toward the ultimate sanction.

CRIM2231
3 Credits
The Art and Science of Homicide Investigation
Following along a literary theme of a Sir Arthur Conan Doyle "Sherlock Holmes" novel, this Wroxton-based course will examine the art and science of homicide investigation from a legal, criminological, forensic and operational perspective. The course will be facilitated in collaboration with British police officials. It will feature field visits to a post-crime scene, a criminal investigative center, the London Metropolitan Police and Scotland Yard. A combination of academic, cultural and social experiences will provide for a holistic educational experience.

CRIM2235
3 Credits
Cyber Crime
This course examines technology's role in the commission of financial crimes, identity theft, computer hacking, terrorism, sexual exploitation of children and traditional offenses such as murder, arson and drug trafficking. It will explore contemporary trends in computer crime, the means in which technology is exploited for criminal endeavors, the motives of the cyber offender, the forensic analysis of a computer to assist in the development of a suspect's psychological profile, the role of computer forensics in investigations and the protection and processing of an electronic crime scene.

CRIM2240
3 Credits
Criminal Profiling
This course will examine crime and the criminal from the perspective of psychological profiles, different levels of motivation and different prognoses of criminal behavior. Criminal behavior will be presented as complex behavior with different phenomenology, psychopathology and dynamics. In addition to the study of topologies, theories and research, a major focus will be on criminal profiling through presentation of case material and case findings to further an understanding of criminal behavior.

CRIM2250
3 Credits
Emerging Issues in Crime and Justice
This course provides a rigorous examination of emerging issues and controversies related to crime and public policy, the criminal justice system and the administration of justice. Topics such as the U.S. Patriot Act, capital punishment, drug policies and their enforcement, police ethics and discretion, the use of force, recidivism and discrimination will be addressed.

CRIM2700
3 Credits
Security Investigations and Case Management
The objective of this course is to provide the student/practitioner with a comprehensive overview and understanding of how to conduct and effectively report background, incident and administrative investigations in a corporate environment. It will cover the use of appropriate investigative techniques as authorized by law. Students will be provided with a working knowledge of emergency planning and "risk analysis" as the means to provide for continued operations. This course also will provide the knowledge to appreciate the motivation and methodology of foreign and domestic terrorist groups as well as the means to protect personnel and corporate personnel assets against terrorist attack.

CRIM3301
3 Credits
Computer Technology in the Criminal Justice System
A comprehensive review of the use and applications of computer and information technologies within the criminal justice and private security fields. Topics will include the use of the computer and related technologies for criminal investigations, intelligence gathering, crime-mapping and analysis, predictions, biological (DNA) identification, personnel management and administration and other areas germane to the criminal justice and security fields.

CRIM3302
3 Credits
Criminal Justice Management and Administration
A comprehensive overview of the dynamics of effective supervision, management, administration and general human resource management.

Criminal Justice and Legal Studies
University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus
within various settings of the criminal justice system. This course will examine the major principles, practices and theories associated with personnel performance, assessment, productivity, motivation and leadership.

CRIM 3303
3 Credits
**Criminal Justice Internship**
Individually designed internships within federal, state and local police/law enforcement agencies, courts and adjudication and correctional agencies, including probation, parole and private security. Students develop hands-on experience in all facets of the respective agency that they select. The internship provides the students with insight, experience and an available network of professional colleagues. Prerequisites: CRIM 1101 Introduction to Criminal Justice and CRIM 1102 Criminology and Social Theory.

CRIM 3304
3 Credits
**Criminal Justice Ethics**
An examination of the moral issues and dilemmas facing criminal-justice practitioners. An understanding and appreciation of the principles of justice will serve as a foundation for considering case studies involving ethical decision-making in various criminal justice agencies. Issues considered are discretionary decision-making, corruption, use of force, race and gender discrimination and capital punishment.

CRIM 3305
3 Credits
**Interviewing and Interrogation**
This course examines strategies utilized in the process of interviewing and interrogation. There is an emphasis on communication theory and psychological issues. The differences between interviewing and interrogation will be analyzed, and the general issues regarding eyewitness evidence will be examined.

CRIM 3306
3 Credits
**White-collar Crime**
This course will examine crimes committed by governments, corporations and individuals. Specific topics include embezzlement, fraud, extortion, forgery, conspiracy, bribery, perjury, obstruction of justice, official misconduct, unfair trade practices and environmental/manufacturing/labor/administrative violations. Issues relating to the investigation, enforcement and prosecution will be discussed.

CRIM 3307
3 Credits
**Domestic Violence**
This course will take an interdisciplinary approach to examining domestic violence. The cycle of violence, dominance and control among adults and intimate partners will be explored from a sociological, criminological and psychological perspective. The course will examine the criminal justice system's response to the role of the police and proactive arrest policies, aggressive case prosecution, court-issued restraining orders and anti-stalking legislation.

CRIM 3308
3 Credits
**The Politics of Crime**
This course will examine the political influences that directly and indirectly affect legislation, enforcement and remediation of crime within American society. Topics will include victim rights, the politician's influence on allegations of police brutality, sentencing, prison reform and other crime and policy issues.

CRIM 3309
3 Credits
**Introduction to Homeland Security**
The objective of this course is to provide the students with a comprehensive overview and understanding of homeland security (HLS), the Department of Homeland Security (DHS) and its relevance to international and domestic law enforcement. Several acts of domestic and international terrorism will be analyzed and discussed. Issues such as target hardening and preparedness will be studied. This course will review case studies of past domestic and international terrorism attacks. In addition, this course will conduct an in-depth analysis of past and current HLS and relevant policing models, practices, policies and programs as well as examine the overall restructuring of the federal government agencies that now make up the DHS.

CRIM 3310
3 Credits
**Criminal Justice Professional Lecture Series**
In an effort to expose students to the practical side of criminal justice, this course utilizes criminal justice professionals and other service providers as weekly guest lecturers. Speakers are selected from a variety of criminal justice fields including policing; the courts (judges, prosecution and defense); institutional corrections; probation; parole; and victim services. In addition to providing students with a better understanding of the workings of the system, the course also provides students with further insight into the various criminal justice disciplines with a view toward future career choices.

CRIM 3311
3 Credits
**Organized Crime**
This course is designed to expose students to the history and impact of organized crime in its various guises. It briefly examines the economic and social conditions, which foster the initiation and growth of criminal enterprises within diverse societies, the current status of traditional and nontraditional gangs and the means through which those organizations control illegal activities by using violence, bribery and corruption to overcome social control.

CRIM 3312
3 Credits
**Comparative Criminal Justice Systems: United States and Great Britain**
This course, held at FDU's Wroxton College in England, will conduct a comparative analysis of the criminal justice systems of the United States and Great Britain. Taught in collaboration with British criminal justice professionals and the faculty of Wroxton College, the course will examine the respective social, cultural, historical, political, economic, geographical, operational and administrative components of both systems. The course will feature field visits to local police constabularies, the London Metropolitan Police (Scotland Yard), British courts and British prisons.

CRIM 3313
3 Credits
**Analysis of Serial Killers**
The topic of serial murder occupies a unique niche within the criminal justice community. In addition to the significant investigative challenges they bring to law enforcement, serial murder cases attract an overabundance of attention from the media, mental health experts, academia and the general public. While there has been significant, independent work conducted by a variety of experts to identify and analyze the many issues related to serial murder, these investigations prove to be a challenge for law enforcement. Serial murder is neither a new phenomenon nor is it uniquely American. Dating back to ancient times, serial murderers have been chronicled around the world. The issues relating to serial killers shall be studied from a multidisciplinary perspective.

CRIM 3314
3 Credits
**Comparative International Criminal Justice Systems**
This course will conduct a comparative analysis between the United States criminal justice system and those of other major countries throughout the world. The course will examine contrasting social, cultural, religious, political, economic, geographic, operational and administrative components that influence the maintenance of social control and compliance with civil and criminal laws.

CRIM 3315
3 Credits
**Advanced Internship**
Students successfully completing CRIM 3303 Criminal Justice Internship may choose to continue to develop hands-on experience in the criminal justice field. They may elect to accept more challenging responsibilities at their initial
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internship site or progress to another internship experience. Prerequisites: CRIM1101 Introduction to Criminal Justice and CRIM3303 Criminal Justice Internship.

CRIM3316
3 Credits
Global Terrorism
This course examines the causes, motives and effects of global terrorism from an international perspective. It explores strategies and countermeasures employed by government and private sectors that aim to prevent and mitigate terrorism, including the role and responsibility of the media and the criminal justice system. This course, conducted at FDU’s Wroxton College (United Kingdom), features field visits and guest lectures with experience and expertise in the field of terrorism.

CRIM3317
3 Credits
Fraud Investigation
This course offers students a comprehensive overview of fraud prevention and detection. Learners will gain insight into the implementation of effective fraud-investigation techniques while examining real-life fraud schemes used by employees, owners, managers, and executives to defraud their customers. As a result, students will be able to identify and quantify the vulnerabilities that permit frauds to succeed, and they will appreciate the application or implementation of deterrents, which may be mandated by corporate policy and/or legislative guidelines.

CRIM3319
3 Credits
Courts and Judicial Process
This course will provide students with an understanding of the process, organization and operation of the judicial branch of government. The judiciary is more than courtrooms, judges, lawyers and trials. There is a vast behind-the-scenes structure composed of other numerous employees and programs which are not fully understood by the public, police, attorneys or other users of the court system. The divisions of court and these programs will be examined in detail as well as the corresponding job opportunities they provide to criminal justice majors.

CRIM3320
3 Credits
Interviewing and Counseling Strategies
Effective communication lies at the heart of the criminal justice enterprise. Every profession that is linked to the system has a requirement for skill in communication and the maintenance of resourceful states. Students will be expected to learn the strategies of successful communication and change in an open model that will serve them through their undergraduate and professional careers. This course focuses specifically on the development of oral communication skills and the development of sensory acuity in communication.

CRIM3321
3 Credits
Drugs, Addictions and the Law
Students will explore the nature of addictions and substance abuse in terms of human neurophysiology, drug properties and psychosocial variables. An overview of treatment modalities will be presented. Students will also focus on law-enforcement issues including drug identification, detection and testing.

CRIM3322
3 Credits
Negotiation and Conflict Management
Criminal justice professionals are regularly placed in positions where they must diffuse threats, negotiate between parties and bring calm to potentially explosive situations. This course will examine the theoretical basis for and practice the skills and techniques for diffusing threats, bringing calm, finding common ground and creating the basis for agreement and cooperation in interpersonal, intergroup and other problem contexts.

CRIM3324
3 Credits
Community Resource Management
Criminal justice professionals regularly encounter people who are in need of a host of services including crisis management, legal and financial assistance, food, emergency housing or protective shelter, health care, mental health care and substance-abuse treatment. This course will examine the kinds of problems typically encountered, the agencies that can supply these needs, levels of service, eligibility criteria and how to navigate the various systems.

CRIM3325
3 Credits
Traumatic Injuries and Death Investigation
This course will focus on the forensic components associated with traumatic injuries and sudden deaths, whether sustained by accident, self-inflicted or by consequence of others. Forensic evidence, when properly identified and interpreted, serves as invaluable tools toward the assessment, mitigation, treatment, presentation and investigation of injuries and sudden deaths. This course will examine the significance and impact of forensic evidence from a sociological, psychological, legal, medical and criminal perspective. This course will be of particular interest to business, criminal justice, nursing and psychology majors.

CRIM3326
3 Credits
Rehabilitative Strategies
Criminal justice professionals are often charged with facilitating diversionary sentences, reducing recidivism, addressing a wide range of problem behaviors and easing transition from prison life into normal society. This course will examine the problems, contexts and techniques faced by criminal justice professionals charged with some facet of facilitating the rehabilitative process.

CRIM3327
3 Credits
File System Forensic Analysis and Investigation
This course is designed to introduce students to computer file system storage, analysis and retrieval. It provides an overview of computer foundations and associated investigative techniques beginning with an illustrated overview of contemporary volume and file systems, namely, crucial information for discovering hidden evidence, recovering deleted data and validating computer forensic tools. Students will investigate and describe data structures, analyze examples of disk images, provide advanced investigation scenarios and use today’s most valuable open-source file system analysis tools. Prerequisite: CRIM2218 Computer Technologies and Cyber Crime, CRIM2235 Cyber Crime or CRIM3301 Computer Technology in the Criminal Justice System.

CRIM3330
3 Credits
Dynamics of Leadership
The objective of this course is to offer the student a comprehensive overview of the skills necessary to be an effective leader. The course will examine the various leadership styles that are utilized by both public- and private-sector leaders. Particular attention will be focused on the impact of both effective and ineffective leadership in an organization. The training and preparedness that both new and seasoned leaders undergo will be examined.

CRIM3700
3 Credits
Asset Protection, Vulnerabilities and Technologies
In the context of new and developing roles of security leaders, this course examines three critical components for managing a security department: security-prevention methods, vulnerability and threat assessments, protection of information and computer technologies. Topics covered include principles of prevention, management systems, vulnerability and criticality, risk management, tactics and countermeasures, identification and disposition of abusers, loss prevention, identification and controls and computer security and countermeasures.

CRIM3890
3 Credits
Legal and Analytical Reasoning
The objective of this course is to examine the cognitive processes associated with critical thinking and analytical reasoning, which represent important skills and competencies that
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underline the effectiveness of practitioners within America’s legal and criminal justice system. While the concepts and principles of this course will be borrowed from formal logic, critical thinking and a range of other disciplines, the application of these ideas are specific to the requirements of the Law School Admission Test (LSAT) and other standardized instruments required for graduate and law school admissions.

CRIM4010
3 Credits
Computer Forensic, Software and Hardware Applications
This course examines the skills necessary to launch and complete a successful computer forensic investigation utilizing the latest software and hardware applications. Students will learn how to conduct high-tech investigations — from acquiring digital evidence to reporting its findings. This course further highlights the objectives of the International Association of Computer Investigative Specialists (IACIS) certification to provide credible, standards-based information. Prerequisite: CRIM327 File System Forensic Analysis and Investigation.

CRIM4405
3 Credits
Criminal Justice Capstone Seminar
This course is specifically designed for criminal justice majors nearing completion of their undergraduate studies. Designed to be highly engaging and interactive, this course provides a cogent yet comprehensive synthesis, recapitulations and critical analysis of the criminal justice system. The first half of the semester consists of a series of independent and collaborative research projects that will facilitate a critical analysis and critique of the United States criminal justice system from a theoretical and operational perspective. The second half of the semester is designed to provide for an introspective reflection and assessment of a student’s undergraduate studies and how that translates to planning and preparing for one’s personal and professional life after college.

CRIM4430
1–3 Credits
Selected Studies in Criminal Justice and Legal Studies
This course covers topics of special interest to criminal justice students for which no formal course is offered. A full description of these courses can be obtained at the School of Criminal Justice, Political Science and International Studies.

CRIM4700
3 Credits
Security and Personnel Management and Administration
This class is designed to give security personnel at all levels a fresh insight into current management, leadership and supervision theories and practices. It provides a rigorous and comprehensive understanding of the multidimensional aspects for effective and efficient supervision, management, administration and leadership of private security organizations.

CRIM4800
1–3 Credits
Independent Study
Independent study under the direction of a specific faculty member after consultation with the school director. Limited to a total of 6 credits.

Dance

School of Art and Media Studies

DAN1230
3 Credits
World Dance Appreciation and Practice
This introductory course examines, through theory and practice, the techniques and philosophy of various partnership dances. Students will learn the basic steps and turn patterns of various dances, emphasizing the central roles of leading/following, rhythm familiarization and body movement.

Economics

School of Criminal Justice, Political Science and International Studies

ECON2103
3 Credits
Introduction to Economies
Survey of economic concepts and vocabulary that requires a minimal amount of mathematics. The course focuses on modern questions such as markets and regulations, trade and tariffs, distribution and redistribution, supply and demand, fiscal and monetary policy and their roles in the global economy.

Education

Peter Sammartino School of Education

EDUC1108
3 Credits
Seminar in Professional Practice I: The Teacher’s Role in School and Community
Seminar designed to integrate professional and personal development, professional practice and academic growth in the following areas: human relations in the school and community, education in American society and organizational process and behavior within the context of the school and community.

EDUC1453
1 Credit
Basic Technology for College Students
Software programs and hardware devices are introduced to students for the purpose of assisting them with a variety of difficulties. The overall focus is to help students get acquainted with the types of technology that are available and to understand which products best fit their learning profiles. Note: Only open to Regional Center for Learning Disabilities students.

EDUC2202
3 Credits
Development of Children with and without Disabilities
This course will provide an overview of the developmental changes that can be expected from early childhood through adolescence and the role that contexts, especially schools, play in promoting this development. Physical, linguistic, cognitive and socio-emotional development of children and adolescents will be discussed. Normative development in these areas will be used as a standpoint from which to examine atypical development (mild, moderate and severe disabilities, including autism spectrum disorders). This course will also provide an overview of the role that families, peers and schools play in influencing the development of children with and without disabilities.

EDUC2207
3 Credits
Introduction to Special Education and Students with Disabilities Including Autism Spectrum Disorder
This course will provide an overview of historical legislative decisions that mandate special education and discuss how these mandates drive current practice in special education. Processes for referring, identifying and serving children who are eligible for special education services will be discussed. Physical, social, cognitive and behavioral characteristics of students with disabilities (including autism spectrum disorders) will be described. Course participants will learn to plan, adapt and implement effective instruction and assessment to facilitate academic achievement for learners with disabilities.

EDUC2208
3 Credits
Classroom Management and Positive Behavioral Supports
This course will provide an overview of the common types of school-based challenging behavior and major theories of behavior. Best practices in school-wide, classroom and individual behavior management will be discussed, with a focus on positive behavior interventions and supports as well as family involvement. This course is designed to prepare educators to effectively use functional behavior assessment to
develop behavior management interventions when working with students with disabilities.

EDUC2209
3 Credits
Seminar in Professional Practice II: Teachers as Educational Leaders
Seminar designed to integrate professional and personal development, professional practice and academic growth in the following areas: teacher as a reflective practitioner, teacher as a professional and teacher as a leader in the school community. A 6-credit lab to be used for Praxis preparation. Prerequisite: EDUC1108 Seminar in Professional Practice I: The Teacher’s Role in School and Community.

EDUC2294
2 Credits
Metacognitive Skills II
Metacognitive skills include psychosocial topics. There are units on interpersonal skills, advocacy skills, motivation, relaxation techniques, stress management, behavior modification and metacognitive awareness of specific learning disabilities in terms of affective and academic manifestations. The course includes a unit on career planning. Note: Open only to Regional Center for Learning Disabilities students.

EDUC2401, EDUC2402
1 Credit Each Semester
Field Experience I, II
On-site field experiences (30 hours each) in public schools and classrooms, focusing on their function, structure and curricula. Prerequisite: corresponding seminar in professional practice.

EDUC3509
3 Credits
Seminar in Professional Practice III: The Functions of Teaching
Seminar designed to integrate professional and personal development, professional practice and academic growth in the following areas: reflection and action research; diversity in the classroom; teacher as a decision-maker, planner, manager, and problem solver; curriculum, instruction and assessment. Prerequisites: EDUC1108 Seminar in Professional Practice I: The Teacher’s Role in School and Community and EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders.

EDUC3510
0 Credits
Praxis Review
This course will focus on test-preparation skills and strategies that will help students prepare for the Praxis II Exam required for initial teacher certification in elementary education. Prerequisites: EDUC1108 Seminar in Professional Practice I: The Teacher’s Role in School and Community and EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders.

EDUC3403
2 Credits
Field Experience III
On-site field experience (60 hours) in public school classrooms, focusing on curricula, instruction and students involved in the learning process; concurrent with junior-year graduate-level education course work in elementary or secondary specialization. Students are assigned a teacher mentor and are expected to prepare and teach formal lessons and conduct a student case study. Prerequisites: EDUC1108 Seminar in Professional Practice I: The Teacher’s Role in School and Community, EDUC2209 Seminar in Professional Practice II: Teachers as Educational Leaders, EDUC2401, EDUC2402 Field Experience I, II; and EDUC3509 Seminar in Professional Practice III: The Functions of Teaching. Corequisites: approved graduate education courses in elementary or secondary specialization.

EDUC3404
2–3 Credits
Field Experience IV: Applied Field Research
Field experience in senior year designed as a culminating experience to undergraduate course work prior to apprenticeship (student) teaching. Emphasis on application of field research and the knowledge base developed in previous course work and field experiences to classroom/instructional practice. The student is placed in a school(s) with an assigned school-based teacher mentor. While in the field (minimum 60 hours) the preservice teacher conducts a research study on the topic of his/her choice (subject to adviser approval) and is required to prepare a final research report on the study and its application to the classroom and instructional practice. An on-site visit/observation of formal teaching also is required by a School of Education faculty supervisor. Prerequisite: EDUC3403 Field Experience III. Pre/Corequisites: approved graduate education courses in elementary or secondary specialization.

EDUC4430
2 Credits
Metacognitive Strategies I
An interdisciplinary course focusing on the development of metacognitive strategies which facilitate academic learning, including note taking, time management, visualization techniques, relaxation techniques and critical decision-making skills. Classroom instruction, discussion and application. Note: Open only to Regional Center for Learning Disabilities students.

EDUC4431
1 Credit
Introduction to Research Skills
Developing research skills. Strategies for locating information, evaluating sources and writing citations. Formulating research questions and developing literature reviews. Prerequisite: EDUC2294 Metacognitive Skills II.

EDUC4432
1 Credit
English Language Structure: Application to Text
Structure, organization, logic and usage of the English language. Understanding of the English language as it applies to encoding, decoding, written expression and comprehension. Analysis of the origin of the English vocabulary.

EDUC4800
1–3 Credits Each Semester
Independent Study in Education
Special projects, readings and research approved by the student’s academic adviser and the director of the School of Education.

Graduate Courses
Students will take selected graduate courses in education with the approval of the advisor, subject to review of the student’s academic standing (cumulative GPA) and completion of appropriate prerequisites. Titles and sequence of graduate education courses taken in the junior and senior years are listed in the Combined Degrees/Accelerated Programs section in this Bulletin. Interested students should see the Graduate Studies Bulletin for a list of courses and descriptions.
Electrical Engineering

Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

EENG2221
4 Credits
Lecture/Laboratory 5 Hours
Signals and Systems I

EENG2222
3 Credits
Lecture/Laboratory 4 Hours
Signals and Systems II

EENG2287
3 Credits
Lecture/Laboratory 4 Hours
Microprocessor System Design I

EENG2801
3 Credits
Lecture/Laboratory 4 Hours
Computer Engineering and Telecommunications

EENG3223
3 Credits
Lecture/Laboratory 4 Hours
Linear Systems
Classification of signals and systems. Linear Time-Invariant Systems. Time-domain analysis, Laplace transform techniques. Frequency-domain analysis. Z-transform analysis for discrete systems. Integrated laboratory experience. Prerequisites: EENG2222 Signals and Systems II and MATH2210 Differential Equations (or permission of instructor).

EENG3224
3 Credits
Lecture/Laboratory 4 Hours
Digital Signal Processing

EENG3244
3 Credits
Lecture/Laboratory 4 Hours
Electromagnetic Fields and Waves

EENG3265
3 Credits
Lecture/Laboratory 4 Hours
Electronics I
Basics of operational amplifiers. Selected operational amplifier applications. Selected integrated circuits and their applications. Integrated laboratory experience. Prerequisite: EENG2222 Signals and Systems II or permission of instructor. (Equivalent to EGTE2265 Electronics I.)

EENG3266
3 Credits
Lecture/Laboratory 4 Hours
Electronics II
Diodes and circuit applications. Bipolar junction transistors and field effect transistors and their circuit applications. Low-frequency amplifiers using small-signal models. Biasing, integrated laboratory experience. Prerequisite: EENG3265 Electronics I or permission of instructor. (Equivalent to EGTE3266 Electronics II.)

EENG4268
2 Credits
2 Contact Hours
Electrical Engineering Project
An independent design project is carried out under the supervision of a faculty member. Prerequisite: EENG4260 Preparation for Electrical Engineering Project.

EENG4321
3 Credits
Engineering Optics I

EENG4322
3 Credits
Engineering Optics II
Topics of current interest in applied engineering optics. Introduction to lasers and fiber optical systems, optical interferometry and holography. Design considerations in multilayer filters, Fresnel's equations, optical properties of materials and Fourier optics. Prerequisite: EENG4321 Engineering Optics I.
EENG4525
3 Credits
Lasers
Basic principles of lasers and their applications in optical communication systems. Laser sources, laser operation, modulation and design of systems incorporating lasers. Emphasis on lasers useful in fiber optical systems such as solid-state infrared devices. Prerequisite: EENG3244 Electromagnetic Fields and Waves.
Fee

EENG4526
1 Credit
Photonics Laboratory
Experiments and projects selected from topics in optical design, digital image processing, optical signal processing, holography, optical filtering and interferometry. Prerequisite: EENG4322 Engineering Optics II. Corequisites: EENG4328 Optical Design and EENG4392 Optical Communications.
Fee

EENG4528
2 Credits
Optical Design
An introduction to the principles and applications of optical system design, including computerized optical design. Prerequisite: EENG4322 Engineering Optics II. Corequisite: EENG4326 Photonics Laboratory.
Fee

EENG4535
3 Credits
Microelectronics and Fundamentals of Very Large Scale Integration (VLSI)
Basic processing technology, layout fundamentals, passive components and their parasitic effects, BJTs, MOSFETs, nMOS circuits. Prerequisite: EENG3266 Electronics II.

EENG4536
3 Credits
Very Large Scale Integration and Projects
Circuit design and concepts, nMOS circuits, layout guidelines, programmable logic arrays, finite state machines, system design and timing, design and testing of a VLSI circuit (project). Prerequisite: EENG4333 Microelectronics and Fundamentals of Very Large Scale Integration (VLSI).

EENG4541
3 Credits
Lecture/Laboratory 4 hours
Communication Systems
Signal analysis, signal transmission, linear modulation, angle modulation, pulse modulation, data transmission, multiplexing. Integrated laboratory experience. Prerequisite: EENG3225 Linear Systems.
Spring

EENG4542
3 Credits
Lecture/Laboratory 4 hours
Data Communications and Computer Networks
Data encoding and transmission, error detection and correction, data encryption and network security. Network architecture and model. Circuit and packet switching, optimal routing, wide and local area networks. Internet protocols. Integrated laboratory experience. Prerequisite: Completion of sixth semester or permission of instructor.
Fall

EENG4547
3 Credits
Wireless Communication
Practical and theoretical aspects of wireless communication, system design with particular emphasis on mobile communication, cellular concepts, multichannel systems, propagation characteristics, modulation and encoding. Prerequisite: completion of the sixth semester.
Spring

EENG4553
3 Credits
Computer Control and Interfacing
Transducers and sensors, signal acquisition and conditioning, analog signal processing, data conversion, A/D and D/A conversion, I/O ports, interface design, process controllers, interrupts, higher-level languages for control. Prerequisite: EENG2287 Microprocessor System Design I.

EENG4554
3 Credits
Knowledge Engineering I
Structure of neural network and fuzzy logic systems with applications in signal processing, pattern recognition, process control and optimization. Prerequisite: completion of the sixth semester.

EENG4555
3 Credits
Analog and Digital Control
Closed loop feedback systems, general feedback theory, control system design, stability, sensitivity, error response, root-locus, compensation techniques, digital control, discrete time systems, design in Z-domain, controllability, optimality control. Prerequisite: EENG3223 Linear Systems.
Fall

EENG4556
3 Credits
Knowledge Engineering II
Principles of robot design, search methods, automated assembly operations, learning paradigms for automated environments. Prerequisites: EENG4554 Knowledge Engineering I.

EENG4562
3 Credits
Electronics Instrumentation
Study of circuits and functions of electronic instruments for indicating and monitoring. Electronic voltmeters and multimeters, potentiometer and galvanometer types of recorders, transducers in industrial and research instrumentation, frequency and time standards and measurement, signal generators, pulse generators, swept frequency sources. Prerequisite: EENG3265 Electronics I.

EENG4575
3 Credits
Lecture/Laboratory 4 hours
Electrical Energy Conversion
General considerations of electromagnetic phenomena and magnetic circuits. Exercises with ferromagnetic loops and air gap. Transformer theory — equivalent circuits and phasors. Regulation and efficiency evaluation, rotating machinery, DC and three-phase systems. Power relationships, operating characteristics. Prerequisite: EENG2222 Signals and Systems II or EGTE2216 Circuits II.
Fall

EENG4576
3 Credits
Power Control Systems
Technical aspects of electric systems that transmit power from the generator to the loads. Transmission-line calculations. Fault calculation, Power flow studies. Prerequisite: EENG4375 Electrical Energy Conversion or permission of instructor.

EENG4581
3 Credits
Computer-aided Analysis and Design I
Use of CAD software in analyzing and designing both analog and digital circuits. Prerequisite: completion of the sixth semester. (Equivalent to EGTE4381 Computer-aided Analysis and Design.)

EENG4582
3 Credits
Computer-aided Analysis and Design II
Use of CAD software and modern programming languages in solving electrical engineering problems. Prerequisites: EENG4381 Computer-aided Analysis and Design I and completion of the sixth semester.

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Electrical Engineering

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EENG4358
3 Credits
Modern Manufacturing Systems
Basic engineering principles of analysis and design of industrial robotic manipulators, including configuration kinematics, motion kinematics status, dynamics and control.

EENG4392
3 Credits
Optical Communications
Introduction to optical communications, sources and detectors, fiber-optic systems, optical waveguide components, switches and couplers, multiplexers, lasers, system design. Prerequisite: completion of the sixth semester.

EENG4394
3 Credits
Electronic Telecommunications
Network and terminals, global reach, radio channels, cables and waveguides, communication satellites, digital channels and PCM, signal composition, time division, options in network design. Prerequisite: basic knowledge of data processing.

EENG4421
3 Credits
Honors Externship in Electrical Engineering
A supervised industrial experience for selected students. Prerequisite: permission of the school director.

EENG4430
3 Credits
Special Topics in Electrical Engineering
A study of subjects of current interest in electrical engineering.

EENG4498, EENG4499
3 Credits Each Semester
Co-op in Electrical Engineering
Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive employment experiences. A development process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of director of co-op.

EENG4800
1–3 Credits Each Semester
Independent Study in Electrical Engineering
Independent study under the direction of a specific faculty member after consultation with the school director.

EENG4875
1–4 Credits
Honors in Electrical Engineering
Independent study in electrical engineering for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

ENGR1204
3 Credits
Lecture/Laboratory 4 hours
Programming Languages in Engineering
MATLAB programming applied to engineering problem solving. Integrated laboratory experience. Fee

ENGR1223
2 Credits
Lecture/Laboratory 4 hours
Introduction to CAD
Introduction to the practical use of computer hardware and software for drafting applications. Corequisite: MATH1107 Precalculus or equivalent. Fee

ENGR1301
3 Credits
Lecture/Laboratory 5 hours
Engineering Practices, Graphics and Design
Analytical techniques: equations, graphics, statistics. Introduction to computer-aided analysis software. Engineering applications. Introduction to design. Fundamentals of graphcs as applied to sketching and drafting. Professionalism and ethics. Integrated laboratory experience. Fee

ENGR2210
3 Credits
Lecture/Laboratory 5 hours
Technical Communications
Overview of the writing, editing, research and design principles of technical and professional communication. Students will learn how to gather, organize and present information effectively. Course includes business and technical documentation, including online tools; oral reports and public speaking; teamwork and participation in group meetings; use of visuals to communicate material; professional, ethical and social responsibilities; and research techniques using the library and the internet. Prerequisite: ENWR1001 Composition I: Rhetoric and Inquiry. Fee

ENGR2221
3 Credits
Statics
Statics of particles and rigid bodies, equivalent force systems, equilibrium of rigid bodies, centroids and center of gravity, analysis of trusses and frames, forces in beams and machine parts, friction and moments of inertia. Prerequisites: MATH1201 Calculus I and PHYS2203 University Physics I. Fee

ENGR2228
3 Credits
Lecture/Laboratory 4 hours
Strength of Materials
Shear, moments, stresses, bending, torsional shear, moment and shear diagrams, deflections, stress strain, bolted and welded joints, combined loading and column. Prerequisite: ENGR2221 Statics. Fee

ENGR2286
3 Credits
Lecture/Laboratory 4 hours
Digital System Design
Binary codes, gates and flip-flops, registers and counters, adders and ALUs, analysis and design of combinational and sequential circuits. Logic simulation. Logic families. Integrated laboratory experience. (Equivalent to EG TG2286 Digital System Design.) Fee

ENGR3000
3 Credits
Lecture/Laboratory 4 hours
Modern Technologies: Principles, Applications and Impacts
This course provides a systematic introduction to modern technologies — their history, evolutionary development, principles and applications. The influences, impacts and ethical implications of technology on the economy, politics, culture, environment, society and the world are investigated. Attention is given to the relationships and connections of technology to other fields. Students learn the basic principles underlying the technologies, how to apply and manage technologies and assess their impacts. Critical thinking and problem-solving skills used in research, design, development, invention and innovation are emphasized. The laboratory experiences help the students develop the experimental research, creative and design skills. Fee
ENGR3200
3 Credits
Lecture/Laboratory 4 hours
Advanced Engineering Programming
Use of computers for design, analysis, control and decision making. C++ concepts. Integrated laboratory experience. Prerequisite: ENGR1204 Programming Languages in Engineering.
Fall

ENGR3211, ENGR3212
6 Credits (3 Credits Each Semester)
Engineering Materials I, II
Two-course sequence covering properties of metals and alloys, semiconductors, ceramics, glasses and polymers. Crystal structure, structural defects, alloying and phase diagrams. Prerequisite for ENGR3211 Engineering Materials I is CHEM1201 General Chemistry I. ENGR3211 Engineering Materials I is a prerequisite for ENGR3212 Engineering Materials II. Fall (ENGR3211), Spring (ENGR3212)

ENGR3341
3 Credits
Advanced Engineering Mathematics
Vector algebra, vector calculus, gradient, divergence, curl. Line and surface integrals, Green’s theorem, Stoke’s theorem, divergence theorem. Vector spaces, dot products, matrices, linear equations, determinants, eigenvalues, diagonalization. Complex analysis, complex integration, power series, residue theorem. Prerequisite: MATH2203 Calculus III or permission of instructor. Spring

ENGR3351
3 Credits
Lecture/Laboratory 4 hours
Applied Thermodynamics
Introduction to the basic concepts of thermodynamics. Zeroth Law. Work and heat. First Law, Second Law, Carnot theorem and entropy. Applications of gas and steam cycles to open- and closed-loop systems, such as gasoline and diesel engines, and steam turbines. Principles of refrigeration and air conditioning. Prerequisites: CHEM1201 General Chemistry I, MATH2202 Calculus II and PHYS2204 University Physics II. Spring

ENGR3451
3 Credits
Dynamics
Kinematics, kinetics, linear, angular, plane motion. Work, energy, power, impulse and momentum. Prerequisites: ENGR2221 Statics and MATH2202 Calculus II. Spring

ENGR4000
3 Credits
History of Technology
Ways in which technology contributed to the building of a global society. Technology as a central player in the larger political, cultural and economic trends during various periods.

ENGR4001
2 Credits
3 Contact Hours
FE/EIT Exam Preparation I
First part of a two-course sequence that helps prepare students for the Fundamentals of Engineering/Engineer in Training (FE/EIT) Exam. This course serves as a review class and may include material not covered in the first three years of students’ curricula. Prerequisite: senior standing. Fall

ENGR4002
1 Credit
2 Contact Hours
FE/EIT Exam Preparation II
Second part of a two-course sequence that helps prepare students for the Fundamentals of Engineering/Engineer in Training (FE/EIT) Exam. This course serves as a review class and may include material not covered in the first three years of students’ curricula. Prerequisite: ENGR4001 FE/EIT Exam Preparation I. Spring

ENGR4210
3 Credits
Managerial and Engineering Economic Analysis
Concepts and techniques to evaluate the worth of technical systems, products and services in relation to their cost. Time value of money, cash flow equivalence, economic decision making among alternative courses of action, depreciation and taxes, replacement and break-even analysis. Prerequisite: MATH2202 Calculus II or permission of instructor. (Equivalent to EGTG4269 Management and Engineering Economics.) Fall

ENGR4221
3 Credits
Engineering Statistics and Reliability
Statistics, regression, probability. Normal distribution. Poisson distributions and reliability as applied to engineering decisions, performance and quality control. Corequisite: MATH2202 Calculus II or permission of instructor. Spring

ENGR4254
3 Credits
Lecture/Laboratory 4 hours
Fluid Mechanics
Applied fluid mechanics, applications of hydraulic and pneumatic control amplification and power circuits. Introduction to fluidics. Prerequisite: ENGR2221 Statics. Corequisite: MATH2210 Differential Equations. Fall

ENGR4263
3 Credits
Lecture 2 hours; Laboratory 2 hours
Project Management in Engineering and Technology
This course covers the basic concepts, models and applications for successful management of projects in engineering and technology. This will include rationale for project management, project-management process, project-selection strategy, organizational concepts, project planning, scheduling and resource allocation, cost estimating, project monitoring, evaluation and control, project-earned value management and project termination. Emphasis will be on teamwork and student-project presentation. Fee

ENGR432
3 Credits
Selected Studies in Engineering
Selected studies of engineering topics or in an area of engineering.

ENGR4800
3 Credits
Independent Study in Engineering
Independent study of engineering topics or in an area of engineering under the direction of a specific faculty member after consultation with the school director.

Engineering Technology
Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

Civil and Construction Engineering Technology
EGTC1205, EGTC1206
6 Credits (3 Credits Each Semester)
Lecture 2 hours; Laboratory 2 hours
Surveying I and II
Surveying as applied to the construction industry. Such areas as layout and control of buildings and roads, earthwork measurements, horizontal and vertical curves, superelevation on curves, computer applications to surveying and electronic measurements will be studied. Prerequisite for EGTC1205 Surveying I is MATH1107 Precalculus. EGTC1205 Surveying I is a prerequisite for EGTC1206 Surveying II. Fall (EGTC1205), Spring (EGTC1206) Fee
Course Descriptions

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EGTC1225
2 Credits
Lecture 1 hour; Laboratory 3 hours
Introduction to CAD
Introduction to the practical use of computer hardware and software for drafting applications. Co-requisite: MATH1107 Pre-calculus.
Fall
EGTC1245
3 Credits
Lecture 2 hours; Laboratory 2 hours
Construction Materials and Systems
A continuation of EGTC1225 Introduction to CAD. EGTC1245 Construction Materials and Systems is a prerequisite for EGTC2464 Construction Practices II.
EGTC2246
3 Credits
Lecture 2 hours; Laboratory 2 hours
Timber Structures and General Building Systems
Wood used in home building: columns, girders, beams, joists, rafters, studs, joint and stud bridging. Use of charts and tables for practical applications of theory to design, quality and strength of various industrial wood shapes. AutoCAD applications in representing general building systems of timber structures, exterior shell systems, conventional schematics of HVAC and electric, plumbing, wastewater and drainage systems. Prerequisite: EGTC1225 Introduction to CAD, EGTC1245 Construction Materials and Systems and EGTC2228 Strength of Materials.
Fall, Spring
EGTC3250
3 Credits
Structural Analysis
Classical analysis methods of determinate and indeterminate structures. Deflection calculation of beams and trusses, work-energy methods, influence line concept for moving loads. Prerequisite: EGTC2228 Strength of Materials.
Fall
EGTC3256
3 Credits
Steel Structures
The application of the principles of statics and strength of materials in the design and analysis of structural steel beams, columns, trusses and frames, connections and base plates, all in accordance with current AISC specifications. Prerequisite: EGTC2228 Strength of Materials.
Fall
EGTC3257
3 Credits
Concrete Structures
The analysis and design of reinforced concrete beams, girders, slabs and columns, all in accordance with current ACI code and standards. Prerequisite: EGTC2228 Strength of Materials.
Fall
EGTC3361
3 Credits
Estimating I
The development of a procedure (including check and balance) for preparing a quantity survey of materials, labor and equipment for both general and specialty contractors. Prerequisite: MATH1107 Pre-calculus.
Fall
EGTC3362
3 Credits
Estimating II
A continuation of EGTC3361 Estimating I by adding the cost of production by summarizing overhead, expenses and profit to the sum of labor and materials cost. Prerequisite: EGTC3361 Estimating I.
Spring
EGTC3370
3 Credits
Environmental and Land-use Planning
Environmental laws and pollution, environmental-impact analysis, land-use laws and economics will be covered. Prerequisite: ENGR1301 Engineering Practices, Graphics and Design.
Spring
EGTC3371
3 Credits
Construction Labor
A broad overview of the construction industry comparing and contrasting the current union and open-shop wages and work practices. Apprenticeships, journeymen training programs; Davis-Bacon Act, business agents, organization and jurisdiction of crafts; and work rules. Prerequisite: EGTC2210 Technical Communications.
Fall
EGTC3374
3 Credits
Advanced Structural Analysis
Elastic analysis of statically indeterminate structures using force and deformation methods. Prerequisite: EGTC2228 Strength of Materials.
Spring
EGTC4241
3 Credits
Lecture 2 hours; Laboratory 2 hours
Soil Mechanics
The mechanics of soil and rock masses as applied to construction, with emphasis on footing and pile foundations, retaining walls, bulkheads, fills, embankments and the control of landslides. Identification, classification and testing of the physical properties of soils. Prerequisite: EGTC2228 Strength of Materials.
Fall
EGTC4242
3 Credits
Foundations
Spring
EGTC4260
3 Credits
Contracts and Specifications
A study of codes and specifications required in engineering contracts. General contracts, subcontracts, construction management contracts. Contract Law. Prerequisites: EGTC1245 Construction Materials and Systems and EGTC2210 Technical Communications.
Spring
EGTC4263, EGTC4264
6 Credits (3 Credits Each Semester)
Lecture 2 hours; Laboratory 2 hours
Project Management and Control I and II
The use and management of equipment, personnel and materials for construction projects. Planning and control through the use of methods involving CPM, bar charts, purchasing, PERT and construction models. Labor relations and safety requirements (OSHA). Prerequisite: EGTC3361 Estimating I or approval of adviser. EGTC4263 Project Management and Control I is a prerequisite for EGTC4264 Project Management and Control II.
Fall (EGTC4263), Spring (EGTC4264)
EGTC4265
3 Credits
Construction Practices I
Fall
EGTC4266
3 Credits
Construction Practices II
Spring
Course Descriptions

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EGTC4272
3 Credits
Lecture 2 hours; Laboratory 2 hours
Advanced Steel Design
Design of a complete structural steel frame building including beams, floors, columns and connections; preparing design notes, structural drawings and shop drawings in accordance with codes, industry standards and AISC LRFD method used. Prerequisite: EGTC3256 Steel Structures.
Spring

EGTC4276
3 Credits
Advanced Concrete Design
Design of a complete reinforced concrete building including beams, girders, slabs, columns and footings; preparing set of design notes, structural drawings and shop drawings. All in accordance with codes, industry standards and ACI. Prerequisite: EGTC3257 Concrete Structures.
Spring

EGTC4320
3 Credits
Highway Design

EGTC4321
3 Credits
Bridge Design

EGTC4322
3 Credits
Hydraulic Design

EGTC4323
3 Credits
Seismic Design

EGTC4354
1 Credit
Lecture 1 hour; Laboratory 1 hour
Construction Technology Design Project
Students will be assigned a project with the approval of the school director and to be conducted under the supervision of a faculty member. Oral presentation. Prerequisites: EGTC4241 Soil Mechanics, EGTC4265 Project Management and Control I, EGTC2210 Technical Communications and eighth-semester standing.

EGTC4355
1 Credit
Lecture 1 hour; Laboratory 1 hour
Civil Technology Design Project
Students will be assigned a project with the approval of the school director and to be conducted under the supervision of a faculty member. Oral presentation. Prerequisites: Senior standing and EGTC2210 Technical Communications.

EGTC42201
3 Credits
Applied Calculus I
Applied differential and integral calculus stressing engineering applications. Prerequisite: MATH1107 Precalculus.

EGTC42202
3 Credits
Applied Calculus II
Continuation of applied integration and introduction to functions of several variables. Emphasis on engineering applications. Prerequisite: EGTC2201 Applied Calculus I or MATH1201 Calculus I.

EGTC42205
3 Credits
Applied Ordinary Differential Equations
Introduction to linear ordinary differential equations, Laplace transforms and Fourier analysis. Prerequisite: EGTC2202 Applied Calculus II or MATH2202 Calculus II.

EGTC2210
3 Credits
Technical Communications
Overview of the writing, editing, research and design principles of technical and professional communication. Students will learn how to gather, organize and present information effectively. Course includes business and technical documentation, including online tools; oral reports and public speaking; teamwork and participation in group meetings; use of visuals to communicate material; professional, ethical and social responsibilities; and research techniques using the library and the internet. Prerequisite: ENWR1001 Composition I: Rhetoric and Inquiry.
Fall, Spring

EGTC2215
3 Credits
4 Contact Hours
Circuits I
Circuit laws and theorems, DC circuits, inductance, capacitance.
Fall

EGTC2221
3 Credits
Statics
Statics of particles and rigid bodies, equivalent force systems, equilibrium of rigid bodies, centroids and center of gravity, analysis of trusses and frames, forces in beams and machine parts, friction and moments of inertia. Prerequisite: PHYS2101 General Physics I.
Fall

EGTC2228
3 Credits
Lecture 2 hours; Laboratory 2 hours
Strength of Materials
Shear, moments, stresses, bending, torsional shear, moment and shear diagrams, deflections, stress strain, bolted and welded joints, combined loading and column. Prerequisite: EGTC2221 Statics.
Spring

EGTC2265
3 Credits
Lecture/Laboratory 4 hours
Electronics I
Basics of operational amplifiers. Selected operational amplifier applications. Selected integrated circuits and their applications. Integrated laboratory experience. Prerequisite: EGTE2216 Circuits II or permission of instructor. (Equivalent to EENG3265 Electronics I.)

EGTC2286
3 Credits
Lecture/Laboratory 4 hours
Digital System Design
Binary codes, gates and flip-flops, registers and counters, adders and ALUs, analysis and design of combinational and sequential circuits.
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Logic simulation. Logic families. Integrated laboratory experience. (Equivalent to ENGR2286 Digital System Design.)

EGTG3211, EGTG3212
3 Credits
Materials Technology I, II
A two-course sequence covering properties of metals and alloys, semiconductors, ceramics, glasses and polymers. Crystal structure, structural defects, alloying and phase diagrams. (Must be taken in proper sequence.) Prerequisites: PHYS2101, PHYS2102 General Physics I, II.

EGTG4002
1 Credit
2 Contact Hours
FE/EIT Exam Preparation II
Second part of a two-course sequence that helps prepare students for the Fundamentals of Engineering/Engineer in Training (FE/EIT) Exam. This course serves as a review class and may include material not covered in the first three years of students’ curricula. Prerequisite: EGTG4001 FE/EIT Exam Preparation I or approval of adviser.

EGTG4221
3 Credits
Engineering Statistics and Reliability
Statistics, regression, probability, Normal distribution, Poisson distributions and reliability as applied to engineering decisions, performance and quality control. Corequisite: EGTG2201 Applied Calculus I or MATH2201 Calculus II or permission of instructor.

EGTG4224
3 Credits
Lecture 2 hours; Laboratory 2 hours
Process and Electro/Mechanical Control Systems Technology
The theory, components, operation and design of process and electro/mechanical control systems. Laboratory experimentation involving the design, simulation and testing of control-system components and complete systems. Prerequisites: EGTG2202 Applied Calculus II and EGTG3223 Instrumentation (or permission of instructor).

EGTG4225
3 Credits
Lecture 2 hours; Laboratory 2 hours
Industrial Automation
Manufacturing systems and their mechanization: design and analysis on control systems for production, materials handling and inventory logistics. Manufacturing automation and robotics technologies (requirements analysis and design). Electromechanical hardware and computer control. Economics of robotics and machine vision. Prerequisite: EGTG4224 Process and Electro/Mechanical Control Systems Technology (or permission of instructor).

EGTG4498, EGTG4499
3 Credits Each Semester
Independent Study in Engineering Technology
Independent study under the direction of a specific faculty member after consultation with the school director.
**Electrical Engineering Technology**

**EGTE2216**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Circuits II**
Complex numbers, phasors, sinusoids, AC circuits, resonance, transformers, three-phase circuits, operational amplifiers. Prerequisite: EGTG2215 Circuits I.

Spring

**Fee**

**EGTE2287**

3 Credits
Lecture/Laboratory 4 hours

**Microprocessor System Design I**
Introduction to microprocessors and microcomputers. Software architecture of processors: memory, addressing, data types, register organization. Assembly-language programming and debugging. Integrated laboratory experience. Prerequisite: EGTG2286 Digital System Design.

Fall

**Fee**

**EGTE3049**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Fiber Optics Technology**

Fall

**Fee**

**EGTE3051**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Laser Technology**

Fall

**Fee**

**EGTE3266**

3 Credits
Lecture/Laboratory 4 hours

**Electronics II**
Diodes and circuit applications. Bipolar junction transistors and field effect transistors and their circuit applications. Low-frequency amplifiers using small-signal models. Biasing, integrated laboratory experience. Prerequisite: EGTG2265 Electronics I or permission of instructor. (Equivalent to EENG3266 Electronics II.)

Spring

**EGTE3267**

3 Credits
Lecture/Laboratory 4 hours

**Electronics III**

Spring

**EGTE3288**

3 Credits
Lecture/Laboratory 4 hours

**Microprocessor System Design II**
Microprocessor and microcomputer architectures. Input/output, interrupts and timers. Programming of parallel ports, serial communication interfaces. Integrated laboratory experience. Prerequisite: EGTE2287 Microprocessor System Design I.

Fall

**EGTE3459**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Computer-assisted Circuits**
Computer analysis of various circuits using PSPICE and other software packages, analysis of resonant circuits, operational amplifiers, passive filters, active filters, detailed theoretical and computer analysis of Bode plots and Fourier analysis. Prerequisite: EGTE2216 Circuits II.

Fall

**EGTE4047**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Optical Technology I**
Geometrical optics. Laws of reflection and refraction. Image formation by lenses and mirrors. Optical instruments. Physical optics, waves and superposition. Interference and diffraction of light. Applications in modern technology, such as fiber optics. Prerequisites: EGTG2201, EGTG2202 Applied Calculus I, II and PHYS2101, PHYS2102 General Physics I, II.

Fall

**EGTE4049**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Optical Technology II**

Fall

**EGTE4052**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Optical Measurements and Test Equipment I**
Principles and applications of modern optical-test procedures. Basic principles of light measurement. Photometric measurement; radiometric measurement. Basic optical instruments: microscope, telescope and comparator. Prerequisite: EGTE3051 Laser Technology.

**EGTE4054**

3 Credits
Lecture 2 hours; Laboratory 2 hours

**Optical Measurements and Test Equipment II**
Interference methods and the interferometer optical instruments for fiber optics: OTDR, polarization, beam profile, EIA test procedures. Prerequisite: EGTE4052 Optical Measurements and Test Equipment I.

**EGTE4342**

3 Credits
Lecture/Laboratory 4 hours

**Data Communications and Computer Networks**
Data encoding and transmission, error detection and correction, data encryption and network security. Network architecture and model. Circuit and packet switching, optimal routing, wide and local area networks, Internet protocols. Integrated laboratory experience. Prerequisite: completion of sixth semester or permission of instructor.

Spring

**EGTE4345**

3 Credits

**Microwave Technology**
A study of microwave devices, techniques and applications. Topics include transmission lines, Smith charts, generation and detection of microwave devices. Prerequisite: EGTG2202 Applied Calculus II.

Spring

**EGTE4387**

1 Credit
Lecture 1 hour; Laboratory 1 hour

**Electrical Technology Design Project**
Capstone design-project course in electrical technology. Student must be within 16 credits of graduation and have approval of project propos-
al prior to registering. Oral presentation. Prerequisites: EGTE3267 Electronics III or permission of instructor and EGTG2210 Technical Communications.

Mechanical Engineering Technology

EGTM2232
3 Credits
Lecture 2 hours; Laboratory 2 hours
Mechanical Measurement and Devices
Study of measurement of distance, work, energy, force, pressure and thermal quantities. Use of testing machines and industrial mechanical components. Corequisite: MATH1105 College Algebra or higher.

EGTM2235
3 Credits
Lecture 2 hours; Laboratory 2 hours
Manufacturing Processes
Study of methods in manufacturing. Theory and practice of turning, machining, drilling, etc., of metals and other materials.

EGTM3248
3 Credits
Lecture 2 hours; Laboratory 2 hours
Mechanical Technology Design I
Principles of machine design, elements of stress analysis, rivets, belt and chain drives, springs and synthesis of mechanical systems, materials and their use in design. Prerequisites: EGTG2201 Applied Calculus I, EGTG2228 Strength of Materials, EGTG3431 Dynamics and PHYS2102 General Physics II.

EGTM3250
3 Credits
Lecture 2 hours; Laboratory 2 hours
Mechanical Technology Design II
Design of gears, clutches, shaft and couplings, bearings, brakes, lubrication and synthesis of mechanical systems. Prerequisites: EGTG2202 Applied Calculus II and EGMT3248 Mechanical Technology Design I.

EGTM4040
3 Credits
Lecture 2 hours; Laboratory 2 hours
Heating, Ventilation and Air Conditioning
An introduction to some of the essential knowledge required to enter the field of HVAC&R engineering. Topics include: physical principles, heating loads, hydronic piping systems and terminal units, cooling-load calculations, psychrometrics, fluid flow in piping and ducts and air-distribution devices, air conditioning systems and equipment, refrigeration systems and equipment. Prerequisite: EGTG3551 Applied Thermodynamics.

EGTM4041
3 Credits
Heating, Ventilation and Air Conditioning and Refrigeration Controls
Elements of control systems: sensors, operators, controls and control strategies (for HVAC&R) will be covered. A brief review of the processing of moist air (psychrometrics) will be offered. Finally, control systems for process control and the use of analog and direct digital controls will be applied to heating, ventilation, air conditioning and refrigeration. Prerequisite: EGMT4040 Heating, Ventilation and Air Conditioning or approval of adviser.

EGTM4536
3 Credits
Stress and Vibration Analyses

EGTM4538
1 Credit
Lecture 1 hour; Laboratory 1 hour
Mechanical Technology Design Project
Students will be assigned a project with the approval of the school director and conducted under the supervision of a faculty member. Oral presentation. Prerequisite: EGTG2210 Technical Communications. Corequisite: EGMT3250 Mechanical Technology Design II.

English for Professional Success (E.P.S.)

Programs in Language, Culture and Professional Advancement

EPS0097
3 Credits
Foundations of Academic English
Students will be able to recognize a speaker's attitude or position on a topic from tone of voice and vocabulary used. They will be able to paraphrase ideas encountered in a lecture situation or a reading passage and be able to cite the source of those ideas. Having taken a position on a topic, they will be able to speak and write persuasively on the topic. Students will be able to conduct interviews for research purposes, perform assigned web quests constructed by the instructor and post messages on a dedicated electronic bulletin board on a regular basis as assigned. They will demonstrate an understanding of American attitudes toward degree and quantity by using correct expressions of comparison, number and extent.

EPS0098
3 Credits
Practical Academic English
Students will be able to comprehend long lectures, conversations, narratives and debates; to summarize the main ideas orally and in writing; to take a stand on the topic and express that position orally and in writing; to solicit opinions on a topic; to report and compare those opinions orally and in writing; to express complex cause-and-effect relationships using conventional essay formats; and to make inferences from lecture materials and readings. Students will be able to read classmates' work for the purpose of editing. They will use the web to conduct research for oral reports and written assignments. Students will demonstrate an understanding of American attitudes toward private property, both material and intellectual, by using proper possessive forms and by employing acceptable annotation conventions for citing sources of information in written work.

EPS0099, EPS0199
4.5 + 1.5 Credits
Academic Writing Skills
Students will be able to understand more subtle attitudes of a speaker or writer such as irony, sarcasm and humor. They will be able to debate a point, give and solicit advice and present an extended oral report based on lectures and/or research. They will recognize the difference between fact and opinion and will be able to identify different types of essays. Students will be able to write argumentatively and to read their own work objectively for editing and to attach and send written assignments to a class/partner for editing. Students will demonstrate an understanding of the American attitude toward specificity by correctly using both physical and lexical reference indicators orally and in writing.

EPS1008, EPS1018
4.5 + 1.5 Credits
Academic Communication Skills
Non-native English-speaking students will be exposed to more subtle attitudes of a speaker or writer in different genres. They will recognize the difference between fact and opinion. Students will be able to write argumentatively and to read their own work objectively for edit-
ing. They will demonstrate an understanding of the American attitude toward specificity. In addition, students will maintain a portfolio of work and participate in self reflection. EPS1018 is a corequisite lab for EPS1008 where students engage in critical reading and thinking, as well as speaking activities. Class activities may include academic debates and persuasive presentations.

EPS1109, EPS1119
3+1 Credits
Lecture 3 hours; Laboratory 1.5 hours

English for Occupational Purposes; English for Academic Purposes
Non-native English-speaking students will focus on English proficiency for occupational purposes. Students will develop their skills in professional writing, oral communication, research and information literacy, group collaboration and cross-cultural competencies. EPS1119 is a corequisite lab for EPS1109 where students will focus on English proficiency for academic purposes. Students will develop their skills in academic research and writing and proficiency with APA and/or MLA format.

EPS1201
3 Credits

English for Professional Success: Global Exchange — New York City as a Classroom
Perceived through the prisms of cultural ethnography and the significance of everyday experiences, this course will utilize New York City as a resource and a classroom to study cross-cultural understandings and misunderstandings. Students will study the multicultural aspects of the city in the context of modern life and situate their findings within a historical context. In addition to studying cross-cultural issues in context, students will be improving their academic language skills while exploring topics of interest through a variety of activities and assignments. The course satisfies the language and culture requirements for international and domestic students.

Experiential learning fees apply

English Language and Literature
School of the Humanities

ENGL1103
3 Credits
English Masters
Representative selections of British literature from Chaucer to the present.

ENGL1104
3 Credits
American Masters
Representative selections of American literature from the 19th and 20th centuries.

ENGL2000
3 Credits
Literary Analysis
This course introduces students to the vocabulary, techniques and critical theories involved in reading and writing about literature. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL2004
3 Credits
Introduction to Fiction
This course, intended for non-majors and majors, is designed to develop the students' appreciation and understanding of fiction. Reading and interpretation of novels will be the central focus of this introductory-level course. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL2005
3 Credits
Introduction to the Short Story
The short story can be claimed as an American art form, created by writers who began to develop the genre at the beginning of the 19th century. The course will present representative short stories and draw upon literary theory and biography to supplement the literary analysis. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL2108
3 Credits
Global Literature
The course examines works of fiction, drama and nonfiction as well as film and visual art to consider creative voices from Africa, Asia, Europe, Latin America and the United States. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL2140
3 Credits
African-American Literature
The course will offer a survey of literature from spirituals and folktales through contemporary writers like Alice Walker and Toni Morrison. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL2201
3 Credits
Masterpieces of World Literature I
Representative works of world literature focusing on the ancient classics. Fall, Spring

ENGL2202
3 Credits
Masterpieces of World Literature II
Representative works of world literature from the Middle Ages to the 20th century. Fall, Spring

ENGL2203
3 Credits
British Literature I
A survey of the literature of Britain from Beowulf to the 18th century. Prerequisite: ENWR1002 Composition II: Research and Argument. Fall

ENGL2204
3 Credits
British Literature II
A survey of the literature of Britain from the 18th century to the modern period. Prerequisite: ENWR1002 Composition II: Research and Argument. Spring

ENGL2205, ENGL2206
6 Credits (3 Credits Each Semester)
Introduction to Critical Writing I, II
The foundation for all further advanced courses in English: an exercise in critical writing through the study of works unified by a common theme, topic or genre. Students may take either one or two semesters of this course. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL2207
3 Credits
Oral and Written Reports
Oral and written reporting techniques appropriate to business. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL2257
3 Credits
Introduction to Irish Literature
This course will be an opportunity for students to become acquainted with the nature of Irish literature, beginning with selected pieces of mythology and folk tales. Various genres will be covered including such authors as William Carleton, James Joyce, Liam O’Flaherty, W.B. Yeats, Frank O’Connor, Mary Lavin, Brian Friel and Edna O’Brien. Various aspects of Irish culture and traditions and their impact upon the literature will be explored. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3007
3 Credits
Major British Writers I
Each semester is devoted to representative works by one or two outstanding figures whose achievement is examined, not only for its intrinsic quali-
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ties but also for its profound reflection of the dynamics of an age. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3008
3 Credits
Major British Writers II
Each semester is devoted to representative works by one or two outstanding figures whose achievement is examined, not only for its intrinsic qualities, but also for its profound reflection of the dynamics of an age. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3024
3 Credits
Studies in Poetry
Intensive readings of poems from various periods and poets, with emphasis on the mastery of poetry as a form. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3044
3 Credits
The Environment in Literature and Culture
In the 21st century, the national environment has become a source of global concern. The impact of human activity on water, air and land is reflected in and represented by the stories created about the environment. The class will read literary narratives of the environment emerging through United Nations policy papers, news reports, documentaries, photographs and artwork. Such comparative and intertextual readings will help students understand not only how they construct their relations to the environment but will also enable them to conceive of reconstructing future alternatives. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3047
3 Credits
American Nature Writers
A study of the literature concerned with the changing relationship of Americans to nature. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3049
3 Credits
Major American Writers I
A study of selected major figures, themes and genres. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3050
3 Credits
Major American Writers II
A study of selected major figures, themes and genres. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3055
3 Credits
Shakespeare and Film
While Shakespeare’s plays have been put on film since the invention of movies, recent years have witnessed a great increase in the production of Shakespeare movies as demonstrated by popular mainstream productions of “Othello”, “Hamlet”, “A Midsummer Night’s Dream”, “Twelfth Night” and “Romeo and Juliet.” Made in a variety of production styles, these films have attracted a good deal of academic attention through college courses, articles, books and entire journals devoted to the subject. This course will cover a number of plays from text to realization on film and ask students to consider issues of cinematic and literary style. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3056
3 Credits
Modernism
Introduction to the literary theory, form and style of modernism, a literary movement which dominated the first half of the 20th century and continues to exert its influence over literature today, which, tellingly, is described by the label post-modernism. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3060
3 Credits
Post-modern Literature
The Post-modern Age started a decade or two after World War II and continues to shape culture. Through consideration of a range of fiction, films, drama, poetry and essays from around the world, students will confront the challenges posed by post-modernism with its multiple voices, deeply ironic sense of humor, self-conscious storytelling and a richly allusive range of references to past literature and culture. Examination of the relationship of popular culture with high culture will place these works in context. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3076
3 Credits
Special Stories — Super Cinema
This course will examine the relationship between several well-known novels and their popular movies. Genre, style and plot will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3131
3 Credits
20th-century American Worker in Literature
Students will explore American novels focusing primarily on the world of work in America during the first half of the 20th century. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3200
3 Credits
English Grammar
A study of the basics of grammar with emphasis on its relevance to clear and correct writing. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3307
3 Credits
20th-century Literature
The major American, British and continental writers of the 20th century viewed within the context of the literary, social, political and scientific forces that shaped them. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3315
3 Credits
American Jewish Novel
American Jewish literature from its beginnings through World War II to the present with some attention to Israeli fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3321
3 Credits
Psychological Fiction
Depth psychology (psychoanalysis) as a means to determine the motivations of characters in works by such authors as Melville, Kafka, Mann and Hesse. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3322
3 Credits
Psychological Novel II
Depth psychology (psychoanalysis) as a means of determining the motivation of character in works by such authors as Hawthorne, Conrad, Camus and others. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3323
3 Credits
Advanced Composition
English composition for students who wish to improve their writing skills by continued practice in the four types of writing — descriptive, narrative, expository and argumentative. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3324
3 Credits
Women in Literature
A course that explores poetry and fiction by and about women. Of particular focus will be issues of class, sexuality, race and gender relations as they impact the issues and concerns that shape women’s literature. Prerequisite: ENWR1002 Composition II: Research and Argument.
ENGL3325
3 Credits
Creative Writing I (Fiction)
Workshop providing sustained practice in individual projects in fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3326
3 Credits
Creative Writing II (Fiction)
A continuation of creative writing workshop providing sustained practice in individual projects in fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3327
3 Credits
Creative Writing I (Poetry)
Workshop providing sustained practice in individual projects in poetry. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3328
3 Credits
Creative Writing II (Poetry)
A continuation of creative writing workshop providing sustained practice in individual projects in poetry. Prerequisite: ENGL3327 Creative Writing I (Poetry).

ENGL3329
3 Credits
Advanced English Grammar
Advanced grammar providing a transition between the prescriptive approach and modern descriptive grammar. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3333
3 Credits
Creative Writing I (Nonfiction)
Workshop in writing that deals in a variety of modes (e.g., narration, description and exposition) with real people, events, relationships and experiences. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3334
3 Credits
Creative Writing II (Nonfiction)
Advanced writing workshop that deals in a variety of modes (e.g., narration, description and exposition) with real people, events, relationships and experiences. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3335
3 Credits
Creative Writing I (Scriptwriting)
Workshop dedicated to the craft of scriptwriting, practicing the elements of drama (plot, character, dialogue) through writing exercises for the stage and screen. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3336
3 Credits
Creative Writing II (Scriptwriting)
Workshop dedicated to the craft of scriptwriting, focusing on the elements of drama (plot, character, dialogue) and culminating in a one-act script. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3337
3 Credits
Creative Writing I (Cross-genre)
A workshop in creative writing and craft-focused reading, dedicated to providing students with an opportunity to work with at least two of the four major modes: prose/fiction, poetry, scriptwriting and nonfiction. Themes will be decided by the individual professors and announced in the School of the Humanities course listings. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3338
3 Credits
Creative Writing II (Cross-genre)
A workshop in creative writing and craft-focused reading, dedicated to providing students with an opportunity to experiment with all four major forms: prose/fiction, poetry, scriptwriting and nonfiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3351
3 Credits
Medieval Literature
Medieval European literature in translation, featuring medieval epic and romance (especially Arthurian), and writers such as Dante and Boccaccio. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3355
3 Credits
Renaissance Literature
Tudor prose and poetry from More, Skelton and Wyatt to the age of Sidney, Spenser and Shakespeare. Humanism in England and its Continental sources. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3357
3 Credits
Shakespeare I
Critical analysis of representative early plays. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3358
3 Credits
Shakespeare II
Critical analysis of representative later plays. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3359
3 Credits
17th-century Literature
The major poetry and prose studied in relation to the significant political, religious and literary issues of the period. Authors such as Donne, Jonson, Herbert, Marvell, Milton, Dryden, Bacon, Browne, Burton, Bunyan and Hobbes will be included. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3361
3 Credits
Milton
A study of Milton's artistic development in relation to the various poetic styles and literary influences of the late Renaissance. Concentration on Paradise Lost and Samson Agonistes with some attention given to the major prose and the lyric poetry. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3363
3 Credits
18th-century Literature
A study of 18th-century literature with emphasis on the satires of Swift and others. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3364
3 Credits
18th-century Literature II
The age of Johnson.

ENGL3365
3 Credits
The Romantic Era I
The English Romantics, with special attention to Blake, Wordsworth and Coleridge. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3366
3 Credits
The Romantic Era II
The English Romantics, with special attention to Shelley, Keats and Byron. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3367
3 Credits
The Victorian Era I
Mid-19th-century literature: poetry, prose and fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.


Course Descriptions

English Language and Literature

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ENGL3368
3 Credits
**The Victorian Era II**
Late 19th-century literature: poetry, prose and fiction. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3369
3 Credits
**American Literature I**
A chronological study of American literary history beginning with the colonial figures and concentrating on Puritanism, Unitarianism, Romanticism and transcendentalism. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3370
3 Credits
**American Literature II**
A chronological study of American literary history, with an emphasis on such modern developments as realism, naturalism, Freudianism and existentialism. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3371
3 Credits
**Modern Novel I**
The American, English and Continental novel to World War II. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3372
3 Credits
**Modern Novel II**
The American, English and Continental novel since World War II. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3373
3 Credits
**Modern Poetry I**
Selected works of significant American and British poets, including W.B. Yeats and T.S. Eliot. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3374
3 Credits
**Modern Poetry II**
Selected works of significant American and British poets, including Wallace Stevens and Ted Hughes. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3375
3 Credits
**Modern Drama I**
Continental, English and American drama from Ibsen through Shaw. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3376
3 Credits
**Modern Drama II**
Continental and British drama from Pirandello and Lorca to the present. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3377
3 Credits
**The Bible and Its Influence**
The Bible as a collection of many types of literature, read from a literary point of view. Novels, dramas and poems influenced by the Bible. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3042 The Bible and Its Influence.)

ENGL3380
3 Credits
**Literature of War**
A variety of literary forms and genres addressing warfare, its impact and aftermath. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3381
3 Credits
**Popular Fiction**
Course in diverse genres that reflect popular culture and taste, both in the United States and throughout the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3382
3 Credits
**Special Topics in Black Literature**
Writings by authors of African descent from various historical periods and regions, in English or English translation. Particular offerings may be unified around social or cultural themes, historical periods or aesthetic approaches. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3383
3 Credits
**Ethnic Literature in the United States**
A study of works that reflect the ethnic, cultural and religious diversity of America. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3384
3 Credits
**Postcolonial Literature**
Selected works from the literatures of former European colonies: African, Indian, Caribbean, Australian, Canadian, Latin American, etc. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3385
3 Credits
**Literary Theory**
Study in and application of selected theories of literature from Plato to poststructuralism and cultural studies. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3386
3 Credits
**Special Topics in British or American Literature**
Course in selected works from literary traditions outside Britain, the United States and Europe. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3387
3 Credits
**The Global Novel**
A study of some of the pertinent writers on the international scene. Works reflecting the cultures of several countries will be included. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3390, ENGL3391
6 Credits (3 Credits Each Semester)
**Contemporary Fiction I, II**
A study of major developments in the forms and themes of fiction since the 1960s with emphasis on the last 20 years. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3392
3 Credits
**International Literature**
A study of international writers of the past century whose works reflect both their specific cultures and universal concerns. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3394
3 Credits
**Travel Literature**
Travel writing as a unique literary expression; the travel writer as observer and cultural influence. Prerequisite: ENWR1002 Composition II: Research and Argument.
ENGL3396
3 Credits
South-African Literature, Sex, Politics
This course will explore the depictions of select countries or regions of the African continent in a variety of different types of text written by Africans and by newcomers or outsiders to Africa. The aim will be to gain a sense of the diversity and multiplicity of “Africans” as created by writers from different points of views, with different relationships to Africa at different times. Students will read from among diaries, memoirs, travel narratives, works of journalism, movies, popular magazines and may also sample music and films. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3409
3 Credits
Glory and Shame: America on Film

ENGL3410
3 Credits
Modern Novels on the Screen
A close critical study of the novels goes hand in hand with an analysis of screen adaptations, including an examination of the various possibilities and limitations of the two media. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3430
3 Credits
Contemporary African Literature
A sampling of writers from Africa, concentrating on the postcolonial experience. Students will read writers from a variety of cultures, in English or English translation, and in a variety of genres (fiction, drama, poetry, folktale and memoir). Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3451
3 Credits
The Art of the Short Story
What distinguishes a short story from a novel? Starting with Chekhov, Joyce and Mansfield, the course moves to consider contemporary writers focusing on the very different ways writers have used this form. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL3500
3 Credits
Junior/Senior Integrative Seminar
A multidisciplinary course focusing primarily on literary texts written in English but also integrating works from at least two other disciplines. Prerequisites: ENWR1002 Composition II: Research and Argument and junior or senior standing.

ENGL3600
3 Credits
Literary Basics
This course offers a solid foundation in literary genre, technique and terminology. Highly recommended but not limited to students pursuing a teaching career. The course will provide critical background for passing the PRAXIS exam. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4400
3 Credits
Postcolonial Shakespeare
This course discusses four of Shakespeare’s plays: The Merchant of Venice, Othello, Antony and Cleopatra and The Tempest. The approach to these plays is through the use of postcolonial perspectives, foregrounding the concerns of a Renaissance world faced with changes brought about by exploration, travel and colonization, slavery and freedom and a new sense of “us” and “them” among them. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4405
3 Credits
Writing Seminar I
Special writing projects to be determined by the instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4404
3 Credits
Writing Seminar II
A continuation of ENGL4403 Writing Seminar I. Prerequisites: ENGR4403 Writing Seminar I and ENWR1002 Composition II: Research and Argument.

ENGL4406
3 Credits
Interdisciplinary Study in Humanities
Literature integrating fine arts, history and philosophy. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4420
3 Credits
Contemporary Psychological Novel
A psychosocial study of some of the leading figures in American, Canadian and European fiction who have emerged since World War II, with special emphasis on the last 20 years. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4433
1–3 Credits
Selected Studies in English and American Literature
Studies in an area of English and American literature. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4436
3 Credits
Nobel Prize: Authors
Short selections from the world’s most honored authors: Yeats, Eliot, Sachs, Neruda, Tagore, Mistral, Solzhenitsyn, Camus, Beckett, Soyinka, Milosz and Mahfouz. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4445
3 Credits
Caribbean Literature
Focuses on the work of representative writers from the English-speaking Caribbean. Prerequisite: ENWR1002 Composition II: Research and Argument.

ENGL4447
3 Credits
“The Tempest:” Music Rich and Strange
Shakespeare’s last play (1611) is full of strange music, wild seas, magic, slavery, native inhabitants, romantic young lovers and a wide variety of ambitious nobles. After discussing the play, the class will study its film and animated versions, keeping in mind themes that flow from the era of early Elizabethan exploration and colonization. Prerequisite: ENWR1002 Composition II: Research and Argument.
**Course Descriptions**

**English Writing • Environmental Science**

University College: Arts • Sciences • Professional Studies

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**ENGL4470**

3 Credits

**Literature of Evil**

Examination of the treatment of evil in works by major writers. Authors will include Dante, Shakespeare, Hawthorne, Emily Bronte, Dostoevsky, Melville, Graham Greene, Flannery O’Connor and Cormac McCarthy. Prerequisite: ENWR1002 Composition II: Research and Argument.

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**ENGL4498**

3 Credits

**Internship**

Practical experience working in a business, government or nonprofit setting or in the publications field, applying academic knowledge. Academic component includes weekly journals and semester-evaluative paper and frequent interaction with department mentor. Prerequisite: ENWR1002 Composition II: Research and Argument.

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**ENGL4700**

3 Credits

**The Eternal Search/Struggle for Identity**

This course provides the student with the vast experience of a university values seminar. The chosen texts and films have been selected to direct the student’s focus on the influences (both internal and external) involved in one’s emerging identity. Prerequisite: ENWR1002 Composition II: Research and Argument.

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**ENGL4800**

1–3 Credits Each Semester

**Independent Study in English and Comparative Literature**

Independent study under the direction of a specific faculty member after consultation with the school director. Students may take one or two semesters of this course. Prerequisites: ENGL2201, ENGL2202 Masterpieces of World Literature I, II or equivalent.

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**ENGL4875, ENGL4476**

Variable Credits

**Honors English**

Independent study in English for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

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**ENGW4011**

1 Credit

**Academic Research and APA Citation**

Designed for students in the social sciences, this short course features academic-research skills including how to search and evaluate online databases and websites and how to cite sources using APA format.

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**Environmental Science**

**School of the Humanities**

**English Writing**

**School of the Humanities**

All degree-seeking students take ENWR1001 Composition I: Rhetoric and Inquiry and ENWR1002 Composition II: Research and Argument to satisfy University College’s six-credit writing requirement. Based on placement testing, students who would benefit from additional support are enrolled in ENWR1000 Introduction to Composition prior to ENWR1001 Composition I: Rhetoric and Inquiry.

**ENWR0098**

3 Credits

**Fundamentals of Academic Writing I**

A developmental course focusing on skills in written-language expression necessary for academic success. Emphasis on structure of standard English, basic writing processes, reading comprehension and essay writing. This is not a credit-bearing course and is offered as pass/no credit.

**ENWR1000**

3 Credits

**Introduction to Composition**

This introductory course concentrates on the fundamental writing skills necessary for academic success. Students practice writing well-organized, sensible and grammatically sound expository prose. Particular emphasis is placed on cultivating effective processes for more thoughtful and developed writing, revising to achieve unity and coherence, and self-directed editing and proofreading for clarity and appropriateness. Students also participate in peer review and become more critical readers. Note: Students who receive a grade of C- or lower must repeat the course.

**ENWR1001**

3 Credits

**Composition I: Rhetoric and Inquiry**

This course provides students with intensive study and practice in process-oriented writing, critical reading and rhetorical inquiry. Students engage expository texts in order to describe and evaluate the choices writers make and then apply that knowledge to their own compositions. Throughout the course, students give and receive feedback, revise their work and reflect on their growth as writers. Note: Students who receive a grade of C- or lower must repeat the course.

**ENWR1002**

3 Credits

**Composition II: Research and Argument**

This course focuses on the study and practice of writing as research-based argument. As a means of arriving at and writing from committed stances, students learn to seek out, engage and interrogate a variety of sources. Students write in academic, professional and/or public forms, including academic essays and rhetorical analyses. Particular emphasis is placed on information literacy, source integration and appropriate documentation. Prerequisite: ENWR1000 Introduction to Composition or ENWR1001 Composition I: Rhetoric and Inquiry.

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**Environmental Science**

**School of Natural Sciences**

**Courses for Nonmajors**

**ENVR1001, ENVR1002**

3 Credits

Lecture 2 hours; Laboratory 2 hours

**Introduction to Environmental Science**

An introduction to aspects of biology, chemistry, geology and physics that impact the environment. The overall themes are water and its involvement in each of the sciences and natural hazards: earthquakes, volcanos, floods and hurricanes. A laboratory science elective for non-science majors.

**ENVR1101, ENVR1102**

3 Credits

Lecture 2 hours; Laboratory 2 hours

**Physical Geology**

The structure and composition of the earth and the natural processes on and within it. Fall, Spring

**ENVR1105**

3 Credits

**Weather and Climate**

A study of the dynamic atmosphere, weather and climate and how they affect the natural environment, as well as human affairs. Connections are made toward management of weather hazards, air pollution, impacts on the economy and environmental and social implications of climate change. Lectures are supplemented by current events and discussions and hands-on exercises.

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*Counts as free elective credit; does not satisfy writing requirement.*
French Language and Literature • Health Studies

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

**ENVR1111, ENVR1112**
4 Credits
Lecture 2 hours; Laboratory 4 hours
Oceanography
An introduction to physical, chemical and biological oceanography, and the geology of the sea floor, ocean sediments and beaches. Field trips. Spring

**ENVR1125**
3 Credits
Natural Hazards
The causes, locations, economics and sociology of natural hazards such as earthquakes, volcanic eruptions, landslides and severe weather. Intended to introduce the students to the science of these events and the effects that humans may have on their occurrence or impact, as well as methods for the avoidance or mitigation of their effects.

**ENVR1205**
3 Credits
Lecture 2 hours
The Great Pacific Northwest: Environmental Issues and Cultural Perspectives
Humans and are affected by natural environments. The class will study the ways in which the Pacific Coast's native and imported European cultures evolved to make use of a variety of environments, how Pacific coastal marine and forest environment are stressed by pollution and how various technologies stress or protect the natural resources upon which life depends. Corequisite: ENVR1215 The Great Pacific Northwest: Environmental Issues and Cultural Perspectives Laboratory.

**ENVR1215**
0 Credits
Laboratory 2 hours
The Great Pacific Northwest: Environmental Issues and Cultural Perspectives Laboratory

**ENVR1800, ENVR2800, ENVR3800, ENVR4800**
Independent Study
4-24 Credits (1-6 Credits Each Semester)
Independent study in environmental sciences (undergraduate).

**ENVR4821**
1–3 Credits
Environmental Research
Senior-level environmental research at the Meadowlands Environmental Research Institute (MERI). An original research report is required. Open only to senior students.

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**French Language and Literature**

**School of the Humanities**

FREN1101, FREN1102
6 Credits (5 Credits Each Semester)
Elementary French I and II
Conversational introduction to the language with comprehensive grammatical and phonetic explanations and the reading of simple French texts.

FREN2103, FREN2104
6 Credits (5 Credits Each Semester)
Intermediate French I and II
More advanced conversational course, taking up again and completing the earlier one, and leading to a working knowledge of the language. Reading of more complex French literary texts. Prerequisite: FREN1102 Elementary French II or equivalent.

FREN4430
1–3 Credits Each Semester
Selected Studies in French Language and Literature
Studies in an area of French language and/or literature.

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**Health Studies**

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

MEDIT4501
3 Credits
American Health Care Systems
This class will examine and critically analyze the United States health care system, emphasizing the major trends and issues that have led the country to where it is today. In addition to providing a historical perspective, this course will establish a context for analyzing the current, varied approaches to health care financing, delivery and reform. While this course will focus on the U.S. health care system, the systems of other nations will be reviewed for comparison.

MEDIT4502
3 Credits
Health Care Law and Policy
This class will analyze the complexity of the American health care system and the law and policy issues that must be confronted to achieve meaningful health care reform. Students will gain an appreciation of the dilemmas facing health care law and policymakers, providers, patients and how to balance cost, quality and access. It examines specific health care organization aspects such as the medical profession, hospitals, managed-care organizations and government health care programs. This course will also discuss law and policy changes that have major impacts on American health care in the past decade.

MEDIT4505
3 Credits
Global Health
This course will cover the main principles of global health and introduce the students to the world's vast diversity of determinants of health and disease. Current and emerging health priorities such as infectious diseases, socioeconomic status and health, human rights, culture and health, maternal and child health, water and sanitation, parasitic diseases, health inequities and major global initiatives for disease prevention and health promotion.

MEDIT4507
3 Credits
Health Studies Practicum
The health studies practicum is the capstone course for the health studies major. The course will include an internship in the field. Current topics, scientific literature and advances in the student's area of interest will be covered in this course.

NURS2210
3 Credits
Pathophysiology
This course focuses on alterations in biologic processes that affect the body's homeostasis, including etiology, pathogenesis, clinical manifestations and treatment of selected health problems. Knowledge of basic and clinical sciences is applied to simulated, clinical, nursing-practice situations. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisites: NURS2203 Fundamentals of Nursing I, NURS2211 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment and NURS2201 Health Assessment Laboratory.

NURS2217
3 Credits
Information Systems and Applications in Health Care
This course serves as an introduction to nursing and health care informatics. Course content includes an overview of computer basics, informatics, terminology, data integrity and management, informatics theory, system life cycle and clinical applications. The purpose of this course is to provide a basic understanding of nursing and health care informatics and to facilitate decision-making based upon data, information, knowledge and wisdom.
NURS3208
3 Credits
Introduction to Health Care Economics
This course introduces the student to basic economic concepts and theories to analyze selected issues/problems in health care and to inform decision making and policy development. Fiscal management and basic budgeting concepts also will be covered.

NURS3351
3 Credits
Epidemiology in Health Care
This course focuses on the study of the distribution and determinants of health and disease in human populations. Emphasis is on the natural history of disease, levels of prevention and intervention strategies. Indices of health and illness are discussed in relation to phases of the life cycle. Social policy issues are considered in relation to epidemiologic and demographic trends worldwide.

NURS3353
3 Credits
Introduction to Normal and Therapeutic Nutrition
This course will introduce nutrition students to the fundamentals of human nutrition as well as the role of dietary intervention in the treatment and management of chronic and acute medical conditions.

NURS4420
3 Credits
Health Care Management
An exploration of the current health care environment with implications for beginning-level managers. Topics to be discussed include managed care, health-care delivery models, interdisciplinary team building, resource management, case management, performance improvement and conflict resolution. Prerequisite: faculty permission.

NURS4430
3 Credits
Nursing Research
Students are introduced to the research process. The course focuses on the professional health care worker as a research consumer. Critical appraisal skills are developed as a basis for evaluating research findings for application to clinical practice. Learning activities are designed to facilitate the students’ understanding of allied health research, the research-utilization process and professional-role development. Prerequisite: faculty permission.

NURS4430
3 Credits

History

NURS4430
3 Credits

History

School of the Humanities

HIST1114
3 Credits
U.S. History to 1865
Significant themes (e.g., Puritanism, slavery, nationalism, sectionalism) in the development of the American nation from discovery through the Civil War.

HIST1115
3 Credits
U.S. History Since 1865
Significant themes (e.g., industrialization, pragmatism, government centralization) in the development of the United States from Reconstruction to the present.

HIST1214
3 Credits
World History to 1500
Development of civilizations from prehistoric times through the oriental, classical and medieval ages. Ancient culture, government and religion. Medieval elements.

HIST1215
3 Credits
World History Since 1500
Development of civilization from the Age of Revival and the Renaissance through the Enlightenment, to the rise of nationalism and political democracy. Problems of 20th-century civilization.

HIST202
3 Credits
Sports in America
The social history of American sports.

HIST203
3 Credits
New Jersey History
A survey of the Garden State’s history.

HIST204
3 Credits
United States Social and Cultural History
Social and cultural currents from the colonial period to the present.

HIST205
3 Credits
Crime in History
Crime and punishment in U.S. history.

HIST206
3 Credits
Ethical Issues in History
Critical issues that have challenged and shaped the American mind.

HIST2107
3 Credits
U.S. Economic History
Analysis of the periods of growth of the U.S. economy. Industrial Revolution, impact of World depression and the post-industrial development.

HIST2108
3 Credits
The American Presidency
Presidents and the presidency in U.S. history.

HIST2189
3 Credits
Selected Studies in U.S. History
Studies in an area not covered by an existing course.

HIST2198
1–3 Credits
Independent Study in U.S. History
Independent study under a faculty member’s supervision; requires approval of the school director and the college dean.

HIST2215
3 Credits
Constitutional History
The evolution of the United States constitution and modern challenges.

HIST2245
3 Credits
Islamic History
This course will examine the history of Islamic societies from Muhammad to the present. Major topics include the Arab conquests, Abbasid Golden Age, early modern empires, modern reform movements and the impact of globalization on the Muslim world today.

HIST2289
3 Credits
Selected Studies in World History
Studies in an area not covered by an existing course.

HIST2298
1–3 Credits
Independent Study in World History
Independent study under a faculty member’s supervision; requires approval of the school director and the college dean.

HIST2518
3 Credits
China Since 1949
A history of China from the establishment of the People’s Republic in 1949 to the present. Includes the Communist experiment of Mao, reforms under Deng Xiaoping and China’s rise as a world power.
### History Course Descriptions

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<thead>
<tr>
<th>Course ID</th>
<th>Credits</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST2519</td>
<td>3</td>
<td>Imperialism in East Asia</td>
<td>A history of imperialism in East Asia since 1644, depicting China and Japan as both victims and victimizers of imperialism. Includes Western imperialism in East Asia and U.S. involvement in Korea and Vietnam.</td>
</tr>
<tr>
<td>HIST3101</td>
<td>3</td>
<td>American Immigration</td>
<td>Immigration and its impact on American development.</td>
</tr>
<tr>
<td>HIST3102</td>
<td>3</td>
<td>Race in America</td>
<td>Race and race relations in American history.</td>
</tr>
<tr>
<td>HIST3103</td>
<td>3</td>
<td>Gender in U.S. History</td>
<td>The changing dynamics of gender in U.S. history. The impact of gender on American identity, public policy, foreign affairs and labor.</td>
</tr>
<tr>
<td>HIST3104</td>
<td>3</td>
<td>U.S. Diplomatic History</td>
<td>American diplomacy since 1890.</td>
</tr>
<tr>
<td>HIST3105</td>
<td>3</td>
<td>U.S. Environmental History</td>
<td>Nature, environment and environmentalism in American history.</td>
</tr>
<tr>
<td>HIST3106</td>
<td>3</td>
<td>Culture and Technology in American History</td>
<td>Technology and its effect on American culture.</td>
</tr>
<tr>
<td>HIST3107</td>
<td>3</td>
<td>U.S. Constitutional History</td>
<td>Constitutional issues and major Supreme Court rulings.</td>
</tr>
<tr>
<td>HIST3120</td>
<td>3</td>
<td>Colonial and Revolutionary America</td>
<td>The British colonies in America and the American Revolution.</td>
</tr>
<tr>
<td>HIST3121</td>
<td>3</td>
<td>The Age of Jefferson and Jackson</td>
<td>Development of national institutions, 1787 through the 1830s.</td>
</tr>
<tr>
<td>HIST3123</td>
<td>3</td>
<td>The U.S. Civil War and Reconstruction</td>
<td>Sectionalism, war and post-war reconstruction.</td>
</tr>
<tr>
<td>HIST3130</td>
<td>3</td>
<td>U.S. History Since 1945</td>
<td>U.S. political, economic and social history since 1945.</td>
</tr>
<tr>
<td>HIST3133</td>
<td>3</td>
<td>The Cold War</td>
<td>The post-World War II struggle between the United States and the Soviet Union until the latter's dissolution in 1991.</td>
</tr>
<tr>
<td>HIST3134</td>
<td>3</td>
<td>America in the 1950s</td>
<td>The political, economic and cultural history of the 1950s.</td>
</tr>
<tr>
<td>HIST3189</td>
<td>3</td>
<td>Selected Studies in U.S. History</td>
<td>Topic varies with instructor.</td>
</tr>
<tr>
<td>HIST3198</td>
<td>1–3</td>
<td>Independent Study in U.S. History</td>
<td>Independent study under a faculty member's supervision; requires approval of the school director and the college dean.</td>
</tr>
<tr>
<td>HIST3201</td>
<td>3</td>
<td>Britain, Ireland and the Empire-Commonwealth</td>
<td>The development of Britain and the Empire-Commonwealth since 1688.</td>
</tr>
<tr>
<td>HIST3202</td>
<td>3</td>
<td>Middle East</td>
<td>The Middle East after World War I.</td>
</tr>
<tr>
<td>HIST3203</td>
<td>3</td>
<td>19th-century Europe</td>
<td>Political, social, economic and intellectual developments in Europe from the Congress of Berlin to World War I.</td>
</tr>
<tr>
<td>HIST3204</td>
<td>3</td>
<td>Europe in the 20th Century</td>
<td>European political, social and intellectual developments, 1914–1945.</td>
</tr>
<tr>
<td>HIST3205</td>
<td>3</td>
<td>History of Russia</td>
<td>Russian history in the 19th and 20th centuries, with emphasis on westernization, revolutionary movement, Marxism-Leninism and the rise and fall of the Soviet superpower.</td>
</tr>
<tr>
<td>HIST3206</td>
<td>3</td>
<td>Modern Revolutions</td>
<td>National revolutions since the 18th century.</td>
</tr>
<tr>
<td>HIST3289</td>
<td>3</td>
<td>Selected Studies in World History</td>
<td>Studies in an area not covered by an existing course.</td>
</tr>
<tr>
<td>HIST3298</td>
<td>3</td>
<td>Independent Study in World History</td>
<td>Independent study under a faculty member's supervision; requires approval of the school director and the college dean.</td>
</tr>
<tr>
<td>HIST3342</td>
<td>3</td>
<td>Religion and Nation Building</td>
<td>The historical background of Judaism, Christianity and Islam; their organization, structure, economic significance, political and social impact and influence on civilization.</td>
</tr>
<tr>
<td>HIST3360</td>
<td>3</td>
<td>Modern African History</td>
<td>A survey of the rise, fall and legacy of European imperialism in Africa, c. 1850–1960. Major topics include early European exploration and conquest, the development of colonial states, internal resistance and the rise of decolonization movements. Special attention will be paid to the impact of the Industrial Revolution, globalization and the Cold War on the African continent.</td>
</tr>
<tr>
<td>HIST4400</td>
<td>3</td>
<td>Senior Research Seminar</td>
<td>Offered in the spring semester as a requirement for graduating majors, the course is designed to reinforce research and writing skills.</td>
</tr>
<tr>
<td>HIST4401</td>
<td>3</td>
<td>Honors History</td>
<td>Independent study for students in the University Honors Program; requires approval of the school director and the college dean.</td>
</tr>
<tr>
<td>HIST4476</td>
<td>3</td>
<td>Honors History</td>
<td>Independent study in history for students in the University Honors Program under the direction of a specific faculty member with approval of the department chairperson.</td>
</tr>
</tbody>
</table>
This course will explore the history and culture of Rome from the outbreak of the Punic Wars to the Battle of Actium (264–31 BC). Topics will include the Punic Wars, the Roman conquest of the Mediterranean, the decline of the Republic, the Roman Civil Wars, the dictatorship of Julius Caesar and the emergence of Octavian/ Augustus. Readings will include selections from Roman historians (Livy), Roman political figures (Cicero and Caesar) and Roman poets (Catullus, Horace and Virgil). Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN2253
3 Credits
The Search for Meaning: Religious Responses
Examination of the religious thought of two Jewish and two Christian 20th-century figures. Through an analysis of the writings of Elie Wiesel, Abraham Heschel, Dorothy Day and Dietrich Bonhoeffer, the student will explore structures of religious experience in two monotheistic traditions. Special attention will be paid to the roles of religious ways of knowing in the formation of social and political philosophies. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2253 The Search for Meaning: Religious Responses.)

HUMN2254
3 Credits
War and Peace in Christianity, Judaism and Islam
Survey of key aspects of the thought and practice of the three monotheistic traditions with regard to issues surrounding war and peace. Both scriptural writings and the writings of contemporary religious thinkers will be analyzed. Selected interreligious conflicts in the contemporary period will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2254 War and Peace in Christianity, Judaism and Islam.)

HUMN2255
3 Credits
Person, Gender and Sexuality: Judaism, Christianity and Islam
This course, an interfaith endeavor taught by professors from the Jewish, Christian and Muslim traditions, will trace the historical development of the meaning and value of person, gender and sexuality in these traditions. Emphasis will be placed on understanding the cultural, historical and theological basis of these terms, the convergences of the meanings of these terms in the three traditions and the contemporary applicability of these concepts from a global perspective. (Equivalent to RELI2255 Person, Gender and Sexuality: Judaism, Christianity and Islam.)

HUMN2439
3 Credits
Radical Political Thought
This course explores major currents of political radicalism both within and outside of the dominant Western political tradition. Topics considered include antidemocratic radicalism, democratic radicalism, Marxist radicalism, radical feminism, radical individualism and post-colonial radicalism. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2439 Radical Political Thought.)

HUMN2440
3 Credits
Human Rights
This course will examine several major themes and problems in contemporary human rights, including the meaning of human rights, its origins, philosophical justifications and its enabling documents. It also will discuss current philosophical debates arising from cultural relativism, religious claims and the assertion of group rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2440 Human Rights.)

HUMN2445
3 Credits
African-American Political Thought
This course explores the contributions of African-American political thinkers to the development of American political thought, considers the tensions and conflicts within African-American political thought and explores the significance of these thinkers to the understanding of contemporary race relations. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2445 African-American Political Thought.)
America deviate from these foundations? How has American democracy evolved? Why do so many Americans appear to hate politics? How should democratic citizens be educated? Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2445 Democracy in America.)

HUMN2446
3 Credits
**Religion and Human Rights**
This course will survey contemporary issues in the relationship between religion and human rights. Among the topics examined will be the values in various religious traditions, in particular Hinduism, Judaism, Christianity and Islam, which may underlie the protection of human rights. The course will also look at the persecution of religious minorities in today's world, the role of religion in suppressing human rights and how religion has served, in various instances, to champion human rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2446 Religion and Human Rights.)

HUMN2447
3 Credits
**Ecology for Life: Building a Lifestyle for a Sustainable Planet**
This course will provide the student with a basis for making lifestyle choices that are consistent with the goal of building a society that sustains the resources of the Earth for future generations. The principles of environmental society and practical applications are covered. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN2448
3 Credits
**Comparative Religions**
A study of the great religions of the world, with emphasis on how they affect events in the world today. The course explores components and meanings of Hinduism, Buddhism, Confucianism, Taoism, the theistic Western religions (Judaism, Christianity, Islam) and some less common religions. Subjects to be covered include religious ideas and institutions, cosmologies, systems of meaning and salvation. Extensive material on the web will be assigned. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2448 Comparative Religions.)

HUMN2450
3 Credits
**History and Methods of Science**
An interdisciplinary survey of the history of Western science from its roots in the ancient Greek natural philosophy up to the present time. Although the course will cover topics in the philosophy and history of all the sciences, emphasis will be placed on methodological developments. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2450 History and Methods of Science.)

HUMN2452
3 Credits
**Ancient Political Thought**
This course examines some of the foundational, political and social ideas of Western and Eastern civilizations in historical context and comparative perspective. Topics include the origins of democracy, the degeneration of the ancient polity and the rebirth of the ancient conception of politics during the Renaissance. Readings encompass history, philosophy and literature, including selections from Confucius, Thucydides, Plato, Aristotle, Aristophanes, Cicero, Livy and Machiavelli. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2452 Ancient Political Thought.)

HUMN2454
3 Credits
**Music, Power and Freedom**
An introduction to political philosophy through music, this course will explore the concepts of freedom and constraint, individualism and tradition, anarchy and order, equality and authenticity, relating them to current issues including censorship and parental-advisory labels, the MP3 file-sharing controversy and musical subversion, from Shostakovich to Iranian hip-hop. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN2455
3 Credits
**American Jazz and the Movement for Civil Rights**
This course explores the many historical, cultural and political connections between jazz and the American civil rights movement. The course draws upon jazz musical selections as well as readings on jazz and the struggle for civil rights to see how music reflects the social and political context of music makers and listeners and vice versa. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN2456
3 Credits
**Dissent in Popular Culture: From Inception to Iraq**
The United States was born and thrives in a culture of dissent that has become an inseparable part of the American experience. This course will explore the mutually beneficial relationship between the media and dissent in American culture, touching upon music, literature, television and film. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN2545
3 Credits
**The American Mind**
This course explores some of the main sources of American social and political thought from the 18th century to the present, with particular emphasis on the relationship between democratic and individualistic principles. It also will investigate other major themes and problems in American social and political thought, including federalism, individualism, democracy, citizenship, American nationalism, etc. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL2545 The American Mind.)

HUMN3001
3 Credits
**The Nature of Nature**
Nature and culture are opposites, or are they? Is the very concept of nature a cultural construct? Or isn't it? Is nature the same thing for the scientist, artist, poet, naturalist and philosopher? Do the world's religions understand nature in the same way? Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN3041
3 Credits
**Technology and Values**
The course will include, but will not be limited to, a short history of industrial and post-industrial technology, technology as value neutral and value laden, positive and negative ethical consequences of technology, ethical challenges created by technology (e.g., genetic engineering, cloning, artificial intelligence), ethics and responsibility in a high-tech age and humanism vs. science and technology. Ethical issues in a computerized society will also be examined, e.g., privacy, private property, power concerns related to the global information highway, quality of work, work possibilities in a computer age and computers and the self. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN3042
3 Credits
**The Bible and Its Influence**
The Bible as a collection of many types of literature, read from a literary point of view. Novels, dramas and poems influenced by the Bible. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to ENGL3377 The Bible and Its Influence.)

HUMN3220
3 Credits
**Political and Social History of Music**
An introduction to music appreciation and history that emphasizes the political, cultural and social influences on music from antiquity to the 20th century. Contents include sacred and secular, vocal and instrumental folk and art
music from across the Western world, including modern popular song. No previous musical experience necessary. All course materials, including textbooks, are included. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN3221
3 Credits
Coming of Age in America
This course is a sociocultural examination of the teenager as expressed in American film. The course follows the development of the concept of teenagers in American society over the past five decades in order to gain an understanding of the role of the teenager in influencing and directing social change. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN3307
3 Credits
Slavery and Global Ethics
This course will analyze 17th- and 18th-century fictional and nonfictional representations of race and enslavement in tandem with the rise of Enlightenment political and ethical philosophy. Students will read texts by authors from North and South America, Europe and West Africa, each predicting economic and ethical consequences of the rise of the global economy. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL3307 Slavery and Global Ethics.)

HUMN3315
3 Credits
Jerusalem in Jerusalem
The course will explore the centrality of the city of Jerusalem in the life of Judaism, Christianity and Islam. The course will provide the student with the complex history of the city in the life of the monotheistic traditions through the scholarship of Karen Armstrong and through discussions led by the interfaith team of instructors. The capstone of the course will be a two-week visit to the city of Jerusalem, which will include hands-on visits to the holy sites of the three traditions, lectures by Jerusalem-based experts and journal selections of the students. The course will challenge the participants to allow knowledge and experience to inform and shape the students’ visions of both their own lives and the life of the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN3316
3 Credits
Babylon the Great: Culture, Religion and Conflict in Iraq
This course is an introduction to the cultural and religious history of Iraq beginning in the fourth millennium BCE and continuing through the present day. Topics will include the invention of writing, the origin of cities, Mesopotamian law and religion, the Epic of Gilgamesh, the rise of Islam, cultural continuities in the Middle East and the legacy of the ancient Near East in western civilization. Students will engage in a variety of methodological approaches in the humanities as they learn of the rich cultural and religious heritage of Iraq and consider important questions about its future. FDU NetID (formerly Webmail) account required. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to RELI3316 Babylon the Great: Culture, Religion and Conflict in Iraq.)

HUMN3317
3 Credits
Ancient Egypt: Mummies/Myth/Magic
This course provides an introduction to the religion, history, society and culture of ancient Egypt, which was one of the most sophisticated and long-lived civilizations in world history. Special attention will be given to funerary literature and religion, cults, magic and ritual, religious art and architecture, the sacred writing system and the religion of daily life. (Equivalent to RELI3317 Ancient Egypt: Mummies/Myth/Magic.)

HUMN3318
3 Credits
Jerusalem: The Holy City
A study of Jerusalem, the sacred city for three different world religions, is fundamental to a rich understanding of the history and religions of the Middle East. Beginning in antiquity and continuing through the medieval and modern periods, this course will chronicle the rise, fall and reconstruction of Jerusalem many times over. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN3319
3 Credits
The Holocaust: Philosophical Issues
An introduction to the Holocaust through the use of philosophical and religious essays, historical accounts, memoirs, novels, short stories and plays. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL3319 The Holocaust: Philosophical Issues.)

HUMN3321
3 Credits
The Book of Job and Its Interpreters
This course will examine the Biblical book of Job as a work of literature and religious thought and will develop the analysis historically in comparison with ancient near Eastern, classical, medieval and modern philosophical discussions and theological commentaries of the Joban tradition. In this class, students will wrestle with such themes as theodicy, piety, evil, suffering and the nature of the divine-human experience. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to RELI3321 The Book of Job and Its Interpreters.)

HUMN3322
3 Credits
Latin-American Women Authors
A study in English translation of Latin-American women authors from Sor Juana Ines De La Cruz to the present day. Emphasis will be placed on more recent writers. (Equivalent to LANG3322 Latin-American Women Authors.)

HUMN3334
3 Credits
Religion and Politics
This course explores the controversial and sometimes bloody crossroads between politics and religion. Specific topics may include religion as a political construct and instrument of power in society, the role of biblical traditions in the development of church-state relations in the United States, prophetic rhetoric and liberation theologies as public modes of discourse for social justice, morality, ethics and the just-war debate and the development of a suitable political theology for contemporary society. Prerequisite: ENWR1002 Composition II: Research and Argument. Equivalent to RELI3334 Religion and Politics.

HUMN3350
3 Credits
Social Life On and Off the Internet
This web-enhanced course addresses social change at the interpersonal level and within frameworks that include family, friendship, partner formation, religion, work and health. It examines the degree of overlay between e-communications and face-to-face and telephone contact and traditional letter writing. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN3396
3 Credits
South-African Literature
This course will explore the depictions of select countries or regions of the African continent in a variety of texts written by Africans and by newcomers or outsiders to Africa. It aims to provide a sense of the diversity and multiplicity of “Africas” as created by writers from different points of view, with different relationships to Africa at different times. Students will read from among diaries, memoirs, travel narratives, histories, works of journalism, popular magazines and may also sample music and film.

HUMN3399
3 Credits
Continental Drift: Sex, Gender and Family in the South Asian Diaspora
A political and cultural study of literary and autobiographical works created by two generations of South Asians (including Salman...
Information Technology

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

Rushdie and Jhumpa Lahiri who have chosen to make their lives and careers beyond the subcontinent. The course centers on urban, cosmopolitan and transnational stories, novels and films in English, and touches upon topics such as gender roles, courtship, marriage, reproduction and child-rearing. FDU NetID (formerly Webmail) account required. (Equivalent to ENGL3599 Continental Drift: Sex, Gender and Family in the South Asian Diaspora.)

HUMN4510
Modern Political Thought
This course introduces students to recurring themes and major problems of modern political and social thought. These include the nature and significance of politics, the meaning of freedom, the value of citizenship, the nature of legitimate authority, the connection between religion and politics, the nature of individual rights, the distinction between nationalism and patriotism and the connection between economic and political life. Particular emphasis will be given to the retrieval of classical political ideas by modern thinkers and the development of distinctly modern political ideas. The course is organized more or less chronologically so these themes can be examined historically as well as theoretically. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4310 Modern Political Thought.)

HUMN4408
The British Mind
An interdisciplinary introduction to 19th-century British political thought, literature and scientific achievement held at FDU’s Wroxton College in England. Taught in collaboration with prestigious guest lecturers and Wroxton College faculty, the course will examine central figures of 19th-century British intellectual and literary life such as Charles Darwin, John Stuart Mill, Herbert Spencer, William Wordsworth, Charles Dickens and Rudyard Kipling. The course also will feature visits to art, scientific and natural history museums; ecological walks in rural England; and excursions to cultural and intellectual centers such as Oxford, Stratford-upon-Avon and London. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN4409
The British Imagination:
From King Arthur to Harry Potter
British writers have created a variety of imaginary worlds that not only entertain but also foster criticism, analysis and understanding of the real world. This interdisciplinary course examines the continued relevance of the mythic, utopian and dystopian literatures of Great Britain. Held at FDU’s Wroxton College in England and taught in collaboration with prestigious guest lecturers and the faculty of Wroxton College, the course also will feature field visits to art and history museums, nature walks in rural England and excursions to cultural and intellectual centers such as Oxford, Stratford-upon-Avon and London. Among the imaginary worlds that will be discussed are those depicted in Arthurian legends, Swift’s Gulliver Travels, the science fiction of H.G. Wells, Tolkien’s Middle-Earth and J.K. Rowling’s Harry Potter series. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN4451
Selected Studies in Humanities
Studies in an area of humanities. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN4452
Gandhi: His Life, Philosophy and Legacy
An examination of Gandhi’s life and work as the leader of India's freedom movement. A critical evaluation of his philosophy and techniques of nonviolent protest, as well as his impact on leaders such as Martin Luther King, Jr., Nelson Mandela and others. The relevance of Gandhi’s ideas in the contemporary world will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4432 Gandhi: His Life, Philosophy and Legacy.)

HUMN4458
Ethics and Public Affairs
Does morality matter for politics? Or is power the only thing that really counts? This course explores the nature and validity of arguments for contemporary public policy issues such as abortion, capital punishment, racial profiling and the rules of war. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4438 Ethics and Public Affairs.)

HUMN4459
Questioning Religion
A discussion class with readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore problems of reason, faith and questioning in the major religious traditions — and in one’s own life. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHIL4439 Questioning Religion and RELI4439 Questioning Religion.)

HUMN4468
Bollywood and Beyond: India in Film
As India responded to major cultural and technological shifts during the 20th century, Bollywood was crucial to the creation and reinforcement of the nation’s changing images of itself and its people. This study of Indian film reflects these changes and looks at the ways that cultural identities are shaped with reference to popular art, technology, history and contemporary politics. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to COMM4468 Bollywood and Beyond: India in Film.)

HUMN4470
The Nature of Evil
Examination of the treatment of evil in works by major writers. Authors will include Dante, Shakespeare, Hawthorne, Emily Bronte, Dostoevsky, Melville, Graham Greene, Flannery O’Connor and Cormac McCarthy. Prerequisite: ENWR1002 Composition II: Research and Argument.

HUMN4498
Internship
Practical experience working in a business, government or nonprofit setting or museum, applying academic knowledge. Academic component includes weekly journals and semester-evaluation paper and frequent interaction with department mentor.

Information Technology

Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

INFO1101
3 Credits
Lecture/Laboratory 4 hours
Computer Concepts and Technology
This course introduces the concepts of computer hardware organization and operating systems. A survey of various operating systems including Windows, Mac-OS, Unix, Sun-OS and Linux is conducted. Students learn about the current developments in computers. Topics covered include Boolean algebra, digital system design, buses and addressing, memory systems, microprocessors, computer peripherals, interfacing techniques and performance evaluation.

INFO1105
3 Credits
Lecture/Laboratory 4 hours
Software Applications in Business and Technology
This course introduces the students to the software used in business and technology, which includes word processing, spreadsheets, databases, graphic presentations and computing.

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software packages. Students learn how to use the word processor to create business reports, brochures, newsletters and other applications. They prepare and conduct oral presentations with the aid of presentation software. Spreadsheet, visualization and computing software are used to analyze and evaluate data. Students create databases, queries, forms and reports using the database-development software.

INFO1201 3 Credits
Information Technology
This course introduces the students to the career opportunities, current and emerging technologies and the scientific and engineering principles behind information technology. Students study the impact of information technology in the global society. Areas of current interest covered include telecommunications, computer networks, the internet and World Wide Web, multimedia, e-commerce applications, desktop publishing, computer-based systems and instruction technology.

INFO2101 3 Credits
Lecture/Laboratory 5 hours
Computer Programming for Information Technologists I

INFO2102 3 Credits
Lecture/Laboratory 5 hours
Computer Programming for Information Technologists II
Stepwise refinement as a programming tool. Objects and classes. Inheritance polymorphism. Character string manipulation. Advance input/output. Elements of debugging and testing. Design, coding and implementation of programs in various areas using a language such as Java. Prerequisite: grade of C or better in either CSC1201 Computer Programming I or INFO2101 Computer Programming for Information Technologists I. (Equivalent to CSC1202 Computer Programming II.)

INFO2105 3 Credits
Lecture/Laboratory 4 hours
Internet and Web Applications
This course provides an introduction to internet services, the World Wide Web, accessibility, search-engine optimization (SEO), multimedia and social networking. Students learn how to create and publish web pages using Extensible HyperText Markup Language (XHTML) and Cascading Style Sheets (CSS) and construct and maintain a website.

INFO2106 3 Credits
Lecture/Laboratory 4 hours
Website Design and Management
This course introduces students to the principles of website design and management, business applications and security and e-commerce. Students study graphic web design concepts such as usability, accessibility and scalability. They learn how to create interactive web applications, enhance web pages with dynamic images, implement a web server and integrate the website with a database management system. Prerequisite: INFO2105 Internet and Web Applications.

INFO3201 3 Credits
Lecture/Laboratory 4 hours
Human Computer Interface
This course introduces the students to the current theories and issues in human-computer interactions. Students learn the techniques and technologies needed for the analysis, design and implementation of human-computer interfaces. They also study usability testing and rapid prototyping. Prerequisite: INFO2101 Computer Programming for Information Technologists I.

INFO3205 3 Credits
Lecture/Laboratory 4 hours
Digital Media Publishing
This course provides an overview of the design principles of desktop and multimedia publications. Students study the proper rules and procedures for creating publications. They learn how to create interactive multimedia content for both CD-ROM and the World Wide Web using authoring software packages. Topics covered include audio, image and video processing and compression. Prerequisite: INFO2105 Internet and Web Applications.

INFO3308 3 Credits
Emerging Communications Technologies
This course surveys the historical, current and emerging communications technologies. Students learn how the emerging communications technologies operate and how they fit in a computer/communications network. The intended applications of these technologies and their advantages and disadvantages are studied. The course considers both wire-based and wireless communications.

INFO4101 3 Credits
Lecture/Laboratory 4 hours
Data Communications and Computer Networks I
This course provides a comprehensive overview of data communications and computer networks, with emphasis on network simulation and network protocols. The topics to be covered include network components and model, network services and applications, network transport architectures, routing and switching, local area networks, mobile networks and network security and management. Integrated laboratory experience. Prerequisite: INFO1101 Computer Concepts and Technology.

INFO4102 3 Credits
Lecture/Laboratory 4 hours
Data Communications and Computer Networks II
This course builds upon the networking concepts introduced in INFO4101 Data Communications and Computer Networks I. Topics covered include system administration, communications software, network technologies, LAN models, Ethernet, switches, routers, bridges and hardware components used in a converged network. Students learn how to establish and maintain a local area network and extend their learning to network convergence including media transmission, quality of services and network performance. Integrated laboratory experience. Prerequisite: INFO4101 Data Communications and Computer Networks I.

INFO4201 3 Credits
Information Technology Needs Assessment and Management
This course introduces students to the fundamental concepts of needs assessment and management as applied to information technology. Students study how to integrate, maintain and manage information technology in modern organizations. They learn how to systematically assess customer needs and problems and provide solutions with cost-efficient and effective solutions. Prerequisite: senior standing.

INFO4205 3 Credits
Information Technology Capstone Project
Senior students are required to successfully complete an information technology project by utilizing their past course work and design experience, by following professional practice and by exercising sound judgment. The capstone project must be approved and supervised by a faculty member. Students must be within 16 credits of graduation to take this course.
INFO4278
3 Credits
**Operating Systems**
This course presents an introduction to the fundamental principles of operating systems in terms of resource management and machine virtualization. Topics include system services, process management, process synchronization, threads, CPU scheduling, memory, device and file management and security. Integrated laboratory experience. Prerequisites: ENGR2286 Digital System Design and INFO2101 Computer Programming for Information Technologists I. (Equivalent to CSCI3278 Operating Systems.)

INFO4410
3 Credits
**Foundations of Cybersecurity**
The topic of Information Assurance and Security (IAS) has become increasingly important as computer systems are being subjected to continuous and more sophisticated attacks. This course presents an introduction to the application and management of mechanisms for cybersecurity and information assurance in computing, communication and organizational systems. Topics covered include malware and social engineering, vulnerability assessments, network security, authentication, basic cryptography and risk analysis. Prerequisite: CSCI3240 Computer Networks, EENG4342 Data Communications and Computer Networks or INFO4101 Data Communications and Computer Networks I. (Equivalent to CSCI3410 Foundations of Cybersecurity.)

INFO4498, INFO4499
6 Credits (3 Credits Each Semester)
**Co-op in Information Technology**
Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of director of co-op.

INFO4844
3 Credits
**Programming for the Internet**
This course introduces students to the fundamentals of Microsoft.NET framework, the ASP.NET web-development environment and C# programming. It also covers XML web services, SQL Server database and Microsoft web server IIS (Internet Information Services). Students study how to develop powerful websites and web applications that access databases using dynamic, server-side programming in C#. They also learn how to deploy such applications over various servers. Prerequisites: CSCI3268 Database Systems and INFO2106 Website Design and Management. (Equivalent to CSCI3444 Programming for the Internet.)

INFO4875
3 Credits
**Honors in Information Technology**
Independent study in information technology for students in the University Honors Program under the direction of a specific faculty member with the approval of the school director. This course can be taken in lieu of INFO4205 Information Technology Capstone Project. Prerequisite: admission to the University Honors Program.

INFO4891
3 Credits
**Network and Information Security**
Coverage of potential threats to a stand-alone or networked computer. The course includes strategies to harden the system against these threats and discusses the liability of the network administrator for crimes committed via the network. Business issues considered include social engineering, continuity, data backup and recovery and risk analysis. Prerequisite: CSCI3240 Computer Networks, EENG4342 Data Communications and Computer Networks or INFO4101 Data Communications and Computer Networks I. (Equivalent to CSCI3591 Network and Information Security.)

Italian

School of the Humanities

ITAL1101
3 Credits
**Elementary Italian I**
An introduction to contemporary spoken and written Italian.

ITAL1102
3 Credits
**Elementary Italian II**
A continuation of ITAL1101 Elementary Italian I. Prerequisite: ITAL1101 Elementary Italian I or equivalent.

ITAL2103
3 Credits
**Intermediate Italian I**
A continuation of the study of contemporary spoken and written Italian. Prerequisite: ITAL1102 Elementary Italian II or equivalent.

ITAL2104
3 Credits
**Intermediate Italian II**
Continuation of ITAL2103 Intermediate Italian I. Prerequisite: ITAL2103 Intermediate Italian I or equivalent.

ITAL4430
1–3 Credits
**Selected Studies in Italian**
Studies in an area of Italian language and/or literature.

Language and Culture Studies

School of the Humanities

LANG2201
3 Credits
**Cultural Awareness and Languages**
This course will focus on the role of language in culture, the interaction of languages globally and at home and the development of a repertoire of adaptive behaviors in order to be able to experience success in communication with others in the workplace and in the community.

LANG3301
3 Credits
**The World of Language**
Introduction to the concept of language and exploration of the great variety of languages surrounding us, its interrelationship and its political, sociological and cultural impact.

LANG3303
3 Credits
**Myths and Folk Tales of Continental Europe**
Knowledge and beliefs embodied in the myths and folk tales of various Western cultures.

LANG3304
3 Credits
**Nobel Prize Winners as Representatives of Their Cultures**
The works of Gide, Camus, Garcia Marquez, Mistral, Mann and Boll, seen against the background of their particular cultures.

LANG3306
3 Credits
**Literature and Culture in Fin-de-Siècle Europe**
Cultural crises as reflected in the artistic and literary movements in continental Europe.

LANG3307
3 Credits
**The Age of Romanticism in Continental Europe**
Romantic style as manifested in different European cultures with particular emphasis on the literature of France, Spain and Germany.

LANG3308
3 Credits
**Images of Women in European Literature**
The myth of femininity chosen from such writers as Goethe, Flaubert, Gide, Garcia Lorca, Brecht, de Beauvoir, Colette, George Sand and Christa Wolf. Spring
Course Descriptions

Marine Biology

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

LANG3311
3 Credits
20th-century French, German and Spanish Theater
The theater of Brecht, Artaud, Genet and Garcia Lorca, among others.

LANG3312
3 Credits
Latin-American Novel
Readings from the works of Carlos Fuentes, Manuel Puig, Ariel Dorfman, Alejo Carpentier, Jose Donoso and Mario Vargas Llosa. Spring

LANG3319
3 Credits
Short Story: Reflection of Language and Culture
A study of French, German, Italian, Russian and Ukrainian short stories.

LANG3321
3 Credits
Linguistics: Origin of Languages
This course includes, among other issues, the fundamental concepts and origins of language. It will emphasize comparisons, modern influences and idioms in modern languages.

LANG3322
3 Credits
Latin-American Women Authors
A study in English translation of Latin-American women authors from Sor Juana Ines De La Cruz to the present day. Emphasis will be placed on more recent writers. (Equivalent to HUMN3322 Latin-American Women Authors.)

LANG3324
3 Credits
The Latin-American Short Story
Close readings of short stories from a variety of time periods and nationalities, mainly from Latin America. Focus will be on the uses of language and techniques to reflect on culture, communities and historical contexts. Prerequisite: ENWR1002 Composition II: Research and Argument.

LANG3333
3 Credits
Chinese Language Through Literature
This course is designed to familiarize students with major Chinese literary forms, works and authors in the context of cultural and social history through language. Does not require knowledge of Chinese literature or language.

LANG3335
3 Credits
Contemporary Arabic Thought and Cultures
This course will provide opportunities for students to become familiar with Arab history and culture and open up avenues for exploring the Arab world.

LANG3336
3 Credits
Russian Culture/Modern Era
This class covers Russian culture — including food, dance, music, history, architecture, literature and customs — from the period of the czars to contemporary times. This course offers the overview and study of the Russian modern culture and civilization. The focus of this course will be to provide the students with the tools and methodology of studying culture in historical, geographic, social and political contexts as it relates to changes and traditions associated with the Russian-speaking world.

LANG3340
3 Credits
French Language and Culture: Global Perspective
A study of the influence of the French language and culture in Francophone countries; representations of major Francophone writers from the Caribbean islands to the African continent.

LANG3344
3 Credits
The World Wars and European Languages
A study of the great literature that emerged from the horror and heroism of World Wars I and II. Students will analyze the content of various literary works.

LANG4450
3 Credits
Literary Classics in Translation
Readings from the works of Milosz, Chekhov, Turgenev, Mauriac, Dumas fils, Boccaccio, Goethe and Hoffman.

Marine Biology

School of Natural Sciences

MBIO1118
5 Credits
Lecture 2 hours
Beach Ecology
Visits to various coastal marine environments studied in MBIO1128 Laboratory: Beach Ecology. Identification and experiments on marine organisms to gain an understanding of their way of life. Corequisite: MBIO1128 Laboratory: Beach Ecology.

MBIO1128
0 Credits
Laboratory 4 hours
Laboratory: Beach Ecology
Fieldwork and experiments illustrating the topics discussed in MBIO1118 Beach Ecology. Corequisite: MBIO1118 Beach Ecology. Fee

MBIO1209
4 Credits
Lecture 2 hours
Introduction to Marine Biology
Basic study of the marine environment, with emphasis on the ecological aspects of the ocean. Types and characteristics of marine organisms and their interactions with one another as well as with the physical, chemical and geological sectors of the ocean. Corequisite: MBIO1219 Laboratory: Introduction to Marine Biology.

MBIO1219
0 Credits
Laboratory 4 hours
Laboratory: Introduction to Marine Biology
Fieldwork illustrating the topics discussed in MBIO1209 Introduction to Marine Biology. Corequisite: MBIO1209 Introduction to Marine Biology. Fee

MBIO3200
4 Credits
Lecture 2 hours; Laboratory 2 hours
Tropical Marine Vegetation
An introduction to the realm of marine vegetation. The main objectives of this course are (1) to teach the student field and laboratory techniques for research on the biology, taxonomy and ecology of marine vegetation; (2) to review the taxonomy and distribution of marine plants, macro-algae, seagrasses, marsh plants and mangroves; and (3) to acquire applied knowledge of the ecology and physiology of marine plants by running field experiments. Prerequisites: BIOL1251, BIOL1253 General Biology I and BIOL1252, BIOL1254 General Biology II or a semester of botany. Fee

MBIO3400
4 Credits
Lecture 2 hours; Laboratory 2 hours
Tropical Marine Invertebrates
A study of the evolution, reproduction, development, behavior, anatomy, physiology and ecology of marine invertebrates. The laboratory will include dissections, collections, identifications and experimentation on tropical marine invertebrates. Prerequisites: MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology. Fee
MBIO3500
4 Credits
Lecture 3 hours
**Physiology of Marine Animals**
Osmoregulatory, respiratory and sensory physiology of selected marine invertebrates and vertebrates. Prerequisites: BIOL1251, BIOL1253; BIOL1252, BIOL1254 General Biology I, II and MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology. Corequisite: MBIO3551 Laboratory: Physiology of Marine Animals.
*Fall, Spring*

MBIO3651
0 Credits
Laboratory 4 hours
**Laboratory: Physiology of Marine Animals**

MBIO3700
3 Credits
Lecture 2 hours; Laboratory 2 hours
**Tropical Marine Ecology**
The course discusses the interrelationship of marine organisms within their environments. The course covers measurement of the biogeochemical parameters which define marine ecosystems such as substrate, light, salinity, oxygen and nutrients. Emphasis will be given to understanding the properties of seawater as a medium for life, spatial and temporal variation in physical factors, nutrient links, inverted pyramids of standing biomass, tropical marine food webs, intertidal zonation, abundance and products. Prerequisites: MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology.

MBIO3900
4 Credits
Lecture 2 hours; Laboratory 2 hours
**Tropical Marine Vertebrates**
A study of the evolution, reproduction, development, behavior, anatomy, physiology and ecology of marine vertebrate taxa. The laboratory will include dissections, collections, identifications and experimentation on tropical marine vertebrates. Prerequisites: MBIO1209 Introduction to Marine Biology and MBIO1219 Laboratory: Introduction to Marine Biology.

MBIO4201
3 Credits
**Marine Biology Research I**
Students will select, design and execute and collect data for a research project in marine biology.
*Fall, Fee*

MBIO4202
1 Credit
**Marine Biology Research II**
Students will analyze data and write a scientific research paper in marine biology from data collected in MBIO4201 Marine Biology Research I. Prerequisite: MBIO4201 Marine Biology Research I.
*Spring, Fee*

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**Mathematics**

*Lee Gildart and Oswald Haase*

**School of Computer Sciences and Engineering**

**MATH1018**
4 Credits
**Computation and Algebra Skills**
Precalculus mathematics: basic numerical concepts, fractions, operations with signed numbers, introductory algebra, graphs, operations on polynomials, simple and simultaneous linear equations. MATH1018 Computation and Algebra Skills is designed for students with deficiencies in both computational mathematics and elementary algebra. Placement in MATH1018 Computation and Algebra Skills is made by the Academic Resource Center and Academic Advising based on performance on a screening test. No credit toward graduation requirements. Prerequisite credit only.
*Fall, Spring*

**MATH2098**
3 Credits
**Algebra Skills**
Precalculus mathematics: basic arithmetical concepts, graphs and charts, introductory algebra. No credit toward graduation requirements. Prerequisite credit only.
*Fall, Spring*

**MATH1101**
3 Credits
**Comprehensive Mathematics**
Selected topics from logic, set theory, combinatorics, probability, matrices, systems of linear equations, linear programming, graphs.
*Fall, Spring*

**MATH1105**
4 Credits
**College Algebra**
Signed numbers, algebraic expressions, factoring, fractions, first-degree equations, radicals, graphical methods, quadratic equations, quadratic systems, binomial theorem. Prerequisites: elementary algebra and geometry.

**MATH1107**
4 Credits
**Precalculus**
Algebraic operations, functions and graphs, trigonometric functions, graphs of trigonometric functions, factoring, exponents, radicals, logarithms, trigonometric relations, oblique triangles, sets of equations, quadratic equations, equations of higher degree. Prerequisite: intermediate algebra.
*Fall, Spring*

**MATH1109**
4 Credits
**Geometry Fundamentals**
This course is designed for current and prospective middle-school and elementary-school teachers. Possible topics include: basic geometry theorems and constructions; polygons and polyhedra; the Pythagorean Theorem; symmetry, similarity and scaling; dynamic geometry using computer software and the internet; properties of two- and three-dimensional spaces; coordinate geometry and measurement; analytical and transformational geometry; and history of geometry. Prerequisite: teacher certification, MATH1101 Comprehensive Mathematics or higher-number mathematics course.

**MATH1201**
4 Credits
**Calculus I**
Slope, equations of lines, slope of a curve, rate of change of a function, derivatives of algebraic and trigonometric functions, maxima and minima, the Mean Value Theorem, indeterminate forms, the Fundamental Theorem of Calculus, basic techniques of integration. Prerequisites: intermediate algebra and trigonometry or a grade of C- or better in MATH1107 Precalculus.
*Fall, Spring*

**MATH2202**
4 Credits
**Calculus II**
Indefinite and definite integral, methods of integration. Infinite series. Taylor Series. Polar coordinates, parametric equations. Prerequisite: a grade of C- or better in MATH1201 Calculus I.
*Fall, Spring*

**MATH2203**
3 Credits
**Calculus III**
Lines and planes in 3-space. Vectors, functions
of several variables, partial derivatives, multiple integrals, line integrals. Prerequisite: a grade of C- or better in MATH2202 Calculus II.

MATH2210 3 Credits **Differential Equations** First-order linear differential equations, linear differential equations with constant coefficients, variation of parameters, undetermined coefficients, Laplace transforms, solutions in terms of power series, numerical solutions with predictor-corrector and Runge-Kutta methods. Prerequisite: MATH2202 Calculus II.

MATH2245 3 Credits **Statistical Programming** This is an in-lab SAS programming course, including importing and exporting files, predictive data modeling and exploration (mixed-models analyses, multivariate statistical analysis, longitudinal analysis and survival analysis) and a programming approach to report writing. Prerequisites: MATH1105 College Algebra and elementary knowledge of a programming language.

MATH2255 3 Credits **Discrete Structures** Logic, sets, functions, algorithms. Integers, induction and recursion. Relations, posets, equivalence relations, digraphs and matrix representations. Boolean algebra, applications to logic, Boolean Identities, Boolean functions, minimization of circuits. Graphs. Trees. Prerequisite: MATH2202 Calculus II or permission of instructor.

MATH2337 3 Credits **Applied Statistics I** An introductory course that covers basic probability, descriptive statistics and inferential statistics as applied to biology and health care. Topics emphasize problems in design, randomization, analysis and interpretation of real experiments and surveys. Analyses focus on tests of hypotheses (using normal and binomial methods) and correlation and regression analysis.

MATH2338 3 Credits **Applied Statistics II** This follow-up course to MATH2337 Applied Statistics I covers a wider range of applied statistical techniques, analysis of variance (ANOVA), factor and cluster analysis, multiple linear regression, cross-tab and distribution-free analysis. The course would touch upon more advanced topics such as modeling, experimental design, error correction, rare events and graphical methods. Prerequisite: MATH2337 Applied Statistics I.

MATH3220 3 Credits **Linear Algebra** Vector spaces and linear transformations; systems of linear equations, bases, matrix representations of linear transformations, matrix algebra, eigenvalues and eigenvectors, determinants, canonical forms, inner product spaces. Prerequisite: MATH2202 Calculus II. *Fall, Spring*

MATH3225 3 Credits **Abstract Algebra** Groups, cyclic groups, subgroups, product and quotient groups, homomorphisms and isomorphisms. Rings, integral domains and fields. Prerequisite: MATH2202 Calculus II.

MATH3230 3 Credits **Analysis** Completeness of real numbers, convergence of sequences and series, topology of the real number line, limits and continuity of functions, differentiation, integration, proofs of the major theorems of elementary calculus. Prerequisite: MATH2202 Calculus II.

MATH3237 3 Credits **Probability and Statistics I** Sample spaces, discrete and continuous random variables. Point and Interval Estimation. Tests of Statistical Hypotheses. Prerequisite: MATH2202 Calculus II.

MATH3238 3 Credits **Probability and Statistics II** A continuation of MATH3237 Probability and Statistics I including Goodness of Fit Tests, Linear Models, Markov Chains, optional topics. Prerequisite: MATH3237 Probability and Statistics I.

MATH3240 3 Credits **Introduction to Numerical Methods and Analysis** MATLAB-based introduction to numerical methods. Introduction to MATLAB, analysis of numerical error and algorithmic convergence rates, root-finding methods, curve fitting and interpolation, least squares and model optimization, numerical differentiation and integration, numerical solution of ordinary differential equations. Prerequisite: MATH2210 Differential Equations.

MATH3275 3 Credits **Mathematics of Operations Research** An introduction to mathematical programming through the Simplex Method for linear programming and the transportation algorithm. Additional topics to be selected from nonlinear programming, queuing theory and Markov processes. Prerequisite: knowledge of matrices and probability.

MATH3316 3 Credits **Partial Differential Equations** Fourier series, derivations and solutions of the partial differential equations satisfying auxiliary conditions as applied to equations of classical mathematical physics in one and several dimensions, orthogonal functions and eigenfunctions. Prerequisite: MATH2210 Differential Equations.

MATH3331 3 Credits **Higher Geometry** Axiomatics, groups of transformations and invariants. Erlanger Program, Euclidean and Lobachevskian geometry, special topics.

MATH3335 3 Credits **Complex Variables** Analytic functions. Cauchy’s integral theorem and consequences, calculus of residues, entire and meromorphic functions, conformal mapping. Prerequisite: MATH3230 Analysis.

MATH3341 3 Credits **Advanced Engineering Mathematics** Operators, function spaces, applications to ordinary and partial differential equations. An introduction to the theory of distributions and operational calculus. Prerequisite: MATH2203 Calculus III.

MATH3350 3 Credits **Applied Mathematics** Operators, function spaces, applications to ordinary and partial differential equations. An introduction to the theory of distributions and operational calculus. Prerequisite: MATH3220 Linear Algebra.

MATH4430 1–3 Credits Each Semester **Selected Studies in Mathematics** Advanced studies in special fields of mathematics.

MATH4475, MATH4476 Variable Credits **Honors Mathematics** Independent study in mathematics for students in the University Honors Program under the direction of a specific faculty member with
Mechanical Engineering

Lee Gildart and Oswald Haase
School of Computer Sciences and Engineering

MENG2232
3 Credits
Lecture/Laboratory 4 hours
Mechanical Measurement and Devices
Study of measurement of distance, work, energy, force, pressure and thermal quantities. Use of testing machines and industrial mechanical components. Corequisite: MATH1105 College Algebra or equivalent.

MENG2255
3 Credits
Lecture/Laboratory 4 hours
Manufacturing Processes
Study of methods in manufacturing. Theory and practice of turning, machining, drilling, etc., of metals and other materials.

MENG3155
3 Credits
Heat Transfer

MENG3230
3 Credits
Lecture/Laboratory 4 hours
Computer-aided Design and Manufacturing
Concepts and methods of computer-aided design and manufacturing (CAD/CAM). Design, modeling and simulation. Solid modeling software. Introduction to finite element analysis. Part, assembly and mechanism design. 3-D solids, surfaces and models. 2- and 3-D drawings. Generating computer numerical control (CNC) sequences for CAM. Application to engineering projects. Prerequisites: ENGR1223 Introduction to CAD, ENGR2228 Strength of Materials, MATH3220 Linear Algebra or permission of instructor and MENG2255 Manufacturing Processes.

MENG3288
3 Credits
Lecture/Laboratory 4 hours
Microcontroller System Design
Microcontroller architectures. Input/output, interrupts and timers. Programming of parallel ports, serial communication interfaces. Integrated laboratory experience. Prerequisite: ENGR1204 Programming Languages in Engineering, ENGR2286 Digital System Design or permission of instructor.

MENG4040
3 Credits
Lecture/Laboratory 4 hours
Heating, Ventilation and Air Conditioning
An introduction to some of the essential knowledge required to enter the field of HVAC&R engineering. Topics include: physical principles, heating loads, hydronic piping systems and terminal units, cooling-load calculations, psychrometrics, fluid flow in piping and ducts and air-distribution devices, air-conditioning systems and equipment, refrigeration systems and equipment. Prerequisite: ENGR3351 Applied Thermodynamics.

MENG4041
3 Credits
Heating, Ventilation and Air Conditioning and Refrigeration Controls
Elements of control systems: sensors, operators, controls and control strategies (for HVAC&R) will be covered. A brief review of the processing of moist air (psychrometrics) will be offered. Finally, control systems for process control and the use of analog and direct digital controls will be applied to heating, ventilation, air conditioning and refrigeration. Prerequisite: MENG4040 Heating, Ventilation and Air Conditioning or permission of instructor.

MENG4248
3 Credits
Lecture/Laboratory 4 hours
Mechanical Engineering Design I
Principles of machine design, elements of stress analysis, rivets, belt and chain drives, springs and synthesis of mechanical systems, materials and their use in design. Prerequisites: ENGR2228 Strength of Materials and ENGR3431 Dynamics.

MENG4250
3 Credits
Lecture/Laboratory 4 hours
Mechanical Engineering Design II
Design of gears, clutches, shafts and couplings, bearings, brakes, lubrication and synthesis of mechanical systems. Prerequisite: MENG4248 Mechanical Engineering Design I.

MENG4355
3 Credits
Analog and Digital Control
Closed-loop feedback systems, general feedback theory, control-system design, stability, sensitivity, error response, root-locus, compensation techniques, digital control, discrete-time systems, design in Z-domain, controllability, optimal control. Prerequisites: EENG2221 Signals and Systems I and MATH2210 Differential Equations.

MENG4356
3 Credits
Stress and Vibration Analyses
The differential equations of stress and strain, shear flow, virtual flow, energy principles, curved beams, noncircular bars, Computer-oriented problem solving. Analysis of motion arising from lateral and torsional vibration of systems, free and forced vibrations, damping, isolation, balancing. Prerequisites: ENGR2228 Strength of Materials, ENGR3431 Dynamics and MATH2202 Applied Calculus II.
**Course Descriptions**

**Medical Technology**

University College: Arts • Sciences • Professional Studies

Metropolitan Campus and Vancouver Campus

**MENG4360**

3 Credits
Lecture/Laboratory 4 hours

**Industrial Automation**

Manufacturing systems and their mechanization: design and analysis on control systems for production, materials handling and inventory logistics. Manufacturing automation and robotics technologies (requirements analysis and design). Electromechanical hardware and computer control. Economics of robotics and machine vision. Prerequisites: MENG2230 Manufacturing Processors; MENG4355 Analog and Digital Control or permission of instructor. Spring

**MENG4365**

3 Credits

**Advanced Fluid Mechanics**


Fall

**MENG4375**

3 Credits
Lecture/Laboratory 4 hours

**Electrical Energy Conversion**

General considerations of electromagnetic phenomena and magnetic circuits. Exercises with ferromagnetic loops and air gap. Transformer theory — equivalent circuits and phasors. Regulation and efficiency evaluation, rotating machinery, DC and three-phase systems. Power relationships, operating characteristics. Prerequisite: EENG2221 Signals and Systems I.

**MENG4384**

1 Credit

2 Contact Hours

**Preparation for Senior Design Project**

Research on choosing a design project, incorporating appropriate engineering standards and multiple realistic constraints and writing a project proposal for the mechanical engineering senior project. Prerequisite: Senior status. Corequisite: MENG4248 Mechanical Engineering Design I.

Fall

**MENG4386**

2 Credits

2 Contact Hours

**Senior Design Project**

Students work on capstone design projects using the knowledge gained through past course work, following professional practice, applying design methodologies and exercising sound engineering judgment. Prerequisite: MENG4384 Preparation for Senior Design Project.

Spring

**Medical Technology**

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

**MEDT1150**

3 Credits

**Bioethics**

An interdisciplinary exploration of ethical issues in today’s health care practice with particular emphasis on the role of the professional in ethical decision making. Topics include values clarification, ethical theories and principles, human subjects in research, informed consent, advanced directives, euthanasia and physician-assisted suicide. Work assignments include case analysis using ethical decision-making models. Prerequisite: faculty permission.

**MEDT1201**

3 Credits
Lecture 3 hours

**Introduction to Medical Technology**

Hospital laboratory, relationship of medical technology to patient and community health, organization and role of each clinical laboratory department, introduction to diseases, medical terminology.

**MEDT4205, MEDT4206**

32 Credits (16 Credits Each Semester)

**Clinical Laboratory Education I, II**

The student technologist rotates through the hospital departments, gaining didactic and practical experience under supervision in tests and procedures in chemical chemistry, hematology, coagulation, blood banking, serology, microbiology, immunohematology and clinical microscopy. Written examinations cover each phase of the work. Prerequisites: for MEDT4205 Clinical Laboratory Education I, six semesters of appropriate college work; MEDT4205 Clinical Laboratory Education I is a prerequisite for MEDT4206 Clinical Laboratory Education II.

**MEDT4302**

3 Credits

**Health Care Law and Policy**

This class will analyze the complexity of the American health care system and the law and policy issues that must be confronted to achieve meaningful health care reform. Students will gain an appreciation of the dilemmas facing health care law and policymakers, providers, patients and how to balance cost, quality and access. It examines specific health care organization aspects such as the medical profession, hospitals, managed-care organizations and government health care programs. This course will also discuss law and policy changes that have major impacts on American health care in the past decade.

**MEDT4305**

3 Credits

**Global Health**

This course will cover the main principles of global health and introduce the student to the world’s vast diversity of determinants of health and disease. Current and emerging health priorities such as infectious diseases, socioeconomic status and health, human rights, culture and health, maternal and child health, water and sanitation, parasitic diseases, health inequities and major global initiatives for disease prevention and health promotion.

**MEDT4306**

3 Credits

**Current Topics in Health Science I**

This is part one of the capstone course in the student’s allied health discipline. The course will cover current topics/advances in the student’s discipline. Students will review scientific literature on current advances and analyze the impact on the future of their allied health discipline.

**MEDT4307**

3 Credits

**Health Studies Practicum**

The health studies practicum is the capstone course for the health studies major. The course will include an internship in the field. Current topics, scientific literature and advances in the student’s area of interest will be covered in this course.

**MEDT4308**

3 Credits

**American Health Care**

This class will examine and critically analyze the United States health care system, emphasizing the major trends and issues that have led the country to where it is today. In addition to providing a historical perspective, this course will establish a context for analyzing the current, varied approaches to health care financing, delivery and reform. While this course will focus on the U.S. health care system, the systems of other nations will be reviewed for comparison.
NURS4420
3 Credits
Health Care Management
An exploration of the current health care environment with implications for beginning-level managers. Topics to be discussed include managed care, health-care delivery models, interdisciplinary team building, resource management, case management, performance improvement and conflict resolution. Prerequisite: faculty permission.

NURS4430
3 Credits
Nursing Research
Students are introduced to the research process. The course focuses on the professional health care worker as a research consumer. Critical appraisal skills are developed as a basis for evaluating research findings for application to clinical practice. Learning activities are designed to facilitate the students’ understanding of allied health research, the research-utilization process and professional-role development. Prerequisite: faculty permission.

Music
School of Art and Media Studies

MUSIC1102
3 Credits
Music History and Literature
Music from Gregorian chant to present-day forms presented through use of musical illustration. (Not open to those who take MUSIC1111, MUSIC1112 Development of Music I, II.)

MUSIC1103
2 Credits
Music History
Music from the Middle Ages to the present. Styles, forms and characteristics of vocal and instrumental music of each period. (Not open to those who take MUSIC1111, MUSIC1112 Development of Music I, II.)

MUSIC1107
3 Credits
World Music
A course of music appreciation to acquaint the student with an overview of the global music scene.

MUSIC1108
3 Credits
From Elvis to J. Lo: Pop Music of the Past 50 Years
The class will involve the study of the development of popular music in America during the past half century in its cultural and historical contexts. The focus will be on the music itself—how and why it came about, its significance to youth and the broader American and world cultures and what influence it will have on the future.

MUSIC1111
3 Credits
Development of Music I
Music of Western civilization from ancient Greece to 1750, with some attention to significant historical and cultural influences. (Not open to those who take MUSIC1102 Music History and Literature or MUSIC1103 Music History.) Fee

MUSIC1112
3 Credits
Development of Music II
Music of Western civilization from 1750 to the contemporary period presented with an emphasis on stylistic differences. (Not open to those who take MUSIC1102 Music History and Literature or MUSIC1103 Music History.) Prerequisite: MUSIC1111 Development of Music I. Fee

MUSIC3301
2 or 3 Credits
American Jazz and Popular Music
American popular music styles. Ballads through ragtime, blues and various idioms of jazz. Third credit requires additional research.

Nursing
Henry P. Becton School of Nursing and Allied Health

NURS1101
2 Credits
A Preview of Professional Nursing
This course will introduce the student to nursing. The focus is on the history of nursing, overview of theories and frameworks used in professional nursing practice, standards of the profession including legal, ethical and moral dimensions and professional roles.

NURS2005
3 Credits
Fundamentals of Nursing I
Lecture 2 hours
This course focuses on the theoretical basis of essential fundamental psychomotor skills necessary for professional nursing practice. Prerequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory and NURS2210 Pathophysiology. Corequisite: NURS2114 Laboratory: Fundamentals of Nursing II.

NURS2113
0 Credits
Laboratory 6 hours
NURS2113 Laboratory: Fundamentals of Nursing I
This nursing practicum is designed to provide students with opportunities to apply the nursing
process in a geriatric setting. Health promotion and health maintenance are emphasized, as well as adaptations in self-care required as a result of age-related changes. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisite: NURS2003 Fundamentals of Nursing I.

NURS2114
0 Credits
Laboratory 6 hours
Laboratory: Fundamentals of Nursing II
This nursing practicum is designed to provide students with opportunities for continued discussion and application of the nursing process with adult clients in a variety of clinical settings. Prerequisites: NURS2003 Fundamentals of Nursing I, NURS2113 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory and NURS2210 Pathophysiology. Corequisite: NURS2204 Fundamentals of Nursing II.

NURS2200
4 Credits
Lecture 3 hours
Health Assessment
This course focuses on the development of comprehensive health-assessment skills. Measures of physical and functional status and health-promotion strategies for each body system will be discussed. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisites: NURS2003 Fundamentals of Nursing I, NURS2211 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment and NURS2201 Health Assessment Laboratory. Generic: Fall

NURS2217
2–3 Credits
Information Systems and Applications in Health Care
This course serves as an introduction to nursing and health care informatics. Course content includes an overview of computer basics, information terminology, data integrity and management, informatics theory, system life cycle and clinical applications. The purpose of this course is to provide a basic understanding of nursing and health care informatics and to facilitate decision-making based upon data, information, knowledge and wisdom.

NURS2208
3 Credits
Introduction to Health Care Economics
This course introduces the student to basic economic concepts and theories to analyze selected issues/problems in health care and to inform decision making and policy development. Fiscal management and basic budgeting concepts also will be covered.

NURS2209
3 Credits
Bioethics
An interdisciplinary exploration of ethical issues in today’s health care practice with particular emphasis on the role of the professional in ethical decision making. Topics include: values clarification, ethical theories and principles, human subjects in research, informed consent, advanced directives, euthanasia and physician-assisted suicide. Work assignments include case analysis using ethical decision-making models. Prerequisites: BIOL2125, BIOL2126 Microbiology for the Health Sciences; BIOL2203, BIOL2223 Human Anatomy and Physiology I; BIOL2204, BIOL2224 Human Anatomy and Physiology II; and CHEM1107, CHEM1117 Chemistry for Health Sciences. Corequisites: NURS2003 Fundamentals of Nursing I, NURS2213 Laboratory: Fundamentals of Nursing I, NURS2200 Health Assessment, NURS2201 Health Assessment Laboratory and NURS2210 Pathophysiology.

NURS3300
5 Credits
Lecture 4 hours
Medical-Surgical Nursing I
This course focuses on selected health needs of adult clients and integrates physiologic, sociocultural and behavioral alterations throughout. A broad, scientific knowledge base is presented, with an emphasis on prevention, caring, empowerment and critical thinking. Current nursing therapies for managing care of adults with pathophysiologic alterations are presented. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II and NURS3209 Bioethics. Corequisite: NURS3301 Medical-Surgical Nursing Laboratory I.

NURS3301
0 Credits
Laboratory 7 hours
Medical-Surgical Nursing Laboratory I
This nursing practicum provides students with opportunities to apply the nursing process in adult acute-care settings. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II; and NURS3209 Bioethics. Corequisite: NURS3300 Medical-Surgical Nursing I.

NURS3310
5 Credits
Lecture 4 hours
Psychiatric Nursing
Within the context of exploring knowledge, increasing client acuity and the increasing demand for professional accountability, this course focuses on the application of crucial theoretical and clinical issues essential to the practice of psychiatric-mental health nursing in the 21st century. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II and NURS3209 Bioethics. Corequisite: NURS3311 Psychiatric Nursing Laboratory.
NURS3311
0 Credits
Laboratory 7 hours
Psychiatric Nursing Laboratory
This nursing practicum provides students with opportunities to apply the nursing process in a psychiatric setting, educating clients and communities to help prevent or correct actual or potential health problems related to dysfunctional behavior. Prerequisites: NURS2004 Fundamentals of Nursing II; NURS2005 Professional Communication Skills: Individual, Family and Groups; NURS2007 Pharmacotherapeutics; NURS2114 Laboratory: Fundamentals of Nursing II; and NURS2009 Bioethics. Corequisite: NURS3310 Psychiatric Nursing.

NURS3320
5 Credits
Lecture 4 hours
Women's Health Nursing
This course focuses on women's health and its impact on families. Students address the health-care needs of women throughout their life span, and nursing-care needs of the childbearing family, from conception through the puerperium. Among the topics covered are the reproductive systems, health problems unique to women, health care issues that affect women and women's role within the family. Prerequisites: NURS300 Medical-Surgical Nursing I, NURS3001 Medical-Surgical Nursing Lab I, NURS310 Psychiatric Nursing and NURS311 Psychiatric Nursing Laboratory. Corequisite: NURS321 Women's Health Nursing Laboratory.

NURS3321
0 Credits
Laboratory 7 hours
Women's Health Nursing Laboratory
This nursing practicum provides students with opportunities to apply the nursing process to female clients and their families in a variety of health care settings. Prerequisites: NURS300 Medical-Surgical Nursing I, NURS3001 Medical-Surgical Nursing Lab I and NURS310 Psychiatric Nursing and NURS311 Psychiatric Nursing Laboratory. Corequisite: NURS321 Women's Health Nursing Laboratory.

NURS3340
3 Credits
Lecture 4 hours
Nursing Care of the Child and Family
In this course, students analyze the nursing-care needs of the child from infancy to young adulthood within the context of a family. Emphasis is placed on the application of knowledge from the biological sciences, social sciences, humanities and nursing to clinical nursing practice. Prerequisites: NURS300 Medical-Surgical Nursing I, NURS301 Medical-Surgical Nursing Lab I and NURS310 Psychiatric Nursing and NURS311 Psychiatric Nursing Laboratory.

Corequisite: NURS341 Nursing Care of the Child and Family Laboratory.

NURS3341
0 Credits
Laboratory 7 hours
Nursing Care of the Child and Family Laboratory
This practicum provides students with opportunities to apply the nursing process to pediatric clients in a variety of health-care settings. Prerequisites: NURS300 Medical-Surgical Nursing I, NURS301 Medical-Surgical Nursing Laboratory I, NURS310 Psychiatric Nursing and NURS311 Psychiatric Nursing Laboratory. Corequisite: NURS340 Nursing Care of the Child and Family.

NURS3345
3 Credits
End of Life
The course will explore the role of the nurse in providing palliative care and improving the quality of life for patients and their families at the end of life. The basic principles of pain assessment and management at the end of life will be reviewed. Topics will also include symptom management, key ethical issues and legal concerns, culture, communication, grief/loss/bereavement and care at the actual time of death. The loss experiences of the nurse will also be examined. The course will follow the End of Life Nursing Education Consortium (ELNEC) curriculum. Students will be designated “ELNEC trained” at the completion of the course.

NURS3352
3 Credits
Complementary Alternative Therapy
This course provides an introduction to a variety of commonly practiced alternative modalities. Topics such as acupuncture, homeopathy and aromatherapy will be discussed and evaluated based upon current evidence-based research.

NURS3353
2 Credits
Introduction to Normal and Therapeutic Nutrition
This course will introduce nursing and allied health students to the fundamentals of human nutrition as well as the role of dietary intervention in the treatment and management of chronic and acute medical conditions.

NURS3360
3 Credits
Intimate Violence
This course will provide a multidisciplinary focus on victims and victimizers of intimate violence. Issues addressed will include child abuse, battering, rape, the witnessing of violence and the long-term effects of trauma.

NURS3371
3 Credits
The Professional Nurse in the 21st Century
As the first offering of the sequence for the RN student, this course serves as a bridge from the RN's prior education to the B.S.N. program. The focus of the course is to develop the professional self as the baccalaureate-prepared nurse in today's changing health care system; examine the evolving health care delivery system and the context in which delivery takes place; and explore the issues, opportunities and constraints the profession faces today and into the next century.

NURS4410
5 Credits
Lecture 4 hours
Community Health Nursing
This course emphasizes holistic care of clients in the community, considering families and individuals in a variety of settings, e.g., home, workplace, school and clinics. Prerequisites: NURS320 Women's Health Nursing, NURS321 Women's Health Nursing Laboratory, NURS340 Nursing Care of the Child and Family and NURS341 Nursing Care of the Child and Family Laboratory. Corequisite: NURS4411 Community Health Nursing Laboratory.

NURS4411
0 Credits
Laboratory 7 hours
Community Health Nursing Laboratory
This nursing practicum is designed to provide students with an opportunity to practice independently and interdependently in a community health agency and in client homes. Students also select and conduct a primary-prevention teaching project with a lay group in a community. Prerequisites: NURS320 Women's Health Nursing, NURS321 Women's Health Nursing Laboratory, NURS340 Nursing Care of the Child and Family and NURS341 Nursing Care of the Child and Family Laboratory. Corequisite: NURS4411 Community Health Nursing Laboratory.

NURS4420
3 Credits
Health Care Management
An exploration of the current health care environment with implications for beginning-level managers. Topics to be discussed include managed care, health-care delivery models, interdisciplinary team building, resource management, case management, performance improvement and conflict resolution. Prerequisites: NURS3208 Introduction to Health Care Economics, NURS320 Women's Health Nursing, NURS321 Women's Health Nursing Laboratory, NURS340 Nursing Care of the Child and Family and NURS341 Nursing Care of the Child and Family Laboratory.
This course will assist every student to develop a leadership within health-care organizations.

NURS4440
8 credits
Lecture 6 hours
Medical-Surgical Nursing II
This capstone course focuses on illness-management strategies that integrate information from nursing, medicine, surgery and pharmacotherapeutics. Current therapies and interventions are explored. Prerequisites: NURS4410 Community Health Nursing, NURS4411 Community Health Nursing Laboratory, NURS4420 Health Care Management and NURS4430 Nursing Research. Corequisite: NURS4441 Medical-Surgical Nursing Laboratory II.

PHIL1105
3 Credits
World Religions in America
This course is an exploration of the changing multi-religious landscape of the United States, looking at the history and dynamic interaction of the various religious traditions that now compose the American religious scene, with special emphasis on the religious life of Buddhists, Hindus, Sikhs, Jains and Muslims. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to RELI1105 World Religions in America.)

PHIL2101
3 Credits
Ancient and Medieval Philosophy
Central issues in the history of Western philosophy from the sixth century B.C. through the 13th century A.D. Philosophers to be studied include the pre-Socratics, Plato, Aristotle, the Stoics, Epicureans, Augustine, Anselm, Aquinas and others. Prerequisite: one course in philosophy or permission of instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2202
3 Credits
Modern Philosophy
Central issues in 17th- and 18th-century philosophy. Rationalism (Descartes, Spinoza and Leibniz), Empiricism (Hobbes, Locke, Berkeley
and Hume), Kant. Prerequisite: one course in philosophy or permission of instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2203 3 Credits
Contemporary Philosophy
Movements in 20th-century philosophy such as positivism, pragmatism, phenomenology, existentialism, logical analysis and ordinary language analysis studied through representative works. Prerequisite: one course in philosophy or permission of the instructor. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2205 3 Credits
Social and Political Philosophy

PHIL2206 3 Credits
Aesthetics
Theories of art from Plato to Dewey. Psychological and social determinants of art. Genres of art. Aesthetic appreciation and criticism. Art's relation to society, morality and science. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2207 3 Credits
Philosophy of Religion
God's existence and attributes, problem of evil, religious truth, religious views of history, myth and language systems, meaning in religion. (Equivalent to REL12207 Philosophy of Religion.)

PHIL2251 3 Credits
Basic Jewish Thought
Study of major concepts in Judaism and their relationship to basic texts. Origins and nature of Jewish practice, including holiday observance. Overview of the thought of contemporary American denominations. Study of major ideas in Zionist thought. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2252 3 Credits
Judaism and Modernity
Jewish life and thought, self-understanding and survival from the 17th century, enlightenment and emancipation of the Jews of Europe to the present day. The development of Zionism, secularism and Yiddishism, the European Shitetl, the emigration experience and the formation of American Judaism, Orthodox, Conservative, Reform and Reconstructionist; reactions to the Holocaust; ideologies of the state of Israel, the resurgence of the kabbalah and Judaic approaches to medical ethics. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2253 3 Credits
The Search for Meaning: Religious Responses
Examination of the religious thought of two Jewish and two Christian 20th-century figures. Through an analysis of the writings of Elie Wiesel, Abraham Heschel, Dorothy Day and Dietrich Bonhoeffer, the student will explore structures of religious experience in two monotheistic traditions. Special attention will be paid to the roles of religious ways of knowing in the formation of social and political philosophies. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2253 The Search for Meaning: Religious Responses.)

PHIL2254 3 Credits
War and Peace in Christianity, Judaism and Islam
Survey of key aspects of the thought and practice of the three major monotheistic traditions with regard to issues surrounding war and peace. Both scriptural writings and the writings of contemporary religious thinkers will be analyzed. Selected interreligious conflicts in the contemporary period will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2254 War and Peace in Christianity, Judaism and Islam.)

PHIL2256 3 Credits
Fundamentalism in Religious Practice
This course examines the history and philosophy behind fundamentalism and extremes in various sects of Judaism, Christianity and Islam. Students will explore both ancient examples and modern trends in each of the religion's faiths, including Hasidism, Haredi movements in Israel, Jihad, terrorism, missionaries and evangelical movements. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2262 3 Credits
History of Jewish People I
This course will examine the history of the Jewish people from the destruction of the second temple in 70 C.E. through the expulsion of the Jews from Spain in 1942. Topics will include the development of Jewish literature, Maimoedas, Jewish mysticism, Judaism and Christianity, Judaism and Islam. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2252 3 Credits
African American Philosophy
Readings in and discussion of traditional and oral (e.g., sagacity), colonial (e.g., negritude) and postcolonial thought from Africa and about Africa with an emphasis on the contemporary. Consideration of a variety of philosophical subjects but especially aesthetics and sociopolitical thought. Exploration of the quandaries raised about the meaning of “African” and of “philosophy.” Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL2259 3 Credits
Radical Political Thought
This course explores major currents of political radicalism both within and outside of the dominant Western political tradition. Topics considered include antidualic radicalism, democratic radicalism, Marxist radicalism, radical feminism, radical individualism and postcolonial radicalism. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2439 Radical Political Thought.)

PHIL2240 3 Credits
Human Rights
The course examines several major themes and problems in contemporary human rights, including the meaning of human rights, its origins, philosophical justifications and its enabling documents. It also will discuss current philosophical debates arising from cultural relativism, religious claims and the assertion of group rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2440 Human Rights.)

PHIL2243 3 Credits
African-American Political Thought
This course explores the contributions of African-American political thinkers to the development of American political thought in general, considers the tensions and conflicts within African-American political thought and explores the significance of these thinkers to the understanding of contemporary race relations. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2443 African-American Political Thought.)

PHIL2244 3 Credits
Technology and Its Critics
Modern technologies have aroused both intense admiration and violent opposition. This course
will provide an analysis of some of the issues raised by critics of modern technology such as Aldous Huxley, Lewis Mumford and Neil Postman. This course meets exclusively online. FDU NetID (formerly Webmail) account required. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2444 Technology and Its Critics.)

PHIL2445
3 Credits
Democracy in America
This course explores the theory and practice of American democracy from the 19th century to the present day through a mixture of philosophical, historical, literary and social scientific readings and a variety of documentary and Hollywood films. Questions include: What are the theoretical foundations of American democracy? How does the practice of democracy in America deviate from these foundations? How has American democracy evolved? Why do so many Americans appear to hate politics? How should democratic citizens be educated? Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2445 Democracy in America.)

PHIL2446
3 Credits
Religion and Human Rights
This course will survey contemporary issues in the relationship between religion and human rights. Among the topics examined will be the values in various religious traditions, in particular Hinduism, Judaism, Christianity and Islam, which may underlie the protection of human rights. The course will also look at the persecution of religious minorities in today's world, the role of religion in suppressing human rights and how religion has served, in various instances, to champion human rights. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2446 Religion and Human Rights.)

PHIL2448
3 Credits
Comparative Religions
A study of the great religions of the world, with emphasis on how they affect events in the world today. The course explores components and meanings of Hinduism, Buddhism, Confucianism, Taoism, the theistic Western religions (Judaism, Christianity, Islam) and some less common religions. Subjects to be covered include religious ideas and institutions, cosmologies, systems of meaning and salvation. Extensive material on the web will be assigned. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2448 Comparative Religions.)

PHIL2450
3 Credits
History and Methods of Science
An interdisciplinary survey of the history of Western science from its roots in the ancient Greek natural philosophy up to the present time. Although the course will cover topics in the philosophy and history of all the sciences, emphasis will be placed on methodological developments. Prerequisite: ENWR1002 Composition II: Research and Argument. ( Equivalent to HUMN2450 History and Methods of Science.)

PHIL2452
3 Credits
Ancient Political Thought
This course examines some of the foundational, political and social ideas of Western and Eastern civilization in historical context and comparative perspective. Topics include the origins of democracy, the degeneration of the ancient polity and the rebirth of the ancient conception of politics during the Renaissance. Readings encompass history, philosophy and literature, including selections from Confucius, Thucydides, Plato, Aristotle, Aristophanes, Cicero, Livy and Machiavelli. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2452 Ancient Political Thought.)

PHIL2545
3 Credits
The American Mind
This course explores some of the main sources of American social and political thought from the 18th century to the present, with particular emphasis on the relationship between democratic and individualistic principles. It also will investigate other major themes and problems in American social and political thought, including federalism, individualism, democracy, citizenship, American nationalism, etc. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2545 The American Mind.)

PHIL3300
3 Credits
Business Ethics
Primarily designed for the major in business, with emphasis on ethical problems confronting today's personnel in the marketplace. A brief history of the moralities underlying business; techniques in solving ethical dilemmas; some theory of the relationship between self-interest and community concerns. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL3301
3 Credits
Philosophy of Science
Theories of scientific meaning, deductive proof theory, formal systems, causal explanation, probability theory. Theory of evidence and concept formation in the natural sciences. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL3302
3 Credits
Symbolic Logic
Sentential and predicate logics: syntax, semantics and metalogic. Undecidability and incompleteness theorems for arithmetic. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL3307
3 Credits
Slavery and Global Ethics
This course will analyze 17th- and 18th-century fictional and nonfictional representations of race and enslavement in tandem with the rise of Enlightenment political and ethical philosophy. Students will read texts by authors from North and South America, Europe and West Africa, each predicting economic and ethical consequences of the rise of the global economy. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3307 Slavery and Global Ethics.)

PHIL3310
3 Credits
Human Perspectives in a Computerized Society
An examination of the ethical, social and economic implications of computer technology as it challenges traditional values and man's image of himself. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL3311
3 Credits
The Ethics of Food
This course examines the ethical dimensions of food production and consumption and explores contemporary food issues including vegetarianism, animal rights, global food security and sustainability, poverty and hunger, the industrialization of food production, biotechnology and genetic engineering. Students will apply ethical theories to cases on food ethics. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL3316
3 Credits
Plato
Lecture and seminar in Plato's Dialogues designed to train the student in the interpretation of Platonic texts and in metaphysical argumentation. Emphasis on metaphysics, theory of knowledge and philosophy of mind and their relations to ethics, politics and speculative psychology. For upper-division students only. Prerequisite: ENWR1002 Composition II: Research and Argument.
PHIL3317
3 Credits
Theory of Knowledge
Nature, extent and forms of human knowledge. The roles of sense-perception and reason. The nature of truth and reality. Examination of various forms of skepticism. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL3318
3 Credits
Existentialism
Introduction to the study of human consciousness through the philosophical and literary works of existential thinkers such as Kierkegaard, Nietzsche, Heidegger, Jaspers, Marcel, Camus, Sartre, Merleau-Ponty and Tillich. Prerequisite: ENWR1002 Composition II: Research and Argument.

PHIL3319
3 Credits
The Holocaust: Philosophical Issues
A study of the Holocaust through the use of philosophical and religious essays, historical accounts, memoirs, novels, short stories and plays. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3319 The Holocaust: Philosophical Issues.)

PHIL4510
3 Credits
Modern Political Thought
This course introduces students to recurring themes and major problems of modern political and social thought. These include the nature and significance of politics, the meaning of freedom, the value of citizenship, the nature of legitimate authority, the connection between religion and politics, the nature of individual rights, the distinctness between nationalism and patriotism and the connection between economic and political life. Particular emphasis will be given to the retrieval of classical political ideas by modern thinkers and the development of distinctly modern political ideas. The course is organized more or less chronologically so these themes can be examined historically as well as theoretically. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4310 Modern Political Thought.)

PHIL4432
3 Credits
Gandhi: His Life, Philosophy and Legacy
An examination of Gandhi’s life and work as the leader of India’s freedom movement. A critical evaluation of his philosophy and techniques of nonviolent protest, as well as his impact on leaders such as Martin Luther King, Jr., Nelson Mandela and others. The relevance of Gandhi’s ideas in the contemporary world will be discussed. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4432 Gandhi: His Life, Philosophy and Legacy.)

PHIL4438
3 Credits
Ethics and Public Affairs
Does morality matter for politics? Or is power the only thing that really counts? This course explores the nature and validity of arguments for contemporary public policy issues such as abortion, capital punishment, racial profiling and the rules of war. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4438 Ethics and Public Affairs.)

PHIL4439
3 Credits
Questioning Religion
Discussion of readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore issues of doubt and faith, reason and religion, for and against the major religious traditions and in people’s own lives. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4439 Questioning Religion and RELI4439 Questioning Religion.)

PHIL4800
1–3 Credits Each Semester
Independent Study in Philosophy
Independent study under the direction of a specific faculty member after consultation with the school director.

PHED1125
1 Credit
Karate
Koekian Karate, the art of empty-hand defense. Exercise for the development of firm, flexible muscles, weight control and overall coordination. Instructors are members of the All Japan Karate-Do Federation and the Amateur Athletic Union (A.A.U.).

PHED1153
1 Credit
Personal Fitness
Basic knowledge of exercise and diet in relation to weight control and development of various areas of the body. Games, jogging and universal gym facility used to develop fitness levels. Spring

PHED1157
1 Credit
Yoga
Hatha Yoga as a means of achieving a healthy body and inner tranquillity. The understanding and practice of relaxation, controlled breathing techniques and yoga postures (asanas). Fall, Spring

PHED1167
1 Credit
Weight Training
Use of nautilus machines and dumbbells for strengthening and toning major muscle groups. Fall

PHED1180
1 Credit
Stress Management
Students will identify the sources and symptoms of stress in their lives and be responsible for developing their own personalized stress-management programs. Topics covered include exercise, nutrition, time management, relaxation techniques and assertiveness. Students will utilize the resources available in the Wellness Center Stress Lab to help them identify and achieve health-enhancing lifestyle goals. Fall

PHED1422
1 Credit
Current Topics in Nutrition
This course will cover principles of applied nutrition as well as explore currently “hot” topics related to nutrition and health. Topics to be covered include, but are not limited to the following: role of macronutrients, including proteins, carbohydrates, fat, vitamins and mineral water; nutrition for optimal physical and mental performance; weight control: myth vs. reality; and nutritional supplements and assessment of the validity of health and nutrition information. Fall

PHED2422
3 Credits
Health and Nutrition
The importance of well-being as it relates to nutrition and health. The course will go into detail on topics of the body’s major fuel sources and how exercise contributes to the healthy person. This class will include lecture and laboratories. Spring
Course Descriptions

Physics • Political Science

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

PHED4436
2 Credits
CPR and Emergency First Aid
This course teaches the student the knowledge and practical skills needed to respond to various emergencies: burns, wounds, respiratory and cardiac problems, broken bones, poisoning, etc. Certification upon successful completion of course.

PHED4800
1–3 Credits
Independent Study in Physical Education
Independent work on a specific problem relating to a lifetime sport, dance or physical skill. The problem, activity and solution must be approved by the coordinator. Prerequisites: completion of a beginning-level course and/or permission of the coordinator. Fall, Spring

Physics

School of Natural Sciences

PHYS1114
3 Credits
Lecture 2 hours; Laboratory 2 hours
Physics for Radiography
After a brief discussion of concepts from mechanics and thermodynamics needed in radiography, the course will focus on electromagnetism, atomic structure, ionizing radiation, electric circuits, the x-ray tube, etc.

PHYS1125, PHYS1025
3 Credits
Lecture 2 hours; Laboratory 2 hours
Astronomy
Orbital motion, telescopes, stellar astronomy, celestial coordinates, the solar system and its evolution, types of stars, galaxies and the universe. Prerequisites: elementary algebra and geometry.

PHYS1126, PHYS1026
3 Credits
Lecture 2 hours; Laboratory 2 hours
Earth Physics
A laboratory science elective intended for liberal arts students, life science and non-science majors. Can be taken before or after PHYS1125, PHYS1025 Astronomy or GEOL1101, GEOL1111 Introductory Geology. A topical treatment, not highly mathematical. The origin of the earth as a member of the solar system, composition and internal structure of the earth, geophysics, the hydrosphere, the atmosphere, physical oceanography and the related question of natural and artificial pollutants.

PHYS2101
3 Credits
Lecture 3 hours
General Physics I
The first semester of a survey of physics: mechanics, heat, sound, optics. A quantitative, noncalculus treatment. For engineering technology students only. Prerequisites: intermediate algebra and trigonometry. Corequisite: PHYS2201 Physics Laboratory I.

PHYS2102
3 Credits
Lecture 3 hours
General Physics II
The second semester of a survey of physics: electricity, magnetism, waves, light, modern physics. A quantitative noncalculus treatment. For engineering technology students only. Not for science majors. Prerequisite: a grade of C- or better in PHYS2101 General Physics I. Corequisite: PHYS2202 Physics Laboratory II.

PHYS2201
1 Credit
Lecture 3 hours
Physics Laboratory I
Experiments from mechanics, heat, sound and fluids. Measurement and data analysis. Corequisite: PHYS2101 General Physics I or PHYS2203 University Physics I.

PHYS2202
1 Credit
Lecture 3 hours
Physics Laboratory II
Experiments from electricity, magnetism, circuits, waves, optics, light, modern physics. Measurement and data analysis. Corequisite: PHYS2102 General Physics II or PHYS2204 University Physics II.

PHYS2203
3 Credits
Laboratory 4 hours
University Physics I
The first half of a two-semester, calculus-based physics course for science and engineering majors. Topics normally covered include: units and dimensions, forces and motion in one and two dimensions, vectors, momentum and center of mass, work, kinetic energy and the work-energy theorem, potential energy and the conservation of energy, rotation and moment of inertia, torque and angular momentum, gravitation, oscillations, elasticity, fluids, kinetic theory of gases, thermodynamics. Corequisite: MATH2101 Calculus I and PHYS2201 Physics Laboratory I.

PHYS2204
3 Credits
Lecture 4 hours
University Physics II
The second half of a two-semester, calculus-based physics course. Topics normally covered include: waves and sound, geometrical and physical optics, electrical forces and fields, electric potential, current and resistance, circuits, capacitance, magnetic forces and fields, force on a moving charge, magnetic field of a current, electromagnetic induction, electromagnetic oscillations and waves, alternating currents, special relativity, quantization and modern physics. Prerequisite: a grade of C- or higher in PHYS2203 University Physics I. Corequisite: PHYS2202 Physics Laboratory II.

PHYS3205
3 Credits
Lecture 3 hours
Modern Physics
The optional third semester of a calculus-based physics sequence for science and engineering majors. Topics normally include special relativity, end of classical physics, photons and quantization, wave functions and uncertainty, one-dimensional quantum mechanics, atomic physics, nuclear physics and elementary particles. Prerequisites: MATH2202 Calculus II and PHYS2204 University Physics II.

PHYS4430
1–3 Credits Each Semester
Selected Studies in Physics
Studies in special areas of current interest to physics.

PHYS4800
1–3 Credits Each Semester
Independent Study in Physics
Independent study under the direction of a specific faculty member with approval of the school director.

Political Science

School of Criminal Justice, Political Science and International Studies

POLS1101
3 Credits
Introduction to Political Science
The basic concepts of the discipline, its schools of thought, its subfields and terminologies.

POLS1102
3 Credits
Geography and World Issues
This course investigates the linkage among geographical factors, political process and economic systems. This class will focus on that relationship as it impacts the political, economic and human environment of this diverse geopolitical world.

*Open to Vancouver Campus students only.
POL S2010
3 Credits
Nationalism and Ethnic Violence
This course provides students with a broad overview of the major theories of nationalism, paying particular attention to ethnic violence and conflict. Emphasis is on the critical evaluation of different theories of both nationalism and ethnic conflict, with case studies illustrating the competing theories.

POL S2204
3 Credits
International Relations
The state system and the basic principles regulating international relations; power and use and threat of force; nationalism, imperialism; diplomacy, the transnational economy, international law and organization.

POL S2205
3 Credits
Comparative Legal Systems
Comparisons and contrasts of the Anglo-American and major European legal traditions.

POL S2206
3 Credits
American Minority Politics
The course will examine the goals and political strategies of women, blacks and Hispanics. It will consider the influence of political participation (voting and protests) and office holding (appointed and elected) on public policies which benefit specific minorities. The course will focus on minority politics from the 1960s to today.

POL S2211
3 Credits
International Organization
Origin and development of international organizations: the League of Nations, United Nations, regional organizations.

POL S2212
3 Credits
International Law
Development and principles of international law, nature of diplomatic relationship, international agreements, jurisdiction over persons and property, tariff and shipping relations, arbitration of disputes; operations of international institutions.

POL S2219
3 Credits
Global Scholars Seminar in Political Studies
Should global interests precede national interests? What goals should states pursue? Are states obsolete? Will soft power compete with military power? Is the clash of civilizations prediction or unfolding of reality? The competency measure of the seminar is a field experience that examines the impact of perception on political and social construction of images in the 21st century.

POL S2231
3 Credits
Comparative Government and Politics
Comparison of the development and functions of governmental institutions of selected modern political systems.

POL S2232
3 Credits
Political Thought and Theory
Evolution of political ideas and institutions from antiquity to modern times, and their interrelationship with the societal environment.

POL S2234
3 Credits
Political Geography
Concepts basic to political geography. Elements of state/geographical characteristics: core, domain, boundaries, pressure points, location, climate, raw materials. Relation of political organization to people and culture. Nature and limitations of sovereignty.

POL S2251
3 Credits
Foreign Policy of the United States
Constitutional and political factors that determine the formulation, execution and substance of American foreign policy.

POL S2253
3 Credits
American Government
Federalism, with emphasis on the national government, politics and the relation of the individual to the central government.

POL S2254
3 Credits
Public Policy
This course is issue-oriented and focuses on substantive issues of public policy that significantly affect the life of every American.

POL S2606
3 Credits
Ethics and Politics
This course is concerned with ethical issues in modern politics, both national and global. Ethical questions and dilemmas such as the use of violence, government secrecy, deception, civil disobedience, public good, corruption, ethics, activist politics and justice are among the possible topics for discussion.

POL S3010
3 Credits
Nationalism and the Modern State
Focuses on the nature, causes and consequences of national identity as a collective phenomenon and the manifestation of nationalism as a form of politics.

POL S3011
3 Credits
Human Rights in Global Environment
Introduction to the developing systems, laws and norms for the promotion and protection of human rights in the world today. Understanding legal, political and economic aspects of human rights. The course will discuss ideological and cultural perspectives, sources of violations, women's rights and the role of nongovernmental organizations.

POL S3201
3 Credits
Developing a Sustainability Mindset in a Globalized World
Developing a sustainability mindset through project-based action exercises utilizing the United Nations Sustainable Development Goals (UNSDG) platform. The course will introduce three perspectives of sustainability mindset: systems perspective, innovative thinking and being orientation. Students will select one UNSDG and develop a project-based plan of action to achieve specific targets to make a difference in a globalized world.

POL S3202
3 Credits
United Nations: Institutions and Global Governance
The course provides students with an in-depth understanding of the United Nations core institutions and policies, engagements in problem solving and challenges in international civil order and global governance in historical and contemporary contexts. The course has two components: it combines class lecture and discussion, individual research and group work, with participatory weekly onsite visits to the United Nations.

POL S3311
3 Credits
The American Presidency
The role of great presidents in the expansion of presidential power.

POL S3312
3 Credits
The American Congress
The organization and procedures of Congress.

POL S3313
3 Credits
Problems in International Politics
Identification and analysis of significant current problems in the international arena.

POL S3324
3 Credits
American Minority Groups
The major American racial, ethnic and religious groups, their historical development, adjustment, assimilation, contemporary problems and trends.
Course Descriptions

Political Science

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

POLS3327 3 Credits
Civil Rights and Liberties
The development and present status of rights and liberties in religion, politics, association, speech, the press and assembly, the rights of minorities and women.

POLS3331 3 Credits
American Political Thought
The main theme of this course will be the American dream, versions of which permeate American political thought. To capture something of the richness and diversity of American political thought with reference to this theme, short selections representative of major American political and social movements, including the abolitionist movement, the women’s rights movement, etc., will be read. The course is organized roughly chronologically, so themes and movements may be examined historically as well as conceptually.

POLS3334 3 Credits
The Soviet Union and Russia
The events and results that ended the rule of the superpower. The current role of Russia in international affairs.

POLS3338 3 Credits
India and Its Neighbors
Survey of institutional structures of, and relations among, the South Asian countries including India, Pakistan, Nepal, Bhutan, Bangladesh and Myanmar.

POLS3345 3 Credits
Modern Ideologies
Ideologies of modern times including Liberalism, Nationalism, Democratic Socialism, Marxism and Nazism, and the new ideologies of the Third World.

POLS3349 3 Credits
African-American Politics
Discusses the impact of the African-American voter on U.S. politics since the Reconstruction period. Emphasizes the modern period and the growth of political organizations.

POLS3352 3 Credits
Government and Politics of the Third World
Patterns of political development of selected nations of the Third World.

POLS3354 3 Credits
Political Parties and Pressure Groups
Organization and operation of political parties in the United States.

POLS3355 3 Credits
American Constitutional Law I
Basic issues and cases in American constitutional law, with emphasis on the role of the Supreme Court; political and theoretical contributions of the Court to American development.

POLS3356 3 Credits
American Constitutional Law II
Basic issues and cases in American constitutional law, with emphasis on the Supreme Court and current decisions.

POLS3361 3 Credits
Politics of East Asia I
Historical and political development of East Asia, with emphasis on China and Korea.

POLS3362 3 Credits
Politics of East Asia II
The history and political development of East Asia, with emphasis on Japan, Indochina and Indonesia.

POLS3363 3 Credits
Middle East Politics
Political, social and economic development of Middle Eastern states.

POLS3364 3 Credits
Latin America in World Affairs I
Colonial and early national periods of the selected nations of the Caribbean, Central and South America with emphasis on political development (1700–1900).

POLS3365 3 Credits
Latin America in World Affairs II
The recent history and policies of selected Latin-American nations with emphasis on current U.S. relations (1900–present).

POLS3367 3 Credits
Africa in World Affairs I
Early African civilizations and examination of the history of major regions of Africa since World War II. Selected problem areas affecting Africa’s relations with the U.S. and the world.

POLS3368 3 Credits
Africa in World Affairs II
Examination of the development of major regions of Africa since World War II. Selected problem areas affecting Africa’s relations with the U.S. and the world.

POLS3370 3 Credits
Globalization and World Citizenship
This course examines the impact of globalization and the case for world citizenship. Students will study the elements of globalization and the evolving networks that transcend the nation-state. They also will explore the foundation for world citizenship and the potential rights, responsibilities and opportunities belonging to world citizens.

POLS4320 3 Credits
Politics and the Global Economy
Studies the relationship between political events and economic actions on the international economy.

POLS4340 3 Credits
Women’s America
This course focuses on the role of women in the American political system from colonial times to the present. It focuses on their participation, nonparticipation and successes over the years. Political analysis will be the prime methodology.

POLS4341 3 Credits
Political Leadership and Changing International Order
A comparative study of contemporary political leadership using the state-civil society dichotomy as the framework. The competency measure is a travel-abroad field experience.

POLS4345 1–3 Credits Each Semester
Selected Studies in Political Science
Studies in an area of political science for which no formal course is offered.

POLS4430 3 Credits
Politics of the Environment
The course analyzes the roles of national and international governments, groups and social movements on environmental issues and policies. Moral and ethical issues as well as interpreting “facts” will be discussed.
POLS4460
3 Credits
New Europe
The study of the state system in Europe and its Europeanization in transitional cooperation and integration. The impact of global and regional issues of conflict.

POLS4462
3 Credits
Terrorism and Political Violence
This course will examine the overall scope of contemporary terrorism and political violence. It will study the causes and impact of terrorism on contemporary politics. It will also examine the changing political landscape after September 11, 2001.

POLS4463
3 Credits
Political and Economic Challenges in Africa
This course examines contemporary issues in Africa. Emphasizing trends in political and economic developments, the focus will include, among others, an examination of human-rights trends across the continent, the impact of globalization, environmental issues, sustainable development, conflict resolution and health issues.

POLS4511
3 Credits
U.N. and Human Security
Analysis of the United Nation's approach, involvement, success and failures in the arena of human security.

POLS4600
3 Credits
Political Science Seminar
To research and write a culminating project that reflects the students' knowledge and understanding of the discipline.

POLS4800
1–3 Credits Each Semester
Independent Study in Political Science
Independent study under the direction of a specific faculty member after consultation with the school director. Limited to a total of 6 credits.

POLS4875
Variable Credits
Honors in Political Science
Independent study in political science for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

Psychology

School of Psychology

PSYC1103
3 Credits
General Psychology
A survey of topics including, but not limited to, research methods, brain and behavior, motivation, consciousness, development, sensation and perception, learning, memory and cognition, emotions, personality, social psychology and psychological disorders.

PSYC1125
3 Credits
Introduction to Social Service Advocacy
This course introduces students to the fundamental concepts and theories of social service advocacy and social work and explores the practical implication of these on organizations, communities, groups, families and individuals (the client). The course is centered on three major components of social-work practice: 1) inequality and social justice, 2) social welfare policy and 3) social practice methods. The course will also explore human behavior and development as well as needs and services within the legal and organizational context of the discipline. (Equivalent to CRIM1125 Introduction to Social Service Advocacy.)

PSYC2126
3 Credits
The Interview
Interviewing principles and techniques, with emphasis on the information-gathering interview used in educational, industrial and clinical settings. Recommended for students in education, personnel management, psychology and social work. Prerequisite: PSYC1103 General Psychology.

PSYC2201
3 Credits
Statistics
Statistical concepts and procedures, with emphasis on descriptive statistics and an introduction to inferential statistics. Relevance to behavioral sciences.

PSYC2204
3 Credits
Child Development
Growth and development of children in terms of sensorimotor, intellectual and social behavior. Scientific findings and theoretical viewpoints presented with implications concerning the child for the family, school and community. Prerequisite: PSYC1103 General Psychology.

PSYC2254
3 Credits
Social Psychology
Representative theories and selected problems concerning determinants of social behavior. Socialization, attitude structure and change, social norms, prejudice, leadership and group dynamics. Prerequisite: PSYC1103 General Psychology.

PSYC2255
3 Credits
Positive Psychology
Introduction to the scientific basis and principles of positive psychology. Exploration of how the field of positive psychology offers the possibility of prevention of serious mental illness. Courage, optimism, interpersonal skill, work ethic, hope, responsibility, future-mindedness, honesty and perseverance are all examined, as are the practice of civic virtue and the pursuit of the best things in life.

PSYC3100
3 Credits
Psychology of Belief
This class looks at why people believe what they believe. The course will touch on a wide range of supernatural or unexplainable phenomena such as magic, ghosts, astrology, psychic abilities, parapsychology and religious belief. It will examine different types of belief and what causes a person to believe. This highly interactive class emphasizes critical thinking and skeptical inquiry.

PSYC3202
3 Credits
Experimental Psychology
Introduction to methods of scientific experimentation in psychology by means of laboratory experiments, studies of problems in the design of experiments and the analysis of data as reported in the experimental literature. Reports of experiments will be required. Prerequisite: PSYC2201 Statistics.

PSYC3301
3 Credits
Drugs and Behavior
Therapeutic and recreational use of psychoactive drugs, including alcohol, nicotine and caffeine. Emphasis on modes of action, behavioral effects and psychological aspects of tolerance and dependence.

PSYC3304
3 Credits
Psychometrics
Theory and practice of psychological testing and basic principles of psychometrics, including a critical survey of representative tests of aptitude, ability, interest, attitudes and personality.
Course Descriptions

Psychology

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

PSYC3305
3 Credits
Adolescent Growth and Development
Factors contributing to adolescent mental health, behavior and adjustment are covered. Developmental characteristics, the impact of culture as well as intra- and interpersonal issues are integrated into the understanding of adolescent functioning. Risk factors particularly associated with juvenile delinquency and conduct disorder are emphasized, examining etiology, prevention and treatment. Prerequisite: PSYC110 General Psychology.

PSYC3306
3 Credits
Psychology of Aging
The geriatric years, with emphasis on causes of aging, personality, sexuality, sensation and perception, psychopathology, intelligence and memory. Prerequisite: PSYC110 General Psychology.

PSYC3307
3 Credits
Human Sexuality
Application and discussion of psychological and biological issues related to sexual anatomy, physiology of the sexual response, sexually transmitted diseases, homosexual and bisexual patterns, unconventional sexual behavior and sexual coercion and exploitation. Application of human sexuality issues to the law and legal issues will be covered with particular emphasis on the psychology of the sex offender.

PSYC3308
3 Credits
Educational Psychology
Application of psychological theory to formal and informal practices, with emphasis on the role of the person guiding someone else's learning. Theories and principles of learning, motivation, measurement of behavior and emotional adjustment. Prerequisite: PSYC110 General Psychology.

PSYC3311
3 Credits
Psychology of Love and Interpersonal Relations
Psychological aspects of the role of love and attachment in human relationships. Topics addressed include phenomenology and historical evolution of love styles, the function of love, attraction and initiation of love relationships and marriage.

PSYC3315
3 Credits
Abnormal Psychology
Science of psychopathology. Descriptive study of syndromes and etiology of the major behavior disorders, anxiety-related disorders, stress-based disorders, sociopathies and mental deficiencies. Prerequisite: PSYC110 General Psychology.

PSYC3317
3 Credits
Psychology and the Law

PSYC3319
3 Credits
The World of the Psychopath
This course will provide students with a broad overview on psychopathy focusing on key elements of this "condition" and dismissing myths associated with it.

PSYC3325
3 Credits
Psychology of Women
Various theories of the psychology of women contrasted with recent research findings about sex differences.

PSYC3330
3 Credits
Health Psychology
Examination of psychological factors that affect how people stay healthy and how and why they become ill. Specific topics to be addressed include the mind-body relationship, stress and coping, pain, cardiovascular disorders, psychoimmunology, eating disorders and substance abuse. Prerequisite: PSYC110 General Psychology.

PSYC3332
3 Credits
The Psychology of Religion
Influence of religion on personality and behavior. Religious beliefs, feelings, effects, self-actualization and neurosis.

PSYC3338
3 Credits
Cognitive Processes
This course will present in-depth treatments of many topics in cognitive psychology, with some attention paid to cognitive neuroscience. Each day, a person performs a number of cognitive tasks, such as remembering how to get to school, recognizing a friend's face in a crowd, deciding where to eat lunch and what to eat and deciding when to go to sleep at night. In this course, students will begin by exploring lower-level processes (e.g. perception) and proceed to higher-level processes (e.g. reasoning). Prerequisite: PSYC110 General Psychology.

PSYC3339
3 Credits
Psychology of Prejudice and Intergroup Relations
This course examines classic (e.g. the Authoritarian Personality) and contemporary (e.g. Implicit Bias) understandings of prejudice and its relationship to intergroup relations, stereotyping and discrimination. The course will also include discussion of social psychological interventions aimed at reducing prejudice, as well as the policy implications of such interventions. Prerequisite: PSYC110 General Psychology.

PSYC3359
3 Credits
Sport Psychology
An introduction to the role of psychology in sports. Major issues addressed include the scientific basis of sport psychology, arousal/anxiety and clinical interventions, cognitive processes in sport behavior, aggression and group performance and coaching behavior.

PSYC3365
3 Credits
Psychology of Creativity
The aim of this course is to demystify the process of creative thinking, survey the major theories of creativity and explore the lives of several highly creative individuals using the case-study method. Creative achievements in the arts and sciences will be reviewed as well as innovations in industry.

PSYC3370
3 Credits
Psychology of Men
The psychological development of men, gender-role conflict, men's health, men in families, roles and identities, sexual orientation, the men's movement, ethnocultural factors and alexithymia. Incorporation of theory and empirical evidence.

PSYC3381
3–4 Credits
Field Placement
Supervised experience in community agencies for a minimum of 60 hours, plus a weekly one- and-a-half-hour seminar. Integration of psychological theory and practical applications. Recommended for juniors and seniors. Admission by permission of the instructor. Prerequisite: PSYC110 General Psychology.

PSYC3384
3 Credits
Theories of Personality
Major approaches to personality theory, with emphasis on empirical studies in context of the various theories. Prerequisite: PSYC110 General Psychology.
PSYC3393
3 Credits
**Child Behavior Disorders**
Etiological and developmental aspects of abnormal behavior in children; biological, cultural and psychological influences of a wide range of childhood behavior disorders (e.g., schizophrenia, autism, mental retardation, anxiety disorders). Prerequisite: PSYC3315 Abnormal Psychology.

PSYC3394
3 Credits
**Disorders of Addiction**
Disorders of addiction such as alcohol and other drug abuse, smoking, eating and compulsive gambling are discussed in depth. Emphasis is placed on theory, epidemiology, symptomatology, course, assessment and treatment. Prerequisite: PSYC3315 Abnormal Psychology.

PSYC3421
3 Credits
**Psychology of Criminal Behavior**
The psychological bases and dynamics of criminal behavior. Use of cases from the forensic psychology literature to illustrate various theoretical and explanatory aspects of criminal behavior. Emphasis on the relationships between various psychopathological conditions, personality disorders and criminal and antisocial behavior. Prerequisite: PSYC3315 Abnormal Psychology.

PSYC3800
1–3 Credits Each Semester
**Junior Independent Study in Psychology**
Independent study under the direction of a specific faculty member after consultation with the school director.

PSYC3900
3 Credits
**Psychology of Emerging Adulthood**
Emerging adulthood or those years between adolescence and adulthood are important to the development of a productive adult life. Normative and non-normative issues, clinical implications as well as prevention strategies and evidence-based early interventions are discussed. Prerequisites: PSYC1103 General Psychology and PSYC2204 Child Development.

PSYC4309
3 Credits
**Advanced Social Psychology**
This course reviews social psychological theory and research techniques that are relevant to problems in applied settings (e.g., the legal system, business and industry, community and mental health). Topics include, but are not limited to, attitude formation, attitude change, prejudice and discrimination, altruism and attribution theory. Prerequisite: PSYC2234 Social Psychology.

PSYC4376
3 Credits
**Advanced Abnormal Psychology**
Considers the more debilitating disorders and reviews various psychopathologies in depth. Discussion of psychotherapeutic and somatic approaches. Prerequisite: PSYC3315 Abnormal Psychology.

PSYC4377
3 Credits
**Physiological Psychology**
Relationship between aspects of behavior and physiology. Basic neuroanatomy; neurophysiology; and the effects upon behavior of drugs, cortical lesions and internal secretions. Prerequisites: PSYC1103 General Psychology and 3 additional credits in psychology.

PSYC4391
3 Credits
**Techniques of Psychotherapy**
Techniques used by several schools of psychotherapy and research in the field. Application of behavioral principles to behavior and relationship variables in therapy. Prerequisite: PSYC1103 General Psychology or either PSYC3315 Abnormal Psychology or PSYC3384 Theories of Personality.

PSYC4398
3 Credits
**Computer Applications for Data Analysis**
This course will cover the usage of SPSS statistical software and related programs (e.g., Excel) for data management, analysis and graphing. Emphasis will be placed on using graphical interface of SPSS software, but program syntax for various applications also will be covered. This course will also cover scientific report writing (e.g., summarizing SPSS output) with emphasis placed on APA style.

PSYC4498
3 Credits
**Internship in Psychology**
Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills.

PSYC4499
3 Credits
**Co-op Education in Psychology**
Integration of classroom study with specific planned periods of supervised learning in productive employment experiences. A developmental process designed to combine progressive learning on the job, University course work and career-development skills. Prerequisite: permission of the director of the co-op program.

PSYC4500
3 Credits
**Senior Seminar in Psychology**
A capstone course for psychology majors to both unify and provide a broader context for knowledge about the field of psychology gained throughout the undergraduate years. The course is designed to evaluate critical thinking and to prepare students for their career paths following graduation. Particular emphasis will be placed on helping students explore the connections among themselves, the field of psychology and the rest of the world. Students will be required to write integrative review papers, give oral and poster-format presentations and defend their e-portfolios. Prerequisite: PSYC3202 Experimental Psychology.

PSYC4501
3 Credits
**Advanced Senior Seminar in Psychology**
A capstone course for psychology majors to unify and apply knowledge and skills gained in previous courses. Students will gain an understanding of how to integrate, critically evaluate and apply psychological theory and empirical findings to address problems and topical issues in the behavioral sciences. Heavy emphasis is placed on report writing and oral presentation of research projects. Prerequisites: PSYC2201 Statistics and PSYC3202 Experimental Psychology.

PSYC4800
1–3 Credits Each Semester
**Senior Independent Study in Psychology**
Independent study under the direction of a specific faculty member after consultation with the school director. Limit of 6 credits.

PSYC4875
1–6 Credits
**Honors Psychology**
Independent study in psychology for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

**Graduate Courses**
Graduate courses may be taken by seventh- or eighth-semester students who receive the approval of the school director. Interested students should see the Graduate Studies Bulletin for a list of courses and descriptions.
Radiography

Henry P. Becton School of Nursing and Allied Health

RADT1101
3 Credits
Introduction to Radiography and Protection
This course introduces the student to the diagnostic imaging department and to the health care environment, radiation safety and protection, medical law and ethical practice. Diverse issues related to these topics will be explored. Corequisites: RADT1105 Radiographic Procedures I, RADT1110 Clinical Practicum I, RADT1131 Principles of Radiographic Exposure I and RADT1150 Fundamentals of Patient Care.

RADT1105
4 Credits
Radiographic Procedures I
This is the first course in a series of four courses that are designed to orient the student radiographer to anatomy, positioning, physiology, terminology and imaging procedures of the thorax, abdomen and upper limb. Acceptable practices and principles that are introduced in lecture are reinforced in structured laboratory and clinical practice. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1110 Clinical Practicum I, RADT1131 Principles of Radiographic Exposure I and RADT1150 Fundamentals of Patient Care.

RADT1110
1 Credit
Clinical Practicum I
The first course in a series of eight clinical-education courses that is designed to enable the student to develop those skills that are necessary to perform in the capacity of an entry-level radiographer upon completion of this program. This course serves as an introduction to the medical-imaging career and department. CPR requirements are met this semester. Using the Competency-based Clinical Education model, students will have an opportunity to acquire competency in radiography of the thorax, abdomen and upper limb. Students are afforded 120 hours of experience to meet course objectives and requirements. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1110 Radiographic Procedures I, RADT1131 Principles of Radiographic Exposure I and RADT1150 Fundamentals of Patient Care.

RADT1120
1 Credit
Clinical Practicum II
The second course in a series of eight clinical-education courses and a continuation of RADT1110 Clinical Practicum I. This course will enable students to continue to develop professional and technical skills. Using the Competency-based Clinical Education model, students will have the opportunity to acquire competency in all previously covered imaging studies. Students are required to complete objectives in mobile, surgical, venipuncture and vital signs. Students are afforded 112 hours of experience to meet course objectives and requirements. Prerequisite: RADT1110 Clinical Practicum I.

RADT1130
2 Credits
Clinical Practicum III
The third course in a series of eight clinical-education courses designed to enable progression in the development of entry-level skills as a radiographer. There will be an introduction to contrast media and urographic procedures. Using the Competency-based Clinical Education model, students have the opportunity to acquire competency in all areas previously covered, lower limb radiography and the femora, pelvis and spine. Students are afforded 240 hours of experience to meet course objectives and requirements. Prerequisite: RADT1210 Clinical Practicum II.

RADT1131
3 Credits
Principles of Radiographic Exposure I
This course introduces the student to those principles related to image production and evaluation, as it relates to materials used and physical processes. Topics of this course include film, cassettes, grids, intensifying screens, imaging plates, processing chemistry, radiographic film processing and artifact formation. Students will study the multitude of factors that impact image creation. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1105 Radiographic Procedures I, RADT1110 Clinical Practicum I and RADT1150 Fundamentals of Patient Care.

RADT1135
4 Credits
Radiographic Procedures II
This is the second course in a series of four positioning/procedures designed to introduce the student to basic anatomy, physiology, terminology and imaging procedures of the lower limb and the spinal column. In addition, students will be introduced to basic studies that involve the use of opaque contrast agents. Acceptable practices and principles that are introduced in the lecture are reinforced in structured laboratory and clinical practice. Prerequisite: RADT1105 Radiographic Procedures I. Corequisites: RADT1130 Clinical Practicum III and RADT2251 Advanced Principles of Radiographic Exposure.

RADT1140
4 Credits
Clinical Practicum IV
The fourth course in a series of eight clinical-education courses that is designed to enable a continued progression toward the development of entry-level skills as a radiographer. Using the Competency-based Clinical Education model, students will have an opportunity to acquire competency in those areas previously covered in RADT1105 Radiographic Procedures I and RADT1135 Radiographic Procedures II in addition to contrast-media studies. Students are afforded 560 hours of experience to meet course objectives, requirements and quality-assurance objectives. Prerequisite: RADT1130 Clinical Practicum III.

RADT1150
3 Credits
Fundamentals of Patient Care
This course introduces the student to the skills needed for the management and care of all patient populations while in the clinical environment. Topics of this course include: communication, pharmacology, infection control, sterile technique, isolation, body mechanics, vital signs, venipuncture, contrast-media administration and management of emergency situations. Corequisites: RADT1101 Introduction to Radiography and Protection, RADT1105 Radiographic Procedures I, RADT1110 Clinical Practicum I and RADT1131 Principles of Radiographic Exposure I.

RADT2250
2 Credits
Clinical Practicum V
The fifth course in a series of eight clinical-education courses designed to prepare the student radiographer for entry-level skills development. During this phase in the education process, students will perfect all clinical skills acquired over the course of one year. Using the Competency-based Clinical Education model, students may acquire competency in all previously covered areas, in addition to advanced contrast-media examinations, skull radiography and geriatric and pediatric populations. Students are afforded 240 hours of experience to meet course objectives and requirements. Prerequisite: RADT1140 Clinical Practicum IV. Corequisites: PHYS1114 Physics for Radiography, RADT2252 Radiation Biology and Safety and RADT2255 Radiographic Procedures III.

RADT2251
3 Credits
Advanced Principles of Radiographic Exposure
The focus of this course is the photographic and geometric creation of a radiographic image. The content of this course includes density, contrast, recorded detail and distortion. Mathematical manipulations, technical compensations and application of theory as it relates to clinical prac-
Radiation Biology and Safety

The primary focus of this course is to orient students to various aspects of radiation biology and the protection of human and animal life. Students will explore the effects of radiation on living organisms, including radiobiology, radiation protection principles, and the use of radiation in medical applications. Prerequisite: RD2111 Nutrition and Food Science.

Radiographic Imaging Equipment and Quality Management

This course is a study of diagnostic-imaging equipment and quality-control practices. Topics include diagnostic circuitry, imaging tubes, intensification, body-section radiography, mobile units, and automatic exposure control. Students will perform calculations and modules related to the previously indicated content. Prerequisite: PHYS1114 Physics for Radiography. Corequisites: RD2250 Clinical Practicum V and RD2255 Radiographic Procedures III.

Radiographic Procedures III

This is the third course in a series of four imaging procedures-related courses that is designed to introduce students to complex imaging procedures of the skull, facial, and paranasal sinuses. There will be an intensive reinforcement of anatomy, physiology, and terminology as it relates to the content covered in this course. Acceptable practices and principles that are introduced in this course are reinforced in supported laboratory and clinical practice. Prerequisite: RD2135 Radiographic Procedures II. Corequisites: PHYS1114 Physics for Radiography, RD2250 Clinical Practicum V and RD2252 Radiography Biology and Safety.

Clinical Practicum VII

The seventh course in a series of eight clinical education courses is designed to develop entry-level skills that are needed to enter the profession. Using the competency-based Clinical Education model, students may acquire competency in all previously covered studies, in addition to cases such as “grams.” Students are afforded 240 hours of experience to meet course objectives and requirements. Corequisites: RD2254 Radiographic Imaging Equipment and Quality Management, RD2271 Radiographic Pathology and RD2275 Radiographic Procedures IV.

Radiographic Pathology

The emphasis of this course is the identification of pathologic diseases and conditions that require procedural modification and/or technical compensation that have an effect on patient care and the outcome of radiographic quality. Corequisites: RD2254 Radiographic Imaging Equipment and Quality Management, RD2270 Clinical Practicum VII and RD2275 Radiographic Procedures IV.

Advanced Radiological Science I

This course will provide the student with an overview of physics, cross-sectional anatomy, positioning, instrumentation, and nursing care involved in magnetic resonance imaging. It will focus on the use of computed tomography for imaging the head, neck, abdomen, pelvis, and extremities. Some attention will be devoted to physics, nursing care, contrast administration and cross-sectional anatomy.

Academic Advising and Student Support Services Office

Developmental Reading

Remediation is required for students whose screening test scores indicate they lack reading proficiency. Students requiring remediation must take READ097 Fundamentals of College Reading I as indicated by the Academic Resource Center. This course carries no credit toward graduation.

Fundamentals of College Reading I

Precollege reading. Emphasis on textbook-reading skills, such as surveying, outlining, summarizing, basic reading skills and close-reading techniques.

School of the Humanities

World Religions in America

This course is an exploration of the changing multi-religious landscape of the United States, looking at the history and dynamic interaction of the various religious traditions that now compose the American religious scene, with special emphasis on the religious life of Buddhists, Hindus, Sikhs, Jains and Muslims. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to PHL1105 World Religions in America.)

4 Credits

Advanced Radiological Science I

This course will provide the student with an overview of physics, cross-sectional anatomy, positioning, instrumentation, and nursing care involved in magnetic resonance imaging. It will focus on the use of computed tomography for imaging the head, neck, abdomen, pelvis, and extremities. Some attention will be devoted to physics, nursing care, contrast administration and cross-sectional anatomy.

Advanced Radiological Science II

This course will provide the technologist with the knowledge of quality management applications and data analysis. Emphasis will be on radiographic and mammographic quality control, collection of data and instrumentation. This course of study focuses on mammography (breast imaging), emphasizing routine and special projections of the breast. Imaging equipment and Mammography Quality Standards Act (MQSA) also will be addressed. Prerequisite: RD4002 Advanced Radiological Science I.
REL12107
3 Credits
**One God, Three Paths**
The course will trace the historical development of the three great Western monotheistic faiths, Judaism, Christianity and Islam. What makes this course unique is that it is taught by a rabbi, a priest and an imam, all of whom will share their insights into their faith traditions with the students and with each other. The course also aims to give participants a workshop in a global learning experience that will lead the students not only to greater knowledge, but also to an appreciation for, and commitment to religious diversity in the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

REL12207
3 Credits
**Philosophy of Religion**
God’s existence and attributes, problem of evil, religious truth, religious views of history, myth and language systems, meaning in religion. (Equivalent to PHIL.2207 Philosophy of Religion.)

REL12255
3 Credits
**Person, Gender and Sexuality: Judaism, Christianity and Islam**
This course, an interfaith endeavor taught by professors from the Jewish, Christian and Muslim traditions, will trace the historical development of the meaning and value of person, gender and sexuality in these traditions. Emphasis will be placed on understanding the cultural, historical and theological basis of these terms; the convergences of the meanings of these terms in the three traditions; and the contemporary applicability of these concepts from a global perspective. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN2255 Person, Gender and Sexuality: Judaism, Christianity and Islam.)

REL12273
3 Credits
**The Battle Over the Book**
This course will introduce students to the various interpretative patterns used by the People of the Book over the ages. Specifically, the course will examine the historical patterns of interpreting the sacred texts of Judaism, Christianity and Islam. It will emphasize the rich diversity in interpretations, as well as the unrelenting efforts to preserve fidelity to the traditions. Finally, the course will focus on helping students understand how these patterns had an impact on and continue to impact the state of affairs of the world. Prerequisite: ENWR1002 Composition II: Research and Argument.

REL13316
3 Credits
**Babylon the Great: Culture, Religion and Conflict in Iraq**
This course is an introduction to the cultural and religious history of Iraq beginning in the fourth millennium BCE and continuing through the present day. Topics will include the invention of writing, the origin of cities, Mesopotamian law and religion, the Epic of Gilgamesh, the rise of Islam, cultural continuities in the Middle East and the legacy of the ancient Near East in western civilization. Students will engage in a variety of methodological approaches in the humanities as they learn of the rich cultural and religious heritage of Iraq and consider important questions about its future. FDU NetID (formerly Webmail) account required. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3316 Babylon the Great: Culture, Religion and Conflict in Iraq.)

REL13317
3 Credits
**Ancient Egypt: Mummies/Myth/Magic**
This course provides an introduction to the religion, history, society and culture of ancient Egypt, which was one of the most sophisticated and long-lived civilizations in world history. Special attention will be given to funerary literature and religion, cults, magic and ritual, religious art and architecture, the sacred writing system and the religion of daily life. (Equivalent to HUMN3317 Ancient Egypt: Mummies/Myth/Magic.)

REL13321
3 Credits
**The Book of Job and Its Interpreters**
This course will examine the Biblical book of Job as a work of literature and religious thought and will develop the analysis historically in comparison with ancient Near Eastern, classical, medieval and modern philosophical discussions and theological commentaries of the Joban tradition. In this class, students will wrestle with such themes as theodicy, piety, evil, suffering and the nature of the divine-human experience. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3321 The Book of Job and Its Interpreters.)

REL13323
3 Credits
**The Ethics of Jesus**
A study of the ethical teachings of Jesus through an analysis of the Sermon on the Mount. The philosophy of Dietrich Bonhoeffer will assist in this study. Ethical case studies from business, health care and foreign and domestic policy will be introduced. Prerequisite: ENWR1002 Composition II: Research and Argument.

REL13324
3 Credits
**Islamic Religion — Past and Present**
The course presents an overview of the Islamic religion, beginning with the Prophet Muhammad (the Meccan and Medinan periods), through the dynasties (Umayyad and Abbasid) and the Ottoman empire to the modern period.

REL13334
3 Credits
**Religion and Politics**
This course explores the controversial and sometimes bloody crossroads between politics and religion. Specific topics may include religion as a political construct and instrument of power in society, the role of biblical traditions in the development of church-state relations in the United States, prophetic rhetoric and liberation theologies as public modes of discourse for social justice, morality, ethics and the just-war debate and the development of a suitable political theology for contemporary society. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN3334 Religion and Politics.)

REL14451
1–3 Credits
**Selected Studies in Religion**
Studies in an area of religious study. Prerequisite: ENWR1002 Composition II: Research and Argument.

REL14459
3 Credits
**Questioning Religion**
Discussion of readings from atheists, skeptics, saints, scoffers, believers, doubters, scientists and theologians to explore issues of doubt and faith, reason and religion, for and against the major religious traditions and in people’s own lives. Prerequisite: ENWR1002 Composition II: Research and Argument. (Equivalent to HUMN4439 Questioning Religion and PHIL.4439 Questioning Religion.)

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**Sociology**

**School of Criminal Justice, Political Science and International Studies**

NOTE: 1000-level courses may be counted toward the major.

SOC1101
3 Credits
**Introductory Sociology**
A systematic introduction to basic sociological concepts (culture, norms, status, roles, groups, institutions), landmark studies and their applications for understanding our own and the world’s cultures.
**Spanish Language and Culture**

University College: Arts • Sciences • Professional Studies

Metropolitan Campus and Vancouver Campus

**SOCI1113**
3 Credits

**Sports in Society**

Analysis of sports as a sociological phenomenon. Categories of analysis include organizational, economic and political aspects of sports teams; social origins of sports participants; and sports in cross-cultural perspective.

**SOCI1215**
3 Credits

**Introduction to Social Work**

This course provides an introduction to the practice of community service work with individuals, families and groups. Together with the ethical principles of social service work, it also explores the dynamics of social policy development.

**SOCI2805**
3 Credits

**Contemporary Social Issues**

A survey and analysis of major current issues in America and international societies and cultures, including such topics as poverty, social justice, culture change and the global economy.

**SOCI3201**
3 Credits

**Methods in Social Research**

Concepts, methods and applications of research that form the scientific foundation of our understanding of society, including qualitative studies (ethnography, participant observation, conversational interviews) and quantitative studies (sample surveys), along with techniques for interviewing and applications of theory to practice. Prerequisite: SOCI1101 Introductory Sociology.

**SOCI3316**
3 Credits

**The Family: Stability and Dysfunction**

Family as the central social institution in America and across the world is studied in relation to the economic, political and religious forces of which it is a part. The course also analyzes changes in family structure and ideals, roles within the family, emergent family forms, patterns of fertility in and out of marriage and divorce and remarriage patterns historically and currently.

**SOCI3318**
3 Credits

**Health and Society: Access and Issues**

Health care as a social institution; cultural views of health and illness; connections between wellness and social class; cultural assumptions in medical research and treatment; the training of doctors, nurses and other healers across cultures; challenges to the medical establishment through the consumer advocacy movement; patients’ rights groups and the Internet; the modern interplay of various cultural healing systems including allopathic, homeopathic, ayurvedic and holistic.

**SOCI3320**
3 Credits

**Race, Generation and Immigration**

The course focuses on factors affecting Asians, blacks and Latinos in the United States; their parallel experiences of Americanization; changing experiences of race as a function of successive generations living in the U.S.; and the bicultural gap between family and “American” culture.

**SOCI3415**
3 Credits

**Internship in Social Work**

Students work in a specific community-service setting, using and applying what they have learned in their social work courses to gather and refine skills in working to help people with their needs and problems. Prerequisites: SOCI3316 The Family: Stability and Dysfunction and SOCI3318 Health and Society: Access and Issues.

**SOCI3435**
3 Credits

**The Modern Spanish-American Short Story**

This course introduces the students to a variety of short stories from Mexico, the Caribbean and Central and South America. The genre will be explored in its literary, historical and cultural contexts. Prerequisite: SPAN2104 Intermediate Spanish II or equivalent.

**SPAN1101**
3 Credits

**Elementary Spanish I**

Essentials of Spanish grammar. Easy reading selections leading to extensive conversation and writing.

**SPAN1102**
3 Credits

**Elementary Spanish II**

A continuation of the essentials of Spanish grammar. Easy reading selections leading to extensive conversation and writing. Prerequisite: SPAN1101 Elementary Spanish I or equivalent.

**SPAN1111**
3 Credits

**Spanish for Health Personnel**

Primarily for students in the nursing program, stressing the acquisition of basic communication skills in the fields of health and medicine. Basic grammatical structures studied within the context of the health professions.

**SPAN2103**
3 Credits

**Intermediate Spanish I**

Review of grammar with intermediate-level readings. Prerequisite: SPAN1102 Elementary Spanish II or equivalent.

**SPAN2104**
3 Credits

**Intermediate Spanish II**

A continuation of the review of grammar with intermediate-level readings. Prerequisite: SPAN2103 Intermediate Spanish I or equivalent.

**SPAN3301**
3 Credits

**Advanced Conversation in Spanish**

Discussion of contemporary topics in Spanish.

**SPAN3304**
3 Credits

**Spanish for Careers**

Practical vocabulary needed in such fields as airlines, business, computers, education, health care and social work. Conducted in Spanish. Prerequisite: SPAN2104 Intermediate Spanish II or equivalent.

**SPAN3435**
3 Credits

**Latin-American Culture and Civilization**

An overview of the history and cultures of pre-Columbian times to present-day Latin America. Students are introduced to various modes of cultural productions and social and political structures that have shaped modern Latin America. Prerequisite: SPAN2104 Intermediate Spanish II.

**SPAN3439**
3 Credits

**The Modern Spanish-American Short Story**

This course introduces the students to a variety of short stories from Mexico, the Caribbean and Central and South America. The genre will be explored in its literary, historical and cultural contexts. Prerequisite: SPAN2104 Intermediate Spanish II or SPAN3301 Advanced Conversation in Spanish.

**SPAN3440**
3 Credits

**Latin-American Short Stories: Fantasy and Mystery**

Stories with elements of fantasy and/or mystery will be read, including detective stories and science fiction. Some will be by well-known authors such as Jorge Luis Borges and Gabriel Garcia Marquez. The class will be conducted in Spanish. Prerequisite: SPAN2104 Intermediate Spanish II or equivalent.
Speech

University College: Arts • Sciences • Professional Studies
Metropolitan Campus and Vancouver Campus

SPAN4437
3 Credits
Advanced Composition in Spanish
Study in writing Spanish, aimed at fluency and ease of expression. Conducted in Spanish.
Prerequisite: SPAN2104 Intermediate Spanish II.

SPAN4440
3 Credits
The Hispanic Novel: From Cervantes to García Márquez
This course offers a sampling of novels from representative writers of Spain and Latin America. Important literary periods and movements will be studied in their respective contexts— from Spain's Golden Age period to the literary boom in Latin America of the 1960s.
Prerequisite: SPAN3301 Advanced Conversation in Spanish or SPAN4437 Advanced Composition in Spanish.

SPAN4800
1–3 Credits Each Semester
Independent Study in Spanish
Language and Literature
Independent study under the direction of a specific faculty member after consultation with the school director.

Spanish Culture and Civilization
This course is a panoramic survey of the historical, geographical and various artistic expressions of Spanish civilization. An eclectic array of sources from history, art, architecture, film, music and literature are utilized to explore the main events that have shaped the character of modern peninsular culture. Prerequisite: SPAN2104 Intermediate Spanish II.

Spanish Linguistics
The study of the Spanish language including history, structure and sounds. Comparative linguistics of French, Italian, Portuguese, Romanian and Spanish and their relationship to Latin.

SPAN4437
3 Credits
Advanced Composition in Spanish
Study in writing Spanish, aimed at fluency and ease of expression. Conducted in Spanish.
Prerequisite: SPAN2104 Intermediate Spanish II.

Spanish Culture and Civilization
This course is a panoramic survey of the historical, geographical and various artistic expressions of Spanish civilization. An eclectic array of sources from history, art, architecture, film, music and literature are utilized to explore the main events that have shaped the character of modern peninsular culture. Prerequisite: SPAN2104 Intermediate Spanish II.

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The Hispanic Novel: From Cervantes to García Márquez
This course offers a sampling of novels from representative writers of Spain and Latin America. Important literary periods and movements will be studied in their respective contexts— from Spain's Golden Age period to the literary boom in Latin America of the 1960s.
Prerequisite: SPAN3301 Advanced Conversation in Spanish or SPAN4437 Advanced Composition in Spanish.

SPAN4800
1–3 Credits Each Semester
Independent Study in Spanish
Language and Literature
Independent study under the direction of a specific faculty member after consultation with the school director.

SPAN4875
Variable Credits
Honors Spanish
Independent study in Spanish for students in the University Honors Program under the direction of a specific faculty member with approval of the school director. Prerequisite: admission to the University Honors Program.

Speech

School of Art and Media Studies

SPCH1105
3 Credits
Voice Production and Articulation
A basic course in voice and articulation including practice in enunciation, production of voice tone and the sounds of standard English speech. Basic concepts of anatomy and physiology of speech mechanism.

SPCH1155
3 Credits
Public Speaking
Training in the organization of ideas and effective delivery through practice in speaking before an audience.

Speech

School of Art and Media Studies

THEA1103
3 Credits
Introduction to Theater
Theater as an art form, emphasizing playwrights, actors, directors, designers, technicians, dramatic forms and performing spaces. Off-campus going required. Recommended for majors.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEA1104</td>
<td>3</td>
<td>History and Development of the Theater I</td>
<td>Development and history of theater from its origins to the beginning of the English Renaissance.</td>
</tr>
<tr>
<td>THEA1105</td>
<td>3</td>
<td>History and Development of the Theater II</td>
<td>Development and history of theater from the English Renaissance to Ibsen. Prerequisite: THEA1104 History and Development of the Theater I or permission of instructor.</td>
</tr>
<tr>
<td>THEA1106</td>
<td>3</td>
<td>Playgoing and Analysis</td>
<td>Theater attendance and classroom criticism of professional productions. Backstage discussions. Cost for theater tickets additional. Students responsible for their own transportation.</td>
</tr>
<tr>
<td>THEA2205</td>
<td>3</td>
<td>Acting: Theory and Practice I</td>
<td>Basic theories and techniques of acting through scene and character analysis, body and voice training, improvisation and performance.</td>
</tr>
<tr>
<td>THEA2206</td>
<td>3</td>
<td>Acting: Theory and Practice II</td>
<td>Further study in basic theory and practice. Prerequisite: THEA2205 Acting: Theory and Practice I or department permission.</td>
</tr>
<tr>
<td>THEA2210</td>
<td>3</td>
<td>Directing: Theory and Practice II</td>
<td>Advanced course in directing techniques. Students will direct or co-direct a complete production. Prerequisite: THEA2219 Directing: Theory and Practice I or permission of instructor.</td>
</tr>
<tr>
<td>THEA2211</td>
<td>3</td>
<td>Stagecraft</td>
<td>Survey and practicum in the techniques required to mount a theatrical production. Students required to participate in campus productions.</td>
</tr>
<tr>
<td>THEA2217</td>
<td>3</td>
<td>Speech for Actors</td>
<td>Voice training for students interested in pursuing a career in broadcasting or acting, including exercises in acquiring the right speaking rate for delivering the news and selecting audition material such as film and stage monologues. (Equivalent to SPCH2217 Speech for Broadcasters.)</td>
</tr>
<tr>
<td>THEA2218</td>
<td>1</td>
<td>Technical Theater Production I</td>
<td>Experience in creating scenery, lighting, sound and special effects for theater productions. Not suitable for fine arts core.</td>
</tr>
<tr>
<td>THEA2219</td>
<td>3</td>
<td>Directing: Theory and Practice I</td>
<td>Basic theory and techniques of directing, organization, staging and interpretation. Students required to direct and perform at least two scenes per semester.</td>
</tr>
<tr>
<td>THEA3305</td>
<td>3</td>
<td>Advanced Acting I</td>
<td>Essential techniques stressing truthful human behavior on stage. Concentration on basic acting exercises.</td>
</tr>
<tr>
<td>THEA3306</td>
<td>3</td>
<td>Advanced Acting II</td>
<td>Continuation of THEA3305 Advanced Acting I. In-depth scene study. Prerequisite: THEA3305 Advanced Acting I or permission of instructor.</td>
</tr>
<tr>
<td>THEA3309</td>
<td>3</td>
<td>Advanced Directing I</td>
<td>For those seriously interested in developing in depth as directors. One-act play to be staged. Prerequisite: THEA2210 Directing: Theory and Practice II or permission of instructor.</td>
</tr>
<tr>
<td>THEA3310</td>
<td>3</td>
<td>Advanced Directing II</td>
<td>Staging an original one-act play or preliminary work on staging a full-length play. Prerequisite: THEA3309 Advanced Directing I or permission of instructor.</td>
</tr>
<tr>
<td>THEA4432</td>
<td>1–3</td>
<td>Selected Studies in Theater</td>
<td>Studies in an area of theater. The course may be repeated but students may not repeat the topic.</td>
</tr>
<tr>
<td>THEA4800</td>
<td>1–3</td>
<td>Independent Study in Theater</td>
<td>Independent study under the direction of a specific faculty member after consultation with the school director. Fall, Spring, Summer</td>
</tr>
</tbody>
</table>
Wroxton College

Courses offered fall, spring and/or summer are so noted. To determine availability of courses not so designated, please check with the Wroxton College Study Abroad Office on the Metropolitan Campus, Teaneck, New Jersey.

Undergraduate

Business

IBUS2201
3 Credits
Fundamentals of International Business
Provides an awareness of the environmental and managerial aspects of international business. Explores the complexities and implications of exposure to international competition and technology.
Spring

Communications

COMM3026
3 Credits
Communication: Culture and the Media in Britain
The course will investigate the past and present interrelationships between the public/commercial media and British culture. Students will be provided with the conceptual tools to analyze the dynamics among the historic, political, economic and cultural aspects of British society. The course will be practically oriented.
Fall, Spring

University Core

UNIV2001
3 Credits
Cross-cultural Perspectives
In the third course in the University Core program, students learn to describe and analyze cultural phenomena in their own lives, to grapple with cultural differences and to understand cultural conflicts. Through a study of samples across a variety of cultures, students examine the fluidity and multiplicity of cultural identities and borders. Ways in which cultures change, how cultures shape and are shaped by individuals, how misunderstandings and conflicts arise within and between cultures and how those differences evolve are central to the course. Critical-thinking skills are developed and brought to bear on these topics. Prerequisites: UNIV 1002 Preparing for Professional Life and ENGW1101 College Writing Workshop or ENGL1103 English Masters or ENWR1101 Academic Writing.

UNIV2002
3 Credits
Global Issues
In the fourth course in the University Core program, students develop essential aspects of critical thinking and apply those skills in evaluating international systems, environmental issues and human-rights questions. Not only will this course demonstrate the global dimensions of crucial contemporary issues, it will also develop the relational thinking that students will be expected to exercise in other academic contexts and throughout the rest of their personal and professional lives. In other words, this course is as much about how to study and think about global problems and relationships as it is a course about specific global issues. Prerequisites: UNIV2001 Cross-cultural Perspectives and ENGW1101 College Writing Workshop or ENGL1103 English Masters or ENWR1101 Academic Writing.

Economics

ECON3022
3 Credits
European Economic Integration
The economic growth and development of Europe is examined in the context of economic regionalism and integration. Emphasis is on the evolution of institutions, policies and processes since 1945 that have brought Europe to where it is today.
Fall

English

ENGL3410
3 Credits
Modern Novels on the Screen
The methods and achievements of film and television adaptations will be assessed within the parameters of their own media as well as through close critical study of the original texts. The course will include analysis of major novels by writers such as E.M. Forster, D.H. Lawrence, Evelyn Waugh and Graham Greene.
Spring

ENGL3421
3 Credits
Not of an Age ... But for All Time
An exploration of the ways in which plays of the 16th and 17th centuries reach out to us today. Particular reference will be made to plays being presented by the Royal Shakespeare Company at the Swan Theatre, Stratford-upon-Avon.
Fall

ENGL3422
3 Credits
“The Play’s the Thing”
An examination of the relationship between text and performance. The course will focus on plays in the Royal Shakespeare Company’s season at Stratford-upon-Avon.
Fall

ENGL3424
3 Credits
“To Hold the Mirror Up to Nature”
The course will trace how actors, directors and designers work on a text, with particular reference to productions staged by the Royal Shakespeare Company. The potential for a variety of interpretations will be explored further through analysis of film and television productions of the plays.
Spring

ENGL3456
3 Credits
20th-century Drama
The course will consider how shifting cultural, social and political ideas have been reflected in the style and content of dramatic literature of the period. The theater’s social awareness over the century and close textual analysis will be supplemented by close critical study of plays in performance.
Fall

ENGL3463
3 Credits
England’s Green and Pleasant Land
The course will inquire into some of the ways in which England’s landscape and social structures have been the focus for generations of poets and prose writers. The work studied will range from Edmund Spenser to Philip Larkin via the Romantic movement.
Spring

ENGL3466
3 Credits
Three 19th-century Writers
The sheer mass of 19th-century literature can be daunting. The course will enable students to discover enthusiasms and engage in close analysis of three authors including one of the Romantic poets (Tennyson, Browning or Hopkins), work by one of the Bronte sisters and the works of either Charles Dickens, George Eliot or Thomas Hardy.
Fall
ENGL3467
3 Credits
18th-century Literature
The course looks at novels, poetry and shorter fiction, where one finds many kinds of satire, philosophical ideas and sentiment, making up a rich picture of 18th-century life. The course will focus on the writings of Pope, Swift, Defoe, Johnson and Austen.

Fall

ENGW3002
3 Credits
Creative Writing I
A workshop in imaginative literature providing sustained practice in individual writing projects. May be repeated for credit. Prerequisite: consent of instructor.

Fall, Spring

Fine Arts

ART3415
3 Credits
The Development of British Painting in Britain and North America
The course is an introduction to the history of painting and allied arts from the early modern period, c. 1485 to the present. Content will be studied against artistic developments in Europe, particularly where British and American artists relied on Continental sources for training and inspiration. Lectures will cover the development of style and technique, the choice and range of subjects and the relationship between patrons and artists. All major artists will be covered, and a series of supervised visits to the national collections will support the lecture and tutorial program.

Fall, Spring

History

HIST3422
3 Credits
Britain in the Modern Era
A history of Britain in the 19th and 20th centuries, which will focus on the political, social, economic and cultural developments that have "made" contemporary Britain.

Fall, Spring

Interdisciplinary

INTER3430
3 Credits
The Anatomy of Contemporary Britain
This course is intended as a helpful companion to finding oneself not only in a foreign country but also in a foreign culture. It has been specifically designed to introduce the student to the environment and lifestyle of Britain today.

Fall, Spring

Political Science

POLS3450
3 Credits
British Government and Politics
The purpose of the course is to give a broad introduction to the origins, development, structure and workings of the British system of government and British politics. The office of prime minister, the Cabinet, Civil Service, Parliament, political parties and pressure groups are among the topics covered. Circumstances permitting, the course will be supplemented by a trip to Parliament to meet members of the House of Commons and House of Lords to discuss with them issues raised during the course.

Fall, Spring

POLS3454
3 Credits
Descent from Power: British Foreign Policy Since 1900
The course examines the foreign policy process in Britain and the movement of Britain from a perceived position of "Great Power" status to one of accepted "Middle Power" status against a background of changing domestic and international environments during the 20th century.

Fall

POLS3456
3 Credits
The Power and Personality of the British Prime Minister
The course focuses on the developing role of the British prime minister, from Walpole to the present day, with emphasis placed on the prime ministers of the 20th century. The powers of the office are examined, with analysis directed toward the extent to which an individual's personality is important in determining the scope of power. Prerequisite: POLS3450 British Government and Politics.

Spring

Psychology

PSYC3318
3 Credits
The Psychology of Everyday Persuasion
The 21st century is characterized by information overload. Individuals in western democracies are subject to influence and manipulation in all their forms. Democracy, that depends on persuasion, has become viewed with cynicism. This course investigates the historical development of the techniques used by public and commercial organizations. Issues such as advertising and public relations will be studied. Students will be assisted in developing techniques to detect and resist propaganda.

Fall, Spring

Sociology

SOCI3440
3 Credits
Women and Race in Modern Britain
An examination of the varied circumstances of women and ethnic minorities in contemporary Britain, of the extent of sexual and racial discrimination that exists and of strategies adopted to remove or overcome both forms of discrimination.

Fall, Spring

SOCI3445
3 Credits
Social Policy in Contemporary Britain
An examination of the causes and extent of poverty, unemployment, crime, ill health, bad housing, poor schooling, etc., in contemporary Britain, and of governmental and other social policies designed to "improve" society.

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Director of Graphic Design Program
René Steinke, M.F.A.
Director of M.F.A. in Creative Writing

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Chair

Chemistry and Biochemistry Department
Alexey Teslja, Ph.D.
Chair
Communication Studies Department
Gary P. Radford, Ph.D.
Chair
Katherine Dunsmore, Ph.D.
Director of M.A. in Communication

Literature, Language, Writing and Philosophy Department
Matthieu Boyd, Ph.D.
Chair
Rebecca Chace, M.F.A.
Director of Creative Writing and Literature for Educators
M. Kathryn Douglas, M.A.
Director of College Writing
Administration

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School of Pharmacy and Health Sciences
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Director of Admissions
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Director of Pharmaceutical Science
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Chair
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Director of Clinical Mental Health Counseling Program
Social Sciences and History Department
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Chair
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Director, Criminology Program
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Undergraduate Program Adviser, Florham Campus
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Chair
Management and Entrepreneurship Department
Gwen Jones, Ph.D.
Chair
Marketing, Information Systems and Decision Sciences Department
Zhaobo Wang, Ph.D.
Chair
Rothman Institute of Innovation and Entrepreneurship
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Dean
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Richard Hauge, M.A.
Executive Director of Student Recruitment and Enrollment
Eun Jeong Lee, M.B.A.
Executive Director of Bachelor of Arts in Individualized Studies Program
Miranda Haines, M.A.S.
Director of Student Support Services
Francisco Parra, M.A.S.
Assistant Director and Adviser of Undergraduate Programs
School of Administrative Science Program
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International School of Hospitality and Tourism Management
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Interdisciplinary Studies Program
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Division of Continuing Education
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Associate Dean of Continuing Education
Operations and College Learning Outcomes Assessment
Jacqueline Lue Raia, B.B.A.
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Korean Studies Program (MiraeRo)
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JoAnna Steiner, M.S.
Director
Latino Promise® Program
Fernando Alonso, J.D.
Director
Puerta al Futuro® Program
Fernando Alonso, J.D.
Director
University College: Arts • Sciences • Professional Studies  

Metropolitan Campus, Teaneck, N.J., and Vancouver Campus, British Columbia, Canada

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Interim Dean

Janet Boyd, Ph.D.  
Interim Associate Dean

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Director, Center for Dyslexia Studies

Mutia Mahamad, Ed.D.  
Director, Programs in Language, Culture and Professional Advancement (PLCPA)

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School of Computer Sciences and Engineering

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Program Coordinator, Instructional Technology Certificate Program

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Director, QUEST/B.A.-M.A.T.

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Assistant Director/Field Placement and Teacher Certification

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Coordinator

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Director

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Director, M.A. Program in General/Theoretical Psychology; Director, Undergraduate Studies, B.A./M.A. in General/Theoretical Psychology Program

Robert Prantky, Ph.D.  
Director, M.A. in Forensic Psychology Program

Stefanie Ulrich, Ph.D.  
Director, Center for Psychological Services

Jamie Zibulsky, Ph.D.  
Director, Psy.D. and M.A. Programs in School Psychology

Vancouver Campus

British Columbia, Canada

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Campus Executive

David O’Reilly, M.B.A.  
Deputy Campus Executive

Admissions  
Natalia Kharitonova, Ph.D.  
Director of Admissions

B.A. in Individualized Studies Program  

Ajay Garg, Ph.D.  
Program Coordinator of Individualized Studies Program

B.S. in Information Technology Program  

Vasudevan Janarthanan, Ph.D.  
Program Coordinator of Information Technology Program

Enrollment Services  

Arlette Hernandez Pulido, B.A.  
Director of Enrollment Services

Learning Resources  

David O’Reilly, M.B.A.  
Director of Learning Resources and Support Programs and Business Manager

Marketing and Recruitment  

Amy Yan, M.A.S.  
Director of Marketing and Recruitment

Master of Administrative Science Program  

Ajay Garg, Ph.D.  
Associate Director of Master of Administrative Science Program

Student Services  

Jobin Mottabavy, M.A.S.  
Director of Student Services

Technology and Information Services  

Jonn Martell, B.Sc.  
Director of Technical Operations

University Core  

James Gifford, Ph.D.  
Director of University Core Program

Global Scholars  

Gudrun Drehser, Ph.D.  
Director of Global Scholars Program

Wroxton College

Oxfordshire, England

Nicholas D.J. Baldwin, Ph.D.  
Dean and Director of Operations
Florham Campus
Madison, New Jersey

Directions

From Northeast
Take I-287 across the Tappan Zee Bridge to exit 14A, Garden State Parkway. Follow Parkway South to exit 159, I-80 West. Follow I-80 West to I-287 South to exit 35 (NJ124). Turn left onto NJ124 East. Go 2.5 miles to FDU entrance on left.

From South
Take NJ Turnpike to exit 10, I-287 North to exit 35. At end of exit, turn left at light. Make a quick right, go one block and make another right onto Madison Avenue (Route 124 East). The entrance to campus is approximately 2.5 miles on the left, shortly after passing the Madison Hotel.

From East to West
Take I-80 to I-287 South (Exit 43). Exit I-287 at Route 124 East (Exit 35). Go 2.5 miles to FDU entrance on the left.

From Newark Area
Take I-78 to 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 Pennsylvania
Take I-78 East to I-287 North to exit 35. At end of exit, turn left at light. Make a quick right, go one block and make another right onto Madison Avenue (Route 124 East). The entrance to the campus is approximately 2.5 miles on the left, shortly after passing the Madison Hotel.
**Campus Buildings**

1. Bancroft Hall (1094 River Road, Teaneck)
2. Williams Hall (1000 University Circle, Teaneck)
3. Fitness Center (1080 University Circle, Teaneck)
4. Northpointe (Residence Hall)
5. Robison Hall (1040 University Circle, Teaneck)
6. Robison Hall Annex (1081 Scenic Trail, Teaneck)
7. Muscarelle Center for Building Construction Studies (1004 University Circle, Teaneck)
8. Kron Administration Building (1000 River Road, Teaneck)
9. Alumni Hall (994 Library Circle, Teaneck)
10. 914 River Road, Teaneck (continuation of Lone Pine Lane)
11. Banta Coe House (884 Lone Pine Lane)
12. University Court Residence Hall #9 (898 Lone Pine Lane, Teaneck)
13. University Court Residence Hall #10 and WFDU-FM (820 River Road, Teaneck)
14. 882, 886 River Road, Teaneck
15. Interfaith Chapel (842 River Road, Teaneck)
16. 841 River Road, Teaneck
17. 840 River Road, Teaneck
18. 838 River Road, Teaneck
19. Housekeeping
20. 835 SUB Lane, Teaneck (Programs in Language, Culture and Professional Advancement)
21. 839 SUB Lane, Teaneck (SUB Annex)
22. 867 SUB Lane, Teaneck (Dean of Students)
23. Student Union Building (SUB)
24. Linden Residence Halls #1–8
25. Knight Spot (24/7 Study Lounge)
26. 880 Lone Pine Lane, Teaneck
27. 10 Woodridge Ave., Hackensack
28. Maintenance Shop
29. 139 Temple Ave., Hackensack
30. 131 Temple Ave., Hackensack
31. George and Phyllis Rothman Center (100 University Plaza Drive, Hackensack)
32. Dickinson Hall (140 University Plaza Drive, Hackensack)
33. Edward Williams Hall (150 Kotte Place, Hackensack)
34. Field House (1130 River Road, Teaneck)
35. 1154 River Road, Teaneck
36. Naimoli Family Baseball Complex
37. Athletic Fields
   a. Softball
   b. Soccer
   c. Tennis

**Where to Find**

- Academic Advisement Center: Robison Hall, Bldg. 5
- Academic Affairs, Senior Vice President for, and University Provost: Dickinson Hall, Bldg. 52
- Administrative Science: Dickinson Hall, Bldg. 52
- Admissions: Kron Administration Building, Bldg. 8
- 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: Robison Hall, Bldg. 5
- Allied Health, Nursing and Alumni Relations: Dickinson Hall, Bldg. 52

**Art and Media Studies**

- University Hall, Bldg. 9

**Arts • Sciences • Professional Studies**

- University Hall, Bldg. 5

**Athletics**

- Rothman Center, 100 University Plaza Drive, Hackensack, Bldg. 51

**ATM Machine**

- Dickinson Hall, Bldg. 52

**Audiovisual (Instructional Media)**

- Giovatto Library & Dickenson Hall, Bldgs. 11 & 52

**Biological Sciences**

- Dickinson Hall, Bldg. 52

**Bookstore**

- Alumni Hall, Bldg. 10

**Busnner**

- Kron Administration Building, Bldg. 8

**Business, Silberman College of**

- Dickinson Hall, Bldg. 52

**Career Development**

- Certified Financial Planning

**Chaplain’s Office**

- Interfaith Chapel, Bldg. 28

**Chemistry**

- Dickinson Hall, Bldg. 52
Metropolitan Campus
Teaneck, New Jersey

Communications/Speech: Robinson Hall, Bldg. 5
Computer Sciences and Engineering: Muscarelle Center & Becton Hall, Bldgs. 7 & 12
Computing Services: University Hall & Dickinson Hall, Bldgs. 9 & 52
Continuing Education: Dickinson Hall, Bldg. 52
Continuing Studies, Anthony J. Petrocelli College of: Edward Williams Hall, Bldg. 53
Cooperative Education: Giovatto Library, Bldg. 11
Copy Center: Giovatto Library, Bldg. 11
Core Curriculum Office: Dickinson Hall, Bldg. 52
Counseling and Psychological Services, Student (S-CAPS): 914 River Road, Teaneck, Bldg. 6
Dean of Students: 867 SUB Lane, Teaneck, Bldg. 35
Dean, Petrocelli College of Continuing Studies, Anthony J.: Edward Williams Hall, Bldg. 53
Dean, Silberman College of Business: Dickinson Hall, Bldg. 52
Dean, University College: Arts • Sciences • Professional Studies: Robinson Hall, Bldg. 5
Dining Halls: Alumni Hall, Student Union Building & Dickinson Hall, Bldgs. 10, 36 & 52
Dining Services Office: Student Union Building, Bldg. 36
Education: Bancroft Hall, Bldg. 1
Educational Opportunity Fund (EOF): 840 River Road, Teaneck, Bldg. 52
ELS Language Centers: Dickinson Hall, Bldg. 52
Employment Office: Muscarelle Center & Becton Hall, Bldgs. 7 & 12
English: Dickinson Hall, Bldg. 52
Enhanced Freshman Experience: Dickinson Hall, Bldg. 52
Enrollment Management: Dickinson Hall, Bldg. 52
Enrollment Planning and Effectiveness, Office of: Dickinson Hall, Bldg. 52
Equinox (Student Newspaper): Student Union Building, Bldg. 36
Executive MBA Programs: Dickinson Hall, Bldg. 52
Facilities and Auxiliary Services: 10 Woodridge Ave., Hackensack, Bldg. 47
Finance Division, University: 1130 & 1154 River Road, Teaneck, Bldgs. 54 & 55
Financial Aid: Kron Administration Building, Bldg. 8
Fine Arts: University Hall, Bldg. 9
Fitness Center: University Hall, Bldg. 9
Fitness Room: Rothman Center, Bldg. 51
Foreign Languages: Dickinson Hall, Bldg. 52
General Counsel, Office of: Dickinson Hall, Bldg. 52
Global Learning, Office of: Dickinson Hall, Bldg. 52
Global Scholars: Robinson Hall Annex, Bldg. 6
Grants and Sponsored Projects: Dickinson Hall, Bldg. 52
Health Services, Student: Student Union Building, Bldg. 36
History: Robinson Hall, Bldg. 5
Honors Program: Dickinson Hall, Bldg. 5
Hospitality and Tourism Management: Dickinson Hall, Bldg. 52
Human Resources, University: Dickinson Hall, Bldg. 52
Humanities: Dickinson Hall, Bldg. 52
Information Resources and Technology: Bancroft Hall, Bldg. 1
Institutional Research and Effectiveness: Dickinson Hall, Bldg. 52
Interactive Television (ITV): Dickinson Hall, Bldg. 52
International Education, Office of: Dickinson Hall, Bldg. 52
International Student Services: 841 River Road, Teaneck, Bldg. 29
International Affairs: Robinson Hall Annex, Bldg. 6
Intramural Athletics: Rothman Center, Bldg. 51
Knight Club: Student Union Building, Bldg. 36
Kron Lounge: Student Union Building, Bldg. 36
Learning Disabilities, Regional Center for: Robinson Hall, Bldg. 5
Lost & Found, Public Safety: 870 River Road, Teaneck, Bldg. 27
Mail Room, Student: Student Union Building, Bldg. 36
Mail Room, University: 10 Woodridge Ave., Hackensack, Bldg. 47
Mathematics/Computer Science: Becton Hall, Bldg. 12
MBB Program: Dickinson Hall, Bldg. 52
Metropolitan Club: Alumni Hall, Bldg. 10
Natural Sciences: Dickinson Hall, Bldg. 52
Nursing and Allied Health: Dickinson Hall, Bldg. 52
Parking, Security: 870 River Road, Teaneck, Bldg. 27
Payroll: Dickinson Hall, Bldg. 52
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Philosophy: Robinson Hall, Bldg. 5
Physical Education: Rothman Center, Bldg. 51
Physics: Dickinson Hall, Bldg. 52
Political Science: Robinson Hall Annex, Bldg. 6
President, Office of: Dickinson Hall, Bldg. 52
Programs in Language, Culture and Professional Advancement: 835 SUB Lane, Teaneck, Bldg. 33
Psychological Services, Center for: Hackensack, Bldgs. 49 & 50
Psychological Services, Student Counseling and (S-CAPS): 914 River Rd., Teaneck, Bldg. 14
Psychology: Williams Hall, Bldg. 2
Public Administration: Dickinson Hall, Bldg. 52
Publications: Dickinson Hall, Bldg. 52
Public Relations: Dickinson Hall, Bldg. 52
Public Safety: 870 River Road, Teaneck, Bldg. 27
Radio Station, WFDU-FM: University Court #10, Bldg. 18
Radio Station (Student), WFDU-SFM: University Court #10, Bldg. 18
Records/Registration: Kron Administration Building, Bldg. 8
Regional Center for Learning Disabilities: Robinson Hall, Bldg. 5
Residence Life: 880 Pine Lane, Bldg. 46
River House: 888 River Road, Bldg. 15
Riverside Café: Alumni Hall, Lower Level, Bldg. 10
Russell H. Ratsch Experimental Theatre: University Hall, Bldg. 9
Student Life: Student Union Building, Bldg. 36
Safety/Security: 870 River Road, Teaneck, Bldg. 27
Silberman College of Business: Dickinson Hall, Bldg. 52
Sociology: Williams Hall, Bldg. 2
Student Government: Student Union Building, Bldg. 36
Student Life: Student Union Building, Bldg. 36
Student Newspaper, Equinox: Student Union Building, Bldg. 36
Study-abroad Programs: Dickinson Hall, Bldg. 52
Study Lounge 24/7: Knight Spot, Bldg. 45
Teleconference Site: Dickinson Hall, Bldg. 52
Telephone Service: Dickinson Hall, Bldg. 52
Theaters: University Hall & Becton Hall, Bldgs. 9 & 13
University Advancement, Office of: Dickinson Hall, Bldg. 52
University College: Arts • Sciences • Professional Studies: Robinson Hall, Bldg. 5
University College Gallery: University Hall, Bldg. 9
University Provost and Senior Vice President for Academic Affairs; Dickinson Hall, Bldg. 52
Veterans Services: Bancroft Hall, Bldg. 1
WFDU-FM: University Court #10, Bldg. 18
Wilson Auditorium: Dickinson Hall, Bldg. 52
Winston College (Study-abroad Programs): Dickinson Hall, Bldg. 52

Directions
From North
Garden State Parkway to exit 163 to Route 17 South to Route 4 East. Exit Route 4 at River Road. Campus parking is on the right.

From South
Take Garden State Parkway to exit 161 to Route 4 East. Exit Route 4 at River Road. Campus parking is on the right.

From West
Follow Route 80 East to Garden State Parkway North. Proceed on Garden State Parkway to exit 161 (Route 4 East). Follow Route 4 to River Road exit. Campus parking is on the right.

From East
Take the George Washington Bridge; follow signs to Route 4 West. Exit Route 4 at River Road. Campus parking is on the left, past the athletic fields.
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