DIRECTORY

ADDRESS – Duquesne University, 600 Forbes Avenue, Pittsburgh, Pa. 15282
Telephone: Call specific number (see following):
For other offices, call (412) 396-6000
When on campus, only the last 4 digits need to be dialed, with the exception of the Bookstore.

ADMISSIONS – Administration Building, First Floor
Telephone: (412) 396-6222
(800) 456-0590

ADVISORS
McAnulty College of Liberal Arts
College Hall, Room 212
Telephone: (412) 396-6389/5905
School of Leadership and Professional Advancement
Rockwell Hall, Room 210
Telephone: (412) 396-5034
A.J. Palumbo School of Business Administration
Rockwell Hall, Room 705
Telephone: (412) 396-6277/5702
School of Education
718 Fifth Avenue
Telephone: (412) 396-6093
Rangos School of Health Sciences
Health Sciences Bldg., Room 302
Telephone: (412) 396-6652
Mary Pappert School of Music, Room 301
Telephone: (412) 396-5744
Bayer School of Natural and Environmental Sciences
100 Mellon Hall
Telephone: (412) 396-4921
School of Nursing, Fisher Hall, Fifth Floor
Telephone: (412) 396-5046
Mylan School of Pharmacy
Bayer Learning Center, Room 304
Telephone: (412) 396-6393

BOOKSTORE – Power Center
Telephone: (412) 434-6626

CAREER SERVICES CENTER –
Rockwell Hall, Room G-1
Telephone: (412) 396-6644
School of Education Career Center
Telephone: (412) 396-6647

CASHIER – Payment of Tuition and Fees,
Administration Building, Ground Floor
Telephone: (412) 396-6585/6587/6588

COMMUTER AFFAIRS –
117 Duquesne Union
Telephone: (412) 396-6660

COMPUTING AND TECHNOLOGY SERVICES
Concourse, Rockwell Hall
Telephone: (412) 396-4357

DU CARD CENTER –
Duquesne Union, 2nd Floor
Telephone: (412) 396-6191

FINANCIAL AID – Loan, Scholarship,
Student Employment, Applications
Administration Building, Ground Floor
Telephone: (412) 396-6607

OFFICE OF FRESHMAN DEVELOPMENT AND
SPECIAL STUDENT SERVICES –
Duquesne Union, Third Floor
Telephone: (412) 396-6657

OFFICE OF GREEK LIFE, HONOR SOCIETIES &
PROFESSIONAL ORGANIZATIONS –
Duquesne Union, Third Floor
Telephone: (412) 396-6651

HEALTH SERVICE –
Duquesne Union, Second Floor
Telephone: (412) 396-1650

INFORMATION CENTER–For University Events
Duquesne Union, Third Floor
Telephone: (412) 396-6632/6633

OFFICE OF INTERNATIONAL PROGRAMS –
Duquesne Union, Sixth Floor
Telephone: (412) 396-6113

LEARNING SKILLS CENTER –
Administration Building, Ground Floor
Telephone: (412) 396-6661

OFFICE OF MULTICULTURAL AFFAIRS –
105 Duquesne Union
Telephone: (412) 396-1117

PSYCHOLOGY CLINIC –
Rockwell Hall, Ninth Floor
Telephone: (412) 396-6562

PUBLIC AFFAIRS –
220 Fisher Hall
Telephone: (421) 396-6050

PUBLIC SAFETY –
Public Safety Building
Telephone: (412) 396-6002
For Emergency, call (412) 396-2677 (COPS)

REGISTRAR–For Transcripts and Records
Administration Building, Ground Floor
Telephone: (412) 396-5623 (Transcripts)
(412) 396-6212 (General Office)

RESIDENCE LIFE–
Assumption Hall, Ground Floor
Telephone: (412) 396-6655/5028

OFFICE OF SERVICE-LEARNING
Administration Building, Third Floor
Telephone: (412) 396-5893

SPEECH-LANGUAGE-HEARING CLINIC
Fisher Hall, Room 406
Telephone: (412) 396-4200

SPIRITAN CAMPUS MINISTRY –
Administration Building, First Floor
Telephone: (412) 396-6020/5045

SPIRITAN DIVISION OF ACADEMIC
PROGRAMS –
Administration Building, Ground Floor
Telephone: (412) 396-6661

STUDENT ACCOUNTS –
Administration Building, Room 208
Telephone: (412) 396-6585/6587/6588

STUDENT HEALTH INSURANCE -
Fisher Hall, Room 202A
Telephone: (412) 396-6677

UNIVERSITY COUNSELING CENTER –
308 Administration Building
Telephone: (412) 396-6204/6208
RIGHT TO AMEND
As the educational process from admission through graduation requires continuing review and appropriate approval by University officials, the provisions of this catalog are to be considered directive in character. The University, therefore, reserves the right to change requirements and regulations contained herein, including fees, tuition, and board and room, and to determine whether an individual has satisfactorily met the requirements for admission or graduation. The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual students and the University. The University reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary.

NOTICE OF NONDISCRIMINATION AND NONHARASSMENT POLICY
Duquesne University, motivated by its Catholic identity, values equality of opportunity, human dignity, racial, cultural and ethnic diversity, both as an educational institution and as an employer. Accordingly, the University prohibits and does not engage in discrimination or harassment on the basis of race, color, religion, national origin, sex, age, disability or status as a veteran or disabled veteran. Further, Duquesne University will continue to take affirmative steps to support and advance these values consistent with the University’s mission statement. This policy applies to all educational programs and activities of the University, including, but not limited to, admission, educational policies, scholarship and loan programs and athletic or other University-sponsored programs. This is a commitment by the University in accordance with its religious values and applicable federal, state and local laws and regulations. Nothing herein, however, should be interpreted as a waiver by the University of its own Constitutional and legal rights based upon its religious affiliation. The person responsible for coordinating its efforts under this policy is Dr. Judith Griggs, Affirmative Action Officer, ground floor, Administration Building, university extension 6661.

SECURITY STATISTICS, POLICIES AND PROCEDURES
In accordance with the College and University Security Information Act (Pennsylvania Act 73 of 1988) and the U.S. Student Right to Know and Security Act (P.C. 101-542), information regarding Duquesne University’s crime statistics, security policies and procedures is available in the Admissions Office, and daily crime logs are available for review in the Public Safety Department.

Information contained in this catalog is accurate to the date of publication.
Published by Duquesne University, 600 Forbes Avenue, Pittsburgh, PA 15282.
### All Degrees and Programs Offered by Duquesne University

<table>
<thead>
<tr>
<th>School</th>
<th>Bachelor’s Degree</th>
<th>Master’s Degree</th>
<th>Doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>College and Graduate School of Liberal Arts</td>
<td>Art History: Bachelor and Master's Degrees in Music Education in all concentrations.</td>
<td>Communication: Master's Degree in Business Administration and Supervision Management in Public Policy.</td>
<td>English: Juris Doctor / J.D. / M.B.A. / M.Div.</td>
</tr>
<tr>
<td></td>
<td>Classical Civilization: Bachelor and Master's Degrees in English.</td>
<td>- Corporate Training: Master's Degree in Business Administration.</td>
<td>Librarianship: Librarianship / M.L.S. / M.L.S.</td>
</tr>
<tr>
<td></td>
<td>Classical Languages: Bachelor and Master's Degrees in Rhetoric.</td>
<td>- Communication and Rhetoric: Master's Degree in Communication and Rhetoric.</td>
<td>Medical: Medicine / M.D. / M.D. / M.D.</td>
</tr>
<tr>
<td></td>
<td>Classical Studies: Bachelor and Master's Degrees in Economics.</td>
<td>- Social and Public Policy: Master's Degree in Social and Public Policy.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Computer Science: Bachelor and Master's Degrees in Computer Science.</td>
<td>- Conflict Resolution: Master's Degree in Conflict Resolution.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Corporate Communication: Bachelor and Master's Degrees in Communication.</td>
<td>- Policy Analysis and Administration: Master's Degree in Policy Analysis and Administration.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Economics: Bachelor and Master's Degrees in Sociology.</td>
<td>- Theology: Master's Degree in Theology.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>English: Bachelor and Master's Degrees in Concentration in History.</td>
<td>- Criminal Justice: Master's Degree in Criminal Justice.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>History: Bachelor and Master's Degrees in - Social Justice and Communication.</td>
<td>- Theology: Master's Degree in Theology.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Journalism: Bachelor and Master's Degrees in Spanish.</td>
<td>- Human Services: Master's Degree in Human Services.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Latin: Bachelor and Master's Degrees in Theater Arts.</td>
<td>- Theater Arts: Master's Degree in Theater Arts.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Mathematics: Bachelor and Master's Degrees in Rhetoric.</td>
<td>- Health Care Ethics: Master's Degree in Health Care Ethics.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Media Management and Production: Bachelor and Master's Degrees in Development.</td>
<td>- History: Master's Degree in History.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Modern Languages: Bachelor and Master's Degrees in Modern Languages.</td>
<td>- Archival, Museum, and Editing Studies: Master's Degree in Archival, Museum, and Editing Studies.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Accounting: Bachelor and Master's Degrees in Investment Management.</td>
<td>- Traditional Studies: Master's Degree in Traditional Studies.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Economics: Bachelor and Master's Degrees in Leadership and Legal Studies.</td>
<td>- Accountancy: Master's Degree in Accountancy.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Entrepreneurship: Bachelor and Master's Degrees in Marketing and Sports Marketing.</td>
<td>- Administration: Master's Degree in Administration.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Finance: Bachelor and Master's Degrees in Management and Supply Chain Management.</td>
<td>- Professional Communication: Master's Degree in Professional Communication.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Information Systems: Bachelor and Master's Degrees in Management and Supply Chain Management.</td>
<td>- Computer Science: Master's Degree in Computer Science.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td>School of Business Administration</td>
<td>Management: Bachelor and Master's Degrees in Management.</td>
<td>- Rhetoric: Master's Degree in Rhetoric.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>International Business: Bachelor and Master's Degrees in Management.</td>
<td>- Ethics: Master's Degree in Ethics.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td>School of Education</td>
<td>Early Childhood Education: Bachelor and Master's Degrees in Education.</td>
<td>- Early Childhood Education: Master's Degree in Early Childhood Education.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Elementary Education: Bachelor and Master's Degrees in Elementary Education.</td>
<td>- Elementary Education: Master's Degree in Elementary Education.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Elementary / Secondary Education: Bachelor and Master's Degrees in Education.</td>
<td>- Secondary Education: Master's Degree in Secondary Education.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td>School of Health Sciences</td>
<td>Bachelor of Science in: Athletic Training: Bachelor and Master's Degrees in Athletic Training.</td>
<td>- Health Management Systems: Bachelor and Master's Degrees in Health Management Systems.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td>School of Music</td>
<td>Bachelor of Music in: Performance: Bachelor and Master's Degrees in Performance.</td>
<td>- Music Technology: Bachelor and Master's Degrees in Music Technology.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Bachelor of Music: Bachelor and Master's Degrees in Music Technology.</td>
<td>- Sacred Music: Bachelor and Master's Degrees in Sacred Music.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Bachelor of Science in: Music Education: Bachelor and Master's Degrees in Music Education.</td>
<td>- Music Therapy: Bachelor and Master's Degrees in Music Therapy.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Biology (B.S.): Bachelor and Master's Degrees in Biology (B.S.).</td>
<td>- Master of Environmental Science: Bachelor and Master's Degrees in Master of Environmental Science.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Chemistry (B.S.): Bachelor and Master's Degrees in Chemistry (B.S.).</td>
<td>- Management, On-line Certificates: Bachelor and Master's Degrees in Management, On-line Certificates.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Environmental Chemistry (B.S.): Bachelor and Master's Degrees in Environmental Chemistry (B.S.).</td>
<td>- Environmental Science and Management: Bachelor and Master's Degrees in Environmental Science and Management.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Dual Degree: Bachelor and Master's Degrees in B.A. Physics / B.S. Engineering (with approved associate school).</td>
<td>- B.S. Environ Science / M.S. ESM: Bachelor and Master's Degrees in B.S. Environ Science / M.S. ESM.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td>School of Law</td>
<td>Bachelor of Science in: Athletic Training: Bachelor and Master's Degrees in Athletic Training.</td>
<td>- J.D. / M.B.A.: Bachelor and Master's Degrees in J.D. / M.B.A. / Master of Environmental Science.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Leadership and Professional Advancement: Bachelor and Master's Degrees in Leadership and Professional Advancement.</td>
<td>- Leadership and Business Ethics: Bachelor and Master's Degrees in Leadership and Business Ethics.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
<tr>
<td></td>
<td>Leadership and Information Technology: Bachelor and Master's Degrees in Leadership and Information Technology.</td>
<td>- Community Leadership: Bachelor and Master's Degrees in Community Leadership.</td>
<td>Medical: Pharmacy / M.S. / M.S. / M.S.</td>
</tr>
</tbody>
</table>
# Academic Calendars
## Fall 2008—Summer 2009

### FALL SEMESTER – 2008

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 23</td>
<td>Saturday</td>
<td>Saturday classes begin</td>
</tr>
<tr>
<td>August 25</td>
<td>Monday</td>
<td>Classes Begin</td>
</tr>
<tr>
<td>September 1</td>
<td>Monday</td>
<td>Holiday: Labor Day</td>
</tr>
<tr>
<td>November 1</td>
<td>Saturday</td>
<td>Holy Day: All Saints Day</td>
</tr>
<tr>
<td>November 24-29</td>
<td>Monday-Saturday</td>
<td>Holiday: Thanksgiving</td>
</tr>
<tr>
<td>December 8</td>
<td>Monday</td>
<td>Holy Day: Immaculate Conception</td>
</tr>
<tr>
<td>December 9</td>
<td>Tuesday</td>
<td>Classes meet according to Monday class schedule</td>
</tr>
<tr>
<td>December 10</td>
<td>Wednesday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>December 11-17</td>
<td>Thursday-Wednesday</td>
<td>Final Examinations</td>
</tr>
<tr>
<td>December 19</td>
<td>Friday</td>
<td>Official graduation date</td>
</tr>
</tbody>
</table>

### SPRING SEMESTER – 2009

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 8</td>
<td>Thursday</td>
<td>Classes Begin</td>
</tr>
<tr>
<td>January 19</td>
<td>Monday</td>
<td>Holiday: Martin Luther King, Jr.</td>
</tr>
<tr>
<td>March 2-7</td>
<td>Monday-Saturday</td>
<td>Spring Break</td>
</tr>
<tr>
<td>April 9-13</td>
<td>Thursday-Monday</td>
<td>Easter Break</td>
</tr>
<tr>
<td>April 14</td>
<td>Tuesday</td>
<td>Classes meet according to Monday class schedule</td>
</tr>
<tr>
<td>April 29</td>
<td>Wednesday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>April 30-May 6</td>
<td>Thursday-Wednesday</td>
<td>Final Examinations</td>
</tr>
<tr>
<td>May 8</td>
<td>Friday</td>
<td>Official Graduation Date</td>
</tr>
<tr>
<td>May 9</td>
<td>Saturday</td>
<td>Diploma Ceremonies</td>
</tr>
</tbody>
</table>

### SUMMER SEMESTER – 2009

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 11</td>
<td>Monday</td>
<td>Summer Sessions Begin</td>
</tr>
<tr>
<td>May 21</td>
<td>Thursday</td>
<td>Holy Day: Ascension</td>
</tr>
<tr>
<td>May 25</td>
<td>Monday</td>
<td>Holiday: Memorial Day</td>
</tr>
<tr>
<td>July 3</td>
<td>Friday</td>
<td>Holiday: Independence Day Observance</td>
</tr>
<tr>
<td>July 4</td>
<td>Saturday</td>
<td>Holiday: Independence Day</td>
</tr>
<tr>
<td>July 31</td>
<td>Friday</td>
<td>End of twelve-week session</td>
</tr>
<tr>
<td>August 8</td>
<td>Saturday</td>
<td>Official graduation date</td>
</tr>
<tr>
<td>August 15</td>
<td>Saturday</td>
<td>Holy Day: Assumption</td>
</tr>
</tbody>
</table>
## Contents

**CALENDAR**................................................................................................................. iv

I. GENERAL INFORMATION ................................................................. 1
II. ADMISSIONS, FINANCIAL AID ................................................. 10
III. REGISTRATION, SCHOLASTIC POLICIES ................. 29
IV. TUITION AND FEES ................................................................. 36
V. STUDENT LIFE:
   PROGRAMS, SERVICES AND ORGANIZATIONS .......... 41
   Services for Students with Disabilities—Special Student Services ............................................. 43
VI. WDUQ RADIO ........................................................................... 48
VII. SPIRITAN CAMPUS MINISTRY ........................................... 48
VIII. PROGRAMS AND COURSES ................................................ 49
   Core Curriculum ........................................................................ 49
   Honors College/Integrated Honors Program ........... 52
   English As A Second Language Program .......... 53
   Liberal Arts .......................................................................... 55
   Natural and Environmental Sciences .................. 142
   Business Administration ........................................ 170
   Education ....................................................................... 193
   Music ............................................................................... 207
   Nursing .......................................................................... 223
   Pharmacy ...................................................................... 235
   Health Sciences ................................................................ 239
   Leadership and Professional Advancement .......... 266
   Army ROTC .................................................................... 268
   Air Force ROTC ............................................................ 269
   Naval ROTC .................................................................... 270
IX. DIRECTORIES
   Directors & Officers .......................................................... 271
   Faculty and Administration ......................................... 272

The provisions of this catalog are to be considered directive in character. The University reserves the right to make any changes that seem necessary or desirable, including fees, tuition and room and board. Faculty listings contained in this catalog are current as of Spring 2008.
Part I: General Information

HISTORY
Duquesne University first opened its doors as the Pittsburgh Catholic College of the Holy Ghost in October 1878 with an enrollment of 40 students and a faculty of seven. From a humble original location on Wylie Avenue in the City’s Uptown section to its present beautifully self-contained campus, Duquesne provides a hilltop vista overlooking one of the nation’s most attractive cities.

Today Duquesne University is a progressive educational facility which has more than tripled from its early 12.5 acres to its present, self-enclosed 48-acre campus overlooking the city of Pittsburgh. Tree-lined brick walkways lead to academic buildings, living-learning centers, research and recreational facilities.

Duquesne’s academics are recognized both nationally and internationally. Every state in the Union and more than 75 countries are represented in the Duquesne family, and our mission of service drives our outreach across the country and the globe.

Duquesne’s recent growth has been tremendous with students in ten schools of study, including the College and Graduate School of Liberal Arts (1878); and the Schools of Law (1911); Business Administration (1913); Pharmacy (1925); Music (1926); Education (1929); Nursing (1937); Health Sciences (1990); School of Natural and Environmental Sciences (1994) and the School of Leadership and Professional Advancement (2001). Duquesne’s ten schools offer degree programs on the baccalaureate, professional, master’s and doctoral levels.

SUMMARY STATEMENT OF MISSION AND GOALS
Duquesne University of the Holy Spirit is a Catholic university, founded by members of the Spiritan Congregation, and sustained through a partnership of laity and religious.

The motto of Duquesne University is Spiritus est qui vivificat, “It is the Spirit who gives life.” Enriching the life of the mind and the life of the spirit of every member of its community is the mission of Duquesne.

It is Duquesne University’s special trust to seek truth and to disseminate knowledge within a moral and spiritual framework in order to prepare leaders distinguished not only by their academic and professional expertise but also by their ethics, and guided by consciences sensitive to the needs of society.

Therefore, Duquesne is a community of students, faculty, administrators, and others who are willing to make these commitments:

• To create undergraduate and graduate education of the highest quality in liberal and professional disciplines.
• To examine the moral and ethical foundations of their thought and action, and to develop their personal values and ethical commitment.
• To participate in an ecumenical dialogue open to all beliefs.
• To extend educational opportunities to those with special financial, educational, and physical needs.
• To promote world community through the development of an international and intercultural vision of the global needs and international responsibilities for peace, justice, and freedom.

Duquesne serves God by serving students—through an academic community dedicated to excellence in liberal and professional education, through profound concern for moral and spiritual values, through the maintenance of an ecumenical atmosphere open to diversity, and through service to the Church, the community, the nation, and the world.

Complemented by a broad spectrum of nonacademic activities and programs, the curriculum at Duquesne University is designed to prepare young men and women who, upon entering their chosen careers, will possess a broad, well-balanced and fully integrated education and perspective of themselves and the world.

STATEMENT ON INTERNATIONAL EDUCATION
In the Spiritan tradition, Duquesne University through its Office of International Programs promotes the global awareness and understanding central to a broad, well-balanced and fully integrated education. Duquesne University welcomes students and faculty from throughout the world and encourages Duquesne University’s students and faculty to take advantage of opportunities to study and teach abroad.
THE UNIVERSITY SETTING

Located adjacent to downtown Pittsburgh, Duquesne University’s modern hilltop campus is readily accessible to the business, entertainment and shopping centers of the city, while still offering students the privacy and peace of its own self-enclosed 48-acre site.

Long noted as one of the world’s great corporate centers, Pittsburgh combines the features of urban living with many of the charms and personal characteristics of a much smaller town.

Students from Duquesne and the other colleges and universities in the city can choose from a wide range of cultural events and institutions.

The world-renowned Pittsburgh Symphony Orchestra, Pittsburgh Opera, and Pittsburgh Ballet Theatre all perform regularly in the elegant Heinz Hall for the Performing Arts and the Benedum Center. The theatre-goer can choose from productions of the Pittsburgh Public Theatre, O’Reilly Theater and local college drama departments.

Seasonal events include the Three Rivers and Shadyside arts festivals, and the International Folk Festival, three prestigious events which draw national attention.

Duquesne students can visit such points of interest as The Pittsburgh Zoo, Carnegie Museums of Art and Natural History, Scaife Gallery, Heinz History Center, The Andy Warhol Museum, the National Aviary, Carnegie Science Center and Buhl Planetarium, Duquesne Incline and Phipps Conservatory.

Directly across the river from campus is Mount Washington, Pittsburgh’s highest point, which offers a spectacular view of the city and its surroundings, particularly at night.

Market Square, a redeveloped area in the heart of downtown Pittsburgh, and the Shadyside area in the eastern end of the city are two of the major entertainment and nightlife centers.

The success of the various professional and major college sports teams has won for Pittsburgh the title of “City of Champions.” The Pittsburgh Pirates play at PNC Park and the five-time Super Bowl Champion Steelers play at Heinz Field. The Penguins perform in the nearby Mellon Arena. The Duquesne Dukes play their season in the on-campus facility, The A.J. Palumbo Center. Facilities for such participatory sports as tennis, golf, running, hiking, skiing, skating, and many others are available throughout the Pittsburgh area.

PHYSICAL FACILITIES

The Administration Building, “Old Main,” the first building constructed on the Duquesne campus, was dedicated in 1885. It houses the Executive Offices of the University, Office of Admissions, Registrar’s Office, Spiritan Campus Ministry, Business Offices, University Counseling Center, Financial Aid Office, Learning Skills Center, and the offices of University Events, Alumni, and Development. Adjoining the building is the University Chapel, which offers daily Masses.

The A.J. Palumbo Center. Located at the corner of Forbes Avenue and Magee Street on the northeast corner of the Duquesne campus, the multi-purpose Palumbo Center currently houses a main arena, two regulation-sized basketball courts, a new athletic training room, weight training and cardiovascular areas and locker room facilities for student athletes.

In the University’s continued commitment to athletics, a $2 million renovation and enhancement project to the Palumbo Center was recently completed and encompasses a state-of-the-art athletic training/rehabilitation facility, a new student-athlete recruitment center, film viewing and editing suites as well as the expansion and enhancement of a student-athlete only weight training and conditioning area.

Not just an athletics facility, Palumbo Center houses athletics department staff and coaches offices. Over its tenure, the center has been the site of three post-season conference volleyball tournaments, two National Invitation Tournament men’s basketball games and two opening rounds of the Atlantic 10 women’s basketball tournament. Palumbo Center also annually serves as the host site for numerous high school basketball tournaments and playoff games.

Named in honor of its benefactor, the late Antonio J. Palumbo, the facility has consistently been ranked among the top 10 grossing arenas of its size by Performance Magazine, a popular concert trade publication. Palumbo was elected to the Duquesne University board of directors and, in 1987, he received an honorary doctorate of business and administration from Duquesne. Palumbo’s generosity to the university has provided the campus with the A.J. Palumbo School of Business, as well as the home of Duquesne Athletics.
Assumption Hall, the oldest residence hall on campus, was dedicated in 1956. A four-story structure with a 254-student capacity, the facility has its own recreation area, and offers both single and double occupancy rooms. The facility includes a front desk area equipped with security cameras and ID card readers and each student room has access to the campus computer network.

The Bayer Learning Center is a modern class-room building with multimedia classrooms/laboratories, complete with internet, and interactive student personal response systems. The Bayer Learning Center houses the Department of Physics and the office of the Director of Student Services of the Bayer School of Natural and Environmental Sciences, Pre-Medical Professions, and Post-baccalaureate Pre-Medical Programs Office; and administrative, student services, and faculty offices, and Academic Research Center for Pharmacy Care of the Mylan School of Pharmacy.

Brottier Hall is an apartment complex adjacent to Rockwell Hall. It houses approximately 650 students in studio, 1-bedroom and 2-bedroom apartments. Constructed in 1967, the building is 20 stories high, with 314 total rental units. There is a fitness center, indoor parking garage, game room and vending machines. The facility includes a front desk area equipped with security cameras and ID card readers. Students are required to sign a 12 month lease. Meal plans are not required; however, a variety of meal plan options are available on a voluntary basis. Upper-class students; graduate students and married students are welcome to apply for an apartment with an August start date. University policy does not permit children to reside in Living Learning Centers.

Canevin Hall, the oldest classroom building on campus, was built in 1922 and completely renovated in 1968. A four-story building, it houses the School of Education, Reading Clinic and the Guidance and Counseling Center.

College Hall, a six-story classroom and office building dedicated in 1970, is the seat of the McAnulty College and Graduate School of Liberal Arts, housing the majority of its departments and facilities. Special instructional facilities include public computer laboratories, communication, interactive media, mathematics and social science computer laboratories, the Writing Center, TV/DVD Studio and lecture halls.

Des Places Language Center houses the Department of Modern Languages and Literatures and the production and broadcasting studios of WDUQ-FM, a full member station of National Public Radio (NPR). Named in honor of the founder of the Congregation of the Holy Spirit, the center also features multimedia language laboratories, an audio language laboratory, and seminar rooms.

The Duquesne Towers, a 17-story, air conditioned double–tower residence for 1,176 men and women featuring separate housing wings, was dedicated in 1970. The facility features a full-size indoor swimming pool, an office of Spiritan Campus Ministry, a main student lounge and smaller lounges on each floor, and the Hogan Dining Center. The facility includes a front desk area equipped with security cameras and ID card readers and each student room has access to the campus computer mainframes.

The Duquesne Union is the center of campus life and student activities. Dedicated in 1967, it houses offices of the Student Life Division, International Programs, Commuter Affairs, Health Service and various student organizations. Facilities include meeting rooms, an information center, four dining facilities including a Starbucks’ coffeehouse, Computer Store, ID Center, PNC Branch Bank, art gallery and several lounges. The Union NiteSpot is a popular gathering place for lounging and recreation. Late night programs are offered in the NiteSpot Tuesday through Saturday.

Facilities Management Building houses the offices of the Facilities Management staff.

Fisher Hall, houses the Rangos School of Health Sciences’ Departments of Health Management Systems and Speech-Language Pathology, including the Speech-Language-Hearing Clinic, faculty and staff offices, and teaching and research laboratories. It also houses the Department of Theology, Human Resource Management, Public Affairs, a conference center, computer labs, classrooms, and research laboratories. The School of Nursing is located on the fifth floor and includes a nursing computer laboratory, resource center, nursing skills laboratory, and lecture halls.
The Edward J. Hanley Hall, dedicated in 1982, resulted from the renovation and expansion of the old University Library building. The facility houses School of Law faculty and administrative offices, research and study rooms, two large amphitheater lecture halls, interview rooms, seminar and classroom areas, and a moot courtroom. The greatly expanded and fully computerized law library is the most accessible one of its kind in the city, with its central location and convenient hours. The law library is open to members of the local bench and bar, as well as law students.

In 2002, the Law School completed substantial renovations and new construction to Hanley Hall. The John E. Murray, Jr. Pavilion and library renovations combined to nearly double Hanley Hall’s existing space to approximately 125,000 square feet. This construction added three new classrooms, two new courtrooms, a new computer lab, a new lounge and cafeteria, and greatly expanded our library, student study areas, and student organizations space.

Health Sciences Building, dedicated in 1991, resulted from the renovation of the old Gymnasium. The four-story building is the home of the John G. Rangos, Sr. School of Health Sciences with its departments of athletic training, occupational therapy, physical therapy, physician assistant and Ph.D. program in Rehabilitation Science. The building provides faculty and staff offices and teaching and research laboratories.

Laval House houses the Spiritan Vocation Office.

The Gumberg Library opened in 1978 and was rededicated in 1995. The five-story structure holds an extensive collection which serves the Duquesne community on campus and at a distance, offering access to a collection that includes both print and electronic resources. The library’s collection has grown to more than 700,000 volumes.

The library makes available close to 200 research databases that index newspapers, research journals, and other publications. It provides access to more than 30,000 electronic journals, newspapers, and other periodicals as well as electronic versions of books, reference works, poems, plays and more.

The library catalog provides links to many electronic resources and to catalogs of other regional libraries. Students have several options for obtaining materials not available at Gumberg Library including E-ZBorrow and ILLiad. The library is committed to using evolving technology to deliver the information that students need in the most cost-effective manner.

The library participates in local, regional, and state consortia which support reciprocal borrowing. It also maintains agreements with regional academic libraries and hospitals that allow students to borrow books on-site at participating institutions.

Professional librarians are available for on-site and remote consultation and assistance. In addition, the library designed a course to assist students in developing the research and information literacy skills needed to succeed at Duquesne University. The course focuses on basic skills needed by every student regardless of major, and examines selected ethical issues surrounding computing and using information.

The library offers computers in the reference area, electronic classroom, and Assistive Technology Center for research needs. The Assistive Technology Center has computers equipped for the visually impaired, blind, hearing impaired, learning disabled, and students with limited English. Specialized music listening and viewing equipment is available to assist students with classwork, research, and music composition.

Wireless access is available throughout the library. Students can connect their personal laptops or library loaner laptops anywhere in the library or in one of the private study carrels.

Within the Gumberg Library there is the Maureen P. Sullivan Curriculum Center and other collections that are recognized locally, regionally, nationally and also internationally. One of these collections, The Simon Silverman Phenomenology Center promotes the advancement of phenomenology by collecting and making available in one place all the literature on phenomenology and sponsors continuing research and original scholarship. The other special collections include the Cardinal Wright Collection, the Rabbi Herman Hailperin Collection, and the Honorable Michael A. Musmanno Papers. The University Archives is also part of the library and is the center for the documented history of Duquesne University. In support of the University’s Spiritan identity and its mission, the library established the Holy Spirit Collection.

The Gumberg Library is the primary locus for distinctive intellectual resources, information literacy instruction, and related library services for students. The library is open more than 100 hours per week for research and study. However, the electronic resources are available 24/7 anywhere on campus and remotely. For more information
about the library’s collections, services, policies, departments, and facilities go to www.library.duq.edu. The website also provides access to the library’s online catalog, research databases, electronic journals and texts, and library newsletter.

McCloskey Field, dedicated in the mid-1970s, and renovated in 1998, is the center for outdoor intramural activity. The lighted field is made up of artificial turf and is surrounded by a four-lane all-weather track used by the University track and field teams. Other athletic facilities include a six-lane swimming pool, a tennis court and an outdoor basketball/tek hockey court.

Richard King Mellon Hall of Science, an attractive, four-story structure dedicated in 1968, houses the Departments of Biological Sciences and Chemistry and Biochemistry, the Dean’s Office for the Bayer School of Natural and Environmental Sciences, and faculty offices, classrooms and laboratories; and the Academic Research Centers for Pharmaceutical Technology, for Pharmacy Practice, for Pharmaceutical Information in the Mylan School of Pharmacy and the Graduate School of Pharmaceutical Sciences. Designed by one of the world’s most renowned architects, Mies van der Rohe, the building won the “Laboratory of the Year” award in 1969. Instructional facilities include two large amphitheater-style lecture halls with seating capacities of 250 each, well-equipped laboratories, and science computer facilities.

The Music School, dedicated in 1967, has 68 new Steinway pianos, five organs and a substantial inventory of orchestral and band instruments available for student use. Individual and group practice areas are available in the building, along with acoustically equipped classrooms. Performances are given in the PNC Recital Hall that houses two new Steinway model D concert grand pianos. The Fender Electronic Studio, Duquesne University Recording Complex, Keyboard Lab, and Music Technology Center feature state-of-the-art facilities for composing, performing, and recording music.

The Power Center, a 130,000-square-foot multipurpose facility, was named for Duquesne’s first president and Spiritan priest, the Rev. William Patrick Power, C.S.Sp. The center is located at the corner of Chatham Square and Forbes Avenue. Features include: Barnes & Noble at Duquesne; the Power Recreation Center; a full-service restau-
home for Duquesne University’s football, men’s and women’s soccer and women’s lacrosse teams. The field, which is equipped with lights and state-of-the-art Sportexe surface, houses an adjacent fieldhouse with locker room facilities, an athletic training room and coaches offices.

**St. Ann’s Living-Learning Center**, dedicated in 1964, is a seven-floor coed residence hall which houses 526 freshman students. The women and men are housed on separate wings of the building, allowing for privacy. The facility includes a front desk area equipped with security cameras and ID card readers, laundry machines, a recreational lounge, a Spiritan Campus Ministry Office, and vending machines. Each student room has access to the campus computer network.

**St. Martin’s Living-Learning Center**, is a 13-floor coed residence hall which houses approximately 475 freshman students. The women and men are housed on separate floors of the building, allowing for privacy. The facility includes a front desk area equipped with security cameras and ID card readers, laundry machines, a recreational lounge, computer lab, and vending machines. Each student room has access to the campus computer network.

**Trinity Hall**, dedicated in 1952, is the residence of the Spiritans who serve the University as administrators and teachers. The grounds of the hall include an attractive mall and grotto.

**Vickroy Hall** opened for Fall 1997. It is a 283 bed, air-conditioned facility, double rooms, bathroom shared by two rooms (four people). Hallways and lounge areas are carpeted. Study/television lounge on each floor. Laundry room on each floor, with one washer and two dryers. Front desk security, security cameras in elevators and all outside doors. Ground floor multi-purpose room for meetings, programs and building function. Each room has individual heating and air-conditioning units. Upper classman building. Coed by floor.

**ACCREDITATION AND AFFILIATION**

**University**

**Accreditation**

Duquesne University is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267-284-5000). The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

State Board of Education of the Pennsylvania Department of Education

**Membership**

American Association of Collegiate Registrars and Admissions Officers
American Council on Education
American Theological Library Association
Association of American Colleges and Universities
Association of Independent Colleges and Universities in Pennsylvania
Catholic College Coordinating Council
College Entrance Examination Board
Council for Advancement and Support of Education
Council of Graduate Schools
Council of Independent Colleges and Universities
Middle States Association of Collegiate Registrars and Offices of Admission
National Association of College Admission Counselors
National Association of College and University Business Officers
National Association of Foreign Student Administrators
National Association of Student Personnel Administrators
National Association of Student Financial Aid Administrators
Pennsylvania Association of Catholic College Admissions Officers
Pennsylvania Association of Colleges and Universities
Pennsylvania Association of Student Financial Aid Administrators
Pittsburgh Council on Higher Education
University Council for Educational Administration

**McAnulty College of Liberal Arts**

**Accreditation**

American Psychological Association (APA)
Commission on English Language Program Accreditation (CEA)

**Membership**

American Association for Higher Education
American Association for State and Local History
American Conference of Academic Deans
American Historical Association
American Mathematical Association
American Psychological Association
American Sociological Association
Association for Communication Administration
Association for General and Liberal Studies
Association for Integrative Studies
Association for Practical and Professional Ethics
Association of Schools of Journalism and
Mass Communication
Association for Theological Field Education
Association of American Colleges and Universities
Association of Catholic Colleges and Universities
Association of Computing Machinery
Association of Graduate Liberal Studies Programs
Association of Graduate Schools in Catholic
Colleges and Universities
Association of Departments of English
Association of Graduate Programs in Ministry
Broadcast Education Association
Central States Communication Association
Collegium
Council of Colleges of Arts and Sciences
Council of Graduate Schools
Eastern Communication Association
Historical Society of Western Pennsylvania
International Communication Association
Modern Language Association
National Association for Foreign Student Affairs (NAFSA)
National Association of Women in Higher Education
National Collegiate Honors Council
National Communication Association
Northeastern Association of Graduate Schools
Organization of American Historians
Pennsylvania Association of Graduate Schools
Teachers of English to Speakers of Other Languages (TESOL)

A.J. Palumbo School of Business Administration

Accreditation
AACSB International - The Association to Advance Collegiate Schools of Business

Membership
Middle Atlantic Association of Colleges of Business Administration

School of Education

Accreditation
American Speech-Language-Hearing Association
Association for Childhood Education International
Association for Educational Communications and Technology
Council for the Accreditation of Counseling and Related Educational Programs
Council for Exceptional Children
International Reading Association
National Association for the Education of Young Children
National Association of School Psychologists
National Council for Accreditation of Teacher Education

National Council of Teachers of English
Pennsylvania Department of Education
University Council for Educational Administration, Inc.

Membership
American Association of Colleges for Teacher Education
American Educational Research Association
Association of Independent Liberal Arts Colleges for Teacher Education
Council of Deans for Research in Educational Institutions
Council of Directors of School Psychology Programs
Council of Graduate Departments of Psychology
Educational Leadership Constituent Council
National Association of Schools of Music
Pennsylvania Association of Colleges and Teacher Educators
School District/University Collaborative Trainers of School Psychologists
University Council for Institutional Research

Rangos School of Health Sciences

Accreditation
The Commission on Accreditation of Athletic Training Education (CAATE)
The Bachelor of Science in Health Management Systems (BSHMS) degree program is accredited by the American Health Information Management Association (AHIMA)
The American Academy of Physician Assistants (AAPA) in collaboration with the Accreditation Review Committee on Education for the Physician Assistant (ARC-PA)

Membership
American Academy of Physician Assistants (AAPA) in collaboration with the Accreditation Review Committee on Education for the Physician Assistant (ARC-PA)

School of Education

Accreditation
American Speech-Language-Hearing Association
Association for Childhood Education International
Association for Educational Communications and Technology
Council for the Accreditation of Counseling and Related Educational Programs
Council for Exceptional Children
International Reading Association
National Association for the Education of Young Children
National Association of School Psychologists
National Council for Accreditation of Teacher Education

National Council of Teachers of English
Pennsylvania Department of Education
University Council for Educational Administration, Inc.

Membership
American Association of Colleges for Teacher Education
American Educational Research Association
Association of Independent Liberal Arts Colleges for Teacher Education
Council of Deans for Research in Educational Institutions
Council of Directors of School Psychology Programs
Council of Graduate Departments of Psychology
Educational Leadership Constituent Council
National Association of Schools of Music
Pennsylvania Association of Colleges and Teacher Educators
School District/University Collaborative Trainers of School Psychologists
University Council for Institutional Research
Mary Pappert School of Music
Accreditation
American Music Therapy Association (AMTA)
National Association of Schools of Music (NASM)
Pennsylvania Department of Education
Membership
American Music Therapy Association
College Music Society
Music Educators National Conference
National Association of Schools of Music
Pennsylvania Federation of Music Clubs
Pennsylvania Music Educators Association
Pennsylvania Collegiate Choral Association

Bayer School of Natural and Environmental Sciences
Accreditation
American Chemical Society Certification
Membership
Alliance for Environmental Education
Council of Environmental Deans and Directors
National Council for Science and the Environment
(University Affiliate Program)
North American Association for Environmental Education

School of Nursing
Accreditation
Commission on Collegiate Nursing Education
Pennsylvania State Board of Nursing
Membership
American Association of Colleges of Nursing
National League for Nursing
Pennsylvania Higher Education Nursing Schools Association, Inc.

Mylan School of Pharmacy
Accreditation
Accreditation Council for Pharmacy Education
Pennsylvania State Board of Pharmacy
Membership
American Association of Colleges of Pharmacy

School of Leadership and Professional Advancement
Accreditation
American Bar Association – Paralegal Institute
Membership
Alliance for Nonprofit Management
Alpha Sigma Lambda National Honor Society for Adult Learners
American Association for Paralegal Education
Association of Continuing Higher Education BoardSource

Continuing Education Association of Pennsylvania
National Academic Advising Association
North American Association of Summer Sessions
Pennsylvania Association for Nonprofit Organizations
University Continuing Education Association

SCHOOL OF LEADERSHIP AND PROFESSIONAL ADVANCEMENT
Duquesne University’s School of Leadership and Professional Advancement offers a variety of educational opportunities for adults. Courses are conveniently offered in the evenings, on Saturdays and online. Bachelors’ degrees, masters’ degrees and professional certificates are available.

For additional information, please see the School of Leadership and Professional Advancement section of this catalog or call (412) 396-5600.

CAPITAL REGION PROGRAM
Duquesne University offers graduate and undergraduate programs in the Harrisburg area. Please call (717) 612-3200 or (888) 508-2525 for more information.

SUMMER SESSIONS
Undergraduate and graduate courses are offered each summer in many areas. They are open to qualified Duquesne students, students from other colleges and universities, and visitors.

The sessions, of varying length, begin in May and run through July. For additional information regarding Summer Sessions, please contact the School of Leadership and Professional Advancement, 216 Rockwell Hall, at (412) 396-5600, 1-800-283-3853, or www.duq.edu/summer.

COMPUTING AND TECHNOLOGY SERVICES (CTS)
Computing and Technology Services, or CTS, is the department that supports students, faculty and staff in technology and technology-enabled teaching and learning at Duquesne University.

CTS Help Desk
CTS’s Help Desk is your first place for help with technology related questions at Duquesne. The hours of operation vary by time of year; however, you can find up-to-date information at http://www.technology.duq.edu. You can contact the Help Desk in the following ways: by phone (412-396-4357 or 1-888-355-8226); by e-mail (help@duq.edu); submit a request for help in DORI (www.dori.duq.edu) under the Help tab; or in person (Concourse Level, Rockwell Hall).
Policies
In order to obtain and maintain access to the Duquesne University network and all technology resources, you must comply with the policies contained herein. Failure to comply with these guidelines may result in the loss of privileges and/or judicial action. Please review Duquesne’s computing policies at http://www.technology.duq.edu/net/policies.

START-IT [STudent Advice Regarding Today’s Information Technology]
All new students should look through the detailed information of CTS’s START-IT. This document provides important information to students about how to use technology successfully at Duquesne. To read the START-IT document, please see http://www.technology.duq.edu/start-it.

MultiPass
MultiPass is your key to multiple electronic resources at Duquesne University. Your MultiPass username and MultiPass password are the two most important pieces of information that you will need for online account and technology access at Duquesne University. Visit www.duq.edu/multipass to initialize your account, for password help, and to see our current MultiPass enabled resources. You will need to initialize your MultiPass account to login to MultiPass enabled resources such as Email, DORI, Blackboard, DuqNet wireless, ResNet, etc.

DORI – Duquesne Online Resources & Information Portal
DORI (Duquesne Online Resources & Information) is Duquesne University’s On-Line Portal, and is your connection to a wealth of information, news, and tools to enhance your DU experience. You can also access course schedules and grades via DORI. After completing 30 credits of coursework**, you can register for classes through DORI.

Email Account
Your Duquesne e-mail account is your primary means of communication between you and your advisor, instructors, and classmates. DU Email is the official vehicle for the University to communicate with you regarding important issues including billing of student accounts. Your email address will be your MultiPass username @duq.edu. Please visit http://www.technology.duq.edu/hd/email for more information.

Through WebMail, you can access your Duquesne email from any computer connected to the internet in the world. To login go to www.webmail.duq.edu.

Online Course Access
Many courses offered at Duquesne have an online component. That is, students meet with their instructors and classmates face-to-face but also use an online learning system called Blackboard to retrieve course information, conduct discussions, take exams, and send assignments to the professor. It is also used as a communication tool for University Organizations, Student Societies, and Clubs. Duquesne also offers some courses completely online. For information on Blackboard and resources available to students, please see http://www.blackboard.duq.edu.

Network Access
Resident students can take advantage of the high-speed Local Area Network available in the Living-Learning Centers. Further information is available at http://www.technology.duq.edu/net/connect.

Commuters can use any ISP (Internet Service Provider) to access their Duquesne e-mail, their Blackboard courses, online resources from the Gumberg Library, and other Duquesne-related technology services from their home. All Duquesne students are eligible to connect to the DuqNet wireless network. Many locations on campus are now wireless accessible. For more information on how to configure your laptop, policies and coverage areas, visit http://www.duqnet.duq.edu.

Computer Labs
There are dozens of computer labs with over 800 computers available for use by any student with a valid Duquesne ID. Two of the labs located in the Towers and St. Martin’s LLCs are open 24/7. Detailed information on the labs is available at http://www.technology.duq.edu/labs.

Computer Store
The Computer Store provides a consulting service to aid students in the successful selection of products for their academic needs. Dell, Apple, HP and other technology products are available at a significant academic discount. All major software titles are academically discounted, too. The Computer Store is located in the Duquesne Union. Information about the Computer Store is available at http://www.technology.duq.edu/store.
Part II:
Undergraduate Admissions and Financial Aid

ADMISSIONS

OFFICE OF ADMISSIONS
The Office of Admissions is located on the first floor of the Administration Building.

Telephone: (412) 396-6222 or (800) 456-0590
Fax: (412) 396-5644
Office Hours: Monday through Friday from 8:30 a.m. to 4:30 p.m.
E-mail: admissions@duq.edu

POLICY
It is the policy of Duquesne University to admit applicants who are best qualified to profit from opportunities which the University offers for intellectual, spiritual, and social growth. Admission is based upon past academic performance, scholastic ability, standardized test scores, and personal characteristics. Information about religious preference, gender, racial characteristics, and ethnic origin is not taken into consideration by the Committee on Admissions.

ADMISSION REQUIREMENTS
1. A candidate must have graduated from an approved secondary school, achieved competitive grades in a college preparatory curriculum and demonstrated exemplary personal conduct in that institution.
2. High School curriculum must include 16 units distributed as follows: four units in English; eight units in any combination from the area of social studies, language, mathematics, and science; and four elective units for which the secondary school offers credit toward graduation. Candidates planning to enroll in pharmacy or pre-health programs, or as science or mathematics majors, must have completed a minimum of seven units in mathematics and sciences.
3. Applicants must submit competitive SAT and/or ACT scores. An audition is also required for applicants to our School of Music.

EARLY DECISION
Students who intend to apply only to Duquesne University may consider the Early Decision option. The application deadline for Early Decision is November 1 and the student must submit his/her non-refundable deposit by December 31. Students who intend to apply to multiple colleges should NOT apply as Early Decision.

EARLY ACTION
This admission option holds an application deadline of December 1 and the student has until May 1 to submit his/her non-refundable deposit. Early Action is a requirement of majors that have limited spaces. Please see our Application for Undergraduate Admission for a complete list of Early Action programs and requirements.

APPLICATION—NEW FIRST-YEAR STUDENTS
Our basic application procedure is as follows:
1. Obtain, complete, and submit the Application for Undergraduate Admission.
2. Include the $50 non-refundable application fee. No application will be processed for consideration by the Committee on Admissions unless accompanied by the required fee.
3. Request the secondary school guidance counselor to submit a transcript of the candidate’s academic record. One letter of recommendation is also required.
4. Complete the required SAT or ACT examination during the spring of junior year and/or fall of senior year. It is the personal responsibility of each candidate to have test scores forwarded to the University.
5. An interview is highly recommended for prospective students. An audition (consisting of performance, music theory and musicianship tests) is also required for School of Music applicants.
6. Students interested in being considered for University scholarships must submit their complete application by January 10 of their senior year.
7. Early Decision (see above) deadline is November 1. If accepted under Early Decision, students must submit a non-refundable tuition deposit of $500 by December 31.
8. Notification of decisions for regular admission is on a rolling basis. If accepted, students must submit a non-refundable tuition deposit of $500 by May 1 of their senior year.

9. Students applying to programs in Health Sciences: please refer to the application and school handbook for application deadlines.

It is the responsibility of the applicant to arrange to have all supporting credentials on file with the Office of Admissions and Financial Aid Office prior to the deadline dates.

EARLY ADMISSION
Exceptional students who wish to enter college prior to high school graduation may apply for Early Admission. The student’s first year of college is applied toward the completion of their high school diploma with prior agreement from their school. Early Admission applicants must have a cumulative grade point average (GPA) of 3.5+ and a minimum SAT score of 1200 or ACT score of 27. An interview with an admissions counselor, a personal essay and written permission from the applicant’s high school principal are also required. For more details, contact the Admissions Office.

College in High School (CHS)
High School juniors and seniors who wish to take university courses may do so if they fulfill the following requirements:
1. Complete and submit the Duquesne University Application for Undergraduate Admission;
2. Submit an official high school transcript;
3. Submit one letter of recommendation: from a high school counselor or from another school representative.

Students enrolled in the program receive University credit for courses taken. Courses will be offered at a reduced tuition rate. Further information and tuition rates can be obtained from the Duquesne University Office of Admissions.

International Baccalaureate (IB)

**IB Diploma students:** Duquesne University may award up to 30 academic credits to students completing the IB Diploma with a total score of 30 or above. Credit will be given for both higher and standard level subjects according to the adviser’s discretion. The diploma curriculum must include at least three higher level subjects.

**Non-diploma students:** Students who do not complete the IB Diploma are able to receive advanced standing credit for IB Higher level subjects with scores of 5, 6 or 7. IB Standard Level scores of 6 or 7 will be accepted in foreign languages for a maximum of eight semester hours per language. No credit will be given for other standard level courses. For a list of credits awarded by discipline, please contact the Office of International Programs or your academic advisor.

Advanced Placement
Students who have followed the College Entrance Examination Board college level program in secondary schools and have performed satisfactorily in the advanced placement examinations are eligible for college credit. Duquesne University grants credit, as well as placement, for achievement that merits such consideration. Subjects included in the program are: English 102, history (American and European), history of art, modern foreign languages (French, German, Spanish), Latin, mathematics AB, mathematics BC, physics B and C, chemistry, biology and computer science.

Applicants who hope to receive advanced placement credits must request that scores be sent to the University. Credit will be given for minimum advanced placement scores as determined yearly by the College of Liberal Arts.

College Level Examination Program (CLEP)
A student may acquire credits by achieving a satisfactory score on one or more of the College Level Examinations – Subject and General. Any of these examinations may be taken at Duquesne’s University Counseling Center or at any CLEP Center. Additional information regarding test dates, applications and sample test questions is available from the University Counseling Center, 308 Administration Building, phone (412) 396-6204. Students should check with the College of Liberal Arts Office or the University Counseling Center to ensure that they are eligible to receive credit for the particular exams(s) they plan to take (students must wait six months to retake a test). The policy is subject to change.
Honors College  
*Michael C. Cahall, Ph.D., Director*

Duquesne University offers its most highly qualified and outstanding freshmen the opportunity to participate in the Honors College. This selective and intellectually challenging program is available by invitation only after review of the applicant’s academic record. Please turn to page 52 for a more detailed description of the Honors College.

**APPLICATION–OTHER CATEGORIES**  
*It is the responsibility of persons who apply for evening study, or as international students, readmission students, transfers, or for the Summer Session to arrange to have all supporting credentials on file with the Office of Admissions and the Financial Aid Office before deadline dates.*

**ADMISSION OF UNDERGRADUATE INTERNATIONAL STUDENTS**

**Application Criteria**  
Duquesne University welcomes applications from qualified international students interested in entry as either freshmen or transfer applicants.

Eligibility criteria for application as a first-year freshman student include:

- a) graduation from a secondary school recognized as an acceptable equivalent to a U.S. secondary school, and
- b) a demonstrated record of acceptable academic success.

Eligibility criteria for application as a transfer student include the above criteria for freshman-level applicants plus successful completion of some post-secondary study at a recognized institution of higher education either in the applicant’s home country or in another country, including the U.S.A. Duquesne University processes requests for transfer credit evaluation according to guidelines established by the academic unit to which an application is submitted.

**Application Procedures**

Interested applicants should submit the following items:

- a) Duquesne University Undergraduate Application Form;
- b) Completed Duquesne University Affidavit of Support Form along with required accompanying financial resource certifications;
  
  (NOTE: Limited scholarships are available to undergraduate international students);
- c) Mandatory information required from International Applicant’s Sheet;
- d) Original or certified copies of all academic records of secondary and any post-secondary study. Credentials should be submitted in the native language and with certified English translation;
- e) One letter of recommendation; and
- f) Application fee in the amount specified on the application form.

Duquesne University is authorized under federal law to enroll non-immigrant foreign nationals. However, no immigration documents can be issued until all application materials, including financial resource certification, have been received. In order to complete on-campus arrival orientation, language proficiency testing, and registration, accepted international students should plan to arrive approximately one week before classes begin unless informed otherwise. All international students are required to have health insurance per U.S. immigration law and University policy.

**English Language Proficiency Requirements**

Since English is the language of instruction at Duquesne University, all accepted undergraduate and graduate students whose first language is other than English are required to sit for English language placement tests as part of their arrival program. Duquesne University placement test results determine whether students take full-time or partial courses in their academic major or need to study additional English before academic courses.

**Submission of TOEFL Scores by Applicants to Undergraduate Degree Programs**

Submission of TOEFL scores is strongly recommended since these scores can assist in earning placement into full- or partial academic study, as described below. However, since Duquesne University has an accredited and established ESL Program available to students who need additional English language study, submission of TOEFL scores is not required for application to undergraduate degree programs.

**Placement into Partial or Full Undergraduate Courses in an Academic Major**

New students earn placement into full- or partial academic courses by demonstrating sufficient English language proficiency as follows:

- Obtain a score of 525 on the Paper-based Test of English as a Foreign Language (PBT), or a 197 on the Computer-based TOEFL (CBT), or a 70 on the Internet-based TOEFL (IBT), or a 75 on the Michigan Test of English Language
Proficiency (MTELP) administered at Duquesne University AND at least a score of 5 out of 6 on the Duquesne University Writing Placement Test. OR

- Complete any required ESL Program courses and tests in the ESL Program for one or more semesters, earn a clearance recommendation from the ESL Program based on academic success AND score a TOEFL equivalent of 500 on the PBT, IBT or Institutional TOEFL administered at Duquesne University.

Notes: TOEFL scores submitted by new students must be current to within one year. The Duquesne University TOEFL Institution Code is 2196. Completion of the Institutional TOEFL by continuing students enrolled in the ESL Program is required. Students accepted to undergraduate degree majors may earn up to six elective university credits for ESL classes.

Applications to English as a Second Language Program
Students interested in applying only for English language study in the Duquesne University English as a Second Language Program (ESLP) on either a short- or long-term basis may submit an application to the ESL Program to study as a non-degree student in the ESL Program. ESL students must comply with all U.S. immigration regulations for maintenance of full-time student status. Additional information on the ESL Program may be found at www.liberalarts.duq.edu/esl and on page 53 of this catalog.

Additional Information on International Student Applications
Please direct all inquiries and requests for additional information and application materials to:
Office of International Programs
Duquesne University
601 Duquesne Union
Pittsburgh, Pennsylvania 15282-1660
U.S.A.
Telephone: 412-396-6113
Fax: 412-396-5178
e-mail: oip@duq.edu

PERSONAL GOAL STUDENTS
Personal goal students have completed a bachelor’s degree and want to register for undergraduate courses at Duquesne, but are not interested in pursuing another degree. These students must submit an application to the School of Leadership and Professional Advancement with proof of degree completion.

RE-UNDERGRADUATE ADMISSION
Any student who withdraws from the University must apply for re-admission through the Office of Admissions regardless of the time interval involved since withdrawal. A student who is dismissed for academic reasons must appeal to the Committee on Student Standing of the school from which he/she was dismissed, once the application has been submitted to the Admissions Office.

TRANSFERS
A student who wishes to transfer from another college or university must submit the complete transcripts of high school and college records to the Office of Admissions as well as submit an application for admission. When accepted, the student must supply to the dean of his/her school a description of the courses which appear on the college transcript. The student should contact the Advisement Office of his/her school for placement and curriculum planning following a reasonable period for evaluation of the college transcript.

The College of Liberal Arts may award a maximum of 60 semester hours of credit to accepted transfer applicants who have an Associate’s degree in Arts from a regionally accredited two-year institution.

Students transferring from a regionally accredited institution must present academic records which show an overall average of C+ (2.5 on a 4.0 quality point system). Only credits will transfer, not grades.

An interview is highly recommended for all transfer students. All transfer students are required to complete the Duquesne University transfer form.
TEMPORARY TRANSFERS
Temporary transfers are students enrolled in another college or university but wish to take courses at Duquesne University for one semester. These students must submit an application to the School of Leadership and Professional Advancement along with an official transcript and an official letter of permission from their home institution. Temporary transfers are permitted to register for no more than two semesters.

SUMMER SESSION
DUQUESNE STUDENTS
Any Duquesne University undergraduate student who was granted continuance at the close of the preceding Spring Semester is authorized to register in the Summer Session. Students who were dismissed by their school at the close of the preceding Spring Semester for academic reasons may register for summer classes by permission of the Committee on Student Standing of their School. All students must have their course selections approved by their academic advisor.

Graduates and other former students, including any who withdrew from the University, must obtain re-admittance before they may register for summer classes.

VISITING STUDENTS
Students from other colleges or universities may enroll in summer courses at Duquesne University as visiting students. Visiting students must complete an application to the School of Leadership and Professional Advancement. Visiting students should also receive permission from their home institutions to enroll in summer courses to ensure that these credits will transfer upon completion. Registrations for all summer courses are processed through the School of Leadership and Professional Advancement.

GRADUATE STUDENTS
Students interested in graduate school admissions must directly contact the specific school for their program of interest (see Programs and Courses). For general questions, e-mail gradinfo@duq.edu.
Financial Aid

Financial aid is defined as scholarships, grants, loans and part-time employment awarded to help meet the cost of education. Cost of education includes tuition, fees, room and board or a living expense, books and allowances for personal and transportation costs. Awards can be merit based or need based and come through a variety of sources including Federal and State Government, Private Organizations and the University itself.

APPLICATION PROCEDURE

Students must apply for any awards by May 1 of each year. Where awards are based in whole or part on financial need, the student MUST also complete a Free Application for Federal Student Aid (FAFSA) each year. Since this form also constitutes application for State Grants special attention should be paid to state grant deadlines listed on the FAFSA form—for Pennsylvania the deadline is May 1.

ACADEMIC PROGRESS STANDARDS

Federal, state and institutional financial aid policies mandate that a financial aid recipient demonstrate academic progress toward the completion of their program of study in order to receive continued financial assistance. These standards may differ from University academic standards for continuance.

The Office of Financial Aid conducts academic progress reviews annually at the completion of the spring term. Grades and credits that a student earned from the fall and spring terms are compared to the progress standards of the financial aid program from which the student received aid to determine if they will be academically eligible to receive aid for the next academic year. The Director of Financial Aid will notify, in writing, students who do not meet academic progress standards for financial aid renewal. Information regarding the appeal process will be included with this notification.

A complete copy of the “Duquesne University Academic Progress Standards for Undergraduate Financial Aid Recipients” can be obtained at: www.financialaid.duq.edu.

PROGRAMS OF AID ADMINISTERED BY THE FINANCIAL AID OFFICE

University Scholarships/Grants: Initial academic eligibility is determined by the Undergraduate Admissions Office, based on the academic credentials of the applicant pool each year. Awards are renewable for the normal course of the student’s undergraduate programs provided (1) student is full time; (2) maintains minimum cumulative QPA required by award; (3) files a University Aid Application by May 1 each year; and, (4) continues to meet any other requirements of the award.

Available to incoming Freshmen—then renewable with cumulative QPA indicated:
- Duquesne University Academic Scholarship (DUAS) 2.50
- Laval Scholarship 2.50
- Libermann Scholarship for International Students: amount varies

Available to renewal students only—with cumulative QPA indicated:
- Scholars/ROTC: Assistance toward room and board costs for ROTC Scholarship winners. Renewable with re-application, minimum cumulative QPA required, on-campus residence and ROTC award.
- Duquesne Grant: These grant funds are awarded to students with remaining need after utilizing all aid resources available. Renewable with minimum cumulative QPA of 2.00, and continued need for funds after utilizing other aid sources available.

Federal Supplemental Educational Opportunity Grant (SEOG): Grant funds received through the Federal Government awarded to undergraduate students with exceptional need. Preference to students who receive Federal Pell Grants.

Federal Perkins Loans: Recipients are selected in accordance with guidelines published by the Federal Government with amount of award based on available funding. Repayment begins nine months after borrower terminates at least half-time study, and is normally scheduled over a 10-year period at an interest rate of 5% per year.

Federal Nursing & Health Professions Loans: Selection and repayment identical to Perkins loan except that only full-time, dependent undergraduate Nursing Students are eligible for the Nursing Loans and only full-time, dependent undergraduate Pharmacy (not Pre-Pharmacy) students are eligible for the Health Professions Loan.

Institutional Loans: Limited loan funds are available to full-time undergraduate students. Repayment periods and interest rates vary. Funds made available through Alcoa Foundation.
Kerschgens Estate, and Stanley K. Power Trust of the Pittsburgh Foundation available only to residents of Allegheny County in Pennsylvania. Funds made available through Gulf Oil Corporation are available to final year students.


OTHER SOURCES OF AID

Federal Pell Grant Program: Direct grant assistance through the Federal Government is available to undergraduates based on an eligibility formula developed each year by Congress. All undergraduates are advised to apply for the Federal Pell Grant. Completion of the FAFSA provides application.

State Grants: The majority of states that provide grants to students use the FAFSA as the basic application. Deadline dates for each state appear in the FAFSA information. Pennsylvania’s deadline is May 1.

Loans:

Federal Stafford Loans: Requires completion of FAFSA and Stafford Loan Master Promissory Note (MPN). New applications can be requested through most banks and lending institutions. Available to students who enroll at least half time. Interest rates vary. Loan limits vary with academic level.

$3500 for first academic level

$4500 for second academic level

$5500 for third and fourth academic levels

(Also 5th year Pharmacy)

The Federal Stafford Loan is need based. In the event the student does not demonstrate need for all or part of the loan limits above, Unsubsidized Stafford Loans are available. Interest must be paid while in school, but all other conditions are the same as the Federal Stafford Loan.

Additional Federal Unsubsidized Stafford Loan (for undergraduate dependent students): $2000 per academic year.

Additional Federal Unsubsidized Stafford Loans: Available to independent students and dependent students whose parent is denied for the Federal PLUS Loan. Can apply for this loan using the Federal Stafford Loan Master Promissory Note (MPN). Interest rates vary. Loan limits vary with academic level.

$6000 for first and second academic levels

$7000 for third and fourth academic levels

(Also 5th year Pharmacy)

Federal PLUS Loans: Available to parents of dependent undergraduate students. Loan applications may be obtained through most banks and lending institutions. Interest rate varies. Maximum is calculated cost of education minus all financial aid.

University Discounts: The following discounts are available to students meeting the requirements indicated. Discounts will be at basic tuition rate and may be used toward only one degree or part thereof. No other form of tuition remission or discount can be used simultaneously. Some program restrictions may apply.

Catholic High School Graduates: A 25% discount on basic tuition is extended to graduates of Vincentian Academy-Duquesne University. This discount is effective with initial enrollment at Duquesne University immediately in the fall following graduation. A 10% discount on basic tuition is extended to graduates of Roman Catholic High Schools in the Dioceses of Pittsburgh, Greensburg and Altoona/Johnstown who enroll as full-time students in the fall immediately following graduation. Renewal requires continuous full-time enrollment during the academic years following initial enrollment, and re-application through the Financial Aid Office.

Clergy/Religious: Members of University-recognized Christian and Jewish Religions, who have been ordained, or professed members of a Catholic Clergy/Religious Order may be eligible to receive a 50% discount of basic rate of school or rate of school of enrollment, whichever is lower. Official certification of ordination and documentation of formal theological education is required for first time non-Catholic clergy applicants.

Lay Teachers: Current full-time lay teachers or high school administrators required to obtain Administrative I Certification in a Catholic School located in Roman Catholic schools in Pittsburgh, Greensburg, or Altoona-Johnstown Dioceses or lay teachers from other dioceses who have completed a minimum of two years of full-time teaching in a Catholic School may be eligible to receive a 50% discount of basic tuition rate of school or rate of school of enrollment, whichever is lower.
Senior Citizen: Men and women who are 60 years of age or older may be eligible to receive a 50% discount.

Lay Ministers: Men and women employed as lay ministers within the Roman Catholic Diocese of Pittsburgh as Pastoral Associates, Professional Youth Ministers, Parish Social Ministers, and Campus Ministers may be eligible to receive a 50% discount of basic rate, or rate of school of enrollment, whichever is lower. Eligibility must be verified by the Institute for Ministers of the Diocese of Pittsburgh.

Music Ministers: Men and women employed as organists or choir directors at recognized religious institutions may be eligible to receive a 50% discount of basic rate, or rate of school of enrollment, whichever is lower. May not be full-time students and must be enrolled in either the School of Leadership and Professional Advancement (non-degree) or the School of Music.

Other Possibilities: In addition to programs outlined above financial aid may be obtained through private sources. Students should inquire through (1) high school guidance offices, (2) parents’ employers or labor unions, (3) fraternal, social, religious or professional organizations, (4) major organizations utilizing the skills of the field for which the student is preparing.

ROTC Scholarships: Available to incoming students and currently enrolled students. For additional information and application procedure contact the Military Science Department at the University of Pittsburgh, (412) 624-6254.

Endowed and Restricted Gift Funds: The following awards are administered through the Financial Aid Office and require an aid application and FAFSA form. The Office of Financial Aid will automatically notify you if you are selected to receive assistance from an endowed or restricted account.

Richard and Verna Bercik Scholarship: Based on need and academics.

Pauline and Sidney Berlin Scholarship: Based on need and academics.

Joy and Walter Blenko Scholarship: Based on academics.

John J. Bongiorno Scholarship: Based on need and academics.


Clifford E. Brown Scholarship: Based on need and academics.

Byzantine Rite Seminarian Scholarship: For Byzantine seminarians.

Richard S. Caliguiri Scholarship: Child of judge from Allegheny County or Western Pennsylvania or child of any employee in Court System.

Cindy Campbell Memorial Scholarship: Awarded to freshmen based on need and academics.

Anthony Caquatto Scholarship: Based on need and academics. Enrollment in A.J. Palumbo School of Business.

Madeline A. Caquatto Nursing Scholarship: Need and good academic standing. Enrollment in the School of Nursing.

Century Club Scholarship: Need based. Final year student with 3.5 QPA or higher. One male and one female student each year.

Chemistry Department Scholarship: Chemistry major.

John A. Clair, Ph.D. Scholarship: Academic and need. Awarded to seminarians.

Computing and Technology Services Scholarship: Based on need. Computer Science or Information Technology majors.

Robert J. Conedera Scholarship: Based on need. Awarded to freshmen from Clairton High School.

Lt. Col. Dan Conn Scholarship: Need based. Member of parish in Diocese of Pittsburgh.

John J. Connelly Fund for Minority Student Resources: Benefits minority students.
The Grattan Family Scholarship: Need based.

Mark Greenfield Memorial Scholarship: Merit based.

William J. Hart Scholarship: Need based.


Heck Family Scholarship: Need based. Enrollment in Mylan School of Pharmacy.

Doris B. Hesselberg Scholarship: Based on need and minimum 2.5 QPA. Enrollment in McAnulty College of Liberal Arts.

Mary Ann Hoffman Scholarship: Need based.

Leslie Anne Hoover Memorial Scholarship: Based on need. Enrollment in School of Nursing.

Ken Horvat Memorial Scholarship: Based on need, merit, or a combination of both. Students who have graduated from Apollo Ridge, Kiski Area or Leechburg High Schools.

Hungarian Heritage Scholarship: Based on need and academics. Enrollment in McAnulty College of Liberal Arts. Order of preference: students from Hungary, students studying in Hungary, students studying Hungarian, students of Hungarian heritage, any needy and worthy student.

Sylvia Rose Lunardini Hughes Scholarship: Based on need and academics. Theology major.

Hunkele Scholarship: For seminarians of the Roman Catholic Diocese of Pittsburgh.

John P. Hurley, Jr. Scholarship: Students who are enrolled in the Spiritan Division of Academic Programs.

Minnie Hyman Scholarship: Need based. Selection by member of Hyman Family Trust.

IKON Scholarship: Based on need and academics.

IKON Football Scholarship: Benefits members of the Duquesne University football team.

Frank J. Ippolito Scholarship: Based on need and academics.
Jill and Stan Jankowski Scholarship: Female sophomore students with a QPA of 3.5 or higher who demonstrate need. First preference, Business Marketing major; second preference, Journalism major.

Dr. Henry E. Janus Instrumental Music Scholarship: Good academic standing and need. Instrumental music major.

Clarence B. Johnson Scholarship: Merit based. Minimum 3.5 QPA.


Kate M. Kelley Scholarship: Need based.

James Wallace and Loujean Agnew Kelly Memorial Scholarship: Business School student.

William J. Kerschgens Scholarship: Need based. Residents of Allegheny County, PA.

Frank H. Kirk Scholarship: Need based.

Rosemary Kirr and Richard Gibson Scholarship: Based on need and minimum 3.25 QPA.


Andrew Kozora Scholarship: Based on need and academics. Juniors and Seniors with math or physics major.

Francis J. Krahe Scholarship: Need based. Enrollment in the School of Business.

Alfreda M. Kripp Scholarship: Based on need and academics.

Isadore and Jonell Lenglet Scholarship: Students must demonstrate academic merit.

Virginia C. Lewis Scholarship: Annual award to female undergraduate music student. Based on need and academics.

F. William Linn Scholarship: Need based.

Mary H. and Peter Loftus Scholarship: Need based.
Raymond F. Merkel Scholarship: Based on need and academics.


John Joseph Mongillo Award: Need based.

Joseph F. Mulach, Jr. Scholarship: Need based. Students who are enrolled in either the School of Music or the School of Education. For further criteria, please contact the Director of Financial Aid.

The Munhall Family Scholarship: Need based.

Maurice T. Murphy Scholarship: For student athletes, based on need and a consideration for academic merit.

Liz and John E. Murray, Jr. Scholarship: Need based.

David Musick Scholarship: Awarded to incoming freshmen, based on need and academics, who are from Jeannette High School, or from the Jeannette area.

Felicetta and Giacinto Oddis Scholarship: Need based. Enrollment in Mylan School of Pharmacy.


E. Thomas Pappert/DaimlerChrysler Minority Dealers Association Scholarship: Awarded to minority students who have residency in one of the fifty states and based on financial need.

Michael J. Parada Memorial Student Resource Fund: Benefits full-time undergraduate students studying at Duquesne.

Jim and Lynne Pasquarette Scholarship: Business students with merit, i.e. QPA of 3.25 or higher.

Jane and George Pfifer Scholarship: Based on need and academics.

Dr. and Mrs. Arthur William Phillips Scholarship: Based on academics. Pennsylvania residents from Allegheny, Armstrong, Butler, Clarion, Crawford, Jefferson, Lawrence, Mercer or Venango counties.

Pioneer and War Years Scholarship: Need based.

J.W. and Ruth Lewis Rahde Scholarship: Need based.

Ransil-Kennedy Scholarship: Need and GPA of 3.0 or higher. Preference for students who are majoring in chemistry, philosophy, theology and/or pre-law.

Susan M. Regan, A’76 Scholarship: Benefits journalism and multi-media arts undergraduate students with a preference for those who have demonstrated a commitment to or will continue promoting the use of lumber and/or other green/sustainable resources.

Alan Reynolds Scholarship: Need based.

Marie B. Roche Scholarship: Need based.

June Marie Scarinzi Scholarship: Academic and need based. Enrollment in the School of Pharmacy.

Peter A. Schepis Scholarship: Preference to Pennsylvania residents. Top 25% high school class. Need based.

Frank W. Schratz Scholarship: Based on need and academics. Enrollment in A.J. Palumbo School of Business.

Charles Schwab Scholarship: Need based to graduates of Central Catholic High School and preference to Business students.


R.P. Simmons Family Foundation Scholarship: Need or Merit based. Residents of Tri-State area-Pennsylvania, Ohio, West Virginia.

Fr. Francis P. Smith, C.S.Sp. Scholarship: Benefits students who demonstrate financial need or demonstrate academic merit and with a preference for students with a minimum 3.0 GPA.

Jerry Smith II Scholarship: Need based, average grades.

Richard S. and Elizabeth A. Smith Scholarship: Merit based.
Spring Hill Foundation: Wayne County, PA residents with preference to children of employees or residents of Sterling Township. A 2.6 QPA needed for renewal.

Patrick F. and Susan M. Spano Scholarship: Need based. Enrollment in A.J. Palumbo School of Business.

John A. Staley IV and Patricia D. Staley Scholarship: Based on need and academics. Enrollment in A.J. Palumbo School of Business.

Marie B. Statler Scholarship: Need based.

Patrick and Mary Stinely Scholarship: Need based. Classics major.

Marjorie Eyles Sullivan Scholarship: Juniors or Seniors majoring in Special or Elementary Education.

Paul Sullivan Scholarship: Need based. Enrollment in the McAnulty College of Liberal Arts.

Patrick and Louise Tassari Scholarship: Need based.

Theology Scholarship: Based on need and academics.

William Uricchio Memorial Scholarship: Benefits incoming freshmen who are enrolled in the Bayer School of Natural & Environmental Sciences who demonstrate financial need and academic merit. This scholarship is renewable.

Barbara Verbiar Scholarship: Based on need and academics.

Donald L. Very Scholarship: Based on need and academics.

Raymond Vollmer Scholarship: Benefits seminar-ians studying at Duquesne.

James F. and Mary Ellen Will Scholarship: Need based. Preference to business majors.

Virginia Kushner Williams Scholarship: Based on need and academics. Education majors.

Thomas J. Winschel Scholarship: Need based.

Harry and Patricia Witt Scholarship: Based on need and academics.

Ronald and Lisbeth Wolfe Scholarship: Need based.

Richard Wright Family Scholarship: Based on need and academics.

Joseph A. Young Scholarship: Need based. Preference to members of St. Aloysius Parish, Pittsburgh.

The following are awarded by financial aid and outside representatives:

Albert and Amborsina Colecchia Scholarship: Based on Academics. Juniors and Seniors in McAnulty College of Liberal Arts or Bayer School of Natural and Environmental Sciences with specific majors.

Nathan and Harry Daly Scholarship: Based on need and academics. Residents of Butler County, PA.

SGA Scholarships: Based on need and activities. Apply through SGA Office by April 1.

Melville A. Eberhardt Memorial Fund: Based on need, academics and activities.

Merle E. Gilliland Scholarship: Based on need and academics.

USX Good Fellowship Scholarship: For children of USX employees with minimum 2.5 QPA.

Student Life:

Thomas Bartolec Scholarship: Based on need, academics and service. Sophomores and Juniors in Business.

The Coalhouse Scholarship: Based on need and volunteer activities.

James V. Donatelli Scholarship: Need and merit based. Leadership through volunteer service must be demonstrated and a preference for students who graduated from Catholic schools. Applicants must submit a letter of interest to the Director of DUV (Duquesne University Volunteers).

Clinton Eddy Goodwin Memorial Scholarship: Based on academics. Pharmacy students who have an interest in a University Athletic Program.

Justin Henderson Sigma Tau Memorial Scholarship Fund: Benefits members of the Sigma Tau fraternity.
Patrick and Mary Hogan Scholarship: Need based.


Nicholas Isaacs Delta Chi Memorial Scholarship: Students must be members in good standing of Delta Chi. Students with a minimum 2.75 QPA who are active in an additional on-campus organization should apply directly to the Director of Greek Life.

Brother Jerry Keating Scholarship: Awarded at the discretion of the Executive Vice President for Student Life.


Harry McCloskey Memorial Award: Based on academics, character and volunteer activity.

Ann O'Toole Scholarship: Awarded at the discretion of the Executive Vice President for Student Life.

George R. Puskar Scholarship: Awarded to disabled students based upon need and academics.

Vira Heinz Travel Award: Female students selected on the basis of academic achievement and interest in intercultural or international relations.

Frank P. DeMarco Scholarship: Award based on need or emergency situation to those of Italian Heritage. Administered jointly by Executive Vice President for Student Life and Director of Financial Aid.

Patricia E. Watt and Marian E. Hirst Scholarship: Awarded at the discretion of the Executive Vice President for Student Life.

College of Liberal Arts:
Carroll Scholarship: Based on academics and creative writing. Apply through English Department.

Frances Chivers Scholarship: Based on recommendations of English Department Chair. Juniors and Seniors in English.

Lynne and Bert Einloth III Scholarship: Based on academic merit.

Mary L. Fenner and Charles J. Fenner, C.S.Sp., Theology Scholarship: Theology students.

Hazel and Edward Goett Sociology Scholarship: Based on need and academics. Sociology majors.

Integrated Honors Program Scholarship: For students enrolled in the Integrated Honors Program, who demonstrate both financial need and academic merit.

Keenan-Lane Scholarship: Benefits students who are members of the Red Masquers.

Paul Krakowski Scholarship: Based on need and academics. Minority students majoring in journalism.

Msgr. Paul M. Lackner Theology Scholarship: Theology students.


O'Donnell/Beymer Scholarship: Awarded to students majoring in English who demonstrate academic merit.

William T. Rush Scholarship: Seniors majoring in journalism. Need is not a factor.

School of Business Administration:
Scholarship application/information available from the Advisement Office, 705 Rockwell Hall.

Accounting Scholarships: Available to sophomores, juniors and seniors majoring in accounting. Awards are based on need and academics. Applications available from Accounting faculty.

Business Alumni Association Scholarships: Qualified sophomores or juniors in the A.J. Palumbo School of Business Administration may apply. Based on financial need and/or merit (3.0 QPA).

Glen Beeson Scholarship: Qualified sophomores, juniors or seniors in the A.J. Palumbo School of Business Administration may apply. Based on financial need and merit (3.5 QPA).

Clifford E. Brown Scholarship: Awarded annually to an undergraduate Business student, based on financial need and merit. Administered by the Financial Aid Office.
Anthony Caquatto Scholarship: Awarded annually to an undergraduate or graduate Business student. Based on financial need and merit. Administered by the Financial Aid Office.

CONSOL Energy: Awarded to a student majoring in Accounting, with 3.4 QPA. Available to sophomores, juniors and seniors. Final determination based on essay.

Charles and Lucille Gebhardt Scholarship: Qualified second semester freshmen, sophomores or juniors in the A.J. Palumbo School of Business Administration may apply. Based on financial need and/or merit (3.5 QPA).

John L. McDonough, Jr. Scholarship: Awarded to students majoring in Accounting, who demonstrate financial need and academic merit, with a preference for incoming freshmen students.

Edward Milcic Memorial Scholarship: Awarded to qualified Accounting students who are sophomores, juniors, or seniors. Based on financial need and merit.

Joseph Monteverde Scholarship: Qualified freshman, sophomores, and juniors in the A.J. Palumbo School of Business Administration may apply. Based on financial need and/or merit (3.5 QPA).

James Louis Radakovich Scholarship: Awarded annually through Delta Sigma Pi in the amount of $500.00 to a sophomore or junior student majoring in Accounting or Information Systems Management. Based on financial need and a minimum QPA of 2.5.

Patrick F. and Susan M. Spano Scholarship: Awarded annually to an undergraduate Business student with financial need. Administered by the Financial Aid Office.

Traffic Club of Pittsburgh: Competitive Scholarship for junior or senior Supply Chain Management majors with minimum 2.75 QPA. Apply in February.

Donald W. Weber Endowed Scholarship: Qualified freshmen, sophomores, or juniors in the A.J. Palumbo School of Business Administration may apply. Based on financial need and merit (3.5 QPA).

James F. and Mary Ellen Will Scholarship: Awarded annually to an undergraduate Business student with financial need. Administered by the Financial Aid Office.

Please refer to the website [http://www.business.duq.edu/scholarships](http://www.business.duq.edu/scholarships) for current information.

School of Education:

Mary Bischoff Scholarship: Need based.

Katherine M. Conner Scholarship: Based on need and academics. Special Education major.

William F. Faith Memorial Scholarship: Sophomore involvement in on- or off-campus professional development.

Hearst Scholarship: Preference to minority students who have completed associate degree at Allegheny, Beaver or Butler County Community College.

Dr. Lawrence Roche Scholarship: Juniors. Based on need and academics.

Marjorie Eyles Sullivan Scholarship: Juniors or Seniors with Special or Elementary Education majors.

Valspar Foundation Scholarship: Awarded to minority computer summer camp participants.

School of Health Sciences:

Athletic Training: Scholarships are available to students who are members of the National Athletic Trainers Association (NATA) and Pennsylvania Athletic Trainers Society (PATS). Applications are eligible on the PATS, Eastern Athletic Trainers Association (EATA) and NATA Research and Education (NATA-REF) websites.


Occupational Therapy: Scholarships for students in professional phase. Applications available through the American Occupational Therapy Foundation, 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220.

Physical Therapy: Financial aid and scholarship information may be obtained from the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314. Phone: (703) 684-2782.
Daniel V. Unico Scholarship: One final year Physical Therapy student is awarded this scholarship based on significant financial need. RSHS fourth year students in physician assistant, physical therapy, occupational therapy and speech-language pathology, and third year students in athletic training and health management systems are eligible to apply. Not renewable.

pt Group Scholarship: One final year Physical Therapy student is awarded this scholarship based on outstanding clinical performance during clinical education.

Physician Assistant: Financial aid and scholarships are available through the American Academy of Physician Assistants, the Physician Assistant Foundation Scholarship Program, and the Pennsylvania Society of Physician Assistants. The Department of Physician Assistant will provide information to students.

Arnold W. Midili Scholarship: Awarded to a 5th year Physician Assistant student based on academic achievement and financial aid.

Marcy Sobczak Spirit Award: Awarded to a 4th year Physician Assistant student who is the most positive influence on their class.

Speech-Language Pathology: Financial aid and scholarship information may be obtained by writing to the American Speech-Language-Hearing Association, 10801 Rockville Pike, Rockville, MD 20852. Phone: (301) 897-5700.

William and Marie Lowry Scholarship: One is awarded this scholarship based on significant financial need. RSHS fourth year students in physician assistant, physical therapy, occupational therapy and speech-language pathology, and third year students in athletic training and health management systems are eligible to apply. Not renewable.

Jerome L. Martin Scholarship: This scholarship provides support to a Rangos School of Health Sciences student in the doctoral or professional level of their academic program who demonstrates academic excellence (primary criteria) and financial need (secondary criteria).

Institutional Employment Contracts: Hospitals in Southwestern Pennsylvania may provide scholarships for students in the professional phase. While information may be posted by departments, the University will not initiate or coordinate these programs. Students must independently seek out these sources. Students are advised to seek legal counsel before signing any documents.

School of Music:

Alfred d’Auberge Scholarship: Based on need and academics.

Marie W. and Richard H. Barry Scholarship: Recommended by the Dean.

Dorothy M. Froelich Scholarship: Students who are studying voice in order to pursue a career in opera.

James Hunter Memorial Award: Based upon musical and scholarly excellence.

Ronald Lavelle Memorial Scholarship: Trumpet player. Need based.

Anthony S. Michalski Family Scholarship: Based on need and academics. Enrollment in the Mary Pappert School of Music, with a strong preference for students studying voice.

Robert Minardi Scholarship: Need based, academics secondary.

Music Therapy Scholarship: Music Therapy students.

Anne K. Patton and George Locker Scholarship: Based upon musical and scholarly excellence.

Paul B. Reinhold Scholarship: Based upon musical and scholarly excellence.

Riley Piano Award: One award per year for piano excellence.

Louis V. Rocereto Scholarship: Woodwind major. Based on academics.

Aaron and Lorraine Shearer Classic Guitar Fund: classical guitar student.

Matty & Eddie Shiner: Students studying brass instruments.

Josephine Tucci Scholarship for the Schools of Pharmacy and Music: Awarded to deserving Pharmacy or Music students based on merit. This award alternates between the two schools annually.

Henrietta Voyvodich Cello Scholarship: Cello student, minimum 3.0 QPA.

Women’s Advisory Scholarship: Full time student.
Other Awards: Contact Dean’s Office for information — Presser Scholarship, Loyal Christian Benefit Association Award, Music School Scholarships.

School of Natural & Environmental Sciences:
Gregory S. Babe Fund for Student Resources: Assist students in the Bayer School of Natural and Environmental Sciences.

Bayer Scholarship: For chemistry majors interested in a career in materials science. Scholarship awards to women and minority students. Up to 4 awards given per year.

Bayer Undergraduate Summer Research Fellowships: For Bayer School of Natural and Environmental Sciences students.

Chemistry Department Scholarship: For chemistry majors.

Nancy and Norbert Maranowski Scholarship: Awarded to an undergraduate student in the Bayer School of Natural and Environmental Sciences majoring in one of the natural sciences, including mathematics. Renewable if student maintains a QPA of 3.25/4.0 in their major and QPA of 2.75/4.0 overall. First preference for those students who demonstrate both need and merit and who are graduates of Central or North Catholic High Schools. Second preference to graduates of other Pittsburgh diocesan high schools.

Simon Scholarship: Award based on merit and need for physics, binary engineering, or computer science majors.

School of Nursing:
Joseph William Hauser Scholarship: For male nursing students based on financial need. For sophomore, junior, and senior nursing students.

Ruth Maszkiewicz Memorial Scholarship: For nursing students based on financial need and academic merit. For sophomore, junior, and senior nursing students.

James P. McQuade Family Scholarship: For female nursing students based on financial need. For sophomore, junior, and senior nursing students.

Herbert Schreiber Scholarship: For junior or senior nursing students based on financial need and academic merit.

Barbara Ann Verbiar Scholarship: For nursing students based on financial need. Determined by Financial Aid Office.

Leslie Hoover Memorial Scholarship: For nursing students based on financial need. Determined by Financial Aid Office.

T. Leskanic Scholarship: For nursing students based on financial need and academic merit. For sophomore, junior, and senior nursing students.

A. Petraitis Scholarship: For nursing students based on financial need and academic merit. For sophomore, junior, and senior nursing students.

Richardson Dunn Scholarship: For nursing students who graduated from a high school in Allegheny County, City of Pittsburgh or Diocese of Pittsburgh. Preference for graduates of St. Mary of the Mount grade school. For sophomore, junior, and senior nursing students.

School of Pharmacy:
All Pharmacy students should consult the Duquesne University Undergraduate Catalog and the Office of Financial Aid, Administration Building, Ground Floor, for specific information on scholarships, loans and part-time employment requirements. Unless otherwise stated, apply through the School of Pharmacy.

Women of Galen: Provided by Women’s Auxiliary of Galen Pharmaceutical Society of Pittsburgh to deserving final year Pharmacy students.

Samuel W. Curtis Loan: To provide assistance for Pharmacy students.

Chilson Loan: To provide assistance for Pharmacy students.

Joel P. Laughlin Scholarship: Awarded by the Graduate Chapter of Phi Delta Chi in memory of Joel P. Laughlin. Awards made to fraternity brothers who have demonstrated academic achievement and active participation in fraternity functions.

Manzione Family Scholarship: Endowed fund established in 1994. Awarded annually to a Pharmacy student in the professional phase. Based on need and academics.

Clinton Eddy Goodwin Scholarship: In memory of Clinton Eddy Goodwin. Candidates must be a declared Pharmacy major, possess a minimum QPA, and have an interest in and demonstrated support of the University athletic program.
Donald Bell Scholarship Fund of Eckerd (Thrift) Drug Company: Awarded annually to deserving Pharmacy students who are entering the first years of the curriculum. Based on combination of scholarship, need, and demonstrated interest in community pharmacy practice.

Geraldine (Muia) Furgiuele Scholarship: In memory of Geraldine (Muia) Furgiuele, P’50. Provides scholarships for needy and deserving female students in the School of Pharmacy.

Rosemarie Bevacqua Scholarship: In memory of Rosemarie Bevacqua, P’55. Provides scholarships for needy and deserving Pharmacy students.

School of Pharmacy Alumni Scholarship: Funds available through support of Pharmacy Alumni for needy and academically deserving Pharmacy students. Apply through the School of Pharmacy Faculty Scholarship Committee, Office of the Dean.

School of Pharmacy, Class of 1959 Scholarship: Awarded annually to deserving and needy Pharmacy students in the final years of study.

American Pharmaceutical Association Auxiliary Irene Parks Loan: Loan funds available to Pharmacy students in the final years of the Pharmacy degree program.

Cora E. Craven, Norma Wells, Mary Connolly Livingston Educational Grants: Grants awarded annually to members in good standing of Lambda Kappa Sigma, enrolled in Doctor of Pharmacy program. Must rank in upper half of her class and present evidence of financial need. Application information from School of Pharmacy.

Tau Alumni Chapter of Lambda Kappa Sigma – Rose Manzione Scholarship: In memory of Rose Manzione, P’49. Financial awards for members in the last years of the Pharmacy program. Based on financial need and participation in the organization.

Dr. B. Olive Cole Graduate Grant: Offered by Lambda Kappa Sigma to assist an alumnae member enrolled in program of graduate study and research in the pharmaceutical sciences. Application must be received by chairman of the grant committee by November 15. Information from School of Pharmacy.

WONCPA Scholarship: Women’s Organization of National Community Pharmacists Association offers annual scholarships for pharmacy study. The award amount is determined by established need and academic standing of the applicant. Apply directly to WONCPA by June 1.
**Don Bell Memorial Scholarship:** In memory of Don Bell, P’57. Annual award to a Pharmacy student based on need and scholarship.

**Wal-Mart Pharmacy Scholarship:** Awarded annually to an upper-level Pharmacy student. Based on high academic standing, financial need and expressed interest in community pharmacy practice.

**Gene L. Checcone Scholarship:** In memory of Gene L. Checcone, P’52. Annual award to Pharmacy student in good academic standing with need.

**Patrice Lynn Trainor Scholarship:** Endowed fund established by Charles J. Trainor, P’51, family. Annual award to a Pharmacy student in good academic standing with need.

**Richard H. and Marie W. Barry Scholarship:** In memory of Richard H. Barry, P’39. Selection of recipients from Pharmacy classes will be based on good academic standing and need.

**Jock J. Rosenberg Scholarship:** Endowed fund established by Rosenberg family in memory of Jock J. Rosenberg, P’28. Annual award to a deserving Pharmacy student to assist with tuition expenses.

**Joseph A. Mosso, P’54, Scholarship:** Annual award based on need and demonstrated interest and involvement in independent pharmacy practice.

**Sonja F. DeGray, P’59, Scholarship:** Assistance based on merit and need to Pharmacy student in professional phase of Pharm.D. program.

**Norman H. Marcus Scholarship:** Endowed fund established by Marcus family in memory of Norman Marcus, P’50. Award to Pharmacy student based on merit and need and demonstrated interest in community or long term care practice.

**Hugh C. Muldoon Scholarship:** Endowed fund in memory of the founding Dean of the School of Pharmacy and maintained by contributions of Pharmacy alumni.

**Gerard J. Wolf Pharmacy Alumni Scholarship:** Endowed fund established by Pharmacy Alumni Association in memory of Jerry Wolf, P’49, longtime member and officer of the Association and School of Pharmacy Instructor. Annual earnings of the endowed fund are designated for, and restricted to, equal distribution among the children of Pharmacy alumni attending Duquesne, without respect to need or school of enrollment.

**Edgar N. Duncan, P’54, Scholarship:** Annual award to a deserving Pharmacy student.

**CVS/Pharmacy Scholarship:** Several awards annually to Pharmacy students who provide evidence of interest in retail community practice, of good academic performance, and of need. Special consideration will be given to deserving minority Pharmacy students.

**John S. Rokisky Scholarship:** Endowed fund to honor John S. Rokisky. Awarded annually to needy and worthy Pharmacy students.

**Louis C. DiPaolo, P’75, Scholarship:** Annual award to a needy and worthy Pharmacy student with an interest in industrial pharmacy.

**Victor V. Micolucci Scholarship:** Endowed fund created by Victor V. Micolucci, P’48, family. Annual award to Pharmacy student with demonstrated need and interest in community pharmacy practice.

**Samuel Procaccini, P’73, Scholarship:** Annual award to deserving Pharmacy student.

**Sylvia Mulvihill, MD, P’57, Scholarship:** Annual award to a deserving Pharmacy student.

**Sarginger Family Scholarship:** Endowed fund established by Larry J. Sarginger, MD, P’75. Annual award to deserving Pharmacy student.

**Lawrence G. Heller Scholarship:** Endowed fund established by Michael Derrig, P’37, to honor Lawrence G. Heller. Annual award to a deserving Pharmacy student.

**Samuel W. Curtis, P’50, Scholarship:** Annual award to a deserving Pharmacy student with demonstrated interest in independent pharmacy practice.

**Pharmacists Mutual Insurance Company Scholarship:** Scholarships for Pharmacy students. Based on financial need and good academic standing in the Pharmacy program.

**Mary McPartland Beck Scholarship Award:** Assistance to Pharmacy students.
Vincent R. Cancila, Jr. Scholarship: Endowed fund established by Cancila family in memory of Vincent. Awarded to Pharmacy students who exhibit academic excellence, involvement in community and School of Pharmacy activities.

Louis J. DeBone, Jr., P’68, Scholarship: Assistance based on merit and need to pharmacy athlete in professional phase of Pharm.D. program.

Thomas M. Sikora Memorial Endowed Scholarship: Annual award to a Pharmacy student who demonstrates financial need and merit, with a strong preference given to members of the Kappa Psi Pharmacy fraternity.

Dean and Mrs. Douglas H. Kay Scholarship: Annual award to Pharmacy students who are enrolled in the professional phase of the Doctor of Pharmacy curriculum and demonstrate need and merit.

Hoofnagle, P’66, Scholarship: Annual award to a Pharmacy student who demonstrates need and merit and interest in pursuing a career in industrial pharmacy.

Marc Goldberg, P’66, Scholarship: Annual award to a deserving Pharmacy student.

Dr. Hugo J. Scarinzi 75th Pharmacy Anniversary Scholarship: Awarded to deserving Pharmacy students based on merit and need.

Josephine Tucci Scholarship for the Schools of Pharmacy and Music: Awarded to deserving Pharmacy or Music students based on merit. This award alternates between the two schools annually.

Drs. Robert and Patricia Gussin Minority Pharmacy Scholarship: Annual award to a Pharmacy student demonstrating financial need and academic merit, with a strong preference for minority students.

Paul A. Wherry History of Pharmacy Scholarship: Annual award to a deserving Pharmacy student, preferably one who demonstrates an interest in the history of pharmacy.

Thomas H. Breen Scholarship: Established in memory of Tom Breen, and awarded to Pharmacy students who demonstrate need and merit, with a preference for those with an interest in herbal medicines and non-traditional remedies.

Dr. Gene Riley Scholarship: Awarded to 5th year pharmacy students who display proficiency in counseling patients in a retail pharmacy practice setting.

School of Leadership and Professional Advancement:
Isabella A. Mauri Scholarship: Students that demonstrate financial need. Strong preference will be given to students with disabilities.

School of Leadership and Professional Advancement Scholarship: Students that demonstrate financial need.

Athletics:
Mitchell A. Barron and Margaret Cain Scholarship: Criteria determined by Department of Athletics.

Gumberg Library:
Gumberg Library Scholarship: Students who have worked a minimum of two semesters in the Gumberg Library.

University Advancement:
Alumni Association Endowed Scholarship: Qualified applicants must be children, stepchildren or grandchildren of a Duquesne University graduate and have an overall QPA/GPA of at least 2.00 with a financial aid application on file in the Financial Aid Office. Applications available through the Alumni Office.

Alumni Association Endowed Scholarship for Merit: Qualified applicants must be children, stepchildren or grandchildren of a Duquesne University graduate and must demonstrate scholarly excellence. Applications available through the Alumni Office.

Special Student Services:
Charles H. Leach, II Foundation Scholarship: For special needs students.

George R. Puskar Scholarship: Students with demonstrated need and merit, with a preference for students with physical disabilities.
Part III: Registration and Scholastic Policies

REGISTRATION
All students with the exception of freshmen and non-degree seeking students may register online using the DORI portal (www.dori.duq.edu). The registration start and end-dates for each semester are available on the Academic Calendar. Those students not using DORI to register must see their advisor.

An advising period precedes the registration period, and students should meet with their advisors to plan their upcoming class schedules. Orientation programs for new students are conducted by the Schools in late spring and summer in conjunction with academic advisement and registration. All students must be registered by the end of the add/drop period as published in the Academic Calendar. Schedule changes are not permitted beyond the add/drop period.

Unless a student has applied for and been granted an official leave of absence, any student who has not registered for any term during the course of a full academic year must reapply for admission to Duquesne University before class registration is permitted.

OFFICIAL REGISTRATION
Only students who are recognized as officially registered are bona fide students of Duquesne University. Unless students are officially registered, they are not permitted to attend classes, engage in student affairs, or, generally, have access to the buildings and grounds or use of the University’s facilities.

Official registration is the recognition given by the University to persons who have met these conditions:
1. Appropriate authority for admittance to study in a school or department has been given by an authorized officer of the University.
2. Authorization to continue in the “selected program” has been given and registration for classes has been accomplished in compliance with all academic requirements and procedures.
3. Arrangements have been made to the satisfaction of the university for payment in full of all financial charges, including fees, tuition, and housing charges, all of which are due and payable in full before the beginning of classes.

CHANGE OF SCHEDULE
Students requiring a change of class schedule are permitted to do so through the end of the add/drop period as indicated in the Academic Calendar. All schedule changes must be approved by an academic advisor. Courses dropped after the add/drop deadline are classified as course withdrawals. (See ‘Withdrawal from a Course,’ and ‘Complete Withdrawal from the University.’)

WITHDRAWAL FROM A COURSE
First semester freshmen may withdraw from courses with the approval of an advisor up to the period of final examinations and receive a grade of W by processing the proper form.

If a student, other than a first semester freshman, wishes to withdraw from a course, he/she may do so with the approval of an academic advisor and by processing the proper form up to the date announced in the Academic Calendar for withdrawal with a W grade.

If a student wishes to withdraw from a course after the date announced in the Academic Calendar, the student must seek approval of the Committee on Student Standing of the student’s School. If approval is granted, the student then initiates the appropriate form through the advisor.

A student who is not granted approval of the request and withdraws from the course unofficially will receive an F grade for the course.

COMPLETE WITHDRAWAL FROM THE UNIVERSITY
Students wishing to withdraw should contact their advisor. When withdrawing from the University on or after the first day of class, a student may receive a refund of part of the tuition charged for the semester in accordance with the Tuition Refund Schedule. The effective date of withdrawal for determining the percent of refund is that on
which the appropriate academic dean was notified in writing of the student’s decision to withdraw. It is also the recorded date of the student’s separation from the University and is regarded as the last day of attendance. When a student’s attendance is involuntarily terminated because of personal disability arising from injury or illness, any remission of tuition beyond what is described in the Tuition Refund Schedule is subject to the approval of the Academic Dean, the Vice President for Academic Affairs, and the Vice President for Management and Business.

**CROSS-REGISTRATION Guidelines**

The purpose of Cross-Registration is to provide opportunities for enriched educational programs by permitting students at any of the ten Pittsburgh Council on Higher Education (PCHE) institutions to take courses at any other PCHE institution. Member institutions of PCHE are:

- Carlow University
- Carnegie Mellon University
- Chatham University
- Community College of Allegheny County
- Duquesne University
- LaRoche College
- Pittsburgh Theological Seminary
- Point Park University
- Robert Morris University
- University of Pittsburgh

The opportunity to Cross-Register is open to each full-time student enrolled in a PCHE college or university.

Each college or university accepts registration from the other institutions; however, first priority in registration is given to students of the host college, and not all departments or schools in all institutions are able to participate in this program.

In each case of student cross-registration, the approval of the dean or designated individual from the home college or university must be obtained prior to registration.

The student’s advisor or dean is responsible for assuring the student’s eligibility for the course in which s/he intends to enroll.

Full credit and grades will be transferred; the academic regulations of the host institution will prevail.

The academic honesty code and other rules of conduct of the institution providing the instruction apply with respect to its courses and behavior on its campus. That institution also determines whether its rules have or have not been violated. The student’s own institution will impose such penalties as it considers proper when violations are reported to it.

Cross registrants do not thereby acquire the status of students in the institutions in which they are receiving instruction (e.g., for purposes of participation in student activities, insurance programs, etc.). They do receive library privileges at the host institution and may purchase course texts at the host bookstore.

Each qualified student normally may enroll in no more than one course off campus in any one term or semester under this program.

Duquesne University students who are participating in this program are charged tuition and university fees in accordance with the current rates of Duquesne University; however students are responsible for paying any additional course or laboratory fees to the host institution.

This cross registration program does not apply to the Summer Sessions at any of the institutions. However, taking courses at other institutions during those terms is facilitated by “temporary transfer student” procedures separately agreed to by the PCHE colleges and universities.

Students are encouraged to submit cross registration forms during preregistration in order to provide adequate time to receive proper notification of the approval or disapproval.

**Procedures**

A Cross-Registration form is obtained either from an Advisor or the Registrar’s office. The student then completes the form by indicating which course(s) s/he wishes to enroll in at the host institution.

The completed Cross-Registration form must be submitted to the student’s advisor for approval. All copies of the form are to be delivered to the Registrar’s Office.

The Registrar of the host institution will notify applicants whether or not the cross-registration has been accepted.

**LATE REGISTRATION**

Late Registration may be permitted for serious cause with the approval of a student’s dean.

**GRADES**

Grades can be viewed on the web at mid-term and after the close of finals (http://www.dori.duq.edu).

**TRANSCRIPTS**

Each active undergraduate student who is free of financial obligations to the University may view their transcripts online at http://www.dori.duq.edu. Students should carefully examine their
records for accuracy and immediately report any errors to the Registrar in writing.

To obtain additional copies of academic records, students must write to the Registrar requesting transcripts for themselves or for mailing to other institutions and agencies. Transcripts cannot be ordered over the phone or by email. The student’s signature is required to release a transcript. All official transcripts issued by the Office of the Registrar bear the signature of the Registrar and are printed on secured paper. Whenever an official transcript is released directly to the student it will also bear the stamped designation, Issued to Student.

No transcript will be issued unless all financial obligations owed by the student to the University have been fulfilled. A minimum of 24-hour processing time is required for pick-up service from the Registrar’s Office.

CONFIDENTIALITY OF STUDENT RECORDS

The University regards the student’s personal information and academic record as a matter of confidence between the student and the University. The contents of either may be revealed only in accordance with the Family Educational Rights and Privacy Act of 1974 (Public Law 93-380, Section 438, as amended).

In order that parents of students may receive from University officials information concerning the academic record of their child, it is required that either the parents must prove the financial dependence of their child upon them according to the dependency test as defined in section 152 of the Internal Revenue Code of 1954, or the student must grant a waiver of rights.

Students wishing to waive the FERPA requirements relating to the release of academic information must complete the waiver obtainable at the office of the academic advisor or the Registrar’s Office.

Academic Policies

POLICIES

ACADEMIC ADVISEMENT

Every student attending the University is assigned an academic advisor. It is the student’s responsibility to know the advisor’s name.

The student must consult with the academic advisor with regard to any questions of an academic nature. No student may register without an academic advisor’s approval.

AUDITING COURSES

Regularly enrolled Duquesne students are permitted to audit courses. In addition, non-degree students from the general community who would like to audit courses for personal enrichment and who are not matriculated or pursuing a degree program are also eligible to audit. Regular students should consult their academic advisor for details on auditing. Non-degree students should contact Duquesne’s School of Leadership and Professional Advancement to complete a brief application form. Admission is granted on a space available basis by consulting the Office of the Registrar and the individual schools. Fees for auditing are uniform for all students.

Registration in a course as an auditor must be declared at registration and is irrevocable after the last date for change of schedule each semester, as indicated in the Academic Calendar. Records will show “Audit” in the grade space on the transcript of a regularly matriculated student. A “Certificate of Attendance” for non-degree students will be awarded by the School of Leadership and Professional Advancement. Audited courses are not eligible to be converted to matriculated credits. Courses audited may not be challenged later or completed via CLEP or other advanced standing tests.

Courses eligible for auditing are determined by the individual colleges and schools of the University. A partial list of school policies follows, but students are advised to consult with the Offices of the Deans for the most current listings:
1) No courses in the School of Law are available for audits;
2) No clinical courses in the Schools of Nursing and Pharmacy can be audited;
3) The Rangos School of Health Sciences will not allow clinical courses or those courses in the professional phase of the curriculum (the last two years of all RSHS majors) to be audited by non-majors;
4) In the College of Liberal Arts and School of Natural and Environmental Sciences, courses in humanities and social sciences can be audited, but communications and science laboratory courses may not be audited.

Students enrolling for audit may attend lectures, complete course readings and, at the discretion of the professor in charge of the course, may participate in classroom discussion and examinations.

CANCELLATION OF COURSES

The University makes every reasonable effort to offer courses as announced each semester in the schedule of classes. It reserves the right, however,
to make changes or cancel courses in the academic schedule because of insufficient enrollment or for any other equally valid reason.

CLASS ATTENDANCE

Regular class attendance is considered essential for maximum educational advantage and is strongly encouraged. The responsibility for all course material rests wholly with the student. Schools may require attendance at every class.

It is the prerogative of each school to establish policy for attendance at classes, laboratories, tests, examinations, deadlines for reports, and specific school requirements. It is the instructor’s responsibility to make the school’s policy known at the first class session as it pertains to the course and school.

The student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstance is responsible for notifying the office of the appropriate school advisor. The student should supply any required written verifications as soon as possible.

The student must submit work assigned and take the examination in the course at the specified time. If work is not submitted or an examination is not taken at the scheduled time, the policy is to assign a zero for that part of the course. An accumulation of zero grades could result in a final grade of F. If a student has for significant reasons missed a part of the course or an examination, the grade may be submitted as an I. If the temporary I grade is to be replaced by a passing grade, the work must be completed by the time stated in the Academic Calendar. Failure on the part of the student to remove the temporary grade results in conversion of that grade to an F recorded on the transcript.

CLASSIFICATION OF STUDENTS

Freshman: less than 30 credits completed.
Sophomore: 30 to 59 credits completed.
Junior: 60 to 89 credits completed.
Senior: 90 or more credits completed.

1. Full-time Student. A student with an academic schedule of at least 12 credits is considered a full-time student. With this status a student is entitled to the benefits of various activities. A student may not change status during the semester without the permission of the academic advisor and the Dean of the student’s school.

2. Part-time Student. Anyone who carries under 12 credits is regarded as a part-time student.

COURSE EXAMINATIONS

Unit Examinations are given on the dates announced by the instructor at the beginning of each semester. Grades for these are obtained from the instructor.

Final examinations are given at the end of each semester and summer session. No student is excused from taking the final examination.

CREDIT BY EXAMINATION

Examinations for recognition of proficiency in a subject, or for course credit, as authorized by the College or a particular School of the University, are available to currently enrolled students who by previous experience or exposure have acquired mastery of the knowledge in certain courses. An application fee of $30.00 is charged for each course credit. Application forms may be obtained from the Office of the Registrar.

Since policies vary among the Schools, students who feel they may qualify for credit by examination should consult the Dean of the School in which they are enrolled for specific information about courses open to this examination procedure.

UNDERGRADUATE GRADING SYSTEM

The list below represents the officially recognized grades used to evaluate course work and rate the academic performance of undergraduate students at the University.

A Superior
A- Excellent
B+ Very Good
B Good
B- Above Average
C+ Satisfactory
C Average (Minimum general average for graduation)
D Lowest passing grade
F Failure (Course must be repeated for credit)
H Honors (Used to designate exceptional performance in a Pass/Not Pass graded course. Indicates completion of course work with credits earned and with honors but without quality points and is independent of the Quality Point System.)
I Incomplete (A temporary grade given by an instructor when neither a passing nor failing grade can be determined because of incomplete course work. Unless a convincing explanation of extenuating
circumstances acceptable to the instructor is presented and the missed examination or required assignment is made up by the deadline specified in the Academic Calendar, the I grade becomes a permanent F grade.)

N Not Passing (Used to indicate Failure in a Pass/Not Pass graded course and is independent of the Quality Point System. Course must be repeated for credit.)

NG Not Graded (Used to indicate that no grade is issued for a course (e.g., labs).

P Pass (Used in some courses where scaled grading is inappropriate. Indicates completion of course work with credits earned but without quality points and is independent of the Quality Point System.)

W Official Withdrawal (Used to indicate termination of attendance in a course under conditions of official withdrawal.)

Some schools do not use plus and minus grades. All faculty are to specify in their syllabi whether or not plus and minus grade values will be used in grading course work and rating the academic performance of the students in their class.

A class inaugurated in plus/minus grading may not revert to non plus/minus grading and vice versa.

**COMPUTATION OF THE QUALITY POINT AVERAGE**

Quality Point Average is the ratio expressed to the nearest hundredth of the sum of A, A-, B+, B, B-, C+, C, D, and F were received to the sum of quality points earned. The Quality Point values of these grades are:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points Per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Grades H, P, N, I, and W are independent of the Quality Point System. Courses credits graded F, N, I, and W do not earn credit, and if required for graduation, must be repeated and passed.

**REPEATING COURSES AND COURSE RETROGRADATION**

Students ordinarily are permitted to repeat courses in which D, and F grades were received. The request for permission to repeat a course is to be submitted in letter form to the academic advisor. An authorized request to repeat a course form must be obtained from the advisor before registering in the repeat course. All grades are retained on the permanent academic record. The result of the final attempt in a repeated course is, however, the student’s status in the course with regard to attempted credits, earned credits, and the completion of requirements.

Retrogradation, a corollary of the repeat credit rule under which a student may earn credit once only for a course, prescribes that a student may not move backward from an advanced course to a lower level course and receive credit for both. Any doubtful situation must be decided by the department chairperson or dean involved.

**PASS/NO PASS ELECTIVES**

One course a semester, elected by a junior or senior and approved by the academic advisor as providing an opportunity to expand and enrich the student’s experience, may be taken on a pass/no pass (P-N) basis. If passed, the credits will count for graduation, but neither grade nor credits will be calculated in the quality point average.

Once a course has been identified as a pass/no pass elective, the course must be completed as such, and the grade submitted must be a P or an N. No required course may be taken on this elective pass/no pass basis.

The decision to elect the pass/no pass option must be made no later than the close of the period provided for making schedule changes. An authorized pass/no pass election declaration form must be obtained from the advisor.

**STUDENT STANDING**

Progress toward a degree is measured by the cumulative quality point average. The scholastic records of students who fail to meet the minimum requirements as established by the faculty of each college or school will be submitted to the College or School Committee on Student Standing for review and appropriate action. Normally, academic records will be reviewed annually at the conclusion of each academic year.

All students in the University are academically dismissed if they fail three courses in one semester. Students can be readmitted by the student standing committee of the college or school to which
the student is returning. If a student transfers to another school within the University, the student can be admitted only by the Dean of that school.

For students who have attempted 15-30 credits, or more than 30 credits in one year, the guidelines are:

- **Academic Warning**: 1.75 to 1.99 QPA (Letter of warning may be sent by appropriate Dean)
- **Probation**: 1.50 to 1.74 QPA (Subject to the jurisdiction of the appropriate Committee on Student Standing and may be required to modify or restrict academic program)
- **Dismissal**: Less than 1.50 QPA (Readmission may be permitted on recommendation of the appropriate Committee on Student Standing)

For the students who have attempted 31-60 credits or who have attempted up to 61 credits within four semesters, these guidelines prevail:

- **Academic Warnings**: 1.85 to 1.99 QPA (Letter of warning may be sent by appropriate Dean)
- **Probation**: 1.75 to 1.84 QPA (Subject to the jurisdiction of the appropriate Committee on Student Standing and may be required to modify or restrict academic program)
- **Dismissal**: Less than 1.75 QPA (Readmission may be permitted on recommendation of the appropriate Committee on Student Standing)

Students who have attempted 61 or more credits and who have a QPA of between 1.85 and 1.99 may continue on probation for one semester. However, students who have earned 90 credits or more are subject to dismissal unless they have a QPA of 2.0 or better. Students who accumulated three F grades in one semester are subject to dismissal. Appeals of academic dismissal must be directed to the appropriate College or School Committee on Student Standing. Students subject to the jurisdiction of the appropriate Committee on Student Standing in accordance with the established guidelines who are permitted to re-enroll on a full-time basis but continue participation in noncurricular and extracurricular activities shall be without appeal if they are subsequently dismissed from the University for poor scholarship.

### ACADEMIC ADVISEMENT FOR STUDENT ATHLETES

The policy of the Council of Academic Deans on Student Athletes with regard to academic standards reads as follows:

- a) “To participate in the formal athletic programs at the University, a student must be currently enrolled as a full-time student. Full-time status is defined by University catalog as enrollment of 12 credits minimum per semester. Such a program would allow a student to graduate within five years.

- b) A student athlete must be making satisfactory academic progress. This means that a student must have successfully completed 24 credits during the previous academic year. This would allow a student the fall, spring, and summer semesters in which to earn these 24 credits. In addition the student-athlete must satisfy the student standing policy as outlined in the Student Handbook and University catalogs.

- c) Student-athletes must maintain a 2.0 cumulative QPA at all times in order to be academically eligible to compete in inter-collegiate competition. QPAs for student athletes are calculated at the end of each semester.”

### ACADEMIC COORDINATOR OF INTER-COLLEGIATE ATHLETICS

The academic progress of student athletes engaged in intercollegiate competition is monitored by the office of the Academic Coordinator of Intercollegiate Athletics. This office also provides other academic support services for student athletics including, but not limited to, study halls, tutorial assistance, academic advisement, registration assistance as well as orientation.

### DEAN'S LIST

To achieve distinction of being named to the Dean’s List, a student must have a record for a semester that shows completion of a full-time schedule, a quality point average of at least 3.5, and no grade lower than a C. The full-time schedule must include at least 12 credits exclusive of pass/no pass credits.

### GRADUATE COURSES FOR UNDERGRADUATE CREDIT

Qualified seniors may be permitted to register in certain graduate courses at the 500 level for undergraduate credit on the recommendation of the advisor and with the approval of the dean of the graduate school involved. All 500 courses are described in graduate school catalogs.
STATUTE OF LIMITATIONS
An undergraduate student has a maximum of 10 years from the date of matriculation to complete an undergraduate degree.

GRADUATION REQUIREMENTS
The candidate for a University degree must be a person of good moral character who has satisfactorily completed all academic requirements for the degree program and, in addition, has the recommendation of the appropriate Academic Dean, filed the Application for the University Degree with the Office of the Registrar on or before the latest date to apply for graduation as announced in the Academic Calendar, and satisfied all financial obligations with the University.

It is the student’s responsibility to determine that courses taken in each semester are sequentially correct and necessary for the degree program.

The student, in consultation with an advisor, must periodically review progress toward graduation and resolve any question about fulfillment of graduation requirements.

Each school and each department determines requirements for graduation which the student is expected to know, as well as the following:

1. The bachelor’s degree requires a minimum of 120 semester hours of course credits.
2. All bachelor’s degrees require an overall minimum quality point average of 2.0, which is a C grade average in a 4.0 system. (Students should further determine the need for minimum QPA requirements in their major, science course, etc.)
3. The final year’s work must be completed at the University. A candidate for the Bachelor’s degree must complete a minimum of 30 credits toward the degree at Duquesne University. Challenge Examination (credit by examination) credits are not included in this 30-credit requirement.
4. All undergraduates must complete the University Core Curriculum.
5. Students on academic probation may be candidates for graduation only with permission of the Committee on Student Standing of their school.

HONORS
Degrees are awarded with special mention cum laude, magna cum laude, or summa cum laude to students who have completed the regular course with unusual distinction and who have completed a minimum of 60 credits in residence. Honors are based on these standards:

Cum Laude-Quality Point
Average..................................3.50 to 3.74
Magna Cum Laude-Quality Point
Average..................................3.75 to 3.89
Summa Cum Laude-Quality Point
Average..................................3.90 to 4.00

UNIT OF CREDIT
The unit of credit is the semester hour. One semester hour of credit is granted for the successful completion of one hour a week of lecture or recitation, or at least two hours a week of laboratory work for one semester of 15 weeks.

TRANSFER WITHIN THE UNIVERSITY
It would be to the student’s advantage to discuss the proposed transfer with an academic advisor of the new school no later than two weeks prior to preregistration. It is the advisor’s responsibility to effect the change.

UNIVERSITY CORE CURRICULUM
The University Core Curriculum provides a common educational experience for undergraduate students, which uniquely expresses the Spiritan-Catholic identity of Duquesne University. A collection of courses with emphasis on the liberal arts, the University Core Curriculum is required of all students enrolled in Duquesne’s undergraduate degree programs.
Part IV:
Tuition and Fees

TUITION AND FEES
The University reserves the right to change tuition and fee charges if exigencies require such action. The figures shown apply to the 2008-2009 academic year only, unless otherwise indicated.

TUITION
RATE 1 (Arts, Business, Education, Health Sciences Special Status, Health Management Systems, Spiritan Division)
Full-time Undergraduate Tuition ................................................................. $23,470.00
University Fee ...................................................................................................................... 2,005.00
Total ........................................................................................................................................ 25,475.00

Per-credit
Undergraduate Tuition ......................... 765.00 Graduate Tuition ......................... 819.00
University Fee ................................ 78.00 University Fee ................................ 78.00
Total .............................................. 843.00 Total .............................................. 918.00

RATE 2 (Natural and Environmental Sciences, Nursing)
Full-time Undergraduate Tuition ................................................................. $23,470.00
University Fee ...................................................................................................................... 2,005.00
Total ........................................................................................................................................ 25,475.00

Per-credit
Undergraduate Tuition ......................... 765.00 Graduate Tuition ......................... 840.00
University Fee ................................ 78.00 University Fee ................................ 78.00
Total .............................................. 843.00 Total .............................................. 918.00

RATE 3 (Health Sciences excluding Health Sciences Special Status and Health Management Systems)
Full-time Undergraduate Tuition ................................................................. $27,356.00
University Fee ...................................................................................................................... 2,005.00
Total ........................................................................................................................................ 29,361.00

Per-credit
Undergraduate Tuition ......................... 824.00 Graduate Tuition ......................... 868.00
University Fee ................................ 78.00 University Fee ................................ 78.00
Total .............................................. 902.00 Total .............................................. 946.00

RATE 4 (Music)
Full-time Undergraduate Tuition ................................................................. $29,080.00
University Fee ...................................................................................................................... 2,005.00
Total ........................................................................................................................................ 31,085.00

Per-credit
Undergraduate Tuition ......................... 914.00 Graduate Tuition ......................... 989.00
University Fee ................................ 78.00 University Fee ................................ 78.00
Total .............................................. 992.00 Total .............................................. 1,067.00

RATE 5 (Pharm.D., Years 3, 4, 5 and 6)
Full-time Undergraduate Tuition ................................................................. $32,445.00
University Fee ...................................................................................................................... 2,005.00
Total ........................................................................................................................................ 34,450.00

Per-credit
Undergraduate Tuition ......................... 963.00 Graduate Tuition ......................... 1,041.00
University Fee ................................ 78.00 University Fee ................................ 78.00
Total .............................................. 1,041.00 Total .............................................. 1,041.00
RATE 6 (Pre-Pharmacy)
Full-time Undergraduate Tuition ......................................................................................... $25,407.00
University Fee ..................................................................................................................... 2,005.00
Total .................................................................................................................................. 27,412.00

Per-credit
Undergraduate Tuition .............................................. 845.00
University Fee ............................................................... 78.00
Total ............................................................................... 923.00

RATE 7 (Nursing 2nd degree)
Full-time Undergraduate Tuition and Fees (Fall, Spring, Summer Cohort) ....................... $35,257.50

FEES
Application (non-refundable) ................................................................................................ $ 50.00
Matriculation Deposit (non-refundable) .............................................................................. 200.00
Residence Hall Pre-Payment (non-refundable) ............................................................... 300.00
Credit by Examination ...........for each semester hour for recognition of proficiency of course credit (See policy in Part III, page 32) .............................. 30.00
Orientation (New Students) ............................................................................................... 150.00
Removal of I Grade ........................................................................................................... 5.00
Continuing Registration Fee ............................................................................................. 100.00
*Undergraduate Pharmacy Student Activities (for Third, Fourth, Fifth and Sixth Year Students) ............................................................................................. 50.00
University Fee ................................................................................................................... $78.00 per credit

*Charged on each semester registration.

TESTING FEES
Testing fees apply to the 2008-2009 academic year.
*English Language Placement Testing (ESL) .................................................................. $50.00

*English Language Placement Testing (ESL) fee is a one-time fee.

SUMMER TUITION
Summer tuition is calculated on a per credit basis. See page 36 for the rate that applies to the school in which you are enrolled.

AUDITING A COURSE
The cost for auditing a course is the same as the per credit cost of a course.
WITHDRAWAL AND TERMINATION OF ATTENDANCE
Upon officially withdrawing from the University, a student receives remission of part of the tuition charged for the semester or session in accordance with the Tuition Remission Schedule. The amount of the remission is added to payments, and a refund is made upon request where a credit balance is created on the student’s total account.

The Effective Date of Withdrawal for determining the percent of remission is that on which the appropriate Academic Dean was notified by letter of the student’s decision to terminate attendance and requested official withdrawal. It is also the recorded date of the student’s separation from the University and regarded as the last day of attendance. A student is considered enrolled and “in attendance” until he or she acts to terminate attendance in conformity with this policy even though absences from classes were observed and recorded before the Effective Date of Withdrawal.

When a student’s attendance is involuntarily terminated in a semester because of personal disability arising from injury or illness, any remission of tuition beyond the limits prescribed by the withdrawal refund policy is subject first to the approval of the Academic Dean, then the Provost, and finally, the Executive Vice President for Management and Business.

TUITION REMISSION SCHEDULE
This schedule applies to tuition only; it does not apply to other charges, such as the University Fee, course fee, and laboratory fees, nor to the reduction of credits resulting from course withdrawals made after the Change of Schedule period.

<table>
<thead>
<tr>
<th>Within the Semester</th>
<th>Percent of Remission</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Week</td>
<td>80</td>
</tr>
<tr>
<td>Second Week</td>
<td>80</td>
</tr>
<tr>
<td>Third Week</td>
<td>40</td>
</tr>
<tr>
<td>Fourth Week</td>
<td>20</td>
</tr>
<tr>
<td>After Fourth Week</td>
<td>None</td>
</tr>
</tbody>
</table>

Within the Summer Session – Based on a Six-Week Session Standard
| First Week          | 60                   |
| Second Week         | 20                   |
| After Second Week   | None                 |

Return of Title IV Funds Policy
The Financial Aid Office is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60% of a payment period or term. The federal Title IV financial aid programs must be recalculated in these situations.

If a student leaves the institution prior to completing 60% of a payment period or term, the financial aid office recalculates eligibility for Title IV funds. Recalculation is based on the percentage of earned aid using the following Federal Return of Title IV funds formula:

\[
\text{Percentage of payment period or term completed } = \frac{\text{the number of days completed up to the withdrawal date divided by the total days in the payment period or term.}}{100}
\]

(Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula: Aid to be returned = (100% of the aid that could be disbursed minus the percentage of earned aid) multiplied by the total amount of aid that could have been disbursed during the payment period or term.

If a student earned less aid than was disbursed, the institution would be required to return a portion of the funds and the student would be required to return a portion of the funds. Keep in mind that when Title IV funds are returned, the student borrower may owe a debit balance to the institution.

If a student earned more aid than was disbursed to him/her, the institution would owe the student a post-withdrawal disbursement which must be paid within 120 days of the student’s withdrawal.

The institution must return the amount of the Title IV funds for which it is responsible no later than 45 days after the date of the determination of the date of the student’s withdrawal.

Refunds are allocated in the following order:
- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Federal Perkins Loans
- Federal PLUS Loans (Graduate Students)
- Federal PLUS Loans (Parents)
- Federal Pell Grants for which a Return of funds is required
- Academic Competitve Grant (ACG)
- National Smart Grant
- Federal Supplemental Opportunity Grants for which a Return of funds is required
- Other assistance under this Title for which a Return of funds is required (e.g., LEAP)
ROOM AND BOARD
The request for on-campus residence is made on the same form used for application for admission to the University. After the student has completed the admission procedure and has paid the matriculation deposit, the residency request is referred automatically to the Director of Residence Life. The request is processed and necessary application forms are forwarded to the student.

The University requires that a prepayment of $300, which is applicable to the following semester’s room and board account, accompany all applications for room reservations or renewals. This prepayment is non-refundable.

Reservations are made on an annual basis – August to May. Rooms may be occupied no earlier than the first day of orientation for all freshmen and new transfer students.

Room assignments are made on a first-come, first-serve basis. Therefore, it is extremely important for the student to return his/her housing application immediately upon receipt of it. Overcrowded conditions have occurred in the past and students have been temporarily assigned three to a room or in lounges. Therefore, students returning their applications after all rooms have been assigned will be housed in temporary housing, be placed on a waiting list, or not assigned a space in the residence area.

All students occupying rooms in the University residence halls are required to take a University Meal Plan. The Primary Plan billed to all students is a 14-meal per week plan. Also, included with the Primary Plan is a $145 flexible spending account which can be used at Rockwell Expressway, Options, Off-Ramp, and the in-room pizza delivery program. Two additional plans are offered, 19 Meals per week with $65.00 flexible spending and 10 Meals per week with $245.00 flexible spending.

Residence Halls are closed during vacation periods (Thanksgiving, Christmas, Easter and Spring break.)

The University reserves the right to modify these charges if exigencies require such action.

Regular Session—Room and Board (14 meals a week.)

- Single for each semester ............... $5,617.00
- Double for each semester ............... $4,444.00
- Vickroy single for each semester .... $5,668.00
- Vickroy double for each semester . $4,480.00

Summer Sessions—Room and Board*

(Summer '08 rates)

- Single per day ................................ $38.11
- Double per day .............................. $32.96

ROOM AND BOARD—WITHDRAWAL AND REFUND
The Office of Residence Life Housing Agreement must be signed by the Student and the University. The Student is obligated to pay to the University the full room fees and board fees for the entire Academic Year. There will be no exceptions to this obligation except as follows:

a) If the Student decides not to live in the Living-Learning Centers and so notifies the Assistant Director of Residence Life IN WRITING BEFORE CLASSES BEGIN, the Student will be released from obligations under this Housing Agreement. All amounts which the Student has previously paid pursuant to this Housing Agreement shall be refunded with the exception of the $300.00 room reservation fee which is non-refundable.

b) If a Student fails to occupy an assigned room or make written notification of late arrival by the start of the second week of classes the Student gives up all reservation and claim to any room on campus. The student will be released from all obligations under this Housing Agreement and all amounts which the Student has previously paid pursuant to this Housing Agreement shall be refunded with the exception of $300.00 non-refundable room reservation fee and $100.00 penalty.

c) If the Student notifies the Assistant Director of Residence Life after classes begin that the Student has decided to move out of the Living-Learning Centers or ceases to be a student of the University, the obligation to pay the room fees shall continue for the remainder of the Academic Term and the University will refund to the Student an amount equal to seventy-five percent (75%) of the board fees, provided, however, that no board fee will be refunded if the notice is received after the middle of the semester.

d) Prior to the end of the Fall semester, Students will be permitted to cancel their room reservation for the Spring semester by completing a Spring Release Form. This Spring Release Form cancellation will result in a $500.00 penalty. Spring Release Forms available in Assumption Hall must be completed prior to the end of the Fall semester.

*Those desiring residency for the Summer Session should make reservations with the Assistant Director of Residence Life three weeks prior to the opening date of your session. A non-refundable deposit of $20 must accompany each application.
BAD CHECKS
It is the policy of the University to charge bad checks to the student who cashes them regardless of the maker. A $20.00 service charge will be assessed on checks that are returned from a bank for lack of funds. Payment of registration or room and board with an NSF check will result in cancellation of the registration.

PRE-REGISTRATION
Students with a balance due the University for the current semester or prior terms are not permitted to pre-register for the next semester.

Electronic Billing and Payments
The University has implemented an electronic billing and payment process. For complete information go to http://www.controller.duq.edu/stuacct.html

Credit Card Policy
The University does not directly accept credit card payments for tuition, fees, room and board. In order to provide the greatest level of service and flexibility to you, Duquesne University has contracted with a third-party vendor to accept credit card payments with a service fee of 2.55%. The third-party processor will only accept Discover Card and MasterCard. At this time, VISA is not a participant of the service fee program. More information is available at http://www.controller.duq.edu/stuacct.html.
Part V:
Student Life, Programs, Services and Organizations

A. DIVISION OF STUDENT LIFE
MISSION
The mission of the Division of Student Life is to establish and maintain a total living, learning and developmental environment that will enhance students’ growth for the individual self-actualization and positive involvement in the world community.

PHILOSOPHY
Consistent with the educational philosophy of the University and the above stated mission, the Student Life Division provides the student with opportunities to participate in a variety of experiences with fellow students, faculty members and administrators. The Student Life Staff encourages students to initiate new programs, implement change and participate in the essential processes of University governance on many levels.

ORGANIZATION
The Executive Vice President for Student Life coordinates the Departments of Career Services, Commuter Affairs, Freshman Development and Special Student Services, Greek Life, Honor Societies & Professional Organizations, Health Service, Judicial Affairs, Multicultural Affairs, Recreation, Residence Life, Student Activities, the University Counseling Center, and the Duquesne Union. Several of these departments are briefly described below. Additional information may be obtained directly from each department and through the Student Handbook and Code of Student Rights, Responsibilities, and Conduct.

ATHLETICS
The Duquesne University Department of Athletics sponsors 20 NCAA Division I sports including baseball, men’s and women’s basketball, men’s and women’s cross country, football (Division I-AA), men’s golf, women’s lacrosse, women’s rowing, men’s and women’s soccer, men’s and women’s swimming, men’s and women’s tennis, women’s indoor and outdoor track, men’s outdoor track, women’s volleyball, and wrestling. All varsity sports, with the exception of football and wrestling, compete in the Atlantic 10 Conference. In addition, cheerleading, men’s rowing, hockey, and men’s indoor track are offered as club sports. Duquesne University believes in and promotes the concept of student-athlete, evidenced by an Academic Support staff within the Department of Athletics. Athletic grants-in-aid are available in all varsity sports.

In addition, the Department of Intramurals and Recreation offers to all students the use of a weight and cardiovascular area, and various aerobics classes. Other activities in which students can participate include tennis, flag football, deck hockey, basketball, softball, and soccer, just to name a few.

OFFICE OF COMMUTER AFFAIRS
Duquesne Union, Room 117. If you are a commuter student and have a question, suggestion, concern or need additional information – the Office of Commuter Affairs is the place for you. All students who live off campus (undergraduate/graduate, day/ evening, full time/part time) are encouraged to utilize our information and services. These include:

- **Commuter Center**, located on the 1st floor of the Duquesne Union, including: quiet study room, computer lab, and lounge with refrigerator, microwave, television and comfortable furniture.

- **Parking and Transportation Information:** The office can assist students with University parking information. If you use public transportation, Port Authority bus schedules are available outside the office; and bus passes are sold in the Information Center on the 3rd floor of the Duquesne Union.

- **Off-campus Housing Information:** Up-to-date listings are maintained of rooms, apartments, houses and “roommate needed” situations. These are available on our website or in the office.

- **Programs for commuters and their families including academic assistance programs.**

- **Commuter Assistant Program:** This program is a support network of upperclassmen students who serve as advisors and provide resources for new undergraduate commuters. CAs plan activities, provide information and supply encouragement.

- **Commuter Message Center:** If someone needs to get a non-emergency message to a student on campus, they may call (412) 396-6660. The message is posted outside the office for the student to pick up.

- **Commuter Council:** A student run governing body designed to identify commuter concerns and to provide educational, social and service-oriented programs for the University’s large commuter population.
The Office of Commuter Affairs is open Monday through Friday, 8:30 a.m. – 4:30 p.m. For further information call (412) 396-6660 or visit our website at commuteraffairs.duq.edu.

NOTE: Freshmen and sophomores attending Duquesne University are required to live on campus or with their parents or guardians. As such, compliance is a condition of a student’s enrollment at Duquesne University. Please see the Code of Student Rights, Responsibilities and Conduct for further information regarding Duquesne’s Residency policy.

OFFICE OF STUDENT ACTIVITIES
The Office of Student Activities coordinates the programs, services and facilities of the Duquesne Union, provides programming and administrative support for all recognized student organizations, publishes the Activities Calendars, and coordinates the Duquesne University Volunteers (DUV), the University’s volunteer program. The staff of this office provides services and amenities required to meet the daily needs of campus life, provides advice and assistance in all phases of campus programming, arranges all scheduling of events in the Duquesne Union, provides leadership training for student organizations and produces and presents a balanced series of cultural, educational, social and recreational programs in support of the mission and goals of the University.

The Duquesne Program Council is the student organization of the Duquesne Union which involves students in all aspects of planning and implementing various programs. The DPC offers students a chance to be creative and to gain effective leadership, communication, and program planning skills. The Duquesne University Volunteers is the organization which promotes all volunteer activities of Duquesne students.

OFFICE OF JUDICIAL AFFAIRS
The primary purpose of the Office of Judicial Affairs is to promote responsible citizenship and appropriate behavior through enforcement of the Code of Student Rights, Responsibilities and Conduct. The system is intended to emphasize student learning through a developmental process that holds individuals accountable for their actions and provides opportunities for personal growth and respect for self and others.

OFFICE OF MULTICULTURAL AFFAIRS
The Office of Multicultural Affairs (OMA) serves God by creating, maintaining, and supporting an inclusive campus community that enhances the learning and development of all students.

The programs and services offered by the OMA are consistent with the dimensions of a Duquesne education and are designed to contribute to a learning environment that values the global perspectives and experiences of all its members. The OMA is committed to advocating for and providing support for underrepresented students of color.

Diversity has always been an integral part of the Duquesne experience. Grounded in the missionary tradition, our Spiritan founders insisted on offering educational opportunities to all, regardless of race, color, or creed. In the spirit of our founders, the OMA is a resource available to all members of the Duquesne family.

If you are interested in getting involved and/or learning more about the programs and services offered in the Office of Multicultural Affairs, please don’t hesitate to contact us at oma@duq.edu.

RECREATION DEPARTMENT

Informal Recreation
The Power Center, a state-of-the-art facility, was built for the exclusive use of Duquesne students and employees. Informal recreation is offered in the following sports: basketball, volleyball, badminton, tennis, table tennis, billiards, air hockey and foose ball.

Intramurals
Having the opportunity to participate in both formal and informal recreational activities is a vital part of everyday life. The Intramural program at Duquesne University provides formal recreational sports opportunities to all students, faculty, staff and administrators by offering an opportunity for interesting and rewarding competition in men’s, women’s and co-ed activities. The program offers a variety of activities that the entire university community can participate in regardless of preference or athletic ability. Dates of Events and Application/Sign-up deadlines will be available in the Recreation Office located in the Power Center.

Fitness
As part of our fitness programming we offer a wide variety of fitness classes throughout the week. All classes take place in the Power Center group fitness studios. We also offer workshops, seminars on wellness topics and orientation sessions to help participants become familiar with the equipment and get started in a workout. Sessions are open to all students, faculty, and staff of the Duquesne University community throughout the year.

Club Sports
The objectives of Club Sports are to fulfill the recreational and extramural competitive needs of students. The program emphasizes Instruction and Competition. Club Sports are special interest groups whereby the students, with the Recreation Department, accept the responsibility for the majority of the organization responsibilities of the
club. Anyone interested in joining or starting a club may contact the Recreation Department in the Power Center.

**OFFICE OF RESIDENCE LIFE**
The Office of Residence Life is committed to creating an environment in each of the six (6) Living Learning Centers in which the student may grow and develop as a total person. Its philosophy and programs are based on the belief that the Living Learning Center experience is an important part of the total University education. The purpose of the Office of Residence Life is to facilitate the personal and academic growth of the resident students. To this end, the professional and resident assistant staff will provide the means to foster such development.

All freshman students and sophomores except those residing with their parents are required to live in one of Duquesne’s Living Learning Centers. All students living on campus are further required to take a University meal plan (except Brottier Hall). Housing Agreement terms are effective for the entire academic year, with room and board rates being determined on an annual basis. The Brottier Hall Housing Agreement is in effect for 12 months. Additional information regarding programs, policies and regulations for the Living Learning Centers is included in the Residence Life Handbook.

**OFFICE OF FRESHMAN DEVELOPMENT AND SPECIAL STUDENT SERVICES**

**FRESHMEN:** The Office of Freshman Development and Special Student Services serves to implement and direct programs which integrate and enhance the academic, personal and social dimensions of freshmen at Duquesne University. To accomplish this, the office directs the New Student Orientation Program; implements the Freshman Mentor Program; assists freshmen with finding tutors when needed; monitors freshman grades; prepares and edits the Freshman Newsletter; develops freshman leadership through the Freshman Class Advisory Committee; advises the freshman honor society Phi Eta Sigma; and interacts with the Offices of Commuter Affairs, Intramurals, and Residence Life in developing programs for freshmen.

**STUDENTS WITH DISABILITIES:** The Office of Freshman Development and Special Student Services also provides services to all University students with documented disabilities. Services such as classroom relocation, specialized testing accommodations, notetaking, removal of physical barriers, and other accommodations can be arranged through the office on an individual basis. The office assists students with communicating their needs to faculty members, physical plant, the University community, and in connecting with campus resources.

Please contact the office of Freshman Development and Special Student Services at (412) 396-6657 or (412) 396-6658 for any additional information.

**SERVICES FOR STUDENTS WITH DISABILITIES-SPECIAL STUDENT SERVICES**

Duquesne University considers the needs of students on an individual basis. Students with learning or psychological disabilities who desire special student services must present evaluations (psychoeducational or psychological) that are no more than three years old to the Office of Special Student Services. Students with other disabilities must submit written documentation of their disability from their physician. Documentation guidelines for disabilities have been established by the office and are available upon request. Services can be arranged through the office on an individual basis providing the student has documentation on his/her disability. Please contact the Office of Freshman Development and Special Student Services in Room 309 Duquesne Union or call (412)396-6657 or (412)396-6658 for any additional information. (Please see a more detailed description of the office at www.fdss.duq.edu)

**OFFICE OF GREEK LIFE, HONOR SOCIETIES & PROFESSIONAL ORGANIZATIONS**
The Office of Greek Life, Honor Societies, & Professional Organizations’ mission is to promote student development by providing opportunities for scholarship, community and philanthropic service, campus involvement, leadership development, and to create life-long fraternal friendships. Duquesne recognizes the incredible impact membership in a Greek-Lettered collegiate organization can have for students, so the University is committed to helping its fraternity and sorority community thrive and succeed. Greek Life programs designed and implemented by students in conjunction with staff have been developed with that mission in mind. The overall Greek Life mission is to complement the mission of Duquesne University, with a profound concern for moral and spiritual values. To accomplish this, we include the following goals:

- Provide opportunities for learning and personal development, organizational management, self-governance, and leadership development;
- Promote scholarship endeavors for members to achieve individual academic success and encourage chapter grade point averages higher than the male and/or female grade point average;
• Recognize the importance of serving our community with participation in philanthropic efforts;
• Promote student involvement in co-curricular activities;
• Recognize student and group achievement;
• Serve as an advocate for members of the Greek Community;
• Foster and build strong alumni relationships;
• Continue to be a nationally recognized Greek Community and strive for continuous improvement in all aspects of scholarship, programs, services and operations.

B. PROGRAMS

COMPREHENSIVE STUDENT ADVISEMENT
Students, pursuing undergraduate studies are assigned to a student advisor who will work with them throughout their undergraduate career at the University. The student advisor, located in the school in which the student is majoring, acts as the point of contact for the student in his/her interaction with all officials throughout the University.

Advisors are trained to assist students in developing and maintaining academic schedules, in facilitating financial aid, and in interacting with professionals in other fields who will assist them in their social, psychological and spiritual development. To help maximize their success and satisfaction with University life, students are encouraged to meet with their advisor regularly.

CAREER SERVICES CENTER
Students and graduates of Duquesne University have available to them the full services and programs of the Career Services Center. Persons with uncertain or changing vocational goals may seek career planning through personal contact with the professional staff and use of the career resources. Early use of this service is encouraged.

The individual with well-defined career goals may seek employment assistance and advice, including resume preparation, interview and job search techniques, job referrals and credential services. The graduating student may also be interested in campus interviews with visiting employers.

Undergraduate/graduate students may earn academic credit for approved preprofessional work under the University’s Internship Program, which is administered by the Career Services Center.

The part-time and summer employment program is important to students in financing their education and to those seeking practical experience to augment college training. Part-time and summer jobs in the community are also available through the center. Students interested in campus employment should contact the Office of Human Resource Management.

UNIVERSITY COUNSELING CENTER
Located in Room 308 of the Administration Building, the University Counseling Center offers personal, career, and academic counseling to all Duquesne students.

Confidential short-term and long-term personal counseling are provided for a variety of reasons such as difficulty adjusting to college life, personal and/or emotional distress, homesickness, test anxiety, sleep disturbances, etc. Psychiatric consultation is available as needed. Brochures on topics of concern to students are also available in the Counseling Center. These services are free to enrolled students.

Testing and career counseling are available for students having academic difficulties or to help students choose a major and decide on an occupation.

A variety of support groups and workshops are held throughout the academic year on topics of current interest such as time management, stress management, test anxiety, eating disorders, cultural diversity, or specific topics as requested.

Information and applications for national qualification examinations (CLEP, MAT, GRE, LSAT, GMAT, PRAXIS, etc.) are also available in the UCC.

Please contact the University Counseling Center at (412) 396-6204 for additional information or visit our website at www.counselingcenter.duq.edu.

HEALTH SERVICE

Medical/Nursing
The Health Service provides for the evaluation and treatment of illness and injury.

Staff
The medical/nursing professional staff consists of Registered Nurses, Certified Nurse Practitioners, Physician Assistants and Board Certified Physicians.

Immunizations
Duquesne University has established a Pre-Matriculation Immunization Policy. All incoming undergraduate students (Freshmen, Transfers, Fellows, and Second-Degree) are required to provide documentation of immunizations. Immunization requirements will follow guidelines from the Centers for Disease Control. Students must provide this documentation or registration for class will not be permitted.

In-Hospital Care
University physicians are attending staff physicians at the UPMC Mercy and Children’s Hospital of Pittsburgh. In emergency situations, students are transported and/or referred to the Emergency Room at UPMC Mercy. At that time, University
physicians are consulted regarding the student’s treatment and disposition.

Location
The Health Service is located on the second floor, Duquesne Union, (412)396-1650.

Eligibility
All full-time registered students. Cost of treatment or diagnostic procedures by non-University physicians, clinics or hospitals must be assumed by students, their family or their medical insurance. This includes laboratory work performed in the Health Service and gynecological laboratory services such as PAP smears.

All health records are confidential and will not be released without the student’s permission.

INSURANCE
• There is a Medical Insurance Health Program designed specifically for full-time undergraduate and graduate students of Duquesne University. Participation in the program is mandatory unless a student demonstrates that they have other insurance. Inquiries should be directed to Genny Hughes in Risk Management, Room 202A Fisher Hall or call 412-396-6677.

NOTE: The University is not responsible for medical expenses resulting from participation in intramural sports.

EMERGENCY
• A Crisis Coordinator is available 24 hours a day to assist in any type of emergency resulting from psychological problems.
• Call Public Safety (412) 396-2677. They will provide assistance and will contact Paramedics, Health Service and the Crisis Coordinator as needed.
• After hours care is provided by UPMC/Children’s Hospital Physicians.

RETENTION OFFICE
The Retention Office, under the direction of the Executive Vice President for Student Life, coordinates the efforts of the entire University community to ensure that the personal and educational experience for all students is the best possible. Policies, programs, services and opportunities are constantly reviewed, refined and improved in an effort to meet the legitimate needs of students consistent with the mission and goals of the University.

UNIVERSITY ARCHIVES AND SPECIAL COLLECTIONS
The University Archives appraises, collects, arranges, and preserves records of permanent value which document the mission, history and work of Duquesne University. It serves as a centralized repository for historical information about the University’s schools, departments, people, events, buildings and activities. Special collections include the Honorable Michael A. Musmanno Papers, The Cardinal John J. Wright Collection, the Rabbi Herman Hailperin Collection, and many others. The Archives is located on the 1st floor of Gumberg Library and is open to the entire Duquesne community, alumni, and general public. Phone: (412) 396-4870.

C. OTHER DEVELOPMENTAL SERVICES
OFFICE OF INTERNATIONAL PROGRAMS
The Office of International Programs (OIP) provides services to international students and scholars pursuing undergraduate and graduate degree programs at the University. These specialized services include furnishing pre-arrival information to accepted students; facilitating compliance with U.S. Citizenship and Immigration Services (USCIS) requirements; assisting in academic and cross-cultural adjustment through initial arrival and extended orientation programs; promoting and supporting events, programs, and activities which foster deeper communication, awareness and understanding among U.S. and international students at Duquesne; and providing ongoing direct service and appropriate referral services to international students and scholars on campus in a personalized and professional manner.

The OIP coordinates Study Abroad activities for the University and offers support services for students interested in Study Abroad through Duquesne. The OIP also supports the University’s strong commitment to international education as a valued component of the overall mission of the institution.

MICHAEL P. WEBER LEARNING SKILLS CENTER
The Learning Skills Center is an ancillary academic service whose primary charge is the intellectual development and academic success of students. Services are provided in coordination with academic offices of the University.

As part of its academic assistance efforts, the Learning Skills Center delivers diagnostic and prescriptive services. Individualized developmental programs in reading, writing, mathematics and science are offered to students who seek to upgrade their academic skills and advance their intellectual growth.

A free tutorial service provides both college and public school students with competent tutors in numerous subject areas. In addition, a comprehensive study skills program is available...
to enhance learning capabilities as well as to assist students experiencing academic difficulties. Phone: (412) 396-6661.

THE SPIRITAN DIVISION OF ACADEMIC PROGRAMS
Established in 1997, the mission of the Spiritan Division of Academic Programs is to provide a comprehensive network of services to help Division students develop the social and academic skills they need to be successful learners and earn a college degree.

Students are transitioned into the life of a socially matured and academically successful college student through a series of special programs, classes, workshops, and other experiences beginning in the summer prior to starting their freshman year. These services continue if the student wishes until graduation. Phone: (412) 396-6661.

For financial aid purposes, students enrolled in the Program for Academic Excellence (P.A.E./Act 101) and the Spiritan Division of Academic Programs must complete a minimum of 24 credits by the end of their first year and have 48 credits by the end of their second year to be eligible for maximum funds at the next level. This is consistent with Program and Division credit load requirement. Phone: (412) 396-6661.

THE PSYCHOLOGY CLINIC
The Psychology Clinic offers brief counseling and longer term psychotherapy to Duquesne’s students, faculty, and staff as well as the general public. Doctoral students in clinical psychology provide all services. Licensed clinical faculty members are involved in the supervision of all doctoral students. Students pay $10 per session, and others pay similarly low fees according to income. The Clinic is located in a pleasant, private setting on the 9th floor of Rockwell Hall. High confidentiality standards are practiced. The Clinic is open Monday through Friday, 8:00-4:00; early evening hours are available. For information or an initial interview, call (412) 396-6562.

D. STUDENT GOVERNANCE
STUDENT GOVERNMENT ASSOCIATION
The Student Government Association is designed to provide a forum for the expression of student views and interests, to maintain academic freedom and student rights, and to provide effective representation in the policy making and operations of the University. Two major functions of the S.G.A. are to serve as student representatives on crucial University committees and to recognize and fund student organizations.

COMMUTER COUNCIL
Commuter Council is a student run governing body designed to identify commuter concerns and to provide educational, social and service-oriented programs for the University’s large commuter population.

RESIDENCE HALL ASSOCIATION
The Residence Hall Association supports Living Learning Center activities and is involved with the Office of Residence Life in developing and implementing Living Learning Center policies and procedures. All resident students are automatically members of Residence Hall Association and are encouraged to attend meetings, functions, etc. sponsored by the group.

It is the aim of the Residence Hall Association to serve as a link between the resident students and the administration. Aside from the council activities, representatives of the Residence Hall Association serve on university committees.

INTERFRATERNITY COUNCIL
The purpose of the Interfraternity Council is to develop, maintain, and support fraternity life and Interfraternity relations at a high level of accomplishment. The Interfraternity Council serves as the governing and regulatory body for its eight member fraternities (seven national and one local). The IFC works to promote superior scholarship, leadership development, community service, social and moral development, and life-long friendships. It represents the men’s fraternities to the administration, faculty, alumni, community at large, and student body. The IFC works with the University administration to assist in regulating the men’s Greek activities including recruitment, new associate member education, philanthropic and service events, alumni relations, Carnival, Greek Week, the council intramural sports league, and positive social events. The council also serves as a forum for the airing of constructive proposals for the improvement of the fraternity community.

PANHELLENIC COUNCIL
The purpose of the Panhellenic Council is to develop, maintain, and support sorority life and inter-sorority relations at a high level of accomplishment. The Panhellenic Council serves as a governing and regulatory body for its seven member national and international general sororities. The PHC serves as the largest women’s advocacy group at the university, and works to promote superior scholarship, leadership development, community service, social and moral development, and life-long friendships. It represents the women’s fraternities to the administration, faculty, alumnae, community at large, and student body. The Panhellenic Council works with the University administration to assist in regulating the women’s Greek activities including formal recruitment programs, new associate member education, philanthropic and service events, alumnae relations, Carnival, Greek Week, and other positive and traditional
social events. The council also serves as a forum for the airing of constructive proposals for the improvement of the sorority community.

E. STUDENT ORGANIZATIONS

GENERAL
There are more than 150 student organizations at Duquesne. Some serve the needs of specific interest groups, others relate directly to major areas of study, and some honor academic achievement. Many are formed to meet social, service or religious needs and interests.

The Office of Student Activities provides administrative and programming support for all recognized student organizations. Any student group wishing to apply for official University recognition must initiate this process through the Office of Student Activities. Recognized organizations must also annually update their registration.

HONOR SOCIETIES
These societies have as their primary purpose recognition of academic excellence and leadership achievement. There are normally cumulative grade point and leadership requirements for membership in these groups. There are over 30 recognized nationally affiliated Honor Societies currently at Duquesne University.

PROFESSIONAL AND DEPARTMENTAL ORGANIZATIONS
These professional organizations exist to provide opportunities for career development and the exchange of ideas pertinent to students’ academic pursuits. With this purpose in mind, these organizations sponsor numerous programs including debates, symposiums and lectures. There are over 20 recognized nationally affiliated Greek-Lettered Professional Organizations at Duquesne University.

DUQUESNE PROGRAM COUNCIL
The Duquesne Program Council (DPC) is the major student programming organization of the University. It provides social, recreational, educational and cultural activities for the entire University. The DPC, directed by students and advised by the Student Activities Office, is comprised of several committees which present such events as concerts, dances, comedy shows, lectures, films and an outdoor recreation series. Membership is open to all students.

DUQUESNE UNIVERSITY VOLUNTEERS
The Duquesne University Volunteers is the University’s volunteer program which coordinates and monitors the volunteer activities of all individual students and all student organizations. Student volunteers provide a high standard of service to the campus and local community while, at the same time, they are fulfilling the University’s Mission Statement which seeks to instill “a spirit of service” in all students. DUV also collaborates with the service learning program of the University.

FRATERNITIES AND SORORITIES
Fraternities and Sororities at Duquesne University are organizations composed of college men and women who have joined together to foster and promote life-long friendships, moral, ethical, and leadership development, character building, and service to others. These organizations are local, national, and international in scope. They sponsor and promote academic, service, athletic, and social events under the auspices of life-long brotherhood and sisterhood. The recognized groups at the University work to advance the American Fraternity Movement, founded in the 18th century, and the mission of Duquesne University, founded to serve God by serving students.

PERFORMANCE GROUPS

TAMBURITZANS
Based on the exciting traditions of Eastern Europe and neighboring cultures, the Duquesne University Tamburitzans show is a colorful extravaganza of dance, song, and music. The longest-running university-based performing ensemble in the United States, the Tamburitzans is named after the stringed instrument prevalent in many of the cultures which the group artistically represents.

Established in 1937, the ensemble’s mission is to preserve and perpetuate the cultural heritage of Eastern Europe and its neighbors through performance, while awarding scholarships to talented and deserving student performers. The group travels extensively throughout the U.S. during its August-to-June performing season, presenting an average of 80 shows.

Vacancies are filled through an annual audition process. Experience in folk arts performance is desirable, but not required; performers with ballet, tap, jazz, band, orchestra, chorus, or musical theatre experience may have the skills required to qualify for a substantial scholarship award and a position with this unique, award-winning ensemble. Ideally, inquiries should be made in the fall prior to general auditions, which are held in early February at the Tamburitzans Administration Building, 1801 Boulevard of the Allies. Contact the Tamburitzans for further information.

Phone: (412) 396-5185 fax: (412) 396-5583
	tamburitzans@duq.edu
	www.tamburitzans.duq.edu

THEATRE
The Red Masquers provide an extracurricular outlet for students who wish to participate in theatre. The organization’s aim is to provide the University and its students with the educational and cultural
benefits that accrue from a drama program. Any Duquesne student is eligible for membership.

MEDIA ORGANIZATIONS

DUQ-TV
Students at DUQ-TV produce information and entertainment programs for the on-campus cable station. Participation is open to all students.

WdSR
WdSR is the Duquesne Student Radio. It broadcasts during the Fall and Spring Semesters. Participation is open to all students.

PUBLICATIONS

The Student Handbook and Code of Student Rights, Responsibilities and Conduct.
The Student Handbook contains information about the University which concerns the students. The Student Code, which is a part of The Student Handbook, is the definitive statement of standards, policies and procedures regarding students’ rights and responsibilities, campus organizations, student governance, student records, student conduct and the University Judicial System. The Student Handbook is available online at http://www.studentlife.duq.edu/studenthandbook/.

The Duquesne Duke, the University campus newspaper, is written and edited by students. It is published on Thursdays during the academic year with the exceptions of examination periods and holidays. Participation is open to all students.

Lexicon is a literary publication which affords students the opportunity to submit writing, artwork, and photographs. It is published twice a year. Participation is open to all students.

L’Esprit du Duc, the University yearbook, highlights student life on campus, including student organizations; varsity, club, and intramural sports; and events on campus. Participation is open to all students.

Part VI: WDUQ Radio

WDUQ 90.5 FM is Duquesne University’s public radio station, featuring in-depth NPR news and jazz. The station employs a full-time professional staff, supported by university students (in volunteer and paid positions), interns and community volunteers.

WDUQ is a full member station of National Public Radio (NPR) and an affiliate of Public Radio International (PRI). WDUQ contributes programming and news reports to these national networks, and produces nationally distributed music and information programs heard throughout the United States. The station also presents live coverage of special events and sponsors local and regional events that promote cultural and community involvement.

WDUQ reaches more than 150,000 listeners each week throughout southwestern Pennsylvania, and parts of Ohio, West Virginia and Maryland. WDUQ is the oldest public broadcasting station in Pittsburgh, on the air since 1949.

WDUQ’s offices and studios are in the Des Places Language Center of Duquesne University on the Duquesne campus.

Part VII:
Spiritan Campus Ministry

Spiritan Campus Ministry is committed to fostering the spiritual life and growth of all Duquesne students. Its mission is oriented to furthering growth at the personal as well as the community level. Eucharistic liturgies are celebrated daily, and the Sacrament of Reconciliation is scheduled regularly and by appointment. For all students, faculty and staff, whatever their faith, the Campus Ministers are available to help with spiritual direction, counseling, advice, or sympathetic listening, all in strict confidence.

Spiritan Campus Ministry provides a listing of nearby worship sites, and referrals can be made to introduce the students to the various faith traditions in the area. The University Chapel is open each day for private prayer and quiet meditation. It is also available to groups for specific services of a religious nature. In addition, there is a Muslim prayer space above the Chapel.

Spiritan Campus Ministry sees itself at the service of all and invites the participation of the entire Duquesne community in religious, social and community activities.

All are invited to stop in at any of the following Spiritan Campus Ministry locations: 102 Administration Building, the Spiritan Campus Ministry Center in Duquesne Towers, the Student Union and the Living/Learning Centers of St. Ann and Assumption.
Part VIII: University Programs and Courses

THE UNIVERSITY CORE CURRICULUM

What and Why?
Central to the mission of any university, a core curriculum provides a set of courses required of all undergraduate students – regardless of school or major. At any institution, the university core curriculum reflects the standards and expectations of higher education: intellectual development; critical inquiry; a strong grounding in the liberal arts; and deep knowledge and understanding of the natural world and human society.

The Uniqueness of a Duquesne University Education
At Duquesne University, the core curriculum provides a bit more: a clear vision of our aspirations for future alumni. The university core curriculum was broadly revised in 2006 in order to more effectively encourage the individuals we are proud to call Duquesne University students. The core curriculum emphasizes the academic, moral, spiritual, ecumenical, and service-oriented qualities of our founding religious order, the Congregation of the Holy Spirit. The guiding values of the university core curriculum are:

- Academic excellence through the pursuit of truth
- Education in the liberal arts and sciences that recognizes the inherent dignity of every person and the uniqueness of individual creative expression
- Knowledge of human culture and of the natural world that enriches the individual and enables personal and communal growth in social and environmental responsibility
- Spiritual and moral development and ecumenical openness that fosters interreligious understanding
- Civic engagement in service learning that links academic knowledge of society with real life issues and concerns
- Intellectual honesty and academic integrity

Planning Your Courses in the University Core
The university core curriculum consists of 34 credits that every Duquesne University student must fulfill. Students take six prescribed courses in specific academic disciplines (English, Mathematics, Natural Science, Philosophy, and Theology) and engage broader intellectual themes through choices throughout the university in Ethics, Information Literacy, Creative Arts, Faith and Reason, Global Diversity, and Social Justice. Finally, the student is challenged to implement these ideas through work in the community in one service learning course.

Service Learning
The mission of Duquesne University calls for service of others by persons with consciences sensitive to the needs of society. As part of the University Core Curriculum, every student will take a minimum of one course that includes a required Service Learning component. These courses are identified by the "SL" designation.

Service-Learning is a teaching method that combines academic instruction, meaningful service, and critical reflective thinking to enhance student learning and social responsibility. It differs from volunteerism, community service, internships, and field education through the use of ongoing, structured reflection and an emphasis on sustained, reciprocal partnerships between faculty and community partners.

The Office of Service-Learning (OSL) is available to assist students, faculty, and their community partners and can be reached by calling 412-396-5893 or by visiting the web at www.servicelearning.duq.edu.

Writing Intensive Requirement
It is universally recognized that the ability to write clear, correct, and effective prose is an indispensable component of being an educated person. It is, therefore, entirely appropriate that Duquesne includes among its central objectives the development of the abilities to write clearly, correctly, and effectively.

Every graduating student must have completed a minimum of four Writing Intensive courses beyond the two-semester Core writing sequence. At least two of the courses must be taken in the student’s major field. The other two courses may be taken in either the major field department or in the student’s school or college. Writing Intensive courses are offered in every department at the 200 level and above and emphasize the principles and practices of writing unique to the respective field.
CORE COURSES

UCOR 101. Thinking and Writing Across the Curriculum 3 cr.
Practice in analysis and expression in many disciplines.

UCOR 102. Imaginative Literature and Critical Writing 3 cr.
A college-level introduction to imaginative literature and to critical techniques for interpreting imaginative literature. CORE 101 Thinking and Writing Across the Curriculum is a prerequisite.

UCOR 111. Problem Solving with Creative Mathematics 3 cr.
This course provides an exploration of mathematics as a science with an emphasis on problem solving techniques. Mathematical literacy is addressed through group work, research and presentations. Topics include basic elements of statistics and probability, number theory, general mathematical laws, logic, Venn diagrams and graph theory. Students take solutions to problems and try to generalize and construct mathematical formulas. The course attempts to help students become aware of the contributions of mathematics to culture in the form of traditional and ancient mathematical puzzles and theorems. Students may also satisfy this requirement with one of the basic Calculus courses (111 or 115), Fundamentals of Statistics 125 or Biostatistics 225.

UCOR 132. Basic Philosophical Questions 3 cr.
Philosophy, “the love of wisdom,” is a discipline for discussing basic questions about ourselves and our world. Students read selected works by major figures throughout the history of philosophy; they are encouraged to think critically and to formulate their own answers to perennial philosophical questions. This course is required for all students in the university. It counts as the first course for the major and minor in philosophy.

Natural Science 3 cr.
Students choose one of the courses described below (121, 122, 123, 124, 125, 126W, 127, 129, 170). Each course presents a body of fundamental knowledge to provide the student with an awareness and understanding of the discipline. Students may also satisfy the Core Science requirement by one of the following courses: Biology 121 or 122; General Chemistry 121 or 122; General Physics 201 or 202.

UCOR 121. Core Science - Biology 3 cr.
Evolution, inheritance, and the interrelation of energy, life, and the physical environment provide the unifying themes of this course. Each of these is examined from multiple levels of organization—from the molecular to the biosphere—demonstrating the diversity of life within which the commonality of life is found. Issues to be considered include those critical to effective citizenship in our changing world such as disease, reproduction, genetics, genetic engineering, and ecology.

UCOR 122. Core Science - Chemistry 3 cr.
The fundamental concepts of structure, bonding, properties, and chemical reactivity are presented through lecture and classroom experimentation. A consideration of consumer chemicals and the role of the chemical industry emphasizes the importance of chemistry and related technologies in our everyday lives. The chemical dimensions of selected social issues of current importance in the areas of environmental chemistry, energy technology and food production are examined.

UCOR 123. Core Science - Physics 3 cr.
Through lecture and classroom demonstration, students investigate the fundamental notions of mechanics: motion, inertia, force, momentum and energy. Emphasis is placed on the great Newtonian synthesis of the 17th century. With this foundation, students are prepared to move on to topics chosen from among the following: properties of matter, heat and thermodynamic processes, electricity and magnetism, light and modern physics. This course introduces students to the analytical processes of the scientific method and also helps them recognize applications to the physics involved in everyday life. Lecture (three hours). Fall, spring and summer.

UCOR 124. Earth Science 3 cr.
Introduction to Earth science for non-science majors. Survey of the Earth in relation to its physical composition, structure, history, atmosphere and oceans. Also included is how each of this impacts humans and how humans have an influence on the processes of the Earth, its oceans, and its atmosphere. Lecture (three hours). Fall, spring and summer.

UCOR 125. Astronomy 3 cr.
Introduction to methods of astronomical observation, history of astronomy, the solar system and the question of life in the universe, with limited context-building discussion of stars and galaxies. Focus may alternate between planetary geology.
and astrophysics. Delivery is straightforwardly descriptive without complex mathematics. No science or mathematics background presumed. Does not meet requirements of physics or astronomy programs. Fall.

UCOR 126W. Energy and the Environment 3 cr.
The natural environment is an enormously complex system within which physical, chemical and biological processes interact. Understanding these systems has been remit for generations of chemists, biologists, ecologists, and geologists, scientists of many fields, operating under an umbrella of environmental science.

Environmental issues often relate to perturbations within these systems, the existence of which is discovered by teams of scientific investigators trying to understand the ‘normal’ functioning of the system. Science, therefore, is at the heart of our understanding of global and local environmental issues. For every issue which is raised, we must have a firm grasp of both the scientific principles which operate in the environment and the knowledge of policy measures that are meaningful and provide real solutions to environmental problems, while recognizing the importance of a sustainable and strong economy.

UCOR 127. Cosmology 3 cr.
Modern scientific understanding of the origin and evolution of the universe at a straightforward descriptive level. Topics include: redshift of distant galaxies, cosmic background radiation, cosmic abundance of hydrogen and helium, inflation, dark matter, dark energy and big-bang models of the universe, with discussion of relevant astrophysics including stellar evolution and black-hole science. Emphasis is on the current status of the field as per public media sources. Delivery is based on a variety of visual aids, including acclaimed public television programs. Internet-based searches, readings from public sources and fieldtrips to local observatories are some of the activities included for credit. No science or mathematics background presumed. Does not meet requirements of astronomy programs. Lecture (three hours). Odd spring.

UCOR 129. Special Topics in Science 3 cr.
UCOR 170. Roller Coaster Science 3 cr.
Concepts relevant to a roller coaster ride are developed through an approach that integrates hands-on activities into lecture time. Energy, force, acceleration and speed acquire meaning through experience and observation. This course builds up, in the context of amusement park rides, the skills in math and physics that are traditionally acquired through a first standard course in introductory physics. A field trip to Kennywood Park is among the requirements. Integrated lecture and lab (three hours). Summer.

Theology
Students choose one of the following courses.

UCOR 141. Biblical and Historical Perspectives 3 cr.
An examination of the historical, literary and theological aspects of a select number of key biblical texts and a discussion of their contemporary relevance.

UCOR 142. Theological Views of the Human Person 3 cr.
An investigation into the question of “What does it mean to be human?” according to Judeo-Christian teaching; including the relationship of the human person to self, others, the world, and the Divine as the basis for humanness.

UCOR 143. Global and Cultural Perspectives 3 cr.
A study of theology through analysis of the cultural and global influences that shape its thought and practice. Christianity is considered from either the perspective of its interaction with the world’s religions, or through dialogue with the social sciences.

UCOR 186. Faith and Culture 3 cr.
An introduction to the fundamental beliefs of Roman Catholicism and their expression in literature and the visual arts, from the Origins of Christianity to the Contemporary Era.

Ethics
Students choose one of the following courses.

UCOR 151. Philosophical Ethics 3 cr.
The course provides an introduction to important ethical theories, past and present, and some of their applications to concrete issues. Prerequisite: UCOR 132.

UCOR 152. Theological Ethics 3 cr.
A study of central issues of religious ethics (moral theology), including methodological and practical concerns, with a focus on the Christian tradition and with some attention to other approaches.
UCOR 207W. Medical Ethics. 3 cr.
The course analyzes the methods and principles of medical ethics. It studies these topics in relation to specific cases and some of the most recent developments in medical and surgical technology. The main objective is to defend respect for life by analyzing its foundations and practical implications. The course examines the conflicts with which health professions struggle when they make decisions. It also interprets what these conflicts reveal about the value of life and the nature of ethical judgment in general.

Prerequisite: UCOR 132

UCOR 253. Health Care Ethics. 3 cr.
A study of practical and theoretical issues in the ethics of health care.

Note: In general, students will complete the Core requirements according to guidelines established by their respective schools and in consultation with their academic advisors.

Honors College/Integrated Honors Program
Director: Michael C. Cahall, Ph.D.
Highly-qualified, motivated and committed students are searching for challenge and enrichment in a college education. For these students, the future leaders in every field, Duquesne University offers its Honors College.

Duquesne University’s Honors College provides an intellectual breadth and depth of experience which not only enhances the life of the mind, but also offers practical advantages in our increasingly competitive world. It combines liberal arts with opportunities for professional studies while providing the thinking, writing and speaking skills necessary for continuing success.

The foundation of Duquesne’s Honors College is the Integrated Honors Program, an enhanced track of the University Core Curriculum. Special honors sections of Core courses feature some of the University’s most distinguished faculty. Honors College students may also earn honors designation for courses in their majors by completing individual learning contracts in association with the faculty members. IHP faculty members are dedicated to good teaching, are well-known scholars in their fields, and possess a breadth of interest beyond their individual specialties.

IHP courses focus on our essential human heritage and on the major ideas and issues forming the background and direction of modern life. They are taught in small class sections, allowing for close interaction between students and teachers and encouraging individual initiative as well as collaborative learning.

Special Benefits
To provide students with additional opportunities to enhance their academic and social experience, the Honors College offers a variety of special benefits, including:

* Special housing in the Honors College Assumption Hall living-learning center. This provides an environment conducive to intellectual dialogue and study within a community of like-minded students.
* Honors facilities such as a lounge and computer center, to encourage students to work together on team projects and to allow for more focused research and study.
* Early registration dates, ensuring that Honors College students have a greater opportunity for placement in vital limited-enrollment courses.
* Special Honors notation on transcripts.
* Membership in the Integrated Honors Society, an Honors students organization which not only provides a social outlet but also allows students to hone their leadership and teamwork skills by organizing and implementing service projects and academic interest programs.

Honors College Advantages
Participation in an honors program offers a competitive edge in admission to professional and graduate school and in obtaining assistantships and fellowships.

While graduation from an honors program cannot guarantee employment, persons with broadly-based liberal arts and sciences backgrounds are often preferred for professional and managerial positions.

101. Logic and Rhetoric 3 cr.
Clear and disciplined thinking, reading, speaking and writing, with a particular emphasis on written expression. Through the study of various forms of literature, from poetry and drama to the novel, students analyze a number of rhetorical forms. (AP credits from the English Language and Literature examination may be applicable.)

188. Classical and Contemporary Theology 3 cr.
An inquiry into representative religious beliefs, movements, ethics and scriptures, with particular attention to the Jewish and Christian traditions. Each section of this course focuses on an issue chosen by the professor; consult the professor to learn the particular focus of each section.
200. Honors Seminar  3 cr.
A wide menu of seminar offerings each semester provides the Honors College student the opportunity to study a topic of interest in considerable detail. Consult the Honors College website (www.honorscollege.duq.edu) for each semester’s list.

PRE-MEDICAL PROFESSIONS PROGRAM
The Pre-Medical Professions Program is a University-wide program for students pursuing a career in medicine, dentistry, veterinary medicine, optometry, podiatry or chiropractic. The program provides guidance to students in acquiring the requisite experiences and academic background for applying to health professional schools. Students in the program meet regularly with a pre-medical advisor to evaluate the student’s academic progress and receive professional guidance in gaining volunteer and community service, clinical, internship and research experience. The program sponsors seminars and workshops which provide information about health professional schools, careers for the health professional and development of personal skills needed for a health professions career. University and college core requirements offer each student the liberal arts education that provides a solid foundation for a career in a health profession. Most health professional schools prefer their applicants to have had a broad and well-rounded academic background with a diverse set of life and health-oriented experiences.

It is important for each student to register with the program as early as possible in his/her academic career and preferably upon first entering the university. At that time, each student will meet with a pre-medical advisor to plan a tentative four-year academic program and other activities that are best suited for the individual student. Students in the program must complete the Pre-Medical Professions Core Curriculum and declare a major. Students are urged to select a major in any area that is of the most interest to the student. Biology, psychology, biochemistry, English, history, and mathematics are a few of the more commonly chosen ones.

Generally, students submit their applications during the summer following the junior year in order to matriculate at a health professional school in the fall following graduation. Duquesne’s Pre-Medical Professions Program provides each student with guidance throughout the complex application process. Gaining admission to a health professional school is dependent on a variety of factors that include meeting standard criteria for overall grade point average, science grade point average, and admissions test scores. Each qualified student is interviewed and evaluated by members of the Pre-Medical Professions Committee. This evaluation along with evaluations submitted to the Pre-Medical Office by faculty and others provide the basis of the overall evaluation and recommendation sent to the schools to which the student is applying.

The program maintains affiliations with Temple University School of Medicine and the Lake Erie College of Osteopathic Medicine (LECOM). Admission into the Duquesne Medical Scholars Program in association with Temple University School of Medicine and the “3+4 Compacted Program” in association with LECOM must be completed prior to matriculation at Duquesne. For students interested in the management of health delivery, the Pre-Medical Professions Program in combination with the Rangos School of Health Sciences offers a degree track for pre-medical students in the department of Health Management Systems. If you would like information on these and other programs, please contact the Pre-Medical Professions Program office located in B101 Bayer Learning Center.

The core courses are as follows:
- English………………………………2 semesters
- Chemistry with laboratory………….2 semesters
- Organic Chemistry with laboratory…2 semesters
- Biology with laboratory……………..2 semesters
- Physics with laboratory…………….2 semesters
- Mathematics……………………….2 semesters
- Behavioral Sciences………………….2 semesters

ENGLISH AS A SECOND LANGUAGE (ESL) PROGRAM
The ESL Program (ESLP) serves students accepted to degree programs or to a non-degree program of ESL study only. The ESLP offers intensive (20 hours per week) or semi-intensive (4 to 16 hours per week) programs at basic, intermediate and advanced levels. Placement tests are administered to all students (who may also earn a Certificate of Program Completion.)

Qualified students may combine courses in academic degree majors with ESL study. Undergraduate degree program students earn academic credit for each program level successfully completed. The ESLP offers classes in Fall (late August to December), Spring (January to April) and Summer sessions (May to early August).

The English as a Second Language Program at Duquesne University is accredited by the Commission on English Language Program Accreditation (CEA) for the period December 2007 through December 2008, has applied for re-accreditation

200. Honors Seminar  3 cr.
A wide menu of seminar offerings each semester provides the Honors College student the opportunity to study a topic of interest in considerable detail. Consult the Honors College website (www.honorscollege.duq.edu) for each semester’s list.

PRE-MEDICAL PROFESSIONS PROGRAM
The Pre-Medical Professions Program is a University-wide program for students pursuing a career in medicine, dentistry, veterinary medicine, optometry, podiatry or chiropractic. The program provides guidance to students in acquiring the requisite experiences and academic background for applying to health professional schools. Students in the program meet regularly with a pre-medical advisor to evaluate the student’s academic progress and receive professional guidance in gaining volunteer and community service, clinical, internship and research experience. The program sponsors seminars and workshops which provide information about health professional schools, careers for the health professional and development of personal skills needed for a health professions career. University and college core requirements offer each student the liberal arts education that provides a solid foundation for a career in a health profession. Most health professional schools prefer their applicants to have had a broad and well-rounded academic background with a diverse set of life and health-oriented experiences.

It is important for each student to register with the program as early as possible in his/her academic career and preferably upon first entering the university. At that time, each student will meet with a pre-medical advisor to plan a tentative four-year academic program and other activities that are best suited for the individual student. Students in the program must complete the Pre-Medical Professions Core Curriculum and declare a major. Students are urged to select a major in any area that is of the most interest to the student. Biology, psychology, biochemistry, English, history, and mathematics are a few of the more commonly chosen ones.

Generally, students submit their applications during the summer following the junior year in order to matriculate at a health professional school in the fall following graduation. Duquesne’s Pre-Medical Professions Program provides each student with guidance throughout the complex application process. Gaining admission to a health professional school is dependent on a variety of factors that include meeting standard criteria for overall grade point average, science grade point average, and admissions test scores. Each qualified student is interviewed and evaluated by members of the Pre-Medical Professions Committee. This evaluation along with evaluations submitted to the Pre-Medical Office by faculty and others provide the basis of the overall evaluation and recommendation sent to the schools to which the student is applying.

The program maintains affiliations with Temple University School of Medicine and the Lake Erie College of Osteopathic Medicine (LECOM). Admission into the Duquesne Medical Scholars Program in association with Temple University School of Medicine and the “3+4 Compacted Program” in association with LECOM must be completed prior to matriculation at Duquesne. For students interested in the management of health delivery, the Pre-Medical Professions Program in combination with the Rangos School of Health Sciences offers a degree track for pre-medical students in the department of Health Management Systems. If you would like information on these and other programs, please contact the Pre-Medical Professions Program office located in B101 Bayer Learning Center.

The core courses are as follows:
- English………………………………2 semesters
- Chemistry with laboratory………….2 semesters
- Organic Chemistry with laboratory…2 semesters
- Biology with laboratory……………..2 semesters
- Physics with laboratory…………….2 semesters
- Mathematics……………………….2 semesters
- Behavioral Sciences………………….2 semesters

ENGLISH AS A SECOND LANGUAGE (ESL) PROGRAM
The ESL Program (ESLP) serves students accepted to degree programs or to a non-degree program of ESL study only. The ESLP offers intensive (20 hours per week) or semi-intensive (4 to 16 hours per week) programs at basic, intermediate and advanced levels. Placement tests are administered to all students (who may also earn a Certificate of Program Completion.)

Qualified students may combine courses in academic degree majors with ESL study. Undergraduate degree program students earn academic credit for each program level successfully completed. The ESLP offers classes in Fall (late August to December), Spring (January to April) and Summer sessions (May to early August).

The English as a Second Language Program at Duquesne University is accredited by the Commission on English Language Program Accreditation (CEA) for the period December 2007 through December 2008, has applied for re-accreditation
after December 2008, and agrees to uphold the CEA Standards for English Language Programs and Institutions. CEA is recognized by the U.S. Secretary of Education as a reliable authority concerning the quality of education or training offered by the English language institutions and programs it accredits.

**COURSE PROFILES**

Level and course assignments are determined by placement tests or successful completion of Duquesne courses at prior levels.

### Basic-level Courses 0-2 cr. Hrs./Week
- 120/142. Basic ESL Grammar A/B 4
- 119/121. Basic ESL Speaking A/B 4
- 122/127. Basic ESL Reading A/B 4
- 123/128. Basic ESL Writing A/B 4
- 118/124. Basic ESL Notetaking A/B 4

Up to 20 hours of basic English for non-native speakers.

### Intermediate-level Courses 0-2 cr. Hrs./Week
- 125. Intermediate ESL Grammar 4
- 126. Intermediate ESL Speaking 4
- 129. Intermediate ESL Notetaking 4
- 140. Intermediate ESL Reading 4
- 141. Intermediate ESL Writing 4

Up to 20 hours of intermediate English for non-native speakers.

### Advanced & Special Purpose Courses 0-2 cr. Hrs./Week
- 130. Advanced ESL Grammar 4
- 131. Advanced Speaking 4
- 132. Advanced ESL Reading-A 4
- 133. Advanced ESL Writing 4
- 134. Advanced Notetaking 4

Up to 20 hours of advanced English for non-native speakers.

**143. ESL Graduate Research Paper.**
A course in writing academic English for graduate students.

**144. Advanced ESL Reading-B.**
Advanced English reading for non-native speakers preparing for CORE 101 Thinking and Writing.

**145. ESL Computer Skills.**
Computer literacy for beginners.

**146. TOEFL Preparation.**
Strategies and practice for the TOEFL.

**147. ESL Term Paper.**
Advanced English research writing for non-native speakers preparing for CORE 101 Thinking and Writing.

**148. ESL Academic Discourse.**
A multi-skills course in discourse analysis for graduate students.

**149. ITA Seminar.**
A speaking and classroom-practice course for international teaching assistants.

**UCOR 101E. Thinking and Writing.**
The University-wide CORE 101 composition course in an ESL context.

**UCOR 102E. Imaginative Literature and Critical Thinking.**
The University-wide CORE 102 literature course in an ESL context.
The McAnulty College of Liberal Arts

Administration:
Acting Dean:
Albert C. Labriola, Ph.D.

Associate Dean:
G. Evan Stoddard, Ph.D.

HISTORY
In 1878 the Fathers of the Congregation of the Holy Ghost and the Immaculate Heart of Mary established a College of Arts and Letters which was incorporated in 1882 as Pittsburgh Catholic College of the Holy Ghost with authority to grant degrees in the arts and sciences. In 1911 the College and University Council of the Commonwealth of Pennsylvania extended the charter to university status and approved the amendment in favor of the corporate title, Duquesne University.

STATEMENT OF MISSION AND OBJECTIVES
Throughout history, education in the liberal arts has produced, nurtured and transmitted civilization’s greatest ideas and accomplishments. Study of the liberal arts prepares students for the future. It teaches them to seek the truth, to understand the knowledge and values of many disciplines, and to bring these insights to bear on modern problems in a world of change, complexity and diversity.

The McAnulty College of Liberal Arts is at the center of Duquesne University’s Education for the Mind, Heart and Spirit. Founded in 1878 as the first of the university’s schools, the College embodies both Duquesne’s Catholic tradition and its ecumenical atmosphere. We strive for academic excellence, search for truth, aspire to live a virtuous life, respect the dignity of the human person, foster a spirit of service to the poor and to all others, and seek to build the communities in which we live and work.

A liberal arts education provides the practical intellectual framework for informed choice that leaders require in the 21st Century. Successful leaders must have the skills that a liberal arts education best cultivates: disciplined thought, careful analysis, articulate presentation of ideas, and organized and persuasive writing and speech. They also need the human values and broad perspective that are hallmarks of graduates of the McAnulty College.

MISSION
The College prepares students for productive and creative lives of service in a rapidly changing world. We teach students to think, write and speak clearly and critically, so they can seek truth about God, themselves, and society, and contribute to their families, communities, businesses and professions.

Education for the Mind, Heart and Spirit at the McAnulty College of Liberal Arts:
• shapes the essential skills of written and oral communication that are the basic building blocks of a successful career in any field;
• trains students to use the most current technologies for their chosen fields of study and to appreciate the place and contribution of those technologies;
• encourages the international competence important to succeed in the global community;
• provides the instructional excellence and sophistication necessary for students to succeed in graduate training for the learned professions;
• establishes the broad foundation of knowledge necessary for lifelong learning and career flexibility in a rapidly changing world;
• guides students in their spiritual development;
• makes available opportunities for students to use their knowledge and skills to serve others;
• encourages students to contribute to their families, their professions and the communities around them;
• reinforces enduring values that give meaning to life and work and that lead to happiness and fulfillment.

DEGREES
The College confers two undergraduate degrees: Bachelor of Arts and Bachelor of Science. Students who complete a major program in art history, classics, communication, economics, English, history, international relations, modern languages and literatures, journalism and multimedia arts, philosophy, political science, psychology, sociology, theater arts and theology receive the B.A. degree. Students majoring in mathematics or computer science can follow a curriculum leading to either a B.A. or B.S. degree.
GRADUATION REQUIREMENTS
To receive the Degree of Bachelor of Arts or Bachelor of Science in the College of Liberal Arts, a student must complete the following requirements:

• A minimum of 120 semester hours of course credits. The last 30 hours must be taken at the University.
• University Core Curriculum.
• University Writing Intensive requirement.
• College General Requirements, as described below.
• Major program (see departmental listings).
• Minor program (see departmental listings).
• An overall minimum cumulative grade point average of 2.0.
• A minimum cumulative grade point average of 2.0 both in the major and in the minor.
• Removal of I and F grades both in the major department and in required courses.
• Submission of application for the degree on a form provided by the Registrar, before the deadline published in the current University calendar. No student is considered a degree candidate prior to submission of this form.

COLLEGE GENERAL REQUIREMENTS
Students enrolled in the College of Liberal Arts for the B.A. or B.S. degree are required to complete the University Core Curriculum, consisting of 33 credits, for graduation.

In addition to the University Core, students in the College are required to fulfill the following requirements for graduation:

**Bachelor of Arts**
Modern or Classical Language .......... proficiency at the 202 level
Math/Science (mathematics, computer science, biology, chemistry, or physics) .......... 3 cr.
Political Science/Sociology/Psychology (Two disciplines must be represented) .......... 6 cr.
History/Literature ........................................ 6 cr.
Philosophy/Theology ........................................ 6 cr.
Communication ............................................ 3 cr.

**Bachelor of Science**
Modern or Classical Language .................. proficiency at the 102 level
Literature ................................................. 3 cr.
Political Science/Psychology/
Sociology/History/Economics .................... 3 cr.
Oral Communication .................................. 3 cr.
Philosophy .................................................. 3 cr.

Liberal Arts electives
(art history, classics, communication, economics, English, foreign language, history, philosophy, political science, psychology, sociology, theology) ............... 12 cr.

Courses taken in major or minor programs may also be used to satisfy the College General Requirements.

COLLEGE ACADEMIC POLICIES

Effective Catalog
The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual students and the College. The McAnulty College and Graduate School of Liberal Arts reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled students should consult on a regular basis with their Faculty Mentor and/or Academic Advisor for specific information regarding academic policies pertaining to their respective programs.

Academic Load
While a 12-credit schedule in a regular semester is considered full-time study, students may normally carry five courses (15-17 credits) in one semester. Students on academic probation may not take more than 15 credits.

Academic loads for non-native speakers of English enrolled in degree programs are determined in accordance with the university’s English language proficiency requirements in consultation with Duquesne University’s English as a Second Language Program advisement.

Residence Requirement
The last 30 credits must be taken in residence at the University.

Limits on Inter-School Electives
Except for those students who choose to complete an inter-school program or joint degree program, a maximum of 12 credits in courses outside of the College of Liberal Arts may be applied to the B.A. or B.S. degree.

Major and Minor in Same Department
A student may not major and minor in the same department, with the exception of language majors, who may minor in a second language, and majors in computer science or mathematics, who may major or minor in the companion discipline.
Sequential Courses
Sequential courses must be taken in proper sequence. Credit will not be given for a prerequisite course if courses for which it is prerequisite already have been taken.

Transfer Credits from Junior or Community Colleges
A maximum of 60 academically acceptable credits from accredited junior or community colleges may be transferred. If a student has attended one or more colleges preceding a community or junior college, the total number of academically acceptable credit is still limited to 60.

Temporary Transfers
No course taken by a student in the College as a Temporary Transfer at another institution may count toward a College degree unless approved by the Dean.

CLEP and Advanced Placement
---See page 11

University-Level Courses Taken While in High School
University-level courses taken by entering freshmen students while in high school will be evaluated for credit if the following criteria have been met:
- The courses are recorded on an official transcript from an accredited institution of higher learning.
- The grades are C or better.
- The student has completed one semester at Duquesne with a C+ average, or better.

SPECIAL PROGRAMS

B.A. in Liberal Arts
This program is designed for those students who prefer not to choose a formal major or minor offered in a traditional discipline. All requirements other than the major and minor must be completed. Students must select one area of concentration: Humanities, or Social Sciences. A concentration requires a minimum of 30 credit hours and a maximum of 39 hours. Courses must be chosen from courses designated 200 and above. The choice to pursue the general degree must be made via a written rationale before a student has earned 90 credits. Further information is available in the College Office.

Second Bachelor’s Degree
A student who has received a bachelor’s degree may become eligible for a second bachelor’s degree by earning an additional 30 semester hours in residence in the College of Liberal Arts and by meeting all departmental and College requirements, if not already satisfied. The additional 30 credits must be completed at the University and may not be taken through cross-registration. Further information is available from the College Office.

Pre-Law
Students who intend to prepare for a career in law may select any subject area for the undergraduate major. In consultation with the Pre-Law Advisor, the students will be expected to meet degree requirements in the major department, as well as admission requirements of the law school of their choice.

B.A./B.S. - M.B.A. Program
The College of Liberal Arts and the Graduate School of Business Administration offer a unique joint program that allows students in the College of Liberal Arts to earn a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) and a Master of Business Administration (M.B.A.) in five years. For more information, students should consult with their academic advisor.

B.A./B.S. - Professional School
A student who has completed 90 credits with a 3.5 overall grade point average and satisfied all undergraduate curricular requirements may apply for the bachelor’s degree after the successful completion of the first year of professional work in an accredited medical or law school. Students should consult with their academic advisor.

B.A./B.S. – M.A. in Social And Public Policy
This program is open to all majors who wish to complete a graduate degree in Social and Public Policy. Information is available from academic advisors and the Director of the Graduate Center for Social and Public Policy.

Dual Degree Programs
Dual degree programs are available with the School of Education (English, history, Latin, mathematics, and Spanish), the A.J. Palumbo School of Business Administration, and the Bayer School of Natural and Environmental Sciences. Students complete the University Core, as well as the general requirements of each school. For specific information, students should consult with their academic advisor.

Certificate In Business
This program enables student to preserve the benefits of a liberal arts education while also
acquiring business skills. The program consists of 4 prerequisite courses (12-14 credits) in the College of Liberal Arts and 8 courses (24 credits) in the School of Business Administration. Further information may be obtained from the advisement offices in the College of Liberal Arts and the School of Business.

Minor/Certificate in Intercultural Study
Students in any of the University’s schools may earn the Certificate in Intercultural Study. For students in the College of Liberal Arts the certificate satisfies the minor requirement. The goals of the Certificate in Intercultural Study are to encourage awareness of, empathy for, and commitment to international perspectives and to help students develop understanding and skills for communicating and working across cultures. The course of study consists of four elements, constituting 18 credit hours: two core courses (SOC 204, Global Sociology, and COMM 407, Intercultural Communication); a group of at least three courses that focus either on a specific geographic/cultural area or an intercultural issue area; study abroad or an internationally focused internship; and a capstone seminar.

Minor in Women’s And Gender Studies
The Women’s and Gender Studies minor is an inter- and multi-disciplinary program based in the humanities and social sciences that offers an undergraduate minor to all students across the University. This program introduces students to the rapidly expanding areas of scholarship focused upon women, men, and gender that have developed within the academy that is transforming scholarship in virtually every academic discipline today. The program promotes open dialogue directed toward a vision of a world community that embraces diversity, justice, peace, freedom — values central to a liberal education. The minor consists of 15 credit hours, and WSGS 200, Introduction to Women’s and Gender Studies, is required.

Other Certificate Programs
Certificate programs are also available in Computer Science (Department of Mathematics and Computer Science), Corporate Communication and Professional Communication Skills (Department of Communication), and Gerontology (Department of Sociology). Several of these are offered in conjunction with the School of Leadership and Professional Advancement. Further information may be obtained from the appropriate department or from the SLPA Office.

Residential Learning Communities
Learning communities are the centerpiece of the curriculum for first-year students in the McAnulty College of Liberal Arts. In a learning community each semester first-year students share three integrated classes with the same people. If they live on campus they also share the same floor in a living-learning center. Activities outside of class support the curriculum. Students select the learning community they want to join (as space allows). The learning communities help first-year students in the McAnulty College find friends and study companions, create a sense of identity and unity among students in the McAnulty College of Liberal Arts, help students learn how topics in different courses are related, and connect the classroom with the community through service. Students in the Honors College do not participate in the McAnulty College’s residential learning communities because the Honors College is a residential learning community of its own.

Internships
Internships are an extension of the curriculum for students seeking expanded learning through work experience. Internships should enhance students’ academic programs. Interns may be engaged in business, government or in other institutional settings. A 3-credit internship entails at least 120 contact hours, consisting of no more than 20 hours per week except during summer term, when internships may be full-time. To serve an internship students must have earned 60 or more credits, have a cumulative grade point average of at least 2.5, and have the approval of their academic advisor and a department, where applicable. Several departments in the College offer specialized internships. Students interested in those internships should contact the coordinators in their respective departments. Duquesne’s Career Services Center coordinates other internships in Pittsburgh as a service to the College. The College also sponsors internship programs in Washington, D.C. and London.

Study Abroad
To encourage the international competence important to succeed in the global community the College encourages its students to study abroad for a summer, semester or academic year. The College accepts international credit only from programs it has approved. Departments approve courses that apply to their respective major requirements. Students must be at least sophomores at the time they study abroad and must have at least a 3.0 grade point average to be eligible for study abroad,
the College’s Committee on International Education. For each approved international program or school, the College adopts a grade equivalency that permits automatic conversion of the grades earned abroad to their Duquesne University equivalents, which appear on the Duquesne transcript, with the transcript from the foreign institution attached.

**Course Descriptions**

**ART HISTORY**

*Director:*

Madeline C. Archer, Ph.D.

The Art History program offers survey, period and thematic courses in the history of art to those students who wish to extend their visual perimeter and to understand the role of the visual arts in culture. In addition to enhancing personal enrichment and an interdisciplinary understanding of civilization, the study of art history can lead to careers in teaching, publishing, museology, historic preservation, urban redevelopment, appraising, art sales, and consulting.

Qualified students may take additional upper division art history courses offered at member schools of the Pittsburgh Council on Higher Education.

**Requirements for the Major:**

The major consists of 31 credits in art history. ARHY 111 and 112 are required, as is ARHY 400. The additional 24 credits must be in courses numbered 113 or above, 21 credits must be numbered 200 or above, and 15 credits must be numbered 300 or above. One course in history can be applied to the elective credits. Only one cross-listed classical archaeology course can be applied to the elective credits. Selected Readings is recommended for seniors who will be applying to graduate programs. Students are strongly encouraged to spend a semester at the Italian Campus, or to participate in another international study program that includes courses in art history.

A maximum of 12 credits from other schools can be applied to the art history major.

**Requirements for the Minor:**

The minor consists of 15 credits, nine of which must be above the 100 level.

100. Understanding Art 3 cr.

This course is an introduction to the theories, media and styles of art and to the roles of art in society. Students are exposed to compositional principles, thematic content, the vocabulary of art, techniques and media, and the historical context of artistic styles. Formal analysis, iconographic content, and an interdisciplinary perspective of the arts are covered. Students also examine the themes and roles of art as they have changed over time, to better understand the relationship between artworks and their social and historical context. *This course does not satisfy requirements in the art history or history majors.*

111. History of Art: Ancient to Medieval World 3 cr.

A chronologically oriented presentation of the history of Western art within the context of the cultural forces that produced it. The survey covers Near Eastern, Greek, Roman, Early Christian and Medieval art.

112. History of Art: Renaissance to Modern World 3 cr.

A continuation of 111. Surveys Renaissance, Baroque and Modern art in Western Europe.

175. Introduction to Asian Art 3 cr.

A survey of the art and archaeology of China, Japan, Korea and India with an emphasis on the art’s historical and social context.

205. Christian Art and Architecture of Rome 3 cr.

This study of the major stylistic forms of Christian art as evidenced in the art and architecture of Rome. Beginning with the adaptive forms of Early Christian art at the time of the late Roman Empire in the third and fourth centuries, this course will study the Early Christian, medieval, Renaissance and Baroque stylistic periods and monuments.

210. American Art 3 cr.

An overview of American architecture, painting, sculpture and decorative arts.


This course offers a socio-historical survey of religious thought, ideas and concepts that inspired and influenced artists and visual culture throughout the ages, examining the links between art and religion in various media, including film, painting, sculpture, photography, architecture, installation art and multimedia works. The course explores the various
intentions for such imagery, including, but not limited to, private devotion, public propaganda, spiritual enlightenment, and cautionary tools.

321. 15th Century Renaissance Art 3 cr.
An investigation of the Renaissance spirit of the 15th century. Concentration is upon attitudes of man, nature, and social structure, and to materials, techniques, pictorial representation and iconography. The focus is on Italian art, but the developments of Northern Europe are also included.

331. Impressionism and Post-Impressionism 3 cr.
The course focuses on art at the end of the nineteenth century, when a transition occurred from art based on naturalism to art based on expression and formal studies. The careers of artists such as Monet, Renoir, Cezanne and Van Gogh are studied in depth and in context, with special emphasis on the cultural developments that gave rise to Modernism in Europe.

332. Art of the Twentieth Century 3 cr.
This course is an examination of the major American and European artists and movements of the early 20th century. The contradictions and parallels in the various avant-garde practices from 1890-1945 are assessed and evaluated. In addition, students will study various styles, art exhibitions, and critical responses to these styles in terms of their social, cultural and national contexts, and will analyze the relationship between art and political ideas.

360. German Art of the Twentieth Century 3 cr.
This course examines the development, decline and resurgence of German Art in the twentieth century, which spans periods of political ferment and two wars, increased industrialization, urbanization and tremendous social transitions. The course also addresses the changing role of artists and their public, and the roles of collectors, museums, exhibitions, and Nazi censorship.

363. Modern Art and Science 3 cr.
This course will explore how scientific discoveries, ideas and concepts have impacted artists and their works. Focusing on art created from the Renaissance through the present, this class will examine the links between art and science in various media, including painting, sculpture, photography, architecture, installation art and multimedia works.

An occasional course in this series is offered when special interest of students and faculty can be served. Courses offered include Picasso, Egyptian Art, Post Impressionism, and a track of courses in Asian art.

374. Michelangelo: His Art and His World 3 cr.
This course examines the genius of Michelangelo in the context of the artistic and cultural forces that combined to create the Renaissance.

376. Contemporary Art 3 cr.
A study of the neo-avant-garde from 1945 to the present in America and international art centers. The reception of the various movements in contemporary art are examined in the context of social and cultural changes in the 20th century.

379. Origins of Renaissance Art 3 cr.
This course studies the art of Tuscany at the beginning of the stylistic period known as the Renaissance. Through an examination of the works of Trecento and early Quattrocento artists students will gain an understanding of the new ideas, intentions, and conventions that formed the Renaissance style. Particular attention will be paid to three great innovators of the early Quattrocento, Brunelleschi, Donatello, and Masaccio.

381. Art and Politics 3 cr.
This course will focus on the connections between art and politics from the French Revolution through the present. In addition to examining works of art in various media, this course will explore the socio-historical contexts that prompted each work and how social and political issues and controversies impact the art world.

383. Painting and Sculpture in the High Renaissance 3 cr.
This course examines the art and sculpture of the High Renaissance, when artists achieved a renewal of the classical style and ideal that they had been pursuing for a century. It focuses on the city of Rome, the center of art production during the High Renaissance, and examines the cultural and intellectual life that fostered these decades of unprecedented artistic achievement.

385. Baroque Art and Architecture 3 cr.
“Baroque” is the term given to the stylistic period
of the seventeenth century, and is a style that was created in the city of Rome. Today, the Rome we see is a Baroque city. This course will examine the major art and architecture of the city of Rome, including St. Peter’s, the Baroque piazzas and fountains, and notable painters such as Caravaggio. This course is offered through the Italian campus and will meet largely onsite in the city of Rome.

390. Women and Art 3 cr.
The course examines women artists and also art about women. Through a variety of methodologies, it discusses the marginalization of and cultural attitudes toward women artists throughout history, the institutional obstacles they faced, and recent research that explores critical and cultural evaluations and reevaluations of their work.

398. Art and Society 3 cr.
This interdisciplinary course explores the ways that social and political conditions and demands affect artists’ aesthetic choices. Although many of the examples discussed in class are drawn from visual arts, other art forms such as literature, drama, music and dance are included as appropriate. The class will examine thematic topics such as art and social protest, art in the service of governments, and commercial art. It also looks at issues of controversy in contemporary art worlds, and critiques the validity of traditional divisions such as high art/low art, and fine art/popular art.

400. Capstone Tutorial 1 cr.
Required of senior majors who declared after July 1, 2006. Working with their mentor in their final semester, art history majors will review their cumulative portfolio and evaluate their learning and achievements in the discipline.

411. The Roles and Practices of Museums 3 cr.
This course studies the roles art museums have played and continue to play in culture. Students will be introduced to the theoretical, curatorial, and educational principles of current museum practices, and also to the practical considerations faced by cultural institutions. Museum visits and field trips are required of all students.

431. Selected Readings. 1-3 cr.
Selected Readings consists of a tutorial in which a student reads extensively and prepares reports on a topic chosen in consultation with a faculty advisor and mentor. Permission of Department is required. This course is restricted to majors.

441. American Painting and Sculpture. 3 cr.
Selected topics in 18th, 19th and early 20th century American art history are examined in the context of social, political, cultural and economic issues. Topic examples include: The Changing American Landscapes in the 19th Century; American Portraiture; American Impressionism; American Women artists; The Rise of American Art Academies; Art Criticism and Patronage, Exhibitions, and Museum Institutions.

442. American Architecture 3 cr.
This course studies construction, style, building types, and concepts of city planning in American architecture from the 17th century to the present. The social and political forces affecting style are emphasized. The course also includes an introduction to the theory and practice of historic preservation.

443. American Decorative Arts 3 cr.
Decorative arts from the Pilgrims to the Bauhaus influence are examined in context: historical, formal, technological, and cultural. Field trips to Carnegie Institute and other area collections are scheduled.

478. Internship 1-3 cr.
Practical experience in art-related areas introduces the student to the many opportunities in the art field. Prerequisite: Permission of the art history faculty and completion of 15 art history credits are required. Restricted to majors.

480. Independent Study 1-3 cr.
Restricted to majors. Permission of the department is required.

DEPARTMENT OF CLASSICS
Chair:
Stephen T. Newmyer, Ph.D.

The study of Classics is a unique discipline. It is not the study of language or literature alone. It is rather the investigation of one of the world’s inspired civilizations, the Graeco-Roman world. As such, it offers the student insight into the broadest aspects of human existence set in perspective distant enough from one’s own to expand significantly the understanding and appreciation of humanity’s aspirations, its failures, and occasional triumphs.

REQUIREMENTS FOR THE MAJORS

The Department offers four major programs: Classical Latin, Classical Greek, Classical Languages
(knowledge in both Latin and Greek required), and
Classical Civilization (no knowledge of Greek/
Latin required). Credits applied to any major must
be at the 200 level or above. Transfer credits ap-
plied toward the major will be determined at the
start of the transferred student’s coursework, based
on the mutual agreement of student, advisor, and
department.

1) The Classical Latin major requires at least
eighteen credits in Latin as well as six credits in
ancient archaeology, ancient history or ancient
literature courses in English.

2) The Classical Greek major requires at least
eighteen credits in Greek as well as six credits in
ancient archaeology, ancient history, or ancient
literature courses in English.

3) The Classical Languages major requires at
least twenty-four credits in Latin and Greek in ad-
dition to six credits of ancient archaeology, ancient
history, or ancient literature courses in English. The
Survey of Sanskrit Literature (211-212) may be
substituted for the credits of either Latin or Greek.

4) The Classical Civilization major is an indi-
vidually designed program of twenty-four credits
of ancient literature, history, art, and archaeology.
Students majoring in Classical Civilization create
programs with the close advice and the approval of
the Classics Department to fit their backgrounds,
interests, and career objectives. Majors should
formulate programs with balanced history and
literature components. They are strongly encour-
gaged to fulfill the College language requirement in
either Latin or Greek. All courses in Greek or Latin
at the 200 level or above apply to the Classical
Civilization Major.

REQUIREMENTS FOR THE MINORS OR
COGNATES

A minor is a minimum of 12 credits above the 100
level. The Department offers a minor/cognate in
Latin; in Greek; or in Classical Civilization with
concentrations in Greek Civilization, Roman Civi-
lization, Archaeology, Ancient History, and Ancient
Art and Literature with approval of the Department
and advisors.

ORIGINAL LANGUAGE COURSES

101, 102. Basic Latin I and II. 4 cr. each
The fundamentals of Latin grammar and syntax
with exercises in reading/translation.

103, 104. Basic Greek I and II. 4 cr. each
The fundamentals of Greek grammar and syntax
with exercises in reading/translation.

111, 112. Basic Sanskrit. 3 cr. each
The fundamentals of Sanskrit grammar and syntax
with exercises in reading/translation.

201, 202. Introduction to Latin
Readings I and II. 3 cr. each
Selections of major Latin author(s).

203, 204. Introduction to Greek
Readings I and II. 3 cr. each
Selections of major classical Greek author(s).

207, 208. Biblical and Patristic Greek. 3 cr. each
Selections from biblical and Christian Greek
literature.

211, 212. Survey of
Sanskrit Literature. 3 cr. each
Selected readings from major Sanskrit texts.

The following will be taught as Latin or Greek
courses or, for those students who are qualified, as
combination Latin and Greek courses.

Each course will cover an individual author or
group of authors or a genre. Each course may be re-
peated as long as a different author or work is read.

301. Pre-Fifth Century. 3 cr.
The Iliad, the Odyssey, the Homeric Hymns,
Hesiod, Pindar and Greek lyric poetry.

302. Fifth Century. 3 cr.
Herodotus, Thucydides, Aeschylus, Sophocles,
Euripides, and Aristophanes.

303. Fourth Century. 3 cr.
Greek orators, Plato, Aristotle, Xenophon and
Menander.

304. Alexandrian Period. 3 cr.
Apollonius Rhodius, Theocritus, Callimachus
and the lesser Alexandrian authors.

305. Roman Republic. 3 cr.
Plautus, Terence, Cicero, Lucretius, Catullus,
Caesar and Sallust.

306. Augustan Literature. 3 cr.
Livy, Vergil, Horace, Ovid, Propertius and Tibullus.
307. Imperial Literature. 3 cr.
Seneca, Lucan, Petronius, Martial, Plutarch, Tacitus, Juvenal, Pliny the Younger, Suetonius, Apuleius and Lucian.

308. Post Classical Literature. 3 cr.
Post classical, medieval, renaissance and neo-Latin authors.

309. Studies in Genre. 3 cr.
Selected genre of Greek and/or Latin literature.

400. Independent Readings and Research. Var. cr.

500. Independent Readings and Research. Var. cr.

CLASSICS COURSES IN ENGLISH
(NO GREEK OR LATIN REQUIRED)

121. Greek and Latin Roots in English. 3 cr.
A study of Greek and Latin roots to facilitate the comprehension of English.

122. Etymology of Scientific Terms. 3 cr.
Introduction to Greek and Latin elements of scientific terminology.

123. Classical Mythology. 3 cr.
The major myths of Greece and Rome with attention to contemporary interpretations and the influence on art and literature.

230. Ancient Theatre 3 cr.
An examination of the origins and development of ancient tragedy and comedy.

231. Ancient Epic. 3 cr.
A study of ancient epic literature with particular attention to the techniques of oral and literary composition.

232. Contemporary Literature and Classics. 3 cr.
An investigation of the influence of ancient myth on 20th century French, German, Italian, English and American literature.

233. Ancient Satire. 3 cr.
Investigation of the satirical element with reference to the writings of Lucian, Lucilius, Horace, Persius, Martial, and Juvenal.

242. Ancient Law. 3 cr.
A survey including the contributions of the Greeks and of the Romans to the development of law.

244. History of Ancient Medicine. 3 cr.
Examination of the medical theories and practices in the period from the Egyptian temple physicians to the doctors of the Roman Empire. Special attention is given to Hippocrates and Galen.

245. Greek History. 3 cr.
Greek history and culture from earliest times up to the death of Alexander of Macedon.

246. Hellenistic History. 3 cr.
Mediterranean history from the death of Alexander until the accession of Octavian and the establishment of the Roman Principate.

247. History of the Roman Principate. 3 cr.
The consolidation of the Roman imperial structure from Augustus to the death of Commodus.

248. History of the Late Roman Empire. 3 cr.
Roman history from the accession of Severus to the death of Justinian.

249. Egyptian Civilization. 3 cr.
A survey of Egyptian history and culture from the pre-dynastic period to the establishment of Roman rule in Egypt. Special attention will be given to the artistic, literary, and religious achievements of Egypt.

260. Classical Tradition in Literature. 3 cr.
A study of the influences of Graeco-Roman civilization on later cultural life through the 19th century.

300. Seminar. 3 cr.
Topics variable.

303W Seminar: Women in Antiquity 3 cr.
This course explores the reality of women’s lives in antiquity, as well as the complexity of male/female interaction, particularly in 5th century BC Greece and the early Roman empire. It examines women’s dependency and strengths as seen in literature and visual images from the ancient world.

315. Archaeological History of the Ancient Greek World. 3 cr.
A survey of the archaeology of Greece from prehistory to the Roman period.
316. Archaeological History of Athens. 3 cr.
An investigation into the topography and monuments of Athens and Attica, from the prehistoric to the Roman period.

317. Archaeological History of the Ancient Roman World. 3 cr.
A survey of the archaeology of Italy from prehistory to the middle fourth century A.D.

318. Archaeological History of Rome. 3 cr.
An investigation of the topography and monuments of Rome from prehistory through Constantine.

319. Archaeological History: Seminar. 3 cr.
Possible topics include the Bronze Age Aegean, the development of Vase Paintings, the Etruscans, the Ara Pacis, etc.

321. Art, Architecture, and Archaeology of the Augustan Period. 3 cr.
This class shall examine the Augustan period in the light of its material culture focusing on the art and architecture produced under Augustus in Rome. It will also consider Augustus’ influence upon the later Roman Empire and the Fascist archaeology under Mussolini.

322. Rome’s Golden Age: Literature in the Augustan Period. 3 cr.
We shall read—in English—a sampling of the works of Vergil, Horace, Propertius, and Ovid as well as Livy’s histories, focusing on Vergil’s Aeneid, — all literature which would glorify Rome and its beginnings as well as the first emperor’s own lineage.

DEPARTMENT OF COMMUNICATION & RHETORICAL STUDIES
Chairperson:
Ronald C. Arnett, Ph.D.

Duquesne University is world-renowned for its commitment to ethics, intercultural understanding, the liberal arts, and preparation for professional leadership. Duquesne’s Department of Communication & Rhetorical Studies is a learning community based on research and development and the implementation of cutting-edge ideas in the classroom and in the marketplace. The department consists of nationally known scholars, outstanding students, and executive faculty drawn from top communication firms and international corporations. Together we conduct research and development in integrated marketing communication, public relations and advertising, corporate communication, intercultural communication, and persuasion in the marketplace. We unite a humanities education with research and development in contemporary marketplace concerns and a call to service lived out in the professional marketplace, educating communication leaders for the shaping of this century.

We seek to lead. We seek to serve. We seek to innovate. We seek to learn from research, the classroom, internships, marketplace engagement, and in dialogue with our corporate partners—MARC Advertising USA and Ketchum Public Relations. Our departmental foundations are communication ethics, a humanities approach to the discipline, a research and development culture, and ongoing practical engagement with the marketplace.

Our graduates work in fields such as advertising, public relations, management, events planning, marketing, sales, and corporate communication. Some choose to pursue postgraduate degrees in the humanities, business, or law school. Preparation for these post-baccalaureate options emerges from their choice among four majors in Communication & Rhetorical Studies. Three of the majors prepare students directly for marketplace engagement—Integrated Marketing Communication, Corporate Communication, and Communication Studies. Our final major, Rhetoric, prepares students for law school or other graduate education. Marketplace engagement, work with executive faculty, and a vibrant internship program guide communication education in each major.

• Integrated Marketing Communication
Integrated Marketing Communication incorporates functions of advertising and public relations for ethical strategic communication in a changing world. Students learn the communication processes that establish and identify a “brand” for internal and external publics. The major prepares students for service in communication agencies, corporations, non-profit organizations, and public institutions. Working in these fields, our graduates manage strategic communication, persuasive messages, public dialogue, and crisis communication.

• Corporate Communication
Corporate Communication addresses organizational communication strategies and leadership in business contexts. Students
practice sophisticated theories of conflict management, small group and team communication, and sensitivity to gender and cultural issues in the marketplace. The major prepares students for careers in management, corporate leadership, non-profit communication, human resources, sales, public and community relations, and entrepreneurship.

• **Communication Studies**
Communication Studies offers students the opportunity to design a unique plan of study. This major optimizes opportunities for students seeking a specific marketplace niche. Students collaborate with faculty mentors to fashion a program beyond required departmental courses. Course selection is crafted in tandem with the student’s professional goals.

• **Rhetoric**
Rhetoric combines ethical concern for contemporary issues with artful public persuasion. The major in rhetoric reflects the department’s strong philosophical and humanities focus. Argumentation and persuasion are skills fundamental to this major and are informed by rhetorical theory and philosophy of communication. Students analyze the practice of these theories in contexts such as religion, free speech, and popular culture. The major provides an excellent foundation for careers in law, political leadership, higher education, and other professions in the public sphere.

**Praxis Portfolio**
From their very first semester at Duquesne, Communication & Rhetorical Studies majors are invited to *Walk the Humanities into the Marketplace*. Students work toward careers in communication through incremental opportunities for practical experience. Portfolio pieces are generated in student organizations, internships, and classroom campaigns. Communication & Rhetorical Studies houses a number of opportunities for student involvement:

- AAF (American Advertising Federation) student chapter
- PRSSA (Public Relations Student Society of America) chapter
- Student Ambassador programs with Integrated Marketing Communication professionals
- Student Advisory Council
- Lambda Pi Eta, National Communication Honor Society
- Integrated Marketing Communication student-run campaigns
- Pro-bono clients in upper-level courses
- Internship Program (see below)
- Departmental Ambassador Program with internationally known corporations

**Internship Program**
The department has both an Internship Director and a Marketplace Coordinator. The Department of Communication & Rhetorical Studies’ internship office connects students with over 100 organizations offering professional communication experience. The director assists students with the application process and facilitates their ability to earn course credits. Some of the organizations with which we have internship relationships are ALCOA, Bayer Corporation, Pittsburgh Pirates, Pittsburgh Penguins, U.S. and State Senate offices, the University of Pittsburgh Medical Center, MARC Advertising USA, and Ketchum Public Relations.

**Corporate Partnerships and Executive Faculty**
MARC Advertising USA and Ketchum Public Relations work with the department as corporate partners. Our departmental facilities include a MARC Center for Excellence. The Ketchum Institute for Public Communication (KIPC) contributes to our research and development in integrated marketing communication and also provides advanced internships for our top juniors and seniors.

Executive faculty at the level of CEO and vice-president co-teach our upper level undergraduate marketplace courses with faculty and other communication professionals. Mr. Tony Bucci, our founding executive faculty member, is the President and CEO of MARC Advertising USA, a billion-dollar company with offices throughout the United States. Executive faculty offer insight and expertise as a service to the Duquesne University community. Service is central to marketplace success and responsibility, and executive faculty members exemplify this commitment.

**Distinguished Faculty**
Our faculty members are outstanding teachers, committed to Duquesne University’s mission to serve God by serving students. Communication & Rhetorical Studies professors are frequent recipients of awards for excellence in teaching, service,
and scholarship. We have won research grants and multiple national article and book awards. Most importantly, we are committed to nonstop learning and ethical engagement in the marketplace.

**Communication Ethics**
The Department of Communication & Rhetorical Studies engages the *Ethical Difference*, preparing students to be responsible leaders in the marketplace and public sphere. Our department offers the following programs:

- Internships with nonprofit service organizations
- Ethics as the foundation of our courses
- Capstone course in Communication Ethics
- Annual awards to communication ethics scholars and ethical corporate leaders
- Public lectures by nationally known researchers in communication ethics
- Communication Ethics Institute: a nationally recognized center that promotes scholarship and outreach in communication ethics

**State-of-the-art Curriculum**
Our courses provide a foundation for our students in humanities-based communication theory and reflect the ethical demands of a changing world. We invite our majors to approach human persuasion holistically, drawing from the roots of our discipline in Aristotelian rhetoric to understand communication for the 21st century. Our innovative curriculum in Communication & Rhetorical Studies is detailed below. The newest major, Integrated Marketing Communication, emerges out of our research in advertising and public relations and mirrors the marketplace our students will enter after their time at Duquesne University.

**Departmental Requirements for the B.A. Degree**
Students complete 30 credits (minimum—45 is the maximum number of credits permitted in the major) in Communication & Rhetorical Studies—15 within the departmental core and 15 within their chosen major. Students design, in consultation with their mentors, a plan of study that develops their knowledge in the skills, strategy, and management of communication.

**Required Core (6 credits)**
No matter which major they choose in Communication & Rhetorical Studies, students will understand themselves as part of history and strive to be ethical communicators. All B.A. students in Communication & Rhetorical Studies take the following courses:

- COMM 301W History of Communication
- COMM 494W Communication Ethics

**Elective Core, Part I (6 credits)**
The elective core unites communication, the marketplace, persuasion, and cultural difference. These areas are strongly represented in this portion of the elective core. Simultaneously, the courses address crucial institutions and contexts for communication leaders in the twenty-first century. Students choose *two* of the following three courses:

- COMM 201 Human Communication in a Technological Age
- COMM 206 Communication in the Marketplace
- COMM 407 Intercultural Communication

**Elective Core, Part II (3 credits)**
The exploration and advocacy of ideas is essential to a student’s role as learning worker in the marketplace. Students choose *one* of the following three courses:

- COMM 202 Business & Professional Communication
- COMM 204 Professional Communication in Integrated Marketing
- COMM 304W Persuasion

**Majors (15 credits)**
In choosing one of our four majors, students announce their commitment to prepare for leadership in 1) Integrated Marketing Communication; 2) Corporate Communication; 3) Communication Studies; or 4) Rhetoric. Each area is distinct and offers opportunities to practice strategic communication management. Students are required to take five courses to complete a major.

1) **INTEGRATED MARKETING COMMUNICATION**

Select COMM 204 (Professional Communication in Integrated Marketing) and COMM 206 (Communication in the Marketplace) in the elective core. Choose five courses from the following:

- COMM 330 Integrated Marketing Comm Functions I: Public Relations
- COMM 333 Integrated Marketing Comm Functions II: Advertising
COMM 422 Communication Research Methods
COMM 430 Integrated Marketing Comm Strategies I: Public Relations
COMM 433 Integrated Marketing Comm Strategies II: Advertising
COMM 436 Integrated Marketing Comm: Coordinating AD & PR
COMM 438 Integrated Marketing Comm: Interactive Strategies
COMM 439 Integrated Marketing Comm: RFPs: AD & PR
COMM 454W Interpersonal Communication
COMM 456W Organizational Communication
COMM 498W Internship

2) CORPORATE COMMUNICATION

Select COMM 204 (Professional Communication in Integrated Marketing) and COMM 206 (Communication in the Marketplace) in the elective core. Choose five courses from the following:

COMM 102 Public Speaking
COMM 103 Exploring Interpersonal Communication
COMM 330 Integrated Marketing Comm. Functions I: Public Relations
COMM 343 Corporate Social Responsibility and Environmental Communication
COMM 350 Corporate & Community Relations
COMM 388 Corporate and Integrated Marketing Communication Research
COMM 418W Conflict Management in Organizations
COMM 421 Communication & Gender
COMM 422 Communication Research Methods
COMM 427 Communication Management
COMM 430 Integrated Marketing Comm. Strategies I: Public Relations
COMM 442 Corporate Communication & Crisis Management
COMM 454W Interpersonal Communication
COMM 455 Small Group & Team Communication
COMM 456W Organizational Communication
COMM 463 Strategic Corporate Communication
COMM 486 Organizational Consulting
COMM 498W Internship

3) COMMUNICATION STUDIES

Self-designed in consultation with a faculty mentor.

4) RHETORIC

Select COMM 201 (Human Communication & Society) and COMM 304W (Persuasion) from the elective core. Select five courses from the following:

COMM 102 Public Speaking
COMM 103 Exploring Interpersonal Communication
COMM 220 Approaches to Rhetoric, Religion, and Society
COMM 402 Argumentation
COMM 408 Rhetoric, Society, and the Marketplace
COMM 414 Rhetoric, Religion, & Society
COMM 426 Free Speech & Responsibility
COMM 458 Rhetoric of Popular Culture
COMM 459 Philosophy of Communication
COMM 461 Rhetorical Theory
COMM 498W Internship

The Double Major Options (30/24)

Majors in Communication & Rhetorical Studies can add a major in English, and majors in English can add a major in Communication & Rhetorical Studies. The first selected major requires 30 credit hours and the second major 24 credit hours.

Requirements for the Minor in Communication Studies: 18 Hours minimum

- COMM 494W Communication Ethics (3 hours)
- Two of the following courses (6 hours)
  - COMM 201 Human Communication in a Technological Age
  - COMM 206 Communication in the Marketplace
  - COMM 301W History of Communication
  - COMM 407 Intercultural Communication
- Minor Concentration (9 hours)
  - Integrated Marketing Communication
  - Corporate Communication
  - Communication Studies
  - Rhetoric

Notes of clarification:
1. Following McAnulty College and Graduate School of Liberal Arts policy, students majoring in one
of the four majors in Communication & Rhetorical Studies may not take a second major nor a minor in Communication & Rhetorical Studies.

2. Students may not take both the major in the Integrated Marketing Communication (Department of Communication & Rhetorical Studies) and the major in Public Relations and Advertising in the Department of Journalism and Multimedia Arts.

UNDERGRADUATE CURRICULUM

102. Public Speaking. 3 cr.
Develops communicative skills necessary to analyze verbal discourse and to perform effectively in public speaking situations that confront the educated person.

103. Exploring Interpersonal Communication. 3 cr.
This course is designed to introduce you to interpersonal communication praxis (theory-informed action) in personal and professional relationships. The course develops communication skills in a variety of personal and professional relationships, including friendships, romantic relationships, work relationships, and family relationships and explores how interpersonal justice, a requirement for social justice, both stemming from and contributing to its action, requires reflection and care. This course meets the requirements for the Social Justice Theme Area Core Requirement (TASJ).

114. Exploring Intercultural Communication. 3 cr.
This course will provide a foundation for your improved intercultural communication. Exploring Intercultural Communication studies the influence of cultural diversity on interpersonal (one on one) interactions, but resists the temptation to trivialize intercultural communication by reducing it to a set of “do’s and don’ts” of another culture. Instead, this course fosters understanding and respect for disparate worldviews. Second, the course transcends a limited “skills” approach and looks instead toward theory that grounds understanding of differences in belief, cultural practices, values, and ethics and their influence on intercultural engagement in interpersonal settings. This course meets the requirements for the Global Diversity Theme Area Core Requirement (TAGD).

201. Human Communication in a Technological Age. (Elective Core) 3 cr.
Engages ethical and practical implications of an increasingly mediated society for human communication. This course invites students to reflect on how people create, use, and are influenced by technological change in every sphere of human communication. From theoretically-grounded principles that begin and end with the human communicator, students explore ethical questions concerning new communication technologies and applications—learning to ask not “can it be done?” but “should it be done?” Students gain theoretical, ethical, and interpretive grounds from which to discern, question, and build communicative practices in which technology assists rather than controls human communication.

Focuses on multiple modes of communication in business, government, industrial, and not-for-profit or service organizations ranging from routine messages, memos, and e-mail to letters and professional presentations. Course highlights persuasion as a key component of all business & professional messages.

203W. Communication & Professional Civility. 3 cr.
Develops communication skills in group and organizational relationships. Course emphasizes the role of professional civility as a communicative ethic in interaction with all organizational stakeholders, with a special emphasis on the health care context engaged by physician assistants.

204. Professional Communication in Integrated Marketing. 3 cr.
This course integrates writing, basic oral communication skills, and presentational technology skills within a professional communication context. Professional assignments with case studies guide instruction.

206. Communication in the Marketplace. (Elective Core) 3 cr.
Provides an introduction to communication in marketplace contexts, with particular attention to professional discourse with internal and external audiences in profit and not-for-profit settings. Topics may include an introduction to advertising and public relations/integrated marketing communication, professional communication in the workplace, and sales and service communication.

209. Speech Composition. 3 cr.
Speech Composition improves your skills of writing effective public speeches, with minimal emphasis on presentation. Special attention will be
given to informative (expository) and persuasive (argumentative) discourse, as well as ceremonial (epideictic) rhetoric.

218. Oral Interpretation of Texts. 3 cr. 
Involves theory and practice of reading and performing print texts, selecting and interpreting portions from various forms of rhetorical and literary material, including speech texts, poetry, prose, essays, novels, short stories, and scenes from dramatic literature. A phenomenological approach will be the primary theoretical framework for text engagement.

220. Approaches to Rhetoric, Religion, and Society. 3 cr. 
This course explores relationships between religious commitments as they intersect with civic rhetorical principles and practices. The course focuses on learning basic aspects of rhetoric and religion in the context of American society, from perspectives informing the intellectual heritage of religious Americans, particularly in the variety of Christian commitment and experience, the role of religion in American history, and the role of religion in contemporary American rhetorical practice. This course meets the requirements for the Faith and Reason Theme Area Core Requirement (TAFR).

301W. History of Communication. (Core Requirement) 3 cr. 
Surveys the ancient traditions of rhetoric and public communication through the rise of mediated and mass delivery systems.

304W / 304. Persuasion. 3 cr. 
Examines theory and practice of the influence of beliefs, attitudes, and behaviors.

320. Family Communication. 3 cr. 
This course examines the role of communication in the construction and maintenance of primary human relationships and groups. The course will identify how families communicate rules, roles, and stories that are essential to the process of meaning-making in the family and its development. Students will engage theoretical frameworks, including family systems theory, social construction theory and dialectical theory, and apply them to issues of courtship and relational development, the changes in the life of families, and family roles. Students will encounter ways of viewing family interactions from both the traditional and new approaches to the family unit, describe the major theoretical perspectives underlying the area of family communication, note connections between family communication and societal discourse, develop critical analytical abilities for reviewing popular literature about families and family relationships, especially that which advises about family communication, and will explore cultural differences in family formation, communication, and expectations.

321. Exploring Contemporary Issues in Environmental Communication. 3 cr. 
Concern with changes in the environment caused by human behavior has permeated all layers of human society. This course explores the communicative practices of activists, advocates, consumers, corporations, governmental organizations, and the public about the impact of human behavior on the Earth. Grounded in a strategic communication/rhetorical approach to environmentalism, the course engages praxis—theory-informed action—to examine construction of strategic persuasive messages about the environment designed to bring about behavioral change.

323. Communication Ethics & Professional Civility. 3 cr. 
Provides a theory-informed, applied understanding of communication ethics in professional and personal contexts, with a special focus on civility in the workplace and professional life.

330. Integrated Marketing Communication Functions I: PR. 3 cr. 
Introduces students to Public Relations functions in Integrated Marketing Communication (IMC). Public Relations functions are engaged through case studies and an historical orientation to IMC. Students learn introductory Public Relations practices necessary for internship and entry-level positions in Integrated Marketing.

333. Integrated Marketing Communication Functions II: AD. 3 cr. 
Introduces students to Advertising functions in Integrated Marketing Communication (IMC). Advertising functions are engaged through case studies and an historical orientation to IMC. Students learn introductory Advertising practices necessary for internship and entry-level positions in Integrated Marketing.

342. Communication Theory. 3 cr. 
An introduction to various theories of communication in and across contexts, including theories of language, meaning, and human interaction and relationships, highlighting major theoretical
perspectives that inform communication scholarship. Emphasis is placed on understanding human communication as a symbolic process that creates, maintains, and alters personal, social, and cultural identities.

343. Corporate Social Responsibility and Environmental Comm.  3 cr.
Course explores the role of strategic corporate communication in positioning an organization’s mission and identity with regard to environmental concerns for internal and external publics/stakeholders.

350. Corporate & Community Relations.  3 cr.
Community relations are a vital part of corporate communication’s management function to lead, motivate, persuade, and inform its various publics. Hence, it is an important facet of the public relations function of integrated marketing communication. This course explores community relations efforts as they are implemented by IMC/public relations professionals in nonprofit, corporate, agency, and governmental organizations.

387. Event Planning: Communication Architecture.  3 cr.
Focuses on designing integrated communication approaches for implementation in specific contexts such as conferences, professional meetings, celebratory events, and programs for community outreach. Working from a theory-informed action (praxis) approach, students engage the professional, interpersonal, and organizational coordination of information, people and budget(s).

388. Corporate and Integrated Marketing Communication Research.  3 cr.
Examines the role of research within corporate and integrated marketing communication activities. Qualitative and quantitative methods, including processes for structuring and conducting focus groups, sampling, measurement, research design, and basic data analysis will be addressed.

402. Argumentation.  3 cr.
Applies the methods and principles of deliberation and critique to a significant contemporary social issue. Emphasizes creating, advocating, defending, and refuting social propositions and claims.

404. Intercultural Communication Perspectives.  3 cr.
This course provides a foundation for the understanding and practice of intercultural communication from a variety of theoretical and methodological perspectives.

406. Political Communication.  3 cr.
Political Communication examines the gamut of public political debate – campaigns, governance, news coverage, spin-doctors and message shaping, imagery, polls, commentary, blogging, etc. In addition, the course will explore in historical depth one major issue in the context of rhetorical and political theory. The mix of political activities and issues covered will vary from semester to semester given current events.

407. Intercultural Communication. (Elective Core)  3 cr.
Exposes the student to the importance of communication among and between politically, culturally, and ethnically diverse people as a bridge to understanding in an increasingly multi-cultural world. This course explores the role of interpersonal perception in communicating with persons from varied cultures, and allows the student to apply these understandings in their own lives.

408. Rhetoric, Society, and the Marketplace.  3 cr.
Examines the marketplace as historically situated and rhetorically constructed – specifically critiquing modern understanding of the marketplace and marketplace behavior as built on a non-ethical, physical science foundation (i.e., a mechanistic orientation consistent with materialism, atomism, quantity, and abstraction) in contrast to an ethical, Aristotelian foundation (i.e., an organic orientation consistent with naturalism, holism, quality, and situatedness).

411W. Rhetorical Criticism.  3 cr.
Examines critical methods and approaches to the study and analysis of rhetorical acts, movements, and speeches.

414. Rhetoric, Religion, & Society.  3 cr.
Seeks to understand religion, not as a psychological experience, nor even as a set of doctrine or beliefs, but as a rhetorical symbolizing of experience. The aim of this course is to introduce how the rhetoric of religious symbols influence and enrich our daily living. The centrality of rhetorical symbolism to religion is evident whenever we think about the activities most often associated with religious practice. The Bible, sacred rituals, prayer, sermons, stories, religious tracts, and books are all communication artifacts.
417. **Multinational Communication.** 3 cr.
Focuses on the similarities and differences in the way people from different nations think, act, and negotiate.

418W. **Conflict Management in Organizations.** 3 cr.
Examines the role of communication in managing and regulating interpersonal and organizational conflict. Application to conflict in everyday interpersonal and professional communicative interaction is explored.

421. **Communication and Gender.** 3 cr.
Examines research addressing differences and similarities in male and female communication styles in a variety of contexts, ranging from personal to social to work relationships, with attention given to philosophical and narrative understandings of what it means to be male and female persons.

422. **Communication Research Methods.** 3 cr.
Prepares students to interpret and design qualitative and quantitative research in the field of communication. Attention is given to experimental design, surveys/questionnaires, and qualitative methods of research within the context of asking and answering questions about communication processes and preparing research reports. Course may include design of a study and interpretation of results.

423. **Communication Evidence.** 3 cr.
Prepares students to be users of evidence and research through a process that includes gaining awareness of access to evidence, deliberating over the quality of evidence, applying evidence to create effective arguments, and evaluating the use of evidence used in the creation of arguments. Qualitative, philosophical, and pragmatic issues dealing with evidence will be explored. Teaches students exposition, discussion, persuasion, and argumentation to support assertions with evidence and defend judgments with probable cause in the many arenas of public communication.

426. **Free Speech & Responsibility.** 3 cr.
This class explores the rhetorical interplay between free speech and communicative responsibility. Historical cases and contemporary issues in free speech are examined from a standpoint of communicative responsibility.

427. **Communication Management.** 3 cr.
Introduces the communication professional to the principles of managerial communication. Theory and application of managerial best practices are discussed. Students focus on scholarship of managerial communication and discuss differing managerial styles in relation to different corporate structures.

430. **Integrated Marketing Communication Strategies I: PR.** 3 cr.
Instructs students in the principles of Integrated Marketing Communication for Public Relations contexts. Interpersonal, organizational and managerial strategies are integrated through theories of persuasion. Students learn rhetorical versatility and responsiveness in managing dialogue with diverse publics. This versatility is based on principles of persuasion, intercultural communication and crisis communication management for organizations. This course prepares students for advanced internships and employment in Integrated Marketing Communication contexts.

433. **Integrated Marketing Communication Strategies II: AD.** 3 cr.
Instructs students in the principles of Integrated Marketing Communication for Advertising contexts. Advertising is explored as a persuasive, rhetorical activity. Students learn rhetorical versatility and responsiveness in constructing messages for diverse audiences through principles of intercultural communication in the global marketplace. Prepares students for advanced internships and employment in Integrated Marketing Communication contexts.

436. **Integrated Marketing Communication: Coordinating AD/PR.** 3 cr.
Covers the principles and practices of marketing communication. Emphasizes promotion area of the marketing mix including advertising, sales, promotion, public relations, and personal selling.

438. **Integrated Marketing Communication: Interactive Strategies.** 3 cr.
Within the purview of Integrated Marketing Communication, this course examines theoretical and practical communicative strategies behind interactive marketing. This course will challenge students to apply communication theory in order to support and articulate the role of online strategies in integrated campaign planning. In addition, students will gain a more comprehensive understanding of how to think and implement strategic interactive tactics through hands-on projects.
439. Integrated Marketing Communication RFP’s: AD/PR.  3 cr.
Examines a crucial stage of the persuasive communication in IMC: responding to RFPs, or “Requests for Proposals.” Teaches students to apply strategies of analysis, persuasion, and public speaking/presentations in diverse interpersonal and public contexts. Students plan Advertising and/or Public Relations campaigns, learning the importance of audience analysis, principles of intercultural communication, and interpretation of institutional/organizational discourse as they learn to “pitch” proposals to potential clients.

440. Communication Ethics & Technology.  3 cr.
Examines the implications of technology for communication ethics. Technology’s impact on interpersonal, organizational, and public communication is addressed.

442. Corporate Communication & Crisis Management.  3 cr.
This course examines crisis management from a corporate communication perspective. A constructive rhetorical approach to organizational identity construction and maintenance for internal and external publics undergirds an ethical praxis orientation to contemporary acts of corporate crisis management.

445. Non-Profit Development & Philanthropy Communication.  3 cr.
This course is designed to help students understand the components of a strategic plan, comprehensive development initiatives, incoming-producing initiatives, and non-profit organizational structure, history, and ethics from the perspective of theory-informed action, or praxis. Students will develop grant-writing skills and learn to analyze the stakeholder context of non-profit organizations from a corporate communication perspective.

454W. Interpersonal Communication.  3 cr.
Examines communication between persons in the context of a variety of public and private human relationships.

455. Small Group & Team Communication.  3 cr.
Examines communication processes in small groups. Includes discussion of group formation, structure, decision-making, errors in decision-making, interaction models, conflict, and methods of doing research in and about small groups and teams.

456W. Organizational Communication.  3 cr.
Examines current research in organizational communication. Topics including organizational socialization, decision-making, leadership, functionalist, interpretive, and cultural perspectives, systems and information processing approaches, communication networks, structure and environment, and other classic and contemporary issues.

457. Communication, Science & Revolution.  3 cr.
Examines how communicative beliefs built upon assumptions common to science and revolution influenced the “modern” world’s understanding of communication.

458. Rhetoric of Popular Culture.  3 cr.
Examines how the triumph of beliefs dominated by “imagination” over beliefs dominated by “science” has changed our understanding of communication. Covers the rhetorical-communication theories of the Sophists, Plato, Aristotle, Bacon, Ramus, Burke, Perlman, Ong and Hudson.

459. Philosophy of Communication.  3 cr.
Explores the assumptions and presuppositions about communication found in philosophical studies of communication. Addresses such topics as meaning and truth, interpretation, representation, and speech acts.

460. Seminar: Mission & Identity.  3 cr.
This seminar consists of revolving topics and authors interested in the interplay of communication and religion within culture, society and community. This seminar examines topics and authors supportive of the Catholic mission of the Spiritan Fathers.

461. Rhetorical Theory.  3 cr.
Provides a theoretical introduction to classical and modern rhetorical praxis. Student papers focus on theoretical summaries of rhetorical scholarship.

463. Strategic Corporate Communication.  3 cr.
Examines theoretical and applied strategic management of communication in profit and not-for-profit corporate settings critical for organizational success at all levels. Topics include organizational identity and mission, roles and responsibilities of communication functions within corporations, design and implementation of communication plans, and strategic message production for internal and
external audiences, including employees, investors, and other stakeholders.

479. Rhetoric of Social Movements. 3 cr.
Examines rhetorical strategies of social movements, including civil rights, feminist, and men’s movements. Attention will be given to the historical moment in which these movements arose and the persuasive means by which adherents and movement leaders engaged the larger society and each other in response to the historical moment.

484. Health Communication. 3 cr.
Examines communication theory and research as it relates to the health care context.

486. Organizational Consulting. 3 cr.
Provides background in organizational communication systems and human resource analysis and diagnosis. Includes an introduction to organizational intervention through communication-based training and development programs. Major units include organizations as systems, organizational diagnosis, and organizational intervention. Specific concepts covered include organizational audit techniques and adult learning theory, as well as designing, conducting, and evaluating several different types of training efforts.

490. Special Topics -- Communication. 3 cr.
Check semester class offerings for special classes offered.

494W. Communication Ethics. (Core requirement) 3 cr.
Explores theoretical and applied issues surrounding ethical decisions in relational, organizational, and public communication contexts. Emphasis is placed on identifying “the good” that underlies various approaches to communication ethics and that emerge in narratives that guide personal and professional life.

496. Directed Readings. 1-6 cr.
Offers the opportunity for students and faculty to conduct in-depth study of a topic not covered, or covered only briefly, in other departmental courses.

497. Special Projects. 1-6 cr.
Offers the opportunity for students to prepare print or electronic products (e.g., brochures, slide shows, video programs, etc.) commissioned by University or community organizations.

498. Internship. 1-6 cr.
Provides a supervised observation/experience program of study (assignment and performance) in areas such as media, marketing, editorial, human resources, and public relations. Most placements are in the Pittsburgh/Western Pennsylvania area.

499. Directed Studies. 1-6 cr.
Offers the opportunity for students and faculty to conduct in-depth study of a topic not covered, or covered only briefly, in other departmental courses.

COMPUTER SCIENCE
See Department of Mathematics and Computer Science for details.

ECONOMICS
Please see page 178 in the School of Business for more information.

REQUIREMENTS FOR A MAJOR
The B.A. in economics requires a minimum of 33 credit hours in economics. A grade of C or better must be achieved in all economics courses.

Economics Core: ECON 201, 202, 223, 301, 332, 281, 284 and 480.

Economics Track: Public Policy (ECON 451, 452, 300+ elective) or Business Economics (ECON 461, 462, 300+ elective)

Extra-departmental requirements: computer programming (select 3 credits from COSC 101, 150, 160 or QSMIS 182) and statistics (select 3-6 credits from MATH 125, 225, 301/302, or QSMIS 281/284)

REQUIREMENTS FOR A MINOR
The minor requires 15 credit hours in economics, including ECON 201, 202, and 301 plus an additional 6 credits in ECON at the 300-level or above. (Students are advised to take pairs such as ECON 381 and 384 if interested in quantitative methods, ECON 451 and 452 if interested in policy analysis, or ECON 461 and 462 if interested in business applications).

DEPARTMENT OF ENGLISH
Chairperson: Magali Cornier Michael, Ph.D.

Dedicated to the study of literature, theater, writing, and culture, the English Department occupies a distinguished position within a liberal arts education. Through dynamic and varied explorations of the centrality of human expression
and the vast creative possibilities of language, literary studies offer a window into our own multifaceted culture and cultures of the past. A wide range of courses taught from a variety of critical perspectives examines texts in their manifold relations: as aesthetic objects, as social documents, as chapters in the history of an idea or a people, as occasion for meditation or revolution.

The Department of English offers two majors, English and Theater Arts. Through opportunities for analysis, discussion, and written composition in these fields, students develop clarity of thought, precision of expression, and informed critical judgment. These opportunities provide excellent preparation for careers in secondary and university teaching, law, business and management, publishing, editing, technical writing, journalism, writing for media, public relations, library science, advertising, and many other areas of professional and creative endeavor.

Students who major in English choose a concentration in Literary Studies, Writing, or Film Studies. These concentrations offer a wide range of courses in English, American, and global literatures; creative writing and/or critical/professional writing; film analysis, theory, and production; linguistics; and literary theory.

Students who major in Theater Arts study dramatic literature as well as acquire experience in acting, directing, and the technical aspects of theatrical production.

Cooperative Programs:

The Department of English offers a variety of cooperative programs:

Double Degrees

- **The School of Law:** designed to allow qualified students to earn both an undergraduate degree in English and a law degree in six years rather than seven.

- **The Graduate School of Liberal Arts:** designed to allow qualified students to obtain a BA and MA in English at an accelerated pace.

- **The School of Education:** designed to allow students to earn a B.A. in English and a B.S. in Education and initial certification in English in a total of 129 credits.

Cooperative Majors

- **English and Education:** see above.

- **English and Theater Arts:** designed to allow students to complete a double major in English and Theater. Under this program of study students meet all requirements for a major in one of these disciplines, and complete a major in the other with a reduced number of credits.

- **English and Communication/Rhetorical Studies:** designed to allow students to complete a double major emphasizing language and interpretation. Under this program students meet all requirements (30 credits) for a major in one of these disciplines, and complete a major in the other with 24 additional credits.

- **English and Philosophy:** designed to allow students to complete a double major emphasizing theoretical and analytical explorations of the written word. Under this program students meet all requirements (30 credits) for a major in one of these disciplines, and complete a major in the other with 24 additional credits.

- **English and Journalism, or Public Relations and Advertising, or Media Management and Production:** each of these double majors is designed to allow students to complete a double major emphasizing the role of the written word in both the literary and public spheres. Under this program students meet all requirements (30 credits) for a major in one of these disciplines, and complete a major in the other with 24 additional credits.

- **English and History:** designed to allow students to complete a double major emphasizing the historical and cultural contexts of literary expression and production. Under this program students meet all requirements (30 credits) for a major in one of these disciplines, and complete a major in the other with 24 credits.

Interdisciplinary Minor and Certificate

- **Women’s and Gender Studies:** designed to allow students to complete a major in English (30 credits) and an interdisciplinary minor
in Women’s and Gender Studies (15 credits). Up to one course may count toward both the English major and the Women’s and Gender Studies minor.

- **Business**: designed to allow students to complete a B.A. in English (30 credits) while at the same time earning a Certificate in Business (24 credits).

**Prerequisites** – For all 200-level courses, students must have completed Core 101, Thinking and Writing Across the Curriculum (or its equivalent). Core 102, Imaginative Literature and Critical Writing (or its equivalent), may be taken concurrently with 200-level courses if a student receives a B or better in Core 101. For all 300-level courses, students must have taken Core 101 and 102. For all 400-level courses, students must have taken Core 101 and 102, and at least one English course at the 200 level. Ideally, students also should take English 300 before enrolling in a 400-level course. Individual courses numbered above 200 may require specific prerequisites; for more information, consult the Department.

**REQUIREMENTS FOR THE ENGLISH MAJOR**

**Major in Literary Studies or Writing**

Required: 30 credits

*All Majors:*

**Core requirement – 12 credits**

ENG 300--Critical Issues in Literary Study.

Survey courses: 9 credits; Three courses chosen from the following**:

Survey of British Literature I
Survey of British Literature II
Survey of American Literature I
Survey of American Literature II

**Concentration in Literary Studies**–18 credits in addition to Core requirements

Students enrolled in the Literary Studies concentration are afforded the opportunity to examine both canonical and non-canonical texts; to place works of a given literary period in relation to other periods, and in relation to the literature of other cultures; to explore the ever-changing and sometimes conflicting critical perspectives and conceptual categories that have defined literary understanding over time; and to consider the relations of literature to society, history, and other forms of cultural expression.

Students are required to take one 400 level course from each of the following categories:

- Literature and Diversity
- American literature
- British literature
- Senior Seminar

Six hours of electives; no more than one course may be below the 215 level.

The list of course descriptions issued each term by the English Department will indicate which course offerings may meet the above requirements. In no case may a student use a single course to satisfy two requirements.

**Concentration in Writing**–18 credits in addition to Core requirements

The concentration in writing educates students within a broad practical and theoretical framework that combines courses in rhetoric, the history of writing, literature, and/or creative writing to help students develop as mature writers. Workshops, seminars, internships, and other types of writing courses assure that students gain a thorough understanding of writing as a multifaceted and rigorous discipline of study.

**Creative Writing** students are required to take the following:

- Four courses 300/400-level Creative Writing in at least two genres, one of which must be at the 400-level
- One 400-level Literature Course
- Senior Seminar

**Critical/Professional Writing** students are required to take the following:

- Four courses 300/400-level Critical/Professional Writing in at least two genres, one of which must be a 400-level
- One 400-level Literature Course
- Senior Seminar

**Combination Creative and Critical/Professional Writing** students are required to take the following:

- Four courses 300/400-level Creative or Critical/Professional Writing in at least two genres, one of which must be at the 400-level
• One 400-level Literature Course
• Senior Seminar

Concentration in Film Studies—18 credits in addition to Core requirements

Students enrolled in the Film Studies concentration are afforded the opportunity to examine classic, avant-garde, and popular films; to learn the major trends, schools, and philosophies of film and film production; to explore theories of film production, viewing, and circulation; and to consider the relations of film to society, history, and other forms of cultural expression.

Students are required to take the following:
• Engl 221W: Survey of Cinema (substitutes for one core major survey)
• Engl 308.91: Pittsburgh Filmmakers
• Three courses of 300/400-level film courses, one of which must be at the 400-level
• One 400-level Literature Course
• Senior Seminar

*Though courses in filmmaking are not taught at Duquesne, a course or courses in that field may be taken at Pittsburgh Filmmakers, 477 Melwood Ave., Pittsburgh, PA 15213 (Phone: 412-681-5449). If the student is an English major with a Film Studies Concentration, then he/she may take as many as two courses in Filmmaking at Pittsburgh Filmmakers toward your degree at Duquesne. The Duquesne flat rate tuition will cover the two courses at Pittsburgh Filmmakers because of a cooperative agreement between the two institutions. Before enrolling at Pittsburgh Filmmakers for any course, a student must complete the form “Application for Approval of Study at Pittsburgh Filmmakers for English Majors with a Concentration in Film Studies.” This form must be signed by the chair of the English Department (or an authorized representative) at Duquesne and by one’s Academic Advisor in the College of Liberal Arts.

Students are responsible for transportation to Pittsburgh Filmmakers and for the purchase of books. The student will be charged a course fee by Pittsburgh Filmmakers.

REQUIREMENTS FOR THE MINOR IN ENGLISH

The English minor requires 18 credit hours in English, including:

• ENGL 300--Critical Issues in Literary Study

• One of the following English core curriculum courses:
  - Survey of British Literature I
  - Survey of British Literature II
  - Survey of American Literature I
  - Survey of American Literature II

• One 400 level literature course

• Three elective English courses at the 200 level or above

* English majors who are also seeking certification in Education must meet a slightly different set of requirements. In addition to the requirements for all majors, these students must

• Take a course dealing with the history of the English language (either Survey of British Literature I, or History of the English Language);

• Take a course in World Literature beyond the 100 level;

• Take a course in grammar OR linguistics

These additional requirements may be met partially by using electives, but may necessitate that Education students take one or two courses beyond the thirty hour minimum to complete the major.

** Under exceptional circumstances, and with the approval of the Department, a student may substitute one 400-level survey course for a 200-level core survey requirement. In all cases, however, a student must take at least one course in American literature in and one in British literature to satisfy the core requirements.

REQUIREMENTS FOR THE THEATER ARTS MAJOR OR MINOR

Theater Arts as Liberal Arts: The Theater Arts degree allows students to examine and experience the relationship between drama as literary artifact
and drama as performance. Although students are given technical instruction, the emphasis of study is on interpretation of drama and its place within culture. Students gain experience in how to read a play, and they experience drama itself, including all aspects of producing a play. In addition to the intellectual abilities developed in all liberal arts programs – flexibility of mind, clarity and precision in written and oral communication, and an ability to negotiate the often confusing world of human artifacts – students also benefit from work with the technical side of dramatic production.

**Performance, Production and Pre-Professional Opportunities:** Duquesne’s academic program in Theater Arts is enhanced by opportunities for participation in student dramatic productions staged by the four campus theater companies: Red Masquers, The Medieval and Renaissance Players, Spotlight Musical Theater Troupe, and The Summer Company. Advanced students will also benefit from collaborations and internships with local and regional professional companies such as The Pittsburgh Monologue Project, The Pittsburgh Public Theater, The Pittsburgh Playwrights, and others. Thus, the Theater Arts major and minor prepare students for business, technical and artistic careers opportunities in theater and other arts.

**THEATER ARTS MAJOR (36 credit hours)**

**Required Courses: 15 credits**

- THEA151 Introduction to Theater (3 cr.)
- ENG204 Introduction to Drama (3 cr.)
- THEA210 History of Theater I (3 cr.)
- THEA211 History of Theater II (3 cr.)
- THEA305 Directing I (3 cr.)

**Literature courses: 9 credit hours**

Select from 300- and 400-level English Department courses that emphasize dramatic literature.

**Electives: 12 credit hours**

- THEA201 Acting I (2 cr.)
- THEA301 Acting II (2 cr.)
- THEA302 Acting III (2 cr.)
- THEA303 Acting IV (2 cr.)
- THEA202 Stage Combat (3 cr.)
- THEA310 Technical Theater (3 cr.)
- THEA405 Directing II (3 cr.)
- THEA481W Dramatic Criticism (3 cr.)
- ENG315 Playwriting I (3 cr.)
- ENG415 Playwriting II (3 cr.)
- THEA499 Directed Studies (1-3 cr.)

**THEATER ARTS MINOR (21 credit hours)**

**Required Courses: 9 credits**

- THEA151 Introduction to Theater (3 cr.)
- THEA210 History of Theater I (3 cr.)
- THEA211 History of Theater II (3 cr.)

**Literature courses: 6 credits**

Select from 300- and 400-level English Department courses that emphasize dramatic literature.

**Electives: 6 credit hours**

- THEA201 Acting I (2 cr.)
- THEA301 Acting II (2 cr.)
- THEA302 Acting III (2 cr.)
- THEA303 Acting IV (2 cr.)
- THEA202 Stage Combat (3 cr.)
- THEA310 Technical Theater (3 cr.)
- THEA405 Directing II (3 cr.)
- THEA481W Dramatic Criticism (3 cr.)
- ENG315 Playwriting I (3 cr.)
- ENG415 Playwriting II (3 cr.)
- THEA499 Directed Studies (1-3 cr.)

**ENGLISH AND THEATER ARTS**

Students can double-major in English and Theater Arts by fulfilling all the requirements of the English major and taking 27 Theater Arts credit hours.

**Required Courses: 12 credits**

- THEA151 Introduction to Theater (3 cr.)
- THEA210 History of Theater I (3 cr.)
- THEA211 History of Theater II (3 cr.)
- THEA305 Directing I (3 cr.)

**Literature courses: 6 credits**

Select from 300- and 400-level English Department courses that emphasize dramatic literature. Please note: this does NOT include literature requirements needed to fulfill the English major.

**Electives: 9 credit hours**

- THEA201 Acting I (2 cr.)
- THEA301 Acting II (2 cr.)
- THEA302 Acting III (2 cr.)
- THEA303 Acting IV (2 cr.)
- THEA202 Stage Combat (3 cr.)
- THEA310 Technical Theater (3 cr.)
- THEA405 Directing II (3 cr.)
- THEA481W Dramatic Criticism (3 cr.)
- ENG315 Playwriting I (3 cr.)
- ENG415 Playwriting II (3 cr.)
- THEA499 Directed Studies (1-3 cr.)
ENGLISH CURRICULUM

NOTE: WITH RESPECT TO THE DESCRIPTIONS LISTED BELOW, THE ENGLISH DEPARTMENT IS COMMITTED TO OFFERING AT LEAST ONE COURSE FROM EACH AREA EVERY YEAR, THOUGH THE PARTICULAR COURSE(S) IN THE VARIOUS AREAS MAY CHANGE FROM SEMESTER TO SEMESTER.

201. Special Studies: Fiction 3 cr.
Examination of various types of fiction, emphasizing critical analysis and writing, as well as various thematic and conceptual issues. Individual courses may be organized around such topics as
- Form and Content in Short Fiction
- Introduction to the Novel
- Women and/or Fiction
- The Gothic Novel

202. Special Studies: Poetry 3 cr.
Examination of the formal and thematic dimensions of poetic expression. Individual courses may be organized around such topics as
- Form and Content in Poetry
- Experimental Poetry
- Poetry in Context
- Women’s Poetry

203. Special Studies: Drama 3 cr.
Examination of the various modes and dimensions of dramatic expression. Individual courses may be organized around such topics as
- Western Drama from the Classics to the Moderns
- Dramatic Literature and Theatrical Performance
- Drama and Society

204. Special Studies: Literature and Cultural Studies 3 cr.
Examination of literary expression through the lens of new perspectives in cultural studies. Individual courses may be organized around such topics as
- Literature and Power
- Literature, Economics, and Gender
- Race, Class, and Literature

205. Special Studies: Film 3 cr.
Examination of formal and thematic dimensions of film.

214W. Survey, Non-Western Literature 3 cr.
A historical survey of literature from non-Western cultures.

215W. Survey, Literature of Western World I 3 cr.
A historical survey of western literature through the Renaissance.

216W. Survey, Literature of Western World II 3 cr.
Historical survey of western literature since the Renaissance.

217W. Survey of British Literature I 3 cr.
Representative works of British literature in their literary and historical contexts; medieval to eighteenth century.

218W. Survey of British Literature II 3 cr.
Representative works of British literature in their literary and historical contexts; late eighteenth century to contemporary.

219W. Survey of American Literature I 3 cr.
Representative selections from American authors treated in their literary and historical contexts; colonial to Civil War period.

220W. Survey of American Literature II 3 cr.
Representative selections from American authors treated in their literary and historical contexts; Civil War period to contemporary.

221W. Survey of Cinema 3 cr.
Representative selections from American and International cinema treated in historical context.

300W. Critical Issues in Literary Study 3 cr.
Introduction to the major approaches to literary study and to substantive issues raised by literature and criticism.

301W. Special Studies: Creative Writing 3 cr.
Studies and practice in the various types of creative writing, emphasizing the creative process,
critique, and revision. Courses in this area are typically organized around such topics as

- Poetry Writing Workshop I
- Fiction Writing Workshop I
- Playwriting I
- Script Writing I

302W. Special Studies: Critical and Professional Writing 3 cr.
Studies and practice in the various kinds of pragmatic writing, with an emphasis on style, purpose, audience, and clarity of expression. Courses in this area are typically organized around such topics as

- Expository Writing
- Life Writing
- Writing for Business and Industry
- Professional and Technical Writing

303W. Special Studies: African-American Literature 3 cr.
Examines the various forms of African-American literary expression, including poetry, drama, fiction, and non-fictional prose. Individual courses may be organized around such topics as

- Twentieth-Century African-American Literature and Culture
- Race in Literary History

304W. Special Studies: Women and Literature 3 cr.
Studies of the various ways in which women have contributed to the development of literary expression. Individual courses may be organized around such topics as

- Women Writers and the Novel
- Women in Literary History

305W. Special Studies: Popular Culture 3 cr.
Examination of various texts and topics related to popular culture and the popular imagination. Courses in this area are typically organized around such topics as

- American West, Text & Film
- Science Fiction
- Literature of Crime and Detection
- Introduction to Film

306W. Special Studies: Cultural Themes and Issues 3 cr.
Study of the literary treatment of various texts, topics, and issues from the perspective of cultural analysis. Courses in this area are typically organized around such topics as

- Western American Literature
- Race and Literature
- Gender and Literature

307W. Special Studies: Religion and/or Spirituality and Literature 3 cr.
Study of the imaginative and critical treatment of religion and religious concerns in literature. Courses in this area are typically organized around such topics as

- The Bible as Literature
- Ethnicity and Spirituality

308.91 Pittsburgh Filmmakers 3 cr.
By permission of department.

309W. Special Studies: Film 3 cr.
Studies and practice of film, emphasizing form, theme and production.

400W. Special Studies: Creative Writing Prerequisite: ENG 301 3 cr.
Workshops in a variety of creative writing modes. Courses in this area are typically organized around such topics as

- Playwriting II
- Poetry Writing II
- Fiction Writing II

401W. Special Studies: Critical and Professional Writing Prerequisite: ENG 302 3 cr.
Advanced study of various forms of professional, technical, expository, and business writing.

402W. Special Studies: Catholicism and Literature 3 cr.
Study of Catholic writers and texts in literary history. Courses in this area are typically organized around such topics as

- Women Writers and Catholicism
- Contemporary Catholic Writers
- Social Justice and Catholicism
- Catholic Voices in Dissent

403W. Special Studies: Literature Across Boundaries 3 cr.
Varying topics reflecting the current interests of faculty and students, in courses that transcend the boundaries of a single culture, language, or
discipline. Courses in this area are typically arranged around such topics as

- Modern Poetry and the Visual Arts
- African American Literature and Music
- The Renaissance in Drama, Poetry, and Painting
- World Literature

PERIOD COURSES IN BRITISH AND AMERICAN LITERATURE

NOTE: ALL 400-LEVEL COURSES IN BRITISH AND AMERICAN LITERATURE ARE ORGANIZED AROUND FOUR MAJOR AREAS OF INTEREST: PERIOD STUDIES, GENRE STUDIES, MAJOR AUTHOR STUDIES, AND CULTURAL CONTEXTS.

MEDIEVAL LITERATURE

405W. Special Studies: Survey Studies 3 cr.
Courses in this area may include, but are not limited to, such interests as
- Survey of Medieval Literature

406W. Special Studies: Genre Studies 3 cr.
Courses in this area include, but are not limited to, such interests as
- Medieval Poetry
- Medieval Drama
- Medieval Romance

407W. Special Studies: Author Studies 3 cr.
Courses in this area may include, but are not limited to, such interests as
- Chaucer
- William Langland

408W. Cultural Contexts 3 cr.
Courses in this area may include, but are not limited to, such interests as
- Arthurian Literature
- Medieval Women Writers

RENAISSANCE BRITISH LITERATURE

409W. Special Studies: Survey Studies 3 cr.
Courses in this area may include, but are not limited to, such interests as
- Sixteenth-Century Literature
- Seventeenth-Century Literature

410W. Special Studies: Genre Studies 3 cr.
Courses in this area may include, but are not limited to, such interests as
- English Renaissance Drama
- Metaphysical Poetry

411W. Special Studies: Author Studies 3 cr.
Courses in this area include, but are not limited to, such topics as
- Shakespeare
- Milton

412W. Special Studies: Cultural Contexts 3 cr.
Courses in this area include, but are not limited to, such topics as
- Renaissance Literature and Politics

EIGHTEENTH CENTURY BRITISH LITERATURE

413W. Special Studies: Survey Studies 3 cr.
Courses in this area include, but are not limited to, such topics as
- Restoration Literature, 1660-1700
- Eighteenth-Century Literature, 1700-1750
- Eighteenth-Century Literature, 1750-1800

414W. Special Studies: Genre Studies 3 cr.
Courses in this area may include, but are not limited to, such topics as
- Eighteenth-Century Novel
- Eighteenth-Century Poetry

415W. Special Studies: Author Studies 3 cr.
Courses in this area may include, but are not limited to, such topics as
- Pope and Swift
- Samuel Johnson and His Circle
416W. Special Studies: Cultural Contexts 3 cr.
Courses in this area may include, but are not limited to, such topics as
- Eighteenth Century Women Writers

NINETEENTH CENTURY BRITISH LITERATURE

417W. Special Studies: Survey Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- British Romanticism
- Victorian Literature

418W. Special Studies: Genre Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Romantic Drama
- The Victorian Novel
- Victorian Non-Fiction Prose and Poetry

419W. Special Studies: Author Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Wordsworth and Byron
- Dickens

420W. Special Studies: Cultural Contexts 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Women Romantic Writers
- Sexual Identity and Victorian Literature

TWENTIETH AND TWENTY-FIRST CENTURY BRITISH LITERATURE

421W. Special Studies: Survey Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- British Literature 1890 - 1945
- British Literature 1945 - present

422W. Special Studies: Genre Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Twentieth-Century Poetry
- Contemporary Fiction
- Experimental Writing

423W. Special Studies: Author Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Joyce and Woolf
- Yeats

424W. Special Studies: Cultural Contexts 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- War and Literature
- Poetry and Social Class

PRE-1900 AMERICAN LITERATURE

425W. Special Studies: Survey Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Colonial American Literature
- American Literature of the National Period
- American Romanticism
- American Realism and Naturalism

426W. Special Studies: Genre Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- The Slave Narrative
- The Jeremiad

427W. Special Studies: Author Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Hawthorne
- Emerson and Thoreau

428W. Special Studies: Cultural Contexts 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Early American Women Writers
- Nineteenth-Century Women Writers

TWENTIETH AND TWENTY-FIRST CENTURY AMERICAN LITERATURE

429W. Special Studies: Survey Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- American Literature 1900 - 1945
- American Literature 1946 - present
430W. Special Studies: Genre Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Contemporary American Fiction
- Twentieth Century Poetry

431W. Special Studies: Author Studies 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Hemingway and Faulkner
- Flannery O’Connor

432W. Special Studies: Cultural Contexts 3 cr.
Courses in this area typically include, but are not limited to, such topics as
- Southern Literature
- The Harlem Renaissance

LANGUAGE AND LINGUISTICS

433. Special Studies: Language and Linguistics 3 cr.
Study of the history of linguistics, grammar, and theory and practice of linguistics. Courses in this area typically include, but are not limited to, such topics as
- History of the English Language
- Introduction to Linguistics
- Modern English Grammar
- Advanced English Grammar

LITERARY CRITICISM AND THEORY

434W. Special Studies: Literary Criticism and Theory 3 cr.
Study of the history of criticism, contemporary theory, and the major ideas and authors working in the area of theory. Courses typically include, but are not limited to, such topics as
- History of Criticism: Plato to Shelley
- Literary Theory since Arnold
- Feminist Literary Theory

OTHER

435. Directed Studies 1-3 cr.
Offers the opportunity for students and faculty to conduct in-depth study of a topic not covered, or covered only briefly, in other departmental courses. Admission by permission only.

436. Internship 1-6 cr.
Provides a supervised observation/experience program of study in areas such as editing, technical writing, magazine and news writing, writing for business and industry, and theatrical performance and production. Admission by permission only.

THEATER ARTS CURRICULUM

151. Introduction to Theater 3 cr.
Involvement in the Basic components of the discipline: experiencing and performing drama, playwriting, criticism, directing, and acting. Includes attendance of plays on and off campus.

201. Acting I 2 cr.
An introduction to the Art of Acting. Students will concentrate on voice, diction and movement. Students will also learn basic character analysis and performance techniques. This is a good class for the non-major who wishes to explore their more creative side. This class is a pre-requisite for all other acting classes offered in the Theater program.

202. Stage Combat 3 cr.
Fighting for the stage and film. This class covers hand to hand combat as well as fighting with weaponry from different eras.

210. History of Theater I 3 cr.
The study of World Drama from the beginning of Mankind through the Renaissance concentrating on the drama, theaters, staging conventions and philosophies of each era.

211. History of Theater II 3 cr.
This course continues the survey of the development of western drama and theatre (Renaissance to the present) to increase our understanding of how drama, theatrical performance, and society combine to form unique and diverse expressions of cultures. Students will read representative dramatic literature and discuss its related performance conditions and conventions, apply relevant theory, styles, and information in Response Essays, and solidify our understanding through examinations and quizzes.

301. Acting II 2 cr.
Advanced study of acting concentrating on modern and contemporary styles. Students will explore various theories of realistic acting, particularly Uta Hagan, Stanislavsky, and Boleslavski, and apply those theories to actual performances.
302. Acting III  2 cr.
Advanced study of acting concentrating on Shakespearean, classical and period styles.

303. Acting IV  2 cr.
Advanced study of acting concentrating on monologues, improvisation and auditions.

305. Directing I  3 cr.
An advanced course dealing with the principles and techniques of directing that takes the student through the process of directing a play. The class will offer step-by-step instruction that deciphers the major technical and visual issues of stage directing including script analysis, communication and style.

310. Technical Theater  3 cr.
Duquesne’s Theater Arts program teams up with International Association of Theatrical Stage Employees (IATSE). IATSE local 3 is the theater union whose jurisdiction is the downtown cultural district and concert venues throughout the city of Pittsburgh and surrounding area. This is a one of a kind class in technical theater. The class will study Set, Costume and Lighting design. Both in class lectures and practical demonstrations will be used. On successfully completing this class, students have the option of signing up with the union for summer employment.

405. Directing II  3 cr.
Advanced studies in Directing for the stage. Concentration on the Director’s Notebook, communication with actors and designers, staging, and interpretation. Over the course of the semester students will be required to present several scenes from a play culminating in a final presentation of a major scene or act from that play. Prerequisite: THTR 401 Directing I.

444W. Film Theory  3 cr.
Study of the various theories of film interpretation, reception, and production.

450W. Senior Seminar  3 cr.
Capstone course for all English Majors

481. Dramatic Criticism  3 cr.
A study of writing about Theater; from Critical Analysis to Theater Review writing. Students will be required to attend theatrical productions around the city throughout the semester.

499. Directed Studies  1-3 cr.
Internships with local, regional and national professional companies or independent study for students with a particular interest that is not covered in regular course offerings.

DEPARTMENT OF HISTORY
Chairperson:
Holly A. Mayer, Ph.D.

History is the keeper of the memory of the human race. Just as no individual can function effectively by living only in the present, no society can survive and flourish if it does not know from whence it came. As the American philosopher George Santayana so succinctly remarked, “Those who do not remember the past are condemned to repeat it.”

The study of history enriches all who undertake it. It sits at the center of the liberal arts, concerned with all of the areas of human endeavor - politics, economics, social arrangements, psychology, thought, religion. More than any other discipline, history requires the integration of knowledge; it requires that those who study it think critically and write astutely about the world, both past and present.

The mission of Duquesne University’s Department of History is to provide students with the valuable insights that the study of the past offers. The department offers a wide variety of courses in American, European, Latin American, Middle Eastern and Asian history. We cover all eras, from the ancient world to the modern era. We encourage our students to range broadly over the vast expanse of the past as well as to pursue their own particular interests.
REQUIREMENTS FOR THE MAJOR

A minimum of thirty-one credits must be taken within the major. All majors are required to take Writing History (HIST 311W) by their junior year, preferably between their third and fifth semesters. They are also required to take the Capstone Tutorial (HIST 400) in their final semester before graduation. The following requirements must also be met:

- six credits at the 200 level, including either HIST 203 or HIST 213
- six credits in Latin American, Asian, or Middle Eastern history
- three credits at the 400W level (it must be a “W” course)

Majors must complete their 200-level requirements and have enrolled in Writing History before enrolling in 400-level classes. Three credits of Art History can count towards the History major. Students can fulfill three credits of their non-U.S., non-European requirements by taking a non-western Art History class. No more than twelve transfer credits in History can be applied to the major requirement.

REQUIREMENTS FOR THE MINOR

Students who wish to minor in History should consult with the Departmental Chair. The student is required to take fifteen credits, with six credits in either the U.S. History Survey or Western Civilization Survey and nine additional credits within the Area or Advanced Topical Surveys. Of those nine additional credits, three credits of Asian, Latin American, or Middle Eastern History must be taken, and three credits at the 300 or 400 level must also be taken. (Please be aware that most Area and Advanced Topical Surveys are taught on a two-year cycle and take that into account when planning your minor.) No more than six history credits transferred from another institution can count towards the history minor.

FULFILLING THE UNIVERSITY CORE HISTORY REQUIREMENT

Courses fulfilling the University Core History requirement are listed as History 100-level courses and have the theme area designation noted.

The Undergraduate Professional Track
The History Department provides opportunities for its undergraduate majors to explore the field of public history and to undertake internships at local historical institutions. Students who are admitted to the Professional Track program choose to take either Museum Studies (3 cr) in the spring semester of their junior year or Archival Studies (3 cr) in the fall semester of their senior year. Upon the successful completion of the course, they will become eligible for a three-credit internship related to their course work. The Department will make every effort to place the student in an internship, depending on the availability of an appropriate placement. The six credits in the professional sequence will not count towards the required 30 credits in History.

Students apply for this program during the fall semester of their junior year. They must meet the following requirements:

1. A 3.0 overall QPA
2. A 3.3 QPA in their History courses
3. The completion of 15 credits in History by the end of the fall semester of their junior year, including U.S. History I & II (103 & 104) and Writing History (311)
4. Letters of recommendation from two History professors

Honors in History
Seniors who have done very well in the major and who are thinking about pursuing graduate studies in History should apply to take the department’s Honors Seminar, which is offered every spring semester. Students who wish to be recognized as graduating with Honors in History must meet the following criteria:

1. A 3.2 overall QPA
2. A 3.5 QPA in History courses
3. The completion of HISTY 311 with a grade of B+ or better
4. Two letters of recommendation from History professors attesting to the students ability to do advanced research and writing
5. The completion of the Senior Honors Seminar with a grade of B or better
Pre-law Track
The department offers a series of law-related courses and recommends that majors who plan to apply to law school select one or more of these classes:

• U.S. History I and II
• The History of Ancient Law
• Historical Evolution of Western Law
• Constitutional History of the United States
• American Law in Socio-Historical Perspective.

Joint Degree Program: B.A. in History/B.S. in Education
As the constant demand for aspiring secondary teachers increases, one way for a student to prepare better for a career in education is to get both a B.A. in History and a B.S. in Secondary Education. The department has put together a program, in conjunction with the School of Education, which will allow students to receive both degrees. The credits for the joint program will total 128 to 136 credit hours, depending on the number of credits required to complete the College’s language requirement. Students should be able to complete the program within four years by taking an occasional overload or enrolling in summer classes.

161. Latin American Civilization. 3 cr.
This course spans one thousand years of Latin American history, from 1000 AD to the present. It begins with the largest indigenous societies and then focuses on Spain’s invasion of the western hemisphere and the resultant three centuries of Spanish colonial rule. Afterwards, the class examines Latin America’s Wars of Independence in the 1820s and the significant changes that took place throughout the region in the nineteenth and twentieth centuries. The class revolves around political, socioeconomic, and cultural themes. Course Attributes: Theme Area Global Diversity

162. East Asian Civilizations. 3 cr.
This course surveys the development of East Asian civilization from ancient times to the modern age. Geographically it covers the countries of China, Japan, Korea and Vietnam. Subjects to be examined include religion and thought, political and socio-economic institutions, literary and artistic accomplishments, interactions with the West, and the transition from the traditional to the modern way of life. The course is intended to provide students with a general historical background and help them develop basic historical analytical skills so that they can better understand fundamental themes such as the relationship between diversity and unity in human life. Course Attributes: Theme Area Global Diversity

165. Clash of Civilizations: Islam, West, & the War on Terror. 3 cr.
This course explores the history and significance of the escalating conflicts between Middle Eastern and Western cultures in the contemporary era, focusing in particular on the “war on terrorism” and the controversial notion of a “clash of civilizations” between the modern West and Islamic fundamentalism. Course Attributes: Theme Area Global Diversity

171C. History of Christianity. 3 cr.
This course traces the development of the Christian religion from its obscure origins to its present status as a diverse world religion with hundreds of millions of adherents. Our focus is on the ways in which the thought and organization of the Christian churches have responded to the enormously diverse societies and cultures in which they have existed. Course Attributes: Theme Area Faith and Reason

172. American Religious Experience. 3 cr.
This course explores the history of religion in American life from the colonial period to the present. We will focus on three themes: the ways in which religion has served to reinforce and challenge social and political structures, the relationship among the individual, the church, and the state, and the ways in which religious groups have responded to competition from secular ideas and structures. Course Attributes: Theme Area Faith and Reason

174. Sacred Places: Faith, History, & Geography. 3 cr.
Students will examine how sacred or holy places are identified with and reveal a culture’s search for truth so as to gain insights into those cultures’ unique worlds. As students study how the spiritual and physical coincide, they will also learn of shared themes among diverse cultures, such as how place grounds faith. Course Attributes: Theme Area Faith and Reason

200. Global Geography. 3 cr.
This course is a survey of the physical, political, economic, population, environmental and human geographic aspects of the world. The objectives are to provide students a general global perspective and for students to understand the intercon-
nectedness that exists among all people and nations. Additionally, we will follow the Geography for Life: National Geography Standards 1994.

203. U.S. to 1877. 3 cr.
This is a survey course that reviews the creation and development of American society, ideals, and institutions from colonial settlements to 1877.

204. U.S. Since 1877. 3 cr.
This course covers the historical development of American institutions, ideals, and society since 1877.

213. Western Civilization I. 3 cr.
An introductory survey of the origins and characteristics of European Civilization, emphasizing the personalities and events and institutions that have shaped the West.

214. Western Civilization II. 3 cr.
An introductory survey of origins and characteristics of European civilization, emphasizing the personalities, events and institutions that have shaped the West from the 17th century.

242. Ancient Law. 3 cr.
A survey including the contributions of the Greeks and of the Romans to the development of law.

244. History-Ancient Medicine. 3 cr.
An examination of significant medical theories and practices in the period from the Egyptian temple physicians to the doctors of the Roman Empire. Special attention will be given to Hippocrates and Galen.

245. Greek History. 3 cr.
An examination of the development of Greek history and culture from earliest times up to the death of Alexander of Macedon.

246. Hellenistic History. 3 cr.
A survey of Mediterranean history from the death of Alexander until the accession of Octavian and the establishment of the Roman principate.

247. History-Roman Principate. 3 cr.
Study of the consolidation of the Roman imperial structure from Augustus to the death of Commodus.

248. History-Late Roman Empire. 3 cr.
Examination of Roman History from the accession of Severus to the death of Justinian.

249. History-Egyptian Civilization. 3 cr.
A survey of Egyptian history and culture from the pre-dynastic period to the establishment of Roman rule in Egypt. Special attention will be given to the artistic, literary, and religious achievements of Egypt.

250. SPST: Empire: Core & Periphery. 3 cr.
This course explores the dynamics of empire creation, maintenance, and dissolution. The roles that geography, culture, and economics play in success and failure can be similar across empires, as well as vastly different. This course focuses on two areas: one being the center of an empire and one being an outpost of that empire.

251. African History Survey. 3 cr.
This course examines some of the various peoples of Africa over the past 500 years, but with an emphasis on the modern era. While the focus will be on cultures and cultural developments, economic conditions and political situations will also be studied.

252. India, Pakistan, and South Asia. 3 cr.
This course examines the complex histories of South Asia, from Afghanistan in the west to Bangladesh in the east. The two largest countries, India and Pakistan, garner a great deal of attention, but the whole region is studied, with particular emphasis on the modern period.

254. History Modern Middle East. 3 cr.
A study of the modern Near East with concentration upon the conflict between imperialism and nationalism, traditionalism and western influences in the area.

255. East Asian Civilizations. 3 cr.
This course examines the Asian peoples of the 17th through early 20th centuries.

256. Social History of China. 3 cr.
This course examines the historical evolution of Chinese society and various aspects of social life in China. Subjects of study include philosophical and religious influences, major social institutions and customs, marriage and family, gender roles, education and employment, pastime and entertainment. Investigation will be conducted with particular attention to the relationships between tradition and modernity and between China and the West.

257. Russia Before Communism. 3 cr.
Development of society and state in Russia from their origins to the twentieth century.
258. Russia in the 20th Century. 3 cr.
Development of society and state in Russia in the 1900s, focusing on the Communist takeover of Russia, the impact of more than seventy years of Communist rule, and the collapse of Communism and its aftermath.

260. Central Europe. 3 cr.
The medieval and early modern history of the small nations situated between Russia and Germany on the east and west, and the Baltic and Mediterranean Seas on the north and the south.

261. Modern Central Europe. 3 cr.
This course covers the fascinating modern history of the land situated between Germany and Russia focusing on diverse ethnic groups, such as Poles, Croats, Slovaks, Serbs, Slovenes, Ukrainians, and Hungarians. The major themes include struggles for national independence, the impact of Soviet control after World War II, and the reassertion of national sovereignty after the end of the Cold War.

265. England to 1715. 3 cr.
This course recounts one of the great success stories of Western history: the rise of a remote island off the coast of Europe to the brink of global greatness. It will examine the development of her unique political system of parliamentary sovereignty, her economic and social strengths, her role in European politics, and her intellectual contributions to Western thought. The story is peopled with fascinating characters and England’s institutions and ideas have had a fundamental impact on the United States.

266. Modern Britain. 3 cr.
This course will examine the factors and forces of Great Britain’s internal development as well as its rise and subsequent relative decline as an imperial power in the world. It will study its unique political achievement of moving towards democracy without revolution. It will discuss the causes and course of its economic development. It will also describe the country’s cultural contributions.

270. Latin America: Conquest to Independence. 3 cr.
A survey of Latin America from around 200 AD to the 1820s. The course begins with an in-depth look at the pre-Columbian Maya, Inca, and Aztec civilizations and their conquest by Spain. It then examines the socioeconomic, cultural, and political development of colonial Spanish and Portuguese society and the growing nationalistic tensions that led to the independence movement of the early 19th century.

271. Modern Latin America. 3 cr.
A survey of Latin American history since the 1820s that emphasizes the socioeconomic and political development of Argentina, Brazil, Chile, Mexico, Cuba, and Central America. Some of the themes emphasized will be Latin American economic underdevelopment, military rule, revolution, democratization, Liberation Theology, and the impact of these larger issues on the lives of ordinary people.

277. History of Mexico. 3 cr.
A survey of more than one thousand years of Mexican history beginning with the ancient Toltec, Mayan and Aztec civilizations and proceeding through the colonial period under Spanish rule. Emphasis is on Mexico since independence in the 1820s, especially political instability, the US-Mexican War, the Porfiriato, the 1910 Mexican Revolution, the PRI’s seven decades of one-party rule, the transition to democracy, and NAFTA.

291. History of Japan. 3 cr.
This is a survey of Japanese history from antiquity to the present time. Examined are origins of the Japanese nation, the interplay between indigenous elements and outside influences in the making of Japanese culture and institutions, challenges of the modern age and Japanese reactions, militarism and imperialism, the “miracle” of post-war economic recovery and growth, as well as the ongoing dialogue between traditional and modernity in a rapidly changing world.

292. History of Traditional China. 3 cr.
This course surveys Chinese history from antiquity to mid-19th century. It traces the evolution of Chinese civilization, investigates major themes and aspects of this process, and examines traditional China in larger historical and cultural contexts to see how the Chinese experience, with its accomplishments and problems, relates to the modern age and outside world.

293. History of Modern China. 3 cr.
This is a survey of Chinese history from 1840 to the present. Issues examined include the fate of traditional China in modern times, China’s relationship with the West, war and revolution, Mao and the communist movement, reform and economic expansion in the post-Mao era and their efforts on China and the modern world.
301. African American History:  
**Era of Slavery**  
This course offers an overview of African-American history, from African origins and their arrival to the Britain’s mainland colonies in 1619, to the end of the Civil War in 1865. The course will analyze the political, economic, social, and cultural responses of both individuals and groups of African-Americans as they encountered European culture and survived through 250 years of slavery in North America.

302. African American History:  
**After Freedom**  
An examination of the experience of Africans in the United States beginning with the trials of the Civil War and Reconstruction years, their experience of continued discrimination in the 20th century, the impact of the Civil Rights movement, and their continuing struggle to attain true equality in American society.

303. Violence in American Society.  
This course examines the historical significance of violence in America with an emphasis on the 19th and 20th centuries. It will examine the ways that violence has proven an indispensable part of American history, i.e. the ways that violence has become, in the words of Civil Rights activist H. Rap Brown, “just as American as cherry pie.” The course considers political, economic, religious, psychological, and social factors that can help to explain the prevalence of violence in our nation’s history.

304. Spies, Assassins, & the European State.  
This course looks at cultural attitudes toward spying, how and why spy networks developed, and what the early ones looked like. They will also learn about the use of assassins and spies as a tool of statecraft and diplomacy and the relationship of technology to the work of spies and assassins. Overall, the course is a study of 19th-century development of state bureaucracy.

305. Rome: Emperors, Popes, and Saints  
This course examines the history and culture of the city of Rome from the classical and imperial age to the sixteenth-century. Focus will be placed on the institutions and historical figures that have been prominent in the shaping of the city and its history. The course highlight will be a one-week, on-site learning tour of Rome during Spring Break.

This course will concentrate on the developments in science since the 17th century. It will examine the development of modern scientific thought and the impact that scientific discoveries have had on the modern world.

311W. Writing History.  
In this seminar course students sharpen the skills necessary to the practice of history. Students will work on increasing their proficiency in analyzing and interpreting both primary and secondary sources, developing their research skills, and improving their writing.

313. Archaeological History of the Bible.  
A survey of the archaeology of Greece from pre-history to the Roman period.

315. Archaeological History-Ancient Greek World  
A survey of the archaeology of Greece from pre-history to the Roman period.

316. Archaeological History of Athens.  
An investigation into the topography and monuments of Athens and Attica, from the pre-historic to the Roman period.

317. Archaeological History: Ancient Roman World.  
A survey of the archaeology of Italy from pre-history to the middle fourth century A.D.

318. Archaeological History of Rome.  
An investigation of the topography and monuments of Rome from pre-history through Constantine.

319. Archeological History: Seminar  
Possible topics include the Bronze Age Aegean, the development of Vase paintings, the Etruscans, etc.

320. Colonial America.  
This course explores the settlement of British North America from the 16th century to 1763. It examines the dynamics of Native American, European, and African relationships as well as the development of colonial cultures, societies, and politics.

Students examine what caused American colonists to war for independence from Great Britain and create a new nation. Besides examining social and
military issues, this course surveys the political ideologies espoused by the revolutionaries from 1763 to the ratification of the Constitution in 1788 and the addition of the Bill of Rights in 1791.

325. Irish History. 3 cr.
This course examines the history of Ireland from its beginnings to the present day. This is an upper division course, and as such, the student work will focus on historical writing and analysis.

328. Early Republic: U.S., 1787-1850. 3 cr.
This course covers major issues and events in the founding of the American nation and the numerous challenges it faced throughout a period in which the new nation’s survival remained in doubt. Amidst the struggle to establish a new government, leaders like Washington, Jefferson, and Hamilton faced the conflict between Great Britain and France that would eventually entangle the United States in its first major war. After the War of 1812, the nation turned inward to confront economic development, democratization, and the growing impact of slavery. Americans struggled with powerful waves of social change. As the nation expanded across the continent, political conflict grew, as party leaders like Jackson, Clay, Webster, and Calhoun sought compromise on the issues that would eventually lead to civil war.

329W. Pennsylvania & American Nation. 3 cr.
A history of Pennsylvania’s society and politics from the experience of its native American peoples and European settlement under the aegis of William Penn and its role in the French and Indian War and American Revolution to its rapid industrial development in the 19th century and its modern-day urban growth.

331. Modern American Immigration. 3 cr.
The course presents an examination of the dynamics of immigration to the United States with emphasis on the arrival of immigrants from southern and eastern Europe as the twentieth century began.

333. American Women in History. 3 cr.
This class traces the history of women’s roles and women’s lives from the time of the American Revolution to the present. In these years ideals of female behavior and the opportunities available to women changed dramatically. Through lectures, readings, and discussions, students will consider the nature and cause of these changes.

335. Crime & Criminality: Early Modern Europe 3 cr.
The period from 1450 to 1800 was a golden age of fraud, violence, and other crime in Europe -- not to mention activities we no longer consider criminal, or even possible, like heresy and witchcraft. This course examines the rich and often bizarre records of this criminality, in court records and in fiction, in order to understand how early modern societies, and rulers’ attempts to police them, functioned and failed.

336. Catholic Church to 1800. 3 cr.
This course will examine organization, practices, doctrines, and role in society of the Roman Catholic Church from the time it emerged into legality under the Emperor Constantine to its uneasy reconciliation with the Emperor Napoleon a millennium and a half later. Questions investigated include: missionary endeavors; dissent and heresy; the changing nature of the papacy, episcopacy, priesthood, and religious orders; church-state relations; gender roles; and theologians and universities.

338. Christianity & Islam: Contending Cultures. 3 cr.
For over a thousand years, these two great monotheistic religions, and the civilizations built upon them, have challenged each other throughout the globe. This course examines in particular the clash between Christianity and Islam in Europe and the Near East.

340. History & Evolution of Western Law. 3 cr.
Primary emphasis will be placed on the rise of customary law, from its roots in ancient times until the modern era.

341. History of American Law. 3 cr.
Law shapes the social order, and social order and society shapes the law. This course will discuss the legal principles that the first Americans brought from England and discover how the American experience has shaped the nation’s legal system.

342. War in the Pre-Modern Era. 3 cr.
This course examines how and why warfare effected western societies. It will look at the traditional components of military history but will also examine the wider issues concerning the way warfare has influenced politics, social arrangements, economics, and technology.
346. World War II. 3 cr.
World War II was, simply put, “the largest single event in human history.” This course will examine its causes, course and consequences. While the military aspects of the conflict will be discussed in detail, the human factors, political realities and social effects will also be covered.

347. War in Modern Society. 3 cr.
A study and analysis of the phenomenon of war in the Western World from the Age of Napoleon to the present, with special emphasis upon the interrelationship between international conflict and social, political, and technological change.

351. U.S. Foreign Relations to WWI. 3 cr.
An examination of the history of American foreign relations from the American Revolution to WWI. This is a study of the nation’s exercise of sovereignty in foreign affairs, its rise to world power, and the internal and external conflicts that resulted.

352. U.S. Foreign Relations since 1917. 3 cr.
The United States emerged as a major player on the world stage during and after WWI. This course will discuss the role that the country has played in international relations during the course of the 20th century and will also examine the domestic implications of the United States’ rise to world dominance.

358. Civil War & Reconstruction. 3 cr.
An intensive study of the American experience from the roots of the sectional conflict in the expansion of the United States through the struggle over slavery, the War itself, and the controversies over the restoration of the Union.

360. Constitutional History of the U.S. 3 cr.
An analysis of the Supreme Court and constitutional development, stressing the major controversies in the field.

370. Empire in Modern History. 3 cr.
This course examines the British empire and its relationships to the rest of the world from the seventeenth century to the mid-twentieth century, with special emphasis on the period between 1760 and 1947. Although there have been other empires in the modern world, the British empire is perhaps the most interesting and the most ripe for historical analysis because of how long it lasted, the fact that it coincided with the industrial revolutions of the nineteenth century (and helped fund the first industrial revolution), and because British imperialism changed the twentieth century tremendously and continues to affect the contemporary world.

372. The Holocaust in Modern History. 3 cr.
This course deals with one of the most significant and controversial events of the 20th century: the Nazi effort to totally annihilate Europe’s Jews. That one of the most advanced nations embarked on the horrific policy of genocide gives the event a special place in modern history and raises a number of fundamental questions about the very nature of western civilization.

374. The Vietnam Era. 3 cr.
The purpose of this course is to create awareness among students of the significance of the Vietnam War in the recent history of the United States. Although the war is over thirty years old, its legacy has loomed over American foreign policy, American consciousness, and the American psyche since its happening.

376. Revolution: Modern Latin America. 3 cr.
The course begins with an analysis of different revolutionary theories, followed by an in-depth examination of the Mexican, Cuban, Chilean, and Nicaraguan revolutions of the 20th century. Unsuccessful guerrilla movements in Guatemala and Colombia, as well as successful, peaceful social movements pertaining to women’s rights also will be examined.

379. East Asia & U.S. 3 cr.
This course introduces students to the history of East Asia’s interactions with the United States. Among subjects examined are the political, economic, and cultural contexts in which China, Japan, Korea, and Vietnam encountered America; nationalist and imperialist struggles in the Far East and US involvement; the experience of American Christian missions in the region; Communist revolutions in East Asia and US policies; East Asia’s economic “miracle” and its effects on the U.S.; and current challenges to peoples of the trans-Pacific community.

381. East Asian History Through Film. 3 cr.
This course examines East Asia by utilizing both texts and feature films. It is a combination of general survey and topical study, covering major stages and themes in the development of Chinese and Japanese civilizations from ancient times through the modern era.
382. Latin American History Through Film. 3 cr.
This course examines the last 500 years of Latin American history and uses feature films as its primary source. One-third of the semester will be devoted to the colonial period (1490s to 1820s), and the remaining two-thirds will focus on modern Latin America (1820s to present). The course and films emphasize Latin America’s social and cultural evolution.

386. The American South. 3 cr.
This course offers an examination of a distinctive region that illuminates the construction of not only southern culture, but of American civilization.

387. Native American History. 3 cr.
This course focuses on certain Native American societies and the nature of their contact and conflicts with European settler societies from the 1490s to the 1880s.

388. U.S. Since 1945. 3 cr.
A discussion of selected contemporary issues, foreign and domestic, which illustrate the identity crisis in the U.S.

390. 20th Century Political Leadership. 3 cr.
The 20th century saw a remarkable number of great leaders, both the good and the evil, in all parts of the world. This course will examine such world altering figures as Hitler and Stalin, Roosevelt and Churchill, Mao and Gandhi, all of whom left their mark on our world.

This course studies the changes in American society from World War I to the end of World War II. Both domestic developments and foreign affairs will be covered. As the topic demands, events and circumstances outside the US will be treated. Domestically, the social, political, and economic changes that occurred during these years will be discussed in detail.

392. Germany: Kaiser to Hitler. 3 cr.
The history of Germany from the collapse of the empire to the destruction of the Third Reich. Emphasizing political, social and economic aspects of the German Experience.

394. Historical Geography. 3 cr.
A survey of the physical world which is the basis for a human civilization, past, present, and future. What are the possibilities and limitations of different places for human development? How successful or unsuccessful were human settlements? Emphasis also on geography as an intellectual discipline and cultural phenomenon.

395. Pittsburgh: American City. 3 cr.
This course focuses on the rise of Urban America, addressing such topics as city growth and change, industrialization, immigration, and renewal in the latter half of the twentieth century.

400. History Capstone 1 cr.
Working with their mentor, history majors in their final semester will review their portfolio and evaluate their learning and achievements in the discipline.

401W. Medieval Europe. 3 cr.
An exploration of the elements which, taken together, comprise the unique culture of the Middle Ages.

415W. Renaissance & Reformation: Europe. 3 cr.
The transformative movements that molded Western civilization— the Renaissance and Reformation—will be subjects of this course. Particular attention will be paid to the changing understanding of human beings and their relationship to this world and their God. The social and political impact of these movements will be studied.

417W. Reason & Revolution: Europe 3 cr.
An examination of the history of Europe between 1648 to 1815, this course will concentrate on the rise of absolutism as personified by Louis XIV, the intellectual developments of the Enlightenment, the social and economic changes that underlay and undercut the ancient regime, and the great cataclysm of the French Revolution that ushered in the modern world.

419W. 19th Century Europe. 3 cr.
An examination of the European experience between 1815 and 1914, with emphasis on political, social, and cultural trends.

422W. 20th Century Europe. 3 cr.
A study of the European experience between 1914 and the present, centering on such topics as the great wars, fascism, and contemporary trends in both eastern and western Europe.

428W. British Empire. 3 cr.
This course will examine some of the major political, social, economic and cultural aspects of the history of the British Empire since 1783.
include the abolition of slavery, the impact of industrialization on the empire, imperial wars, the expansion of empire into Africa, the world wars in an imperial context, and decolonization. Different historiographic themes will be analyzed in different semesters.

429. Historic Preservation. 3 cr.
This course is on the movements and organizations that developed to save, protect, and present historical sites.

433W. Gender in American History. 3 cr.
This class focuses in on several key issues in the development of gender roles in North America from the colonial era through the present. While the bulk of the class will concern the evolving roles of women, we will also consider men’s history and the history of sexuality.

435W. Civil Rights: Jim Crow to the Present. 3 cr.
The Civil Rights movement stands out as one of the most significant social and political developments of 20th century American history. This movement, or collection of movements, ushered in major transformations in America life in law, in social relations, and in the role of government. This course will examine the modern African American freedom struggle, and the legacy and modern implications of this movement as demonstrated in other, often closely related twentieth century social, cultural and political movements.

443. American Decorative Arts. 3 cr.
A survey of the decorative arts in the United States from the seventeenth to the mid-twentieth centuries. In addition to considering style and production techniques, this course will investigate the social and cultural context within which such works were created and displayed.

445. Imperial Russia. 3 cr.
An investigation of the political, social, and intellectual evolution of the Russian Empire in the 18th and 19th centuries.

446W. Rise/Fall of Soviet Union. 3 cr.
A study of the political, social, and intellectual evolution of the Soviet Union since the Bolshevik Revolution of 1917.

450W. The Cold War. 3 cr.
An analysis of the diplomatic and political struggle between the United States and the Soviet Union in the aftermath of the Second World War and the ideological conflict between free enterprise and communism around the world.

461W. African American History. 3 cr.
An examination of the experiences of African Americans in the U.S. beginning with Antebellum slavery, the Civil War and Reconstruction, turn of the century America, the Civil Rights movement and their continuing struggle to attain true equality in American society. This course will examine these topics primarily through the exploration of key political and autobiographical texts, including the works of David Walker, Frederick Douglas, Anna Julia Cooper, Ida B. Wells-Barnett, Marcus Garvey, Maya Angelou, Malcolm X, Issata Shakur, Elaine Brown, and others.

465W. Reform in America. 3 cr.
From its founding to the present day, the U.S. has been noted for the strength of its reform movements. Whether they were striving to end drinking, prostitution, political corruption, or slavery, to achieve rights for women or minorities, to stop unpopular wars, or to usher in a Christian or socialist utopia, reform-minded Americans have banded together to try to achieve political and social change. In this course, we will consider the membership motives, rhetoric, tactics, and consequences of social movements.

470W. History of Urban America. 3 cr.
This course examines the development of the American city with special focus upon changes in land use patterns, social class arrangements, political organizations, mobility and migration, ecological patterns, industrial and commercial developments, transformation of the built environment, and the creation of a national urban policy.

472W. Work & Enterprise: American History. 3 cr.
An analysis of the forces which have shaped American industrialization, focusing on the impact of unionization and the development of big business on the everyday lives of Americans from pre-industrial craftsmen to industrial workers.

473W. U.S. Intellectual & Cultural History. 3 cr.
A survey of the major movements in thought and culture including religion, science, the arts, and philosophy, including moral, political, and economic thought.
476. Individualism in American History. 3 cr.
A study of American individualism as demonstrated in the writings of politicians, novelists, political theorists and others who have dealt with this important aspect of American culture.

477W. Nature & the American Experience. 3 cr.
Is nature to be tamed or protected? How have Americans responded to the incredible and at first untamed natural bounty that greeted them? What impact have these natural surroundings had on the development of the American character? These are some of the issues dealt with in this course.

479W. History of Early U.S. Foreign Policy. 3 cr.
An examination of the various topics and interpretations of the history of American foreign relations of WWI. This is a study of the nation’s rise to world power and the internal and external conflicts that resulted.

482W. Inter-American Relations. 3 cr.
An examination of U.S.-Latin American relations since the mid-19th century. Topics covered will include Manifest Destiny and the U.S.-Mexican War, the Spanish-Cuban-American War of 1898, the construction of the Panama Canal, U.S. economic and military penetration of the Caribbean and Central America, the Good Neighbor policy, the CIA-backed coup in Guatemala, the Bay of Pigs invasion, the Cuban Missile Crisis, the U.S. invasion of the Dominican republic, the Contra War in Nicaragua, NAFTA, Latin American migration to the U.S., and Narco traffic.

483W. Mexico & U.S. 3 cr.
This course focuses on U.S.-Mexican relations since the 19th century and covers the Texas rebellion and annexation, the U.S.-Mexican War, American economic penetration during the Porfiriato, U.S. military intervention in the Mexican Revolution, the expropriation of American-owned lands and oil companies in the 1930s, Mexican migration to and repatriation from the U.S., the Mexican foreign debt crisis, the narcotics trade, NAFTA, and the Mexican immigrant community in the United States.

485W. China in Revolution. 3 cr.
This course investigates changes in China during the 20th century, with a focus on the Chinese communist movement. Topics examined include the meaning of revolution in the Chinese context; ideology, causes, events, and personalities of the Chinese revolution; consequences and impact of the revolutionary movement.

488W. China & the West. 3 cr.
This course explores China’s encounters with the West from early times through the modern age, with an emphasis on cultural exchanges. It opens with a survey of Chinese history and Sino-Western interactions over time and then focuses on topics such as the Silk Road, the Chinese Empire and the Philosophies, Christianity in China, American influence and Chinese liberalism, Marxism and Chinese communist revolution, Chinese culture in the West and Western presence in China today.

491W. Senior Honors Seminar. 3 cr.
In this seminar, students review elements of historiography and writing and then pursue primary source research on a topic of their choice. They will write a lengthy research paper under close faculty direction.

499W. Directed Reading-Selected History Topics. 3 cr.
With permission from the Department and close consultation with a faculty member, students can undertake an in-depth exploration of a topic of their choice that culminates in a lengthy primary-source research paper.

INTERNATIONAL RELATIONS
Director: Carla E. Lucente, Ph.D.

The International Relations major educates students in the historical, political, and cultural forces that shape the interactions between states, international organizations, multinational corporations, and other international entities. In recent decades, the forces of globalization have increased awareness of the interdependent and interrelated nature of modern society.

Students majoring in International Relations have a variety of career paths open to them. Majors are prepared to work in a governmental, social, or business environment within an international context. Training in advanced language skills, combined with historical and political knowledge of specific regions of the world, will make International Relations majors very competitive in the job market.

International Relations majors are strongly encouraged to spend a semester abroad and to seek internships in a related field, both of which must be approved by the International Relations Committee. These will ensure the most effective and
rewarding educational experiences for the students.

Majors have the opportunity to choose elective course work from one of the seven areas of concentration:

- Asia
- Europe
  - Culture
  - Policy
- Humanitarian Operations
- Latin America
- Russia and Central Asia
- Security Studies
- US Foreign Policy

When combined with an appropriate semester abroad, these concentrations provide students with an advanced understanding and specialization in a particular area or field.

REQUIREMENTS FOR THE MAJOR

A student seeking to complete an International Relations major will complete 36 credits including IR 245 International Relations and either IR 208 Comparative Political Systems: Advanced Industrial States or IR 209 Comparative Political Systems: Developing States. Additionally, the major will complete both IR 394 Historical Geography and IR 352 US Foreign Policy Since WWI. And the major will have no less than 9 credits at the 300 level or above in Modern Languages and Literatures, including 301 and 302 or 306 level courses in their chosen language of study. Finally, the major will take at least 5 electives or 15 credits in the student’s chosen area of concentration.

A double major is highly encouraged with History, Modern Languages and Literatures, or Political Science.

Concentrations

The following courses are all cross listed with History, Modern Languages and Literatures, and Political Science. All courses are three credits with the exception of the internship, which can be one to three credits.

1) Asia
   IR 204 Japanese Culture
   IR 205 Japanese Culture II
   IR 253 Modern Middle East
   IR 255 Asia in the Age of Imperialism
   IR 256 Asia in the 20th Century
   IR 291 History of Japan
   IR 292 Traditional China
   IR 293 History of Modern China

   IR 374 The Vietnam Era
   IR 390 Asian Politics
   IR 412 Israeli-Arab Conflict
   IR 475 East and West in Film and Print
   IR 485W China in Revolution
   IR 488W China & the West
   IR 491 Internship

2) Europe
   A. Culture
      IR 307W Italian Culture and Society
      IR 310W Spanish Culture and Civilization
      IR 322W German Culture and Civilization
      IR 400W Spanish Cinema
      IR 402W Contemporary Italian Cinema
      IR 461W French Culture and Civilization
      IR 475 East and West in Film and Print
      IR 476W East and Central Europe in Film and Print
      IR 477W Classics of Modern European Cinema
      IR 491 Internship

   B. Policy
      IR 261 Eastern Europe: From Nationalism through Communism
      IR 372 The Holocaust in Modern History
      IR 372 Germany: Kaiser to Hitler
      IR 398W Spain and the E.U.
      IR 399W Italy and the E.U.
      IR 419W European Union
      IR 425W 19th Century Europe
      IR 426W 20th Century Europe
      IR 491 Internship

3) Humanitarian Operations
   IR 308 Post-Conflict Reconciliation and Justice
   IR 345W Ethics in International Relations
   IR 349 United Nations I – and-
   IR 350 United Nations II
   -or-
   IR 353 United Nations III – and -
   IR 354 United Nations IV
   IR 360 Crisis Management in Complex Emergencies
   IR 372 The Holocaust in Modern History
   IR 385 International Law and Organization
   IR 413 Human Rights: Politics and Organization
   IR 420 Ethnicity: Politics and Policy
   IR 429 Negotiation and Mediation in International Conflict
   IR 491 Internship
4) Latin America
   IR 270 Latin America from Conquest to Independence
   IR 271 Modern Latin America
   IR 277 History of Mexico
   IR 310W Spanish Culture and Society
   IR 327W Spanish Culture and Civilization
   IR 330W Revolt & Change: Protest in Spanish American Literature
   IR 376 Revolution In Modern Latin America
   IR 382 Latin America History Through Film
   IR 453W Trends in Latin American Literature
   IR 482W Inter-American Relations
   IR 491 Internship

5) Russia and Central Asia
   IR 258 Russia 20th Century
   IR 321 Government and Politics of Russia and Independent States
   IR 329 Political Economy of Russia
   IR 428 Global Energy Policy
   IR 445W Imperial Russia
   IR 446W Rise and Fall of the Soviet Union
   IR 450W Cold War
   IR 491 Internship

6) Security Studies
   IR 295 War and Peace in the Nuclear Age
   IR 346 World War II
   IR 347 War in Modern Society
   IR 360 Crisis Management in Complex Emergencies
   IR 422 American Defense Policy
   IR 423 Comparative Intelligence Agencies
   IR 450W Cold War
   IR 455 Theories of Conflict
   IR 491 Internship

7) US Foreign Policy
   IR 254 American Foreign Policy
   IR 374 The Vietnam Era
   IR 422 American Defense Policy
   IR 450W Cold War
   IR 479W Diplomatic History of the United States
   IR 482W Inter-American Relations
   IR 484W US and China in the 20th Century
   IR 491 Internship

DEPARTMENT OF JOURNALISM AND MULTIMEDIA ARTS

Chairperson: John C. Shepherd, Ph.D.

The Department of Journalism and Multimedia Arts empowers students to become effective and thoughtful civic communicators in a wide variety of media.

Students learn media theory – so they can understand the complex roles, functions and ethical obligations of media – and the practical skills that enable them to become successful media practitioners. Our students go on to work for newspapers, magazines, television and radio stations, for-profit and non-profit public relations and advertising agencies and organizations, and a wide array of Web and Multimedia design and development industries in the public and private sectors.

Students can choose to major in Digital Media Arts (Multimedia Development or Web Development tracks), Journalism (Print or Broadcast tracks), Media Management and Production, or Public Relations and Advertising.

The JMA curriculum is firmly embedded in the Duquesne University mission of Education for the Mind, the Heart and the Spirit and committed to the idea that communicators can and should use their knowledge and skills to make positive contributions to their communities. Courses in Media Ethics and Ethics and Technology are department keystones.

Students learn to research and write news stories, produce radio and video programming, develop advertising and public relations campaigns and utilize cutting-edge technologies in the areas of Web and Multimedia design and development.

Upon completing the program, students will possess a thorough understanding of media forms and delivery systems that will enhance their power as citizens and position them for careers in the ever-expanding universe of media industries.
REQUIREMENTS FOR ALL MAJORS:

A minimum of 36 credits is required for all majors in the Journalism and Multimedia Arts Department. All students take the following:

**Department Core (12 credits)**
- JMA 240 – Media and Society
- JMA 260 – New Media Development
- JMA 465W – Media Ethics
- JMA 473 – Media Law and Regulation

**DIGITAL MEDIA ARTS**

The Digital Media Arts major consists of two tracks—Multimedia Development and Web Development.

**Multimedia Development**
Multimedia is the skillful merging of computers, creative talent, some programming, asset management, the use of advanced software for the creation of digital sound, video, 3-D modeling and animation, design principles and project management. The major focuses on the new media, the organization and display of information, and the development of interactive applications. Students are free to pursue their creative, artistic talents or their desire to aspire to the more technical component of multimedia development. Graduates find employment in media writing, web design, web application development, instructional design, 2- and 3d-Modeling, animation and graphic design.

**Web Development**
Your mentor will be able to recommend courses to enable you to specialize in web design or the more technical field of client and server programming.

**Major Core (9 credits)**
- JMA 361 Digital Imaging Techniques
- JMA 402 Visual Design & Layout
- JMA 440 Professional Development/Project Management

**Additional Core: Multimedia (3 credits)**
- JMA 340W Media Writing

**Additional Core: Web (3 credits)**
- JMA 226 Introduction to Web Design/Development

**Electives (12 credits)**

**Common Electives**
- JMA 201 Fundamentals of Application Development
- JMA 308 Interface Design
- JMA 326 Multimedia Programming
- JMA 331 Elements of Flash
- JMA 431 Advanced Flash Programming
- JMA 464 Human Computer Interaction

**Recommended Multimedia Development Electives**
- JMA 282 Photojournalism: Digital Imaging
- JMA 324 Principles of Audio & Video
- JMA 341 Video Production: EFP/ENG
- JMA 406 3D Modeling Principles
- JMA 407 3D Animation Principles
- JMA 409 Character Animation
- JMA 416 Learning with New Media
- JMA 438 Gaming Essentials
- JMA 439 Game Level Design
- JMA 442 Sound Design
- JMA 444 Sound Design II
- JMA 451 Digital Media Internship
- JMA 463 Advanced 3D Modeling

**Recommended Web Development Electives**
- JMA 318 Advanced Web Design
- JMA 345 Web Development Tools
- JMA 357 Streaming Media
- JMA 428 Server-Side Scripting
- JMA 448 XML Programming
- JMA 451 Digital Media Internship
- JMA 472 JavaScript
- JMA 475 Database for Web Development

Students in one of the two tracks may take a maximum of two electives from the other track.

**JOURNALISM**

The Journalism program prepares students to be effective and conscientious civic communicators in the fields of print, broadcast and online journalism. Hands-on professional courses, taught by scholars who also possess substantial experience in the news media, are connected to a strong liberal arts curriculum that emphasizes critical thinking and media responsibility. In addition to courses in writing, editing, production and design, the program provides instruction in media history, law, literature and ethics. Journalism majors take the following 12 core credits depending on their chosen track and an additional 12 elective credits.
Journalism Core: Both Print/ Broadcast Tracks (3 credits)
  JMA 177 – Language for Journalists (0 credits)
  JMA 271W – Newswriting 1

Print Track Core: (9 credits)
  JMA 371W – Newswriting 2
  JMA 375W – Editing for Print
  JMA 469 – Feature Writing
  OR
  JMA 471 – Public Affairs Reporting

Broadcast Track Core: (9 credits)
  JMA 341 – Video Production EFP/ENG
  JMA 351 – Anchoring, Reporting & Announcing
  JMA 367 – Radio Writing & Production

*Recommended Journalism Electives (12 credits)
See also common electives
  JMA 251 – News Analysis
  JMA 272W – Reviewing Arts & Entertainment
  JMA 282 – Photojournalism Digital Imaging
  JMA 385W – TV Criticism
  JMA 412 – Literary Journalism
  JMA 449 – Advanced Anchoring, Reporting/Announcing

MEDIA MANAGEMENT AND PRODUCTION

The goals of this major include preparing students to become creative and conscientious media practitioners and managers – and more savvy consumers of media. Students who major in Media Management and Production gain a thorough education in each of the three major component areas of media studies: Audiences, Institutions, and Messages. Students explore the impact of messages on citizens, the ethical obligations of communicators; learn how the business of media works; and develop writing, production and performance skills that will empower them to succeed in the marketplace. Majors also receive substantial hands-on experience with advanced cameras and broadcast equipment. Media Management and Production majors take the following 12 core credits and an additional 12 elective credits.

Major Core: (12 credits)
  JMA 324 – Principles of Audio and Video
  OR
  JMA 341 – Video Production EFP/ENG
  OR
  JMA 442 – Sound Design
  JMA 351 – Anchoring, Reporting & Announcing
  JMA 368 – Media Management
  OR
  JMA 467 – Media Research Methods
  JMA 417 – Critical Studies in Mass Media

*Recommended Media Management/ Production Electives (12 credits)
See also common electives
  JMA 241 – Video Production: Studio
  JMA 251 – News Analysis
  JMA 282 – Photojournalism: Digital Imaging
  JMA 369 – Media Programming
  JMA 385W – TV Criticism
  JMA 449 – Advanced Anchoring, Reporting/Announcing

PUBLIC RELATIONS AND ADVERTISING

Course work in these areas provides students with a thorough grounding in the fundamental skills and practices of Public Relations and Advertising along with a theoretical understanding of their cultural importance as the primary means of persuasion in modern life. Students explore the differences, similarities, and integration of Public Relations and Advertising, a critical evaluation of industry content, and hands-on production skills. As students move through the program, they can gain professional experience with on-campus and metro area media and agencies. Working with a department adviser, students may emphasize either Public Relations or Advertising or choose an integrated approach to both. Public Relations and Advertising majors take the following 12 core credits depending on their chosen field of concentration and an additional 12 elective credits.

Major Core: (12 credits)
  JMA 220 – Introduction to Media Advertising
  OR
  JMA 243 – Introduction to PR and Media Relations
  JMA 340W – Media Writing (Ad emphasis)
  OR
  JMA 271W – Newswriting 1 (PR emphasis)
  JMA 418 – Advanced PR and Media Relations
  OR
  JMA 419 – Advanced Media Advertising
  JMA 467 – Media Research Methods

*Recommended Public Relations/Advertising Electives (12 credits)
See common electives
  JMA 335 – Writing for Advertising
JMA 370 – Media Production  
JMA 413 – Non-Profit Public Relations  
JMA 427 – Intro to Desktop Publishing  
JMA 434 – Media and Sports  
JMA 436 – Media Sports Relations  

Common Electives for Journalism-Media Management/Production/Public Relations/Advertising  
JMA 110 – Practicum: Debate Team  
JMA 304 – Media History  
JMA 372W – Writing News, Editorials/Columns  
JMA 408 – Introduction to Book Publishing  
JMA 411 – International Media  
JMA 421 – Sex, Myth and Media  
JMA 423 – Media Sales  
JMA 427 – Introduction to Desktop Publishing  
JMA 443 – Mass Media and Everyday Life  
JMA 452 – Journalism/Media Internship  
JMA 453 – Advanced Media Writing  
JMA 482 – Practicum: College Radio  
JMA 483 – Practicum: Journalism (The Duke)  
JMA 491 – Media, Information and Technology  

*These are suggestions only. Students in consultation with their mentor may choose any of the recommended electives in any of the department majors.

DOUBLE MAJOR OPTIONS*  
Students can double major in Journalism, Media Management and Production, Digital Media Arts and Public Relations and Advertising and English. If the first selected major is English, 30 credits are required in English and 30 credits are required in each of the majors listed above from Journalism and Multimedia Arts. If the first selected major is one of the Journalism and Multimedia Arts majors, 36 credits are required in Journalism and Multimedia Arts and 24 credits are required in English.

REQUIREMENTS FOR THE MINOR *  
Required: 18 credits minimum  
JMA 240 – Media and Society (3 credits)  
JMA 260 – Media Development Tools (3 credits)  
JMA 465W – Media Ethics (3 credits)  
OR  
JMA 473 – Media Law and Regulation Minor Concentration (9 credits)  
To be determined during the mentoring process in consultation with a faculty member.  

*With approval of the department chair, double major or major/minor combinations within the department are possible.

THE ACCELERATED MASTERS PROGRAM  
Students with a 3.5 average can earn a Bachelor of Arts degree and a Master of Science degree in five years. Those interested in this accelerated program must apply by the second semester of their junior year. After being accepted into the program students will take two 500 level courses in their senior year and apply them to both their Bachelor of Arts and Master of Science degrees.

Upon acceptance, the student will be required to schedule an advisement meeting with one of the full-time faculty members to map out their graduate course studies. This is done so that the student can select the classes that will best suit their particular area of interest.

Students applying to the accelerated program must submit all the required materials no later than 3 weeks prior to the end of their second semester of their junior year.

INTERNSHIP OPPORTUNITIES AND PRACTICAL EXPERIENCE  
Nearly all jobs require experience and the internship program in the Department of Journalism and Multimedia Arts is designed to provide you with a supervised observation/experience in areas such as advertising, human resources, marketing, media relations, print and broadcast journalism, promotions/event planning and public relations. We have numerous sponsors in the Pittsburgh area, but also have placed students in internships from New York to Los Angeles.

In addition to the internship program, we have significant on-campus organizations; such as a student newspaper and radio station that provide excellent opportunities for learning, including production experiences for the University television station and our public radio station (WDUQ).

COURSE DESCRIPTIONS  

101. Scientific Presentation & Writing. 3 cr.  
This course will allow science majors to hone their presentational and writing skills. We will focus on critical thinking, style, audience analysis and relaying scientific information to both peers and the general public.
110. Practicum: Debate Team  1-3 cr.
Uses meeting times for critiques of practice performances, sharing of evidence, construction and analysis of arguments and interpretations. Designed for all persons on the University Debate Team.

177. Language for Journalists.  0 cr.
Teaches students the basic rules of English grammar and Associated Press style.
Co-requisite: JMA 271W

201. Fundamentals of Application Development  3 cr.
This course provides the student with an overview of the application development process and environment. The student will study the development methodology of a data enabled application. Concepts include consistent interface design, development and implementation of algorithms, and validation and storage of information.

220. Introduction to Media Advertising.  3 cr.
Surveys the contemporary practices and principles of the ever-changing nature of advertising across different media. Particular emphasis on (1) the development of advertising as the economic “lifeblood” of media, (2) the evolving importance of advertising as an integral part of marketing, and (3) evaluating the quality and effectiveness of advertising messages and campaigns.

226. Introduction to Web Design & Development.  3 cr.
This course will introduce students to the technical and creative aspects of web page design. Students will study the best ways to add multimedia content including graphics, text, animation, audio, video and interactive content to websites. Emphasis is on HTML and a life-cycle model for web development. Prerequisite: JMA 260

240. Media and Society.
(Satisfies the College of Liberal Arts Communication Core Requirement)  3 cr.
Explores the social impact of mass communication through considerations of the (1) functions and uses of all forms of mass communication; (2) socio-political and cultural context of media institutions, delivery systems, technology and diffusion; (3) influence of media content on social constructions of reality; and (4) major theories and research through which we attempt to understand this impact.

241. Video Production: Studio.  3 cr.
Introduces fundamentals of “live” television studio production techniques, coupling basic technical and aesthetic considerations.

243. Introduction to PR & Media Relations.  3 cr.
Covers the current nature and role of public relations in the mass media and within society, as well as provides an overview of the various strategies employed by public relations professionals to achieve organizational objectives. Topics to be covered include ethics, relevant corporate issues, crisis management, branding, media planning, and integration with other corporate departments.

251. News Analysis.  3 cr.
Investigates current issues and the world’s trouble spots considering histories, economies, ethnic difference and enmities, religious differences, and political systems.

260. New Media Production.
(Core Requirement)  3 cr.
This preparatory course familiarizes students with popular multimedia software, such as the Macromedia and Adobe products. It is a design or production course. Students gain familiarity with the technical components of several software packages so they are capable of using them for the design and development projects required by other multimedia courses. In addition, the course reviews FTP file and directory structure, and file organization.

271W. Newswriting 1.  3 cr.
Teaches the fundamentals of news reporting and writing, including instruction on how to conduct interviews, discover and organize material, and meet deadlines. Co-requisite: JMA 177

272W. Reviewing Arts & Entertainment.  3 cr.
Lecture and exercises in reviewing Theatre, Motion Pictures, Art Exhibitions and any other form which falls into the purview of Entertainment.

282. Photojournalism: Digital Imaging.  3 cr.
This course is structured to introduce you to the fundamental principles of digital photojournalism and the practical aspects of photographic imaging using the computer. This course will also expose you to the latest techniques and trends in photojournalism and new media publishing. Tell a story with your photographs, edit, scan, tone, crop and caption your photographs. This course will also enable you to prepare digital images for the internet, traditional press and video.
304. Media History. 3 cr.
A survey course of significant developments and trends in Western media history.

308. Interface Design. 3 cr.
Students explore advanced graphical interface design concepts and use imaging software to apply them to the creation of multimedia titles.

318. Advanced Web Design. 3 cr.
This is an advanced course in World Wide Web (WWW) page design. Increased emphasis is placed on Cascading Style Sheets, improved interface designs, and dynamic HTML. Prerequisite JMA 226.

324. Principles of Audio and Video. 3 cr.
This course will not only teach the principles of capturing audio and video, but will aid in the application development process, digitalization, editing, and production of digital video for media. Prerequisite: JMA 260

326. Multimedia Programming. 3 cr.
Students combine text, graphics, sound, animation and video as they build interactive multimedia titles (CDs, web pages and games) using packages such as Macromedia Director. Prerequisite: JMA 260

331. Elements of Flash. 3 cr.
Designer uses Flash to create vector-based animations for graphics, text, audio and video and to create rich interactive interfaces and applications. Students will explore the interface, work with images of varying formats, create and format text, create basic animations using tweens, draw and edit shapes, create button symbols and publish and export movies.

335. Writing for Advertising. 3 cr.
Teaches advertising copywriting for a wide spectrum of campaigns and mediums.

340W. Media Writing. 3 cr.
Media writing covers the field of writing for all interactive media, including kiosks, computer and CD-ROM products, interactive movies, print and online services. Page layout will be discussed and implemented using software such as Quark. The course will serve as an introduction to writing for the interactive, multimedia and journalism markets.

341. Video Production: EFP/ENG. 3 cr.
Introduces electronic news gathering and electronic field production as remote location video production techniques. Covers pre-production planning and design, on-location production, and post-production editing.

345. Web Development Tools. 3 cr.
Students will use professional development tools, such as Dreamweaver, that relieve web developers from having to know in-depth programming languages in order to develop sophisticated database-driven websites. Layers, behaviors, animation, style sheets and templates are demonstrated and used.

351. Anchoring, Reporting & Announcing. 3 cr.
On Air performance both in Studio and on location. Intended for students with an extensive background in News who wish to pursue careers in Radio and Television. News Analysis is strongly advised. Permit required.

357. Streaming Media 3 cr.
Today’s media is being delivered on demand and asynchronously. In JMA 357, students discuss compression methods, media server configurations and media capture equipment. Actual streaming web sites will be created and managed by the student.

361. Digital Imaging Techniques. 3 cr.
This course concentrates on developing digital imaging skills for the WWW. It focuses on the design and production of information for web sites, which communicate through the integrated use of text, images and graphic elements. The cultural significance and theoretical implications of this medium will be explored. Using Adobe Photoshop students will learn techniques for preparing and optimizing photographs and other images for the Web.

367. Radio Writing & Production 3 cr.
Studies and applies principles and practices for writing radio news, and gathering and editing “sound” for broadcast news stories, in a lecture-laboratory course that includes a “field recording” production.

368. Media Management. 3 cr.
Introduces students to the basic management operations of a contemporary electronic media facility and the economic parameters of the U.S. media industries.
369. Media Programming. 3 cr.
Introduces students to various programming strategies in the electronic media.

370. Media Promotion. 3 cr.
Develops the ability to write and produce effective on-air and external communication for an electronic media outlet using marketing theory, media principles and promotion techniques.

371W. Newswriting 2. 3 cr.
Teaches advanced writing of news stories, such as business, government, and court stories, and introduces students to in-depth coverage of public issues. Prerequisite: JMA 271W.

372W. Writing News Editorials & Columns. 3 cr.
Students learn to write persuasive editorials on news subjects as well as a wide range of approaches to writing news commentary. Prerequisite: JMA 271W

375W. Editing for Print. 3 cr.
Teaches editing and presentation of the written word for the print news media (including electronic editions) in a lecture-lab course. Prerequisite: JMA 371W.

385W. TV Criticism. 3 cr.
This is a genre criticism course from both journalistic and academic perspectives. Genre, socio-cultural and close-textual approaches will be used. Genre will include: soap operas, situation comedies, crime-dramas, sports, children’s programming, game shows, religious television, etc.

402. Visual Design and Layout. 3 cr.
This studio course teaches students how to display complex information clearly and beautifully. Students will learn how to organize type, images, and raw data, into communications.

404. Professional Science Writing. 3 cr.
This course will focus on advanced writing skills necessary for scientists, policy writing and journalists.

406. 3D Modeling Principles. 3 cr.
This course introduces students to the artistic and technical elements associated with creating three-dimensional computer generated imagery. Concepts include shape, composition, lighting, shading, and the development of the industry and processes involved in producing 3D computer animation.

407. 3D Animation Principles. 3 cr.
Building on concepts covered in 3D Modeling Principles (JMA 406), students develop an advanced understanding of two-dimensional animation software (compositing layers, camera movements, visual effects, etc.) They are introduced to three-dimensional animation software (modeling, lighting and basic visual effects, etc.). Issues relating to the design and aesthetics of computer animation are discussed.

408. Introduction to Book Publishing. 3 cr.
Provides an introduction to the book publishing process from manuscript acquisition and development to design, printing and binding.

409. Character Animation. 3 cr.
Character animation is about an artist bringing a character to life. The student practices with 2D and 3D animation software to draw or pose characters, but also will learn to develop a sense of timing, of observation, mannerisms, and movement. Students also learn to be an actor, having a sense of what makes something alive and natural and how to bring an inanimate character to life. This course ranges from conventional character animation techniques such as walk cycles and lip sync to computer animation, along with tips for giving characters the illusion of life. Prerequisite: JMA 407.

411. International Media. 3 cr.
An overview and analysis of international communication systems and processes, both human and mediated. Particular emphasis on communication within and between nation states. Class may require an international travel experience at an additional cost.

412. Literary Journalism. 3 cr.
Focuses on American literary journalism and the many writers who traverse fiction and lyrical journalism.

413. Non Profit Public Relations. 3 cr.
Explores the role of public relations within organizations devoted to community service and interaction. In addition to gaining an understanding of the different types of non-profit organizations, students will also learn to adapt traditional public relations practices and techniques to the not for profit context. Additional topics to be covered include grant proposals, identifying funding sources and promoting fundraisers.
415. Cultural Photography. 3 cr.
The course will begin with the history of photo documentary and photojournalism, identifying the practices and themes that gave rise to visual sociology in the 1970s. Students will complete photo assignments on such themes as social interaction, identity and material culture. How to construct visual arguments, including strategies for constructing articles, books, photo displays, websites, and other forms of presentation will be discussed.

416. Learning with New Media. 3 cr.
This course provides students with an introduction to multimedia authoring. Using an authoring tool, students create interactive multimedia presentations and applications for CD-ROM and the Web. The course reviews topics related to multimedia and project management, interface design, and e-Learning. Prerequisite: JMA260.

417. Critical Studies in Mass Media. 3 cr.
In this course we will consider the forces behind the evolution of the media into its current commercial system. The ethical, social, economic, and political implications of today’s massive media corporations—as well as their effect upon what we see, read, and know—will also be discussed.

418. Advanced PR and Media Relations. 3 cr.
Public Relations is one of a constellation of media institutions. In this course, students learn advanced internal and external Public Relations principles, methods, and practices within the context of the larger media of which Public Relations is a part, including journalism, advertising, broadcasting and multimedia production. The course emphasizes Public Relations strategy, writing and production. Prerequisite: JMA 243

419. Advanced Media Advertising. 3 cr.
Advertising is one of a constellation of media institutions. In this course, students learn advanced consumer Advertising methods and practices within the context of the larger media of which Advertising is a part, including journalism, advertising, broadcasting and multimedia production. The course emphasizes Advertising strategy, writing and production. Prerequisite: JMA 220

420. Special Event Design & Management 3 cr.
Students will acquire an in-depth knowledge of special event planning processes and techniques and will become familiar with management techniques and strategies required for successful planning, promotion, implementation and evaluation. This class plans and implements a special event during the Spring semester. Prereq: JMA 243

421. Sex, Myth and Media. 3 cr.
Examines the role of mass media in reinforcing or challenging common cultural definitions of masculinity and femininity and power relationships between the sexes. In analyzing various mass media—including print, television, internet publishing, electronic games, and film—we will apply gender theory and connect these artifacts to their historical moment.

422. Media Sales. 3 cr.
Explains the multi-faceted dimension of sales within contemporary business environments with special emphasis on the tools for media sales.

427. Intro to Desktop Publishing. 3 cr.
Today’s world of journalism production relies on computer applications that facilitate the creation, editing and distribution of print documents. Students in this course will use software such as Quark and In-Design to apply concepts of page layout, concepts of design elements, illustration, and printing standards, as well as examining how to create or select, size and place artwork.

428. Server Side Scripting. 3 cr.
This course introduces you to the creation of dynamic web sites. You will design and implement a relational database, and develop ASP (Active Server Pages) web pages to manage the database. You will also study how to create reports based on the database. Prerequisite: JMA 472 or JMA 226

431. Advanced Flash Programming. 3 cr.
An advanced look at Flash’s programming language, ActionScript provides the base for sophisticated interactive applications that include audio, digital video, connections to databases. Students will be able to use ActionScript to control objects within Flash files, create and publish ActionScript movies, add actions to a movie file, and utilize common ActionScript commands, arguments, properties, and syntaxes. Prerequisite: JMA 331

434. Media & Sports. 3 cr.
Studies and analyzes the relationship between sports and media entities and industries.

436. Media Sports Relations. 3 cr.
Examines and applies public relations, publicity, media coordination, and event organization and
management skills necessary for success in the sports industry. Prerequisite: JMA 434

438. Gaming Essentials. 3 cr.
Students study business and creative aspects of creating a commercial game. Various game models are studied; staffing, funding and marketing the game are covered as students learn the business-side of the gaming industry.

439. Game Level Design. 3 cr.
In this course students continue to study existing game paradigms and use an existing game engine to develop multiple levels, adding various terrains, varying lighting conditions, building, then incorporating 3D models. Prerequisite: JMA 438.

440. Professional Development and Project Management. 3 cr.
Explores key issues related to earning a living as a multimedia professional. Students learn about the management of assets, time and team relationships through practical exercises. Topics include accounting practices, marketing and self promotion, preparing resumes, costing, proposal writing and the production pipeline. Permit Required.

442. Sound Design. 3 cr.
This course is an introduction to the role audio and sound have in a variety of distribution media. This course also is an introduction to the production techniques, technology, and artistic aspects of appropriately applying sound in a variety of distribution media.

443. Mass Media & Everyday Life. 3 cr.
Examines theories and research in the field of mass media (notably television) and society.

446. Sound Design II 3 cr.
This will build upon the concepts introduced in the Sound Design I course. Specifically Sound Design II will cover Functional Sound Design for Film, Theatre, and Radio Drama. The course will introduce transactional Sound Design for products such as games and other similar interactive products. Sound Design II will cover advanced Digital Audio Workstation concepts including advanced editing, recording session management, mixing, mastering, MIDI, advanced digital sound processing and project portability. Sound Design II will also introduce audio encoding formats for open and proprietary delivery. Students considering Sound Design II should have successfully completed the Sound Design I course. Prerequisite: JMA 442

448. XML Programming. 3 cr.
Today’s media is being delivered on demand and provide a means of sharing information between computer systems (and people, too – XML is very easy to read) while avoiding the problems that have traditionally plagued HTML. XML is a data definition language – it attempts to allow developers to create languages that define the information within a rigid hierarchy. It allows developers to write tags that describe the data, and use these tags to identify the values they carry. At the same time, it rigidly enforces the structure of the specification – it doesn’t permit shortcuts in coding. Prerequisite: JMA 226

449. Advanced Anchoring, Reporting & Announcing. 3 cr.
Advanced class with on air performance both in studio and on location. Intended for students with an extensive background in News who wish to pursue careers in Radio and Television. Prerequisite: JMA 351.

451. Digital Media Internship. 3 cr.
Provides a supervised observation/experience program of study (assignment and performance) in such areas as web design, post-production development, instructional design and multimedia production.

452. Journalism/Media Internship. 3 cr.
Provides a supervised observation/experience program of study (assignment and performance) in areas such as media, editorial, advertising and public relations.

453. Advanced Media Writing. 3 cr.
Teaches writing for radio and television in a lecture-laboratory course.

463. Advanced 3D Modeling. 3 cr.
Students utilize Sub-D based 3D modeling software to create, texturize, light and render complex organic and inorganic objects. In 3D, students will create models of characters, vehicular, environmental and hard-edge surfaces. Advanced photorealistic rendering using global illumination techniques will add realism to the models. Prerequisite: JMA 406.

464. Human Computer Interaction. 3 cr.
This course introduces students to concepts that underlie the design of human-computer interaction. Students learn about developing computer interfaces and building interactivity into applications. Working from a user-centered design perspective,
students learn how to evaluate and refine the applications they design.

465W. Media Ethics.  
(Core Requirement) 3 cr.  
Examines ethical issues that challenge media professionals and consumers. By interpreting and applying ethical theory—from the classicists to the contemporary—students will analyze ethical challenges inherent in the modern media. Focus will be on theories of moral maturation, the tension between universal values and cultural specificity, and the contrast between commitment and cynicism.

467. Media Research Methods. 3 cr.  
Provides training in gathering and analyzing data relevant to communication phenomena.

469. Feature Writing. 3 cr.  
Teaches feature article writing for the general and specialized print publication as well as query writing and marketing for the free lance writer and feature writing for the print news reporter.

471. Public Affairs Reporting. 3 cr.  
Teaches interpretive reporting of urban affairs in a lecture-laboratory course. Prerequisite: JMA 271W.

472. JavaScript. 3 cr.  
Students use the JavaScript language as a beginning programming course, introducing them to fundamental concepts such as variables, calculations, functions, program looping, cookies and the processing of web-based forms.

473. Media Law & Regulation.  
(Core Requirement) 3 cr.  
Examines the legal rights, privileges, ethics and responsibilities of the mass media—both electronic and print.

475. Database for Web Development. 3 cr.  
Emphasis in this course is on database theory, with applications to web sites. Students study how a web page can rely upon a database to extract data, which in turn produces dynamic content. Some form of Visual Basic for web servers is used as the programming language.

480. Independent Study. 1-9 cr.  
This course provides an opportunity to study, in depth, a subject matter that is not taught in another class. You must have a project, a mentor and must fill out an independent study contract prior to registering. You will be required to meet regularly with your mentor, and provide periodic progress reports and time sheets.

482. Practicum: College Radio. 1-3 cr.  
Conducts formal critiques of WDSR and related college media. Designed for all persons working for a college radio station.

483. Practicum: Journalism. 1-3 cr.  
Conducts formal critiques of the Duquesne Duke and other college media. Designed for all persons working for a college newspaper.

489. Advanced Digital Video Production. 3 cr  
This course provides advanced instruction in the production and applications of digital video. The course covers advanced concepts and techniques in video design and production, from the initial pre-production scripts and storyboards through actual shooting to nonlinear editing, mastering and output. The emphasis is on in-depth, advanced, practical experience in producing professional-level video products for a variety of applications, including education, corporate, documentary and entertainment. Prerequisite: JMA 324

490. Documentary Production. 3 cr.  
Documentary Production is an advanced level production class in which students work in groups or individually to create an original documentary video. The course introduces documentary theory and history, as well as project development, production, and editing techniques that are specific to documentary titles. Students learn techniques of shooting and editing including hand-held camera, audio and microphone techniques, field lighting, interviewing techniques, and documentary story structure.

491. Media Information & Technology. 3 cr.  
An advanced examination of the societal impact and the political economy of information and technological diffusion. Students will explore a relevant topic in-depth through classroom presentation(s) and the completion of a seminar paper. Examinations at discretion of instructor.

492. Electronic Commerce Development. 3 cr.  
Students apply database design and development concepts and web design knowledge to create E-Commerce web sites. Various on-line payment strategies, secure site creation and shopping cart pages are discussed and implemented. Prerequisite: JMA475
495. Server Scripting with PHP and MySQL. 3 cr.
Using Open Source software, students will develop and implement dynamic, interactive, database-driven server applications. Prerequisite: any programming course

496. Directed Readings. 1-6 cr.
Offers the opportunity for students and faculty to conduct in-depth study of a topic not covered, or covered only briefly, in other departmental courses. In order to enroll in Directed Readings, students must first secure approval from the faculty member best qualified to guide their study.

497. Special Projects. 1-6 cr.
Offers the opportunity for students to prepare print or electronic products (e.g., brochures, slide shows, video programs, etc.) commissioned by University or community organizations.

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
Chairperson:
Jeffrey Jackson, Ph.D.

MATHEMATICS PROGRAM

The major objectives of the mathematics program are to provide knowledge of the theoretical basis of the field, appreciation for the intrinsic beauty of the discipline, skill in interpreting the concepts underlying quantitative procedures, and ability to apply modern mathematical techniques and tools to practical problems. Courses in the curriculum give students an opportunity to develop the basis for critical and logical analysis of problems and to design and implement creative solutions. In addition to comprehensive programs leading to a major or minor in mathematics, offerings are designed to serve the liberal arts education person in support of other disciplines.

REQUIREMENTS FOR A MAJOR

The student may choose to pursue a major in mathematics with a program leading to a Bachelor of Arts (B.A.) or a Bachelor of Science (B.S.) degree. The B.A. program, which requires a minimum of 33 semester hours of mathematics, allows a great deal of flexibility for persons interested in combining the major program with a strong minor or double major in another discipline. The B.S. program, which requires a minimum of 39 semester hours of mathematics, is recommended for students interested in scientific applications or further study in mathematics on the graduate level. Requirements are as follows:

Mathematics Core (B.A. and B.S.): 115 (or 114), 116, 135, 215, 310, 402W, and 415W. Remaining courses must be taken at the 300 level or above. A grade of C or better must be achieved in all courses counting toward the major.

Extra-disciplinary Requirements (B.A. and B.S.): Scientific Programming: C++ (COSC 160)

Additional B.S. Mathematics and Science Requirements:
- Applications component: At least one course chosen from 301, 308, and 314.
- Theoretical component: At least two courses chosen from 403W, 412W, 416W, and 420.

Science component: at least one sequence chosen from the three options BIOL 111-113 & 112-114, CHEM 121 & 122, or PHYS 211 & 212.

REQUIREMENTS FOR A MINOR

The minimum requirements for a minor in mathematics are 115 (or 114) -116 and 9 additional hours in courses numbered 135 or above including at least one course numbered 300 or above.

MATHEMATICS COURSES

100. Calculus with Algebra I 3 cr.
Initial topics of 111 with topics from algebra integrated as needed. Credit is not allowed for both 100/104, 100/111, or 100/115.

104. Calculus with College Algebra and Trigonometry I 4 cr.
Initial topics of 115 with topics from algebra and trigonometry integrated as needed. Credit is not allowed for both 104/100, 104/111, or 104/115.

110. Calculus with Algebra II 3 cr.
Remaining topics of 111 with topics from algebra integrated as needed. Credit is not allowed for both 110/114, 110/111, or 110/115.
Prerequisite: "C" or better in 100.

111. Calculus for Non-science Students 3 cr.
Limits, continuity, differentiation of algebraic, exponential and logarithmic functions. An introduction to integration. Credit is not allowed for both 111/100, 111/110, 111/104, 111/114, or 111/115.
114. Calculus with College Algebra and Trigonometry II 4 cr.
Remaining topics of 115 with topics from algebra and trigonometry integrated as needed. Credit is not allowed for both 114/110, 114/111, 114/115. Prerequisite: 104.

115. Calculus I 4 cr.
The same topics as 111 except trigonometric functions are included. Credit is not allowed for both 115/100, 115/110, 115/104, 115/114, or 115/111.

116. Calculus II 4 cr.
Applications of the definite integral, parametric equations, polar coordinates, sequences, and series. Prerequisite: 114 or 115.

125. Fundamentals of Statistics 3 cr.
Exploratory data analysis and statistical inference including graphical summaries of data, sampling distributions, confidence intervals, and hypothesis testing. Credit not allowed for both 125/225.

135. Discrete Mathematics 3 cr.
Sets, functions, relations, partial order, methods of propositional logic, introduction to predicate logic, counting, recurrence relations, asymptotic analysis, proof, including induction, introduction to probability, graphs.

215. Calculus III 4 cr.
Calculus of functions of several variables and vector valued functions. Line and surface integrals. Prerequisite: 116.

220. Proof Writing Seminar 1 cr.
The purpose of this course is to introduce students to various mathematical proof techniques including conditional proofs, biconditional proofs, proofs by contradiction, induction, and double inclusion. The goal of the course is that the students become more proficient at proof-writing in order to make more seamless the transition to higher level mathematics. Prerequisite: Math 116; Co-requisite: Math 135

225. Introduction to Biostatistics 3 cr.
Descriptive statistics, sampling distributions, confidence intervals, hypothesis testing, non-parametric methods, chi-square tests, regression and correlation methods, and analysis of variance. Credit is not allowed for both 125/225. Prerequisite: Evidence of college level algebra skills.

301. Introduction to Probability and Statistics I 3 cr.
Univariate and multivariate probability distributions of discrete and continuous random variables, mathematical expectation, limit theorems. Prerequisite: 116.

302W. Introduction to Probability and Statistics II 3 cr.
A continuation of 301 including probability and sampling distributions of random variables, confidence intervals, and hypothesis testing. Prerequisite: 301.

308. Numerical Analysis 3 cr.
Linear systems, interpolation, functional approximation, numeric differentiation and integration, and solutions to non-linear equations. May be counted as either mathematics or computer science, but not both. Prerequisites: 116 and COSC 150 or 160.

310. Linear Algebra 3 cr.
Systems of linear equations, vectors and matrices, matrix operations, determinants, vector spaces and subspaces, linear transformations, and eigenvalues and eigenvectors. Prerequisite: Math 116

311. Number Theory 3 cr.
Divisibility, congruences, quadratic residues, Diophantine equations, and arithmetic functions. Prerequisites: 135 and 215

314. Differential Equations 3 cr.
First-order ordinary differential equations, theory and solutions of higher order linear ordinary differential equations, the Laplace transform, numerical solutions of differential equations, applications to physical sciences and engineering. Prerequisite: Math 116

320. Topics in Mathematics 3 cr.
Elementary mathematics applied to models in the natural or environmental sciences. Cannot be counted toward a major in mathematics. Prerequisite: 115

325W. Applied Statistics with Regression 3 cr.
One-way, two-way analysis of variance, Latin squares, methods of multiple comparisons, analysis of covariance, balanced and unbalanced designs, linear and multiple regression. Prerequisite: 225, or 301, or permission of instructor.

330W. Fundamentals of Geometry 3 cr.
Euclidean and non-Euclidean geometry from both the synthetic and metric axiomatic approach. Prerequisites: 135 and 215
335. Biostatistics II  
3 cr.  
This course is a continuation of Math 225 (Introduction to Biostatistics). Topics include statistical issues in diagnostic tests, contingency table analyses, multiple two-by-two table analyses, linear and multiple regression, logistic regression, survival analysis, and nonparametric statistical procedures.

340. Problem Solving Seminar  
1 cr.  
Solution and discussion of problems from the Putnam Examination and other sources. Prerequisite: Completion of or concurrent enrollment in 215 or permission of the instructor.

345. Survival Analysis  
3 cr.  
Descriptive methods for survival data, survival and hazard functions, proportional and additive hazards models, parameter inference and regression diagnostics, multivariate analysis. Prerequisite: (225, 335) or (301, 302W)

350W. History of Mathematics  
3 cr.  
Multicultural survey of the history of mathematics from the development of number systems to the development of calculus. Contributions of ancient Greek and western mathematics are emphasized, but those of the Egyptian, Babylonian, Islamic, Hindu, and Chinese cultures are also discussed. Prerequisites: 135, 215, 311.

366. Operations Research  
3 cr.  
The course will provide an introduction to the background of operations including example problems and a brief history. An extensive discussion of the theory and applications of linear programming will follow. Other topics will include nonlinear programming, continuous and discrete probability models, dynamic programming, game theory and transportation and network flow models. Prerequisites: 116

402W. Abstract Algebra I  
3 cr.  
An introduction to algebraic structures: rings, ideals, integral domains, fields, and groups, as well as homomorphisms and isomorphisms. Prerequisites: 135, 215, and 310.

403W. Topology  
3 cr.  
Topological spaces, homeomorphisms, connectedness, compactness, regular and normal spaces, metric spaces, convergence, and separation axioms. Prerequisites: 402W or 415W.

412W. Abstract Algebra II  
3 cr.  
A deeper examination of the algebraic structures studied in 402W including quotient groups and rings, extension fields, and other selected topics. Prerequisite: 402W.

415W. Introduction to Real Analysis I  
3 cr.  
Functions, sequences and series, limits, continuity and uniform continuity, derivatives. Prerequisites: 135, 215 and 310.

416W. Introduction to Real Analysis II  
3 cr.  
A continuation of 415W including integration theory and advanced topics in analysis. Prerequisite: 415W.

420. Introduction to Complex Variables  
3 cr.  
The complex number plane, analytic functions, integration of complex functions, sequences and series, and conformal mappings. Prerequisite: 415W.

425W. Experimental Design  
3 cr.  
Factorial designs, fixed and random effects models, nested and nested-factorial designs, split-plot designs, response surface designs. Prerequisite: 325W or permission of instructor.

491-99. Selected Topics in Mathematics  
1-3 cr.  

COMPUTER SCIENCE PROGRAM

The major objectives of the computer science program are to provide the student with a knowledge of the theoretical basis of computing, an appreciation for the relationship between the various components of the field, skills in applying the subject to practical problems, and an ability to adapt to new technologies and advancements. Courses in the curriculum give the student appropriate tools to identify problems best solved by means of a computer and to design and implement effective, economical, and creative solutions for them. Computer science graduates gain a breadth and depth of computing knowledge that is not feasible in other computer-related majors (Information System Management, Health Information Systems, Multimedia, etc.), which must cover discipline specific content in addition to computing concepts. Typically students gain practical exposure to a number of programming languages including C++, Java, Assembly, Lisp, and Prolog, and operating systems including Unix, Linux, and Windows. Offerings provide opportunities for students seeking courses supporting other disciplines as well as comprehensive programs leading to a major or a minor in computer science. Majors have the option of selecting a concentration in Games and Graphics, Networking, Systems, Theory, or Web.
REQUIREMENTS FOR A MAJOR

The student may choose to pursue a major in computer science with a program leading to a Bachelor of Science (B.S.) or a Bachelor of Arts (B.A.). The B.A. program, which requires a minimum of 30 semester hours in computer science, allows a great deal of flexibility for persons interested in combining the major with a strong minor or double major in a non-science discipline. The B.S. program, which requires a minimum of 40 semester hours in computer science, is recommended for students interested in scientific applications or study in computer science at the graduate level. Requirements for all majors are as follows:

Computer Science Core: 150, or 160, 215, 220, 300, and 325W.

Additional B.A. Computer Science Requirements: 15 additional hours at the 300 level or above (at least 6 of which must be taken at the 400 level). Students choosing the Web system Development concentration must include 401, 430, and 450 in their program.

Additional B.S. Computer Science Requirements: 25 hours at the 300 level or above. Included must be 480W, at least 9 hours at the 400 level or above and at least one course selected from 401, 410, 430, 445W, and 460.

A grade of “C” or better is required in all computer science courses.

MATHEMATICS/SCIENCE REQUIREMENTS:

B.A.: 115-116 (Calculus I & II) and 135 (Discrete Mathematics)

B.S.: At least 30 credits of mathematics and science including:

Mathematics: At least 15 credits including 115-116 (Calculus I & II) and 135 (Discrete Mathematics), and either 225 (Biostatistics) or 301 (Introduction to Probability and Statistics I)

Science: At least 12 credits in courses acceptable for a major in the science discipline chosen and including at least one sequence chosen from the three options: BIOL 111-113 & 112-114, or CHEM 121-122, or PHYS 211-212.

Concentrations:
To aid students in selecting elective courses, five concentrations have been identified. To fulfill a concentration, a student must take at least three of the four courses listed for that concentration. The courses that might typically be considered most central to a concentration are listed earlier in each list.

Games and Graphics: COSC 425, COSC 410, COSC 450, COSC 430

Networking: COSC 450, COSC 460, COSC 430, COSC 445W

Systems: COSC 311, COSC 401, COSC 445W, COSC 305

Theory: COSC 418, COSC 435, COSC 401, COCS 410

Web: COSC 430, COSC 401, COSC 460, COSC 450

REQUIREMENTS FOR A MINOR

A minimum of 15 credits in computer science and 3 credits in Discrete Mathematics is required for a minor. All programs must include Computer Science 150 or 160, 215, and nine additional hours numbered 200 and above with at least 3 credits at the 300 level or above.

COMPUTER SCIENCE COURSES

100. Elements of Computer Science 2 cr.
A survey of topics necessary for basic computer literacy. Includes laboratory exercises. Credit not given to computer science majors or minors.

101. Basic Programming 3 cr.
Computer programming in Visual Basic. Algorithm development and data representation. Credit not given to computer science majors or minors.

103. JavaScript Programming 3 cr.
Programming constructs and heuristics using JavaScript, including object based programming, objects, properties, events, methods, variables, constants, functions, and structured concepts. Emphasis is on using JavaScript for web interactivity and forms processing. Prerequisites: COSC 130 or QSMIS 183 or MM 226.

130. Fundamentals of the Internet 3 cr.
Technical concepts of electronic mail, web browsing concepts and advanced features, HTML and
web page design, technical concepts of the internet, advanced Internet services, concepts and issues in electronic publishing, ethics and security issues. Prerequisite: COSC 030 or equivalent.

135. Introduction to Computer Science 3 cr. An introduction to fundamental computer science concepts for non-computer science majors. Provides high-level coverage of topics that may include Operating Systems (such as Windows), Programming Languages, Soft Engineering, Computer Graphics, Artificial Intelligence, the Internet and World Wide Web, Computer Architecture (such as those from Intel), Algorithms and Problem Solving, Data Storage, Computer Security, and Social and Ethical Aspects of Computing. Prerequisite: None

150. Computer Programming: C++ 3 cr. Object oriented programming, objects and classes, data abstraction, functions, looping, selections, control structures, arrays, searching, and sorting.

160. Scientific Programming: C++ 3 cr. Object oriented programming, objects and classes, data abstraction, functions, looping, selections, control structures, arrays, searching, and sorting in an environment with scientific and mathematical applications.

215. Java with Data Structures 3 cr. An introduction to Java with Classes and data abstraction, queues, linked lists, recursion, stacks, trees, string processing, searching and sorting, and hashing. Prerequisite: 150/160 and MATH 135 (may be taken concurrently).

220. Computer Organization and Assembly Language 3 cr. Basic structure of computer hardware and software, data representation, addresses and instructions, control structures, device drivers, files, and macros. Prerequisite: 215.

300. Advanced Data Structures 3 cr. Data organization, connections between the design of algorithms and the efficient implementation and manipulation of data structures. Abstract data types, tries, B-trees, and graphs. Prerequisite: 215.

305. Digital Logic 3 cr. Boolean algebra and logic gates, combinational logic, decoders, encoders, multiplexers, registers, counters, memory units, flip-flops, algorithmic state machines, and digital integrated circuits. Prerequisite: 220.

308. Numerical Analysis 3 cr. Identical to MATH 308. Credit only given for one of COSC 308 or MATH 308. Prerequisite: 150/160 & MATH 116.

311. System Programming and Design 3 cr. Interaction between software and hardware components in an integrated system, program translation issues, assemblers, linkers, loaders, and compilers. Prerequisite: 220.

325W. Operating Systems and Computer Architecture 3 cr. Organization of operating systems and basic computer architecture. Implementing multiprogramming, memory management, communicating with input/output devices, concurrency, synchronization, file systems and scheduling the processor. Prerequisite: 220.

350W. Computers and Humanity 3 cr. An exploration of the impact of computers on present and future society including sociological and philosophical issues in computer science. Prerequisite: One course in computer science on the 200 level.

401. Data Base Management Systems 3 cr. The use, design, and implementation of database management systems. Topics include data models, current DBMS implementations, and data description, manipulation, and query languages. Prerequisite: 300.

410. Artificial Intelligence 3 cr. Knowledge representation and natural language processing, search strategies, design and applications of heuristics, expert systems, and applications. Prerequisite: 300.

418. Formal Languages and Automata 3 cr. Formal languages and their relation to automata. The Chomsky language hierarchy, recognition of languages by automata, Turing machines, decidability, and computability. Prerequisite: 220.

430. Web-Based Systems 3 cr.
HTTP/HTML, client server scripting, active server/CGI technology, data store access/modification, cascading style sheets, and accessing the browser document object model. Prerequisite: 300.

435. Theory of Programming Languages 3 cr.
Syntactic and semantic issues in program language definition and implementation. Static vs. dynamic properties, parameter passing, recursion, and language comparisons. Prerequisite: 300.

445W. Systems Analysis and Software Design 3 cr.
Methods and tools for the structuring and modular design of large systems, organization and techniques of team programming, design evaluation and validation. Prerequisite: 300.

450. Computer Networks 3 cr.
Network technologies, protocols, and management. Programming networked applications. The effects of the Internet and World Wide Web on computing and society. Prerequisite: 300 and 325W.

460. Computer Security 3 cr.
Network, database, and Web security, threat models, elementary and advanced cryptography, protocol analysis, covert channels, access control and trust issues, legal and ethical issues in security. Prerequisite: 325W.

480W. Senior Project 1-3 cr.
An individual or group project involving a significant programming component, documentation, and written report on a topic of current interest in computer science. Prerequisites: Senior status and 300.

491 - 499. Selected Topics in Computer Science 1-3 cr.
Topics selected in consultation with the advisor. Prerequisite: Consent of the department chairperson.

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES
Chairperson:
Edith H. Krause, Ph.D.

The Department of Modern Languages and Literatures offers courses in Arabic, Chinese, French, German, Italian, Japanese, Kiswahili, and Spanish. The four language skills (reading, writing, speaking, and oral comprehension) are emphasized at all levels. Courses beyond conversation and composition familiarize the students with the literatures and cultures of the different nations and societies studied. Non-major courses are also offered in language for business, language for the health professions, and language for musicians.

Before enrolling in their first language course, students with prior knowledge of a foreign language are required to take a language placement test. Students who must complete a language requirement should begin these courses in their freshman year. Beginning and Intermediate courses must be taken in sequence.

Students may be granted up to three credits retroactively for previous language study if they enter a language course beyond the introductory level and earn a B or better in that course.

The department coordinates with the Departments of History and Political Science for a degree in International Relations, and contributes courses to the Certificates in International Business and Intercultural Studies. Internships in the United States and abroad are available.

A maximum of 12 transfer credits will be accepted toward the major. A maximum of 6 transfer credits will be accepted toward the minor in French and German.

Students who have knowledge of a foreign language will find career opportunities in a variety of fields such as business and industry, education, foreign service, government, international law, social work, and tourism.

Study Abroad
Majors and minors are urged to spend a summer, a semester, or a year abroad in an accredited program with the approval of the department. Information about a variety of program opportunities can be obtained from the department office or the Office of International Programs. Contact the department for specific information on the DU/Villa Nazareth program in Rome and the study abroad program in Salamanca, Spain.

REQUIREMENTS FOR THE MAJOR

The department offers B. A. degrees in Spanish and Modern Languages. Dual degree options (B.A./B.S.) are available in conjunction with the School of Education and the Business School. It is recommended that majors in the department include a course in language, literature, or culture outside their area(s) of specialization.

Beginning and Intermediate Courses do not count toward the major. Proficiency at the 302W/306W level respectively, or the equivalent, is the prerequisite for all other upper-level courses.

B.A. in Modern Languages: 48 credits. Required courses: 24 credits at the 300 level or above in one language including 301W/302W or 306W, 12 credits at the 300 level or above including 301W/302W or 306W in a second language, and 12 credits at any level in a third language. Exit Examination required.

DUAL DEGREES

B.A./B.S. in Education: This four-year program offers students a Bachelor of Arts in Spanish and a Bachelor of Science in Education.

B.A./B.S. in International Business: After completion of this four-year program, students will receive a Bachelor of Arts in Spanish and a Bachelor of Science in International Business. Internships in the United States and abroad are encouraged as part of the coursework.

Typically, most dual degree programs require more than the minimum of 120 credits.

CERTIFICATES

International Business: Students take 18 credits in one language and business courses determined by the A.J. Palumbo School of Business.

Intercultural Study: Students earn 18 credits in core courses, area studies, and a Seminar in Intercultural Interpretation, and also intern or study abroad.

REQUIREMENTS FOR THE MINOR:

The department offers a minor in French, German, Italian, and Spanish. Each program consists of a minimum of 12 credits at the 300 level and above.

Arabic

101. Elementary Arabic I. 3 cr.
Fundamentals of oral and written Arabic. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.

102. Elementary Arabic II. 3 cr.
The sequel to 101. Prerequisite: 101 or equivalent.

201. Intermediate Arabic I. 3 cr.
An expansion of the language skills acquired in Arabic 101 and 102. Strengthening of basic structures and introduction of more complex structures. This course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.

202. Intermediate Arabic II. 3 cr.
Fourth semester capstone course designed to continue the development of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.

Chinese

101. Elementary Chinese I. 3 cr.
Fundamentals of oral and written Chinese. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.

102. Elementary Chinese II. 3 cr.
The sequel to 101. Prerequisite: 101 or equivalent.

201. Intermediate Chinese I. 3 cr.
An expansion of the language skills acquired in Chinese 101 and 102. Strengthening of basic structures and introduction of more complex structures. This course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.

Fourth semester capstone course designed to continue the development of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.

French

101. Elementary French I. 3 cr.
Fundamentals of oral and written French. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.
102. Elementary French II.  3 cr.
The sequel to 101. Prerequisite: 101 or equivalent.

103. Basic French for Business.  3 cr.
Introduction to spoken and written French with emphasis on usage in the business world.

115. French for Musicians.  2 cr.
Specially designed to provide music majors with those skills in French needed for their professional requisites. Registration limited to students in the School of Music.

201. Intermediate French I.  3 cr.
An expansion of the language skills acquired in 101 and 102. Strengthening of basic structures and introduction of more complex structures. This course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.

Fourth semester capstone course designed to continue the development of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.

300W. Introduction to Conversation and Composition.  3 cr.
Focus on increasing oral and written skills through reading and discussion of materials related to everyday life and current events. Prerequisite: 202 or equivalent.

301W. French Conversation and Composition I.  3 cr.
A course designed to expand oral and written fluency through extensive reading, discussion, and writing on a variety of topics. A systematic grammar review is an integral part of the course. Prerequisite: 202 or equivalent.

302W. French Conversation and Composition II.  3 cr.
A sequel to 301 with more emphasis on fluency in speaking and writing and idiomatic use of the language. Prerequisite: 301W or equivalent.

306W. Intensive French Conversation and Composition.  6 cr.
Combination of 301W and 302W. Prerequisite: 202 or equivalent.

314W/315W. Individual Study I and II.  1-3 cr. each.
Study of special topics with written permission of Department chairperson. Variable credit.

320W. Stylistics.  3 cr.
Comparative study of English/French style in spoken and written French.

321. Phonetics.  3 cr.
Mechanics of phonation with comparative English-French application to phonetic analysis of French.

322W. Théâtre de l’Avant-Garde  3 cr.
Representative authors of the “avant garde” theatre since 1950, including Ionesco, Beckett, Genet, Schehadé, Vian, Pinget and others.

325W. Realism and Naturalism.  3 cr.
Theories and works of the two movements in the latter part of the 19th Century.

329W. 17th Century French Literature.  3 cr.
Representative works in French prose, poetry, and theatre.

360W. French for Business.  3 cr.
Spoken and written language of business French. Conventions of letter writing, import, export, and commercial transactions.

370W. French Novel in Translation.  3 cr.
General introduction to the history and theorization of the French novel from its precursory prose antecedents to contemporary examples. Students will gain greater knowledge of France’s literary tradition as well as familiarity with the principal techniques of literary analysis. This course is open to all students with an interest in literature, regardless of mastery of the French language. Readings, lectures, and discussions will be in English.

429W. 18th Cen. French Lit. & Cult.  3 cr.
Introduction to the literature and culture of 18th century France. Studying a variety of literary, artistic, and political works, students will retrace the cultural tensions that marked this period known for both the lavishness of Versailles and the egalitarian severity of the guillotine.

460W. French Culture and Civilization.  3 cr.
The major cultural and socio-political movements of France.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>462W</td>
<td>Survey of French Literature I: Middle Ages to 17th Century</td>
<td>3 cr.</td>
<td>Representative authors and works from the Middle Ages to the 17th Century.</td>
</tr>
<tr>
<td>463W</td>
<td>Survey of French Literature II: 18th Century to Modern Period</td>
<td>3 cr.</td>
<td>Main authors and movements from the 18th Century to the present.</td>
</tr>
<tr>
<td>467W</td>
<td>Advanced French Grammar</td>
<td>3 cr.</td>
<td>Study of the finer points of French grammar with emphasis on idiomatic uses of the language and the subtle differences in meaning in the use of specific elements of grammar.</td>
</tr>
<tr>
<td>471W</td>
<td>20th Century French Theatre</td>
<td>3 cr.</td>
<td>From Jules Romain to Ionesco and the Theatre of the Absurd.</td>
</tr>
<tr>
<td>480W</td>
<td>Directed Readings</td>
<td>1-3 cr.</td>
<td>Individual research on topics in French language, literature or culture under close faculty supervision; with written permission of the department. Variable credit.</td>
</tr>
<tr>
<td>490</td>
<td>Independent Field Study</td>
<td>1-6 cr.</td>
<td>Study under the supervision and guidance of the instructor in foreign countries. Permission of the department chairperson required. Variable credit.</td>
</tr>
<tr>
<td>495</td>
<td>Professional Language Internship</td>
<td>3 cr.</td>
<td>Paid or unpaid internship consisting of 100-120 hours of supervised work with permission of the department chairperson.</td>
</tr>
<tr>
<td>German</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101</td>
<td>Elementary German I</td>
<td>3 cr.</td>
<td>Fundamentals of oral and written German. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.</td>
</tr>
<tr>
<td>102</td>
<td>Elementary German II</td>
<td>3 cr.</td>
<td>The sequel to 101. Prerequisite: 101 or equivalent.</td>
</tr>
<tr>
<td>103</td>
<td>Basic German for Business</td>
<td>3 cr.</td>
<td>Introduction to spoken and written German with emphasis on usage in the business world.</td>
</tr>
<tr>
<td>115</td>
<td>German for Musicians</td>
<td>2 cr.</td>
<td>Specially designed to provide music majors with those skills in German needed for their professional requisites. Registration limited to students in the School of Music.</td>
</tr>
<tr>
<td>201</td>
<td>Intermediate German I</td>
<td>3 cr.</td>
<td>An expansion of the language skills acquired in German 101 and 102. Strengthening of basic structures and introduction of more complex structures. This course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.</td>
</tr>
<tr>
<td>202</td>
<td>Intermediate German II</td>
<td>3 cr.</td>
<td>Fourth semester capstone course designed to continue the developments of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.</td>
</tr>
<tr>
<td>300W</td>
<td>Introduction to Conversation and Composition</td>
<td>3 cr.</td>
<td>Focus on increasing oral and written skills through reading and discussion of materials related to everyday life and current events. Prerequisite: 202 or equivalent.</td>
</tr>
<tr>
<td>301W</td>
<td>German Conversation and Composition I</td>
<td>3 cr.</td>
<td>A course designed to expand oral and written fluency through extensive reading, discussion, and writing on a variety of topics. A systematic grammar review is an integral part of the course. Prerequisite: 202 or equivalent.</td>
</tr>
<tr>
<td>302W</td>
<td>German Conversation and Composition II</td>
<td>3 cr.</td>
<td>A sequel to 301 with more emphasis on fluency in speaking and writing and idiomatic use of the language. Prerequisite: 301W or equivalent.</td>
</tr>
<tr>
<td>306W</td>
<td>Intensive German Conversation and Composition</td>
<td>6 cr.</td>
<td>Combination of 301W and 302W. Prerequisite: 202 or equivalent.</td>
</tr>
<tr>
<td>314W/315W</td>
<td>Individual Study I and II</td>
<td>1-3 cr.</td>
<td>Study of special topics with written permission of the Department chairperson. Variable credit.</td>
</tr>
<tr>
<td>322W</td>
<td>German Culture and Civilization</td>
<td>3 cr.</td>
<td>Study of political, historical, social, cultural, and environmental issues and developments that contribute to the construction of nation and identity in Germany.</td>
</tr>
</tbody>
</table>
326W. Women Figures – German Lit. 3 cr.
Study of the literary representation of women.

328W. Introduction to German Drama. 3 cr.
Analysis of selected works and authors, including review of dramatic forms, techniques, and theories.

330W. Modern German Prose. 3 cr.
Individual’s search for identity in the prose works of T. Mann, Kafka, Hesse, Böll, Frisch, and others.

360W. German for Business. 3 cr.
Spoken and written language of business German. Conventions of letter writing, import, export, and commercial transactions.

420W. German Literature and Film. 3 cr.
Study of cinematic and literary representations of themes and topics in German literature and film, including portrayal of women, search for identity, guilt and innocence, and others.

422W. German Culture Through Film. 3 cr.
Study of 20th century German socio-cultural and historical context through a wide range of films from the silent era to the present.

460W. Survey of German Literature I: Middle Ages to the Baroque. 3 cr.
Study of representative works and authors from the Middle Ages through the 17th century.

461W. Survey of German Literature II: 18th Century to the Present. 3 cr.
Study of literary tradition, representative authors, and major literary works.

464W. German Romantic Literature. 3 cr.
The German Romantic movement following the Napoleonic era. The role of the individual in the works of Novalis, Tieck, and others.

467W. Advanced German Grammar. 3 cr.
Study of the finer points of German grammar with emphasis on idiomatic uses of the language and the subtle differences in meaning in the use of specific elements of grammar.

468W. Goethe’s Faust. 3 cr.
Emphasis on the spirit of the 18th century as personified in Goethe’s Faust.

470W. Advanced German Composition. 3 cr.
Designed to strengthen competence in written expression through process-oriented practice of different essay formats and writing strategies.

Course focuses on cultural context and includes continued study and use of grammatical structures and vocabulary.

480W. Directed Readings. 1-6 cr.
Individual research on topics in German language, literature or culture under close faculty supervision; with written permission of the department. Variable credit.

490. Individual Field Study. 1-6 cr.
Study under the supervision and guidance of the instructor in foreign countries. Permission of the department chairperson required. Variable credit.

495. Professional Language Internship. 3 cr.
Paid or unpaid internship consisting of 100-120 hours of supervised work with permission of the department chairperson.

Italian

101. Elementary Italian I. 3 cr.
Fundamentals of oral and written Italian. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.

102. Elementary Italian II. 3 cr.
The sequel to 101. Prerequisite: 101 or equivalent.

103. Basic Italian for Business. 3 cr.
Introduction to spoken and written Italian with emphasis on usage in the business world.

109. Italian for Lawyers. 2 cr.
Specially designed to provide students with language skills to meet their professional requisites.

115. Italian for Musicians I. 2 cr.
Specially designed to provide music majors with those skills in Italian needed for their professional requisites. Registration limited to students in the School of Music.

201. Intermediate Italian I. 3 cr.
An expansion of the language skills acquired in Italian 101 and 102. Strengthening of basic structures and introduction of more complex structures. This course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.
### 202. Intermediate Italian II.  3 cr.
Fourth semester capstone course designed to continue the development of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.

### 300W. Introduction to Conversation and Composition.  3 cr.
Focus on increasing oral and written skills through reading and discussion of materials related to everyday life and current events. Prerequisite: 202 or equivalent.

### 301W. Italian Conversation and Composition I.  3 cr.
A course designed to expand oral and written fluency through extensive reading, discussion, and writing on a variety of topics. A systematic grammar review is an integral part of the course. Prerequisite: 202 or equivalent.

### 302W. Italian Conversation and Composition II.  3 cr.
A sequel to 301 with more emphasis on fluency in speaking and writing and idiomatic use of the language. Prerequisite: 301W or equivalent.

### 306W. Intensive Italian Conversation and Composition.  6 cr.
A combination of 301W and 302W. Prerequisite: 202 or equivalent.

### 308W. Italian Culture and Society.  3 cr.
Study of major historical, cultural and social developments. (Taught in English)

### 314W / 315W. Individual Study I and II.  1-3 cr. each.
Study of special topics with written permission of the department chairperson. Variable credit.

### 321W. Survey of Italian Literature I: Middle Ages to 17th Century.  3 cr.
Study of representative authors and works from the Middle Ages to the 17th Century.

### 324W. Survey of Italian Literature II: 18th Century to the Present.  3 cr.
Main authors and movements from the 18th Century to the present.

### 326W. Italian Culture and Civilization.  3 cr.
The major cultural and socio-political movements of Italy.

### 399W. Italy and the European Union.  3 cr.
Italy's political and economic role in the European Union.

### 400W. Italian Cinema.  3 cr.
Review of selected films with special emphasis on the social, cultural, political, and economic changes in Italy. (Taught in English)

### 402W. Images of Women in Italy.  3 cr.
Portrayals of women in Italian literature and film.

### 467W. Advanced Italian Grammar.  3 cr.
Study of the finer points of Italian grammar with emphasis on idiomatic uses of the language and the subtle differences in meaning in the use of specific elements of grammar.

### 480W. Directed Readings.  1-3 cr.
Individual research on topics in Italian language, literature or culture under close faculty supervision; with written permission of the department. Variable credit.

### 490. Individual Field Study.  1-3 cr.
Study under the supervision and guidance of the instructor in foreign countries. Permission of the department chairperson required. Variable credit.

### 491W. Italian Internship.  1-6 cr.
Special permission. Contact department office.

### 495. Professional Language Internship.  3 cr.
Paid or unpaid internship consisting of 100-120 hours of supervised work with permission of the department chairperson.

### 901. Villa Nazareth.  0 cr.
Special permission. Contact department office.

### Japanese

### 101. Elementary Japanese I.  3 cr.
Fundamentals of oral and written Japanese. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.

### 102. Elementary Japanese II.  3 cr.
The sequel to 101. Prerequisite: 101 or equivalent.
103. Basic Japanese for Business.  3 cr.
Introduction to spoken and written Japanese with emphasis on usage in the business world.

201. Intermediate Japanese I.  3 cr.
An expansion of the language skills acquired in Japanese 101 and 102. Strengthening of basic structures and introduction of more complex structures. The course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.

Fourth semester capstone course designed to continue the developments of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.

206. Japanese Culture.  3 cr.
Broad overview of cultural and social topics including social aspects, ethics, and values of the Japanese society. (Taught in English).

301W. Japanese Conversation and Composition I.  3 cr.
A course designed to expand oral and written fluency through extensive reading, discussion, and writing on a variety of topics. A systematic grammar review is an integral part of the course. Prerequisite: 202 or equivalent.

302W. Japanese Conversation and Composition II.  3 cr.
A sequel to 301 with more emphasis on fluency in speaking and writing and idiomatic use of the language. Prerequisite: 301W or equivalent.

480W. Directed Readings.  4 cr.
Individual research on topics in Japanese language, literature or culture under close faculty supervision; with written permission of the department. Variable credit.

491W. Japanese Internship.  1-6 cr.
Special permission. Contact department office. Prerequisite: 301W, 302W.

Kiswahili

101. Elementary Kiswahili I.  3 cr.
Fundamentals of oral and written Kiswahili. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.

102. Elementary Kiswahili II.  3 cr.
The sequel to 101. Prerequisite: 101 or equivalent.

201 Intermediate Kiswahili I.  3 cr.
An expansion of the language skills acquired in Kiswahili 101 and 102. Strengthening of basic structures and introduction of more complex structures. The course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.

202. Intermediate Kiswahili II.  3 cr.
Fourth semester capstone course designed to continue the developments of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.

Spanish

101. Elementary Spanish I.  3 cr.
Fundamentals of oral and written Spanish. Focus on development of reading, writing, speaking and listening skills, and culture. Special emphasis on oral communication.

102. Elementary Spanish II.  3 cr.
The sequel to 101. Prerequisite: 101 or equivalent.

103. Introduction to Spanish Language and Culture.  3 cr.
Basic Spanish conversation in a variety of social situations and discussion of cultural perspectives. Course does not count toward the language requirement.

105. Medical Spanish I.  2 cr.
Fundamentals of oral and written Spanish with focus on medical vocabulary. Reading, writing, speaking, and listening emphasized.

107. Medical Spanish II.  2 cr.
Sequel to 105. Special emphasis on oral communication.

109. Spanish for Lawyers.  2 cr.
Especially designed to provide students with language skills to meet their professional requisites.
201. Intermediate Spanish I. 3 cr.
An expansion of the language skills acquired in Spanish 101 and 102. Strengthening of basic structures and introduction of more complex structures. The course will increase accuracy in listening, speaking, reading and writing and promote knowledge of cultural background. Prerequisite: 102 or equivalent.

202. Intermediate Spanish II. 3 cr.
Fourth semester capstone course designed to continue the developments of oral and written skills. Students will read and discuss selected cultural and literary texts, review grammar in the context of situations and readings, and explore cultural trends and issues. Prerequisite: 201 or equivalent.

300W. Introduction to Conversation and Composition. 3 cr.
Focus on increasing oral and written skills through reading and discussion of materials related to everyday life and current events. Prerequisite: 202 or equivalent.

301W. Spanish Conversation and Composition I. 3 cr.
A course designed to expand oral and written fluency through extensive reading, discussion, and writing on a variety of topics. A systematic grammar review is an integral part of the course. Prerequisite: 202 or equivalent.

302W. Spanish Conversation and Composition II. 3 cr.
A sequel to 301 with more emphasis on fluency in speaking and writing and idiomatic use of the language. Prerequisite: 301W or equivalent.

304. Hispanic Studies: Abroad. 1-6 cr.
Special permission. Contact department office. Variable credit.

306W. Intensive Spanish Conversation and Composition. 6 cr.
A combination of 301W and 302W. Prerequisite: 202 or equivalent.

310W. Spanish Culture and Society. 3 cr.
Study of major historical, cultural and social developments in Spain. (Taught in English).

314W/315W. Individual Study I and II. 1-3 cr. each.
Study of special topics with written permission of the department chairperson. Variable credit.
365W. Spanish Professional Translation I. 3 cr.
Study of Spanish vocabulary, grammatical form, idioms, style and tone to refine skills in reading and writing. Translation of articles and medical, legal and literary texts.

366W. Spanish Professional Translation II. 3 cr.
Sequel to 365W.

400W. Spanish Cinema. 3 cr.
Evolution of the Spanish cinema after Franco. Review of selected films produced since the introduction of democracy to Spain. Special emphasis on the social, cultural, political, and economic changes in the country under democratic government.

401W. Survey of Spanish Literature I: El Cid to el Siglo de Oro. 3 cr.
Survey of major works from the Medieval period to the 17th century.

402W. Survey of Spanish Literature II: 18th Century – Present. 3 cr.
Survey of works representative of the major literary movements in Spain from the 18th through the 21st centuries.

403W. From Enlightenment to Generation of ‘98. 3 cr.
Analysis of the Enlightenment, Romanticism and Naturalism in Spain prior to 1898.

410. Intensive Immersion Spanish Conversation. 3 cr.
An advanced conversation course to perfect the student’s oral/aural skills to the advanced level or above according to ACTFL standards. Open to all Spanish majors/minors. Required of those students seeking teaching certification in Spanish.

411. Spanish Cultural Experience. 3 cr.
An extension of Spanish 410 affording the student the opportunity to immerse herself/himself in the total Spanish environment abroad while enhancing the experience with an on-site course in Spanish Civilization and Culture. In Spain. Prerequisite: 410.

415. Contemporary Spanish Culture. 3 cr.
Focus on Spain since Franco. Impact of technology on contemporary Spanish society, culture and priorities. In Spain. Prerequisite: 410.

430. Spanish Advanced Communicative Skills. 3 cr.
Reinforcement of oral/written communication to bring students to native idiomatic competency. In Spain. Prerequisite: 410.

453W. Trends in Latin American Literature. 3 cr.
Major movements and representative works from Pre-Columbian period to the present.

460W. El Quijote. 3 cr.
An in-depth study of Cervantes’ novel with an emphasis on its cultural and historical context.

462W. Spanish American Theatre of the Avant-Garde. 3 cr.

463W. Lorca and the Generation of ’27. 3 cr.
Major poets of the “Lorca-Guillén” generation which brought Spanish poetry to a new “Siglo de Oro.” Includes a brief review of this group’s impact on future developments in Spanish theater.

464W. Literature of Siglo de Oro. 3 cr.
Study of representative works in all genres.

467W. Advanced Spanish Grammar and Stylistics. 3 cr.
Study of the finer points of Spanish grammar with emphasis on idiomatic uses of the language and the subtle differences in meaning in the use of specific elements of grammar.

468W. Women’s Voices in Hispanic Literature. 3 cr.
Overview of the writings of Hispanic women from Sor Juana Inés de la Cruz to Isabel Allende and from Leonor López de Córdoba to Paloma Pedrero. (Taught in English).

470W. Gabriel García Márquez on Film. 3 cr.
Selection from García Márquez’s work in film and fiction, emphasizing the relationship between the two.

471W. Latin American-U.S. Literature: Parallels and Confluences. 3 cr.
Emphasizes similar techniques, common vision, and diverse approaches in Latin American and U.S. literatures. (Taught in English).
480W. Directed Readings in Spanish. 1-6 cr.
Readings of literary texts under close faculty supervision; with written permission of the department.

490. Independent Field Study. 1-6 cr.
Study under the supervision and guidance of the instructor in foreign countries. Permission of the department chairperson required. Variable credit.

491W. Spanish Internship. 1-6 cr.
Special permission. Contact department office.

495. Professional Language Internship. 3 cr.
Paid or unpaid internship consisting of 100-120 hours of supervised work with permission of the department chairperson.

The following course is cross-listed in all languages:

475W. East and West in Film and Print. 3 cr.
Survey of recent award-winning filmmakers and Nobel Literature Laureates from non-Western European cultures, including Japan, China, Iran, Egypt, Poland, and the Czech Republic.

The following courses are cross-listed in all European language areas:

270. Perspectives on the Holocaust. 3 cr.
Analysis of the Holocaust from a variety of perspectives (social, political, historical, cinematic, artistic, moral, etc.) to help students appreciate the enormity of the event. A team-taught interdisciplinary course.

419W. European Union. 3 cr.
Study of the history and politics of the European Union, including its multicultural nature, economy, role and impact on today's world and its relations with the US.

476W. Central and Eastern Europe in Film and Print. 3 cr.
Representative films and literature from Russia, Poland, Slovakia, Ukraine, and the Balkans, presented in a cultural and historical context.

477W. Classics of Modern European Cinema. 3 cr.
The major movements of Western European cinema, including Italian Neorealism, French New Wave, British Social Realism, New German Cinema, Spanish Surrealism and Postmodernism, illustrated with the works of DeSica, Godard, Reisz, Fellini, Buñuel, Bergman, Wenders, Leigh and others.

GRADUATE STUDIES

French

051. French for Research I. 1 cr.
Designed to teach French reading skills at an advanced level to graduate students from all disciplines. Emphasis on fundamentals of grammar, vocabulary building, and development of translation skills. Readings of general and scholarly interest.

052. French for Research II. 1 cr.
Sequel to 051. Emphasis on reading materials of increasing length and complexity. Prerequisite: 051 or equivalent.

German

051. German for Research I. 1 cr.
Designed to teach German reading skills at an advanced level to graduate students from all disciplines. Emphasis on fundamentals of grammar, vocabulary building, and development of translation skills. Readings of general and scholarly interest.

052. German for Research II. 1 cr.
Sequel to 051. Emphasis on reading materials of increasing length and complexity. Prerequisite: 051 or equivalent.

Spanish

051. Spanish for Research I. 1 cr.
Designed to teach Spanish reading skills at an advanced level to graduate students from all disciplines. Emphasis on fundamentals of grammar, vocabulary building, and development of translation skills. Readings of general and scholarly interest.

052. Spanish for Research II. 1 cr.
Sequel to 051. Emphasis on reading materials of increasing length and complexity. Prerequisite: 051 or equivalent.

505. Advanced Spanish Composition and Stylistics. 3 cr.
Analysis of different prose styles and practice in writing fluent Spanish compositions of increasing length and complexity.

660. Seminar. 1-3 cr.
Topics, themes, and perspectives from representative areas in the discipline designed to provide students with an extended knowledge in their chosen field of study.
DEPARTMENT OF PHILOSOPHY
Chairperson:
James C. Swindal, Ph.D.

Philosophy is at the heart of a liberal education; philosophical reflection encourages human beings to seek the truth and to examine the moral foundations of their thought and action. The general program in philosophy introduces students to philosophical thinking, both past and present, and provides a discipline for asking the basic questions of human life. Courses encourage concentration on original major texts from the pre-Socratics, through the medieval and modern periods of philosophy, up to the present; contemporary continental philosophy is a specialty.

Philosophy fosters the ability to read with understanding, to think logically, to argue rationally, and to evaluate positions critically. Majors have distinguished themselves in careers in academia, medicine, politics, journalism, ministry, law, business and education.

The department offers an Honors Program for outstanding undergraduate majors with an overall QPA of 3.3 and a 3.5 in Philosophy. Students must be recommended to the program by two faculty in the department. The program requires successful completion of two graduate courses in Philosophy. Students must also complete an acceptable Honors Thesis, for which 3 credits will be given.

REQUIREMENTS FOR THE MAJOR
A total of 30 credits:
- At least 24 credits above the 100-level;
- At least 9 credits from courses 300-305;
- At least 6 credits at the 400-level.

REQUIREMENTS FOR THE MINOR
A total of 15 credits:
- No more than 6 credits at the 100-level;
- At least 6 credits at the 300-400 level.

COOPERATIVE MAJOR
English and Philosophy: designed to allow students to complete a double major emphasizing theoretical and analytical explorations of the written word. Under this program students meet all requirements (30 credits) for a major in one of these disciplines, and complete a major in the other with 24 additional credits.

INTRODUCTORY COURSES
UCOR 132. Basic Philosophical Questions. 3 cr. Philosophy, “the love of wisdom,” is a discipline for discussing basic questions about ourselves and our world. Students read selected works by major figures throughout the history of philosophy; they are encouraged to think critically and to formulate their own answers to perennial philosophical questions. This course is required for all students in the university. It counts as the first course for the major and minor in philosophy.

UCOR 151. Philosophical Ethics 3 cr. The course provides an introduction to important ethical theories, past and present, and some of their applications to concrete issues. Prerequisite UCOR 132

UCOR 207W. Medical Ethics. 3 cr. The course analyzes the methods and principles of medical ethics. It studies these topics in relation to specific cases and some of the most recent developments in medical and surgical technology. The main objective is to defend respect for life by analyzing its foundations and practical implications. The course examines the conflicts with which health professions struggle when they make decisions. It also interprets what these conflicts reveal about the value of life and the nature of ethical judgment in general. Prerequisite UCOR 132

BASIC COURSES are useful electives for general undergraduates. Prerequisite: UCOR 132

PHIL 106. Introduction to Logic. 3 cr. This course includes an analysis of valid reasoning, logical fallacies, types of definitions, arguments in ordinary discourse, and the formal logic of inferences. No prerequisite required.

PHIL 108. Business Ethics. 3 cr. Ethical questions, which relate to business, are examined, in theory and in practice.

PHIL 109. Contemporary Moral Problems. 3 cr. This course discusses basic ethical positions as they apply to selected contemporary moral problems such as reproductive technologies, abortion, euthanasia, gender, poverty, race, sexual orientation, animal rights, and environmental ethics.

PHIL 200. Introduction to Phenomenology. 3 cr. The phenomenological method originated by Husserl will be explored. Possible topics may include
intentionality, the phenomenological reduction, meanings, and signs.

PHIL 201. Race Matters: Philosophical & Literary Perspectives 3 cr.
Open to both philosophy and non-philosophy majors at all levels, this course raises significant and fascinating contemporary philosophical questions about the nature of race and racism: What does it mean to be “White”? What does it mean to be “Black”? Is race a social construction? What is the meaning of racism and does it still exist? How does racism inform the works of many European philosophers? These questions and more are explored in the works of contemporary philosophers and literary figures.

PHIL 202. Film and Race 3 cr.
This course offers a unique lens through which to examine the dynamics of racism and race. Our aim is to examine films from the 1930s, 1950s, up to our contemporary moment in an effort to understand the ways in which race and racism speak to the context of this filmmaking and the subtleties of race relations in the U.S.

PHIL 203. Philosophy of Religion 3 cr.
This course examines a number of questions central to the philosophical discussion of religion in the West. Among authors studied are Aquinas, Anselm, Kierkegaard, Hume, Pascal, Kant, Freud, Otto, and Ricoeur.

PHIL 204. Philosophy and Literary Theory. 3 cr.
This course explores philosophical themes in selected works of literature and studies the relation between recent continental philosophy and theories of literature and of literary criticism.

PHIL 206. Philosophy & Film. 3 cr.
This course examines the art of cinema from a philosophical perspective.

PHIL 208. Existentialism. 3 cr.
Working our way through a family of thinkers often labeled existentialists, such as Kierkegaard, Nietzsche, Marcel, Heidegger, Sartre, and Camus, we shall guide our inquiry into this school of philosophy by means of a few shared themes: freedom, anguish, responsibility and meaning.

PHIL 209. African Philosophy 3 cr.
This course explores how philosophers in Africa examine religion, culture, morality, wisdom, and social justice. It examines various kinds of sages and their views of God, culture, life and death, and humans and animals. The course uses philosophical texts, novels, visual arts, and film.

PHIL 212. Political Philosophy. 3 cr.
Fundamental political questions are explored through readings from some classical but mainly from contemporary sources. The link between philosophy and practical political themes is emphasized as much as possible.

PHIL 214. Philosophy of Sex. 3 cr.
This course provides an introduction to some of the basic themes and texts, both traditional and contemporary, related to the philosophical study of sexuality.

PHIL 219. Christian Philosophy 3 cr.
This course studies the meaning of the Incarnation of Christ and other basic Christian symbols. It analyzes these in relation to the nature of religious knowledge, the problem of evil in biblical experience, and phenomenology of the holy. It looks at the history of Christian philosophy with particular focus on Augustine and Aquinas in the medieval period, and Kierkegaard in the modern period.

PHIL 220. Philosophy of Death and Living. 3 cr.
This course provides an introduction to traditional and contemporary themes and texts related to this topic. In asking how human beings can be happy in the face of death, it emphasizes the art of living.

PHIL 225. Philosophy of Technology. 3 cr.
This course examines philosophically how our lives are shaped by technology and the relation of technology to science, art, and politics.

PHIL 260. Philosophy of Law. 3 cr.
This course includes a study of major legal traditions and considers topics such as: justice, ethics and law, legal reasoning, and philosophical issues in evidence and procedure.

PHIL 265. Philosophical Approaches to Multiculturalism. 3 cr.
This course investigates philosophical issues regarding life in a multicultural society, considering issues such as the nature of individual and communitarian identity, the history of the concept of race, the idea of a nation and the practice of nationalism, changing concepts of gender and sexuality, the role of economic location, etc.
PHIL 285. Introduction to Feminist Philosophy. 3 cr.
This course examines the way in which issues of gender and sexual differences reshape our understanding of selfhood and personal identity, and thereby have an impact on traditional philosophical views of political and ethical relationships, of the nature and scope of knowledge, and of the relationship between power and language.

PHIL 290. Concentrated Philosophical Readings. 3 cr.
This is a private tutorial arranged with an individual professor. It is intended for a student who needs to concentrate on a philosophical topic that is not offered in a regular course.

HISTORICAL COURSES are designed for majors, minors, and serious students of philosophy. Prerequisites: at least two 100-level or 200-level courses or instructor’s permission.

PHIL 300W. Ancient Philosophy. 3 cr.
This course spans the beginning of philosophy in Greece, from the Pre-Socratics to Plotinus, with readings taken primarily from Plato and Aristotle.

PHIL 301. Medieval Philosophy. 3 cr.
A sampling of Christian and Islamic thought from late antiquity through the thirteenth century, with emphasis on the continuity, the development, and the interplay of the Platonic and the Aristotelian traditions. Such themes as knowledge, the existence of God, the problem of evil, the relation between divine and natural causes, and the soul will receive special attention, always through primary sources.

PHIL 302. Early Modern Philosophy. 3 cr.
A study in the major issues in modern philosophy from the end of the Renaissance, through the mid-18th century. Readings may include Montaigne, Galileo, Descartes, Hobbes, Spinoza, Pascal, Leibniz, Locke, Hume, Rousseau, and others.

PHIL 304. Later Modern Philosophy. 3 cr.
A study of the period of philosophy initiated by Kant, this course deals with some of the crucial thinkers of the late 18th and 19th centuries such as Kant, Hegel, Feuerbach, Kierkegaard, Marx, Mill, and Nietzsche.

PHIL 305. Contemporary Philosophy. 3 cr.
This course concentrates on philosophy from 1900 to the present and covers the methods of selected 20th century movements, such as phenomenology, hermeneutics and deconstruction.

ADVANCED COURSES are designed for majors, minors, and other serious students of philosophy. Prerequisites: at least one 100-level or 200-level course and two 300-level courses or instructor’s permission. Many 400-level courses are also 500-level graduate courses. A list of specific courses taught is available each semester at pre-registration. The following are a small sample from courses taught recently.

PHIL 311. Aesthetics and Philosophy of Art. 3 cr.
This course explores a branch of philosophy concerned with questions of art and beauty, art theory and art criticism, aesthetic judgment and the sublime. Selected readings are from the writings of Plato, Plotinus, Kant, Hegel, Nietzsche, Heidegger, and Adorno.

PHIL/WSGS 312. Philosophy of the Body 3 cr.
How can we carry out a philosophical analysis of the body? In other words, how can different embodied experiences, including those based on gender, enter into philosophy? How does the meaning ascribed to the body affect the subjectivity of those who are embodied in different ways? Readings will include at least some of the following: Husserl, Merleau-Ponty, Foucault, Irigaray, Butler, Bordo, and Iris Young. Our main discussion will center on the development of a theory of embodied subjectivity that addresses different types of gendered experiences, and a critical analysis of normative definitions of body and gender.

PHIL 322. Philosophical Roots of Psychology. 3 cr.
This course examines the philosophical roots and psychological incarnation of four important approaches to understanding human existence: rationalism (Descartes, Kant, and cognitive psychology), empiricism (Hume and Skinner’s behaviorism), phenomenology (Merleau-Ponty), and genealogy / psychoanalysis (Nietzsche and Freud). Treating these approaches comparatively and examining their philosophical roots will help us to evaluate their adequacy within the disciplines of both philosophy and psychology. Prerequisites: Core 132 Basic Philosophical Questions.

PHIL 323. Aristotle. 3 cr.
A survey of Aristotle’s major writings, from his logical and epistemological works through his physics and metaphysics, psychology and ethics, then finally his politics and poetics. Students will acquire not just an understanding of Aristotle’s particular philosophical concepts and arguments, but also an appreciation of his whole philosophical system.
PHIL 350. Elements of Thomistic Thought. 3 cr.
An introduction to the philosophical thought of St. Thomas Aquinas through his own writings, especially those on the relation between faith and reason, the existence and attributes of God, knowledge, and language. Students will learn how to interpret his works in light of their sources, historical context, and literary forms.

PHIL 351. Nietzsche and Freud. 3 cr.
A survey of the major writings of Nietzsche and Freud, showing their remarkable similarity, and thus demonstrating the porous border between philosophy and psychology. Topics discussed include: human nature and motivation, consciousness and unconsciousness, reason and emotion, narcissism and love, guilt and morality, artistic creation and religious belief, freedom and the best life. Of special interest will be Nietzsche and Freud’s shared pursuit of self-knowledge.

PHIL 402. Augustine and the Ancients. 3 cr.
A survey of Augustine’s philosophical works, focusing especially on the *Confessions*. Before reading Augustine, however, the first part of this course covers the ideas of ancient Greek and Roman philosophy that are most important for understanding both Augustine’s debt to pagan thought and his self-conscious subversion of it.

PHIL 404. Plato’s *Republic*. 3 cr.
This course concentrates on Plato’s text, with a consideration of various interpretations.

PHIL 405. Freud and Psychoanalysis. 3 cr.
This course has three parts. The first surveys the major writings of Freud; the second examines the most serious criticisms of Freudian theory and practice; the third considers psychoanalytic writing from the last decade in order to determine whether recent psychoanalysts have met the best criticisms leveled against their discipline.

PHIL 420. Saint Augustine. 3 cr.
The early dialogues and the *Confessions* will be discussed. Possible topics: skepticism, truth, free will, the existence of God, faith and reason, the soul, memory, and time.

PHIL 422. Saint Thomas Aquinas: Treatise on Man. 3 cr.
Original texts will be read and discussed in the light of Aquinas’ psychology, epistemology, and theory of appetite, and will cover topics such as love, will, affectivity, emotion, and law.
PHIL 453. Husserl: Inner Time Consciousness. 3 cr.
This course includes careful readings from Husserl’s texts on inner time-consciousness: Part B of *On The Phenomenology of the Consciousness of Internal Time, Analysis of Active and Passive Syntheses*, and possibly some manuscripts (untranslated). A prior understanding of the basics of Husserl’s phenomenology and method (the basic premises gained from a reading of Ideas I) will be extremely helpful to participants, and a basic understanding of German will also be a plus.

PHIL 454. Philosophy of Time. 3 cr.
This course addresses some of the more influential philosophical analyses of time and temporality in the history of philosophy, including those from Aristotle’s *Physics* and Augustine’s *Confessions*. We may also look at more contemporary philosophers, such as Husserl and Heidegger.

PHIL 469. Honors Research. 3 cr.
Designed for students in the Honors program in philosophy. Consists of directed readings, periodic reports, and work on Honors thesis.

PHIL 472. Heidegger’s Being and Time. 3 cr.
This course focuses on a careful reading of both divisions of Heidegger’s *Being and Time*. In the first half of the semester, we address Division one and an understanding of Heidegger’s overall problematic, terminology, methodology and conclusions. Then we turn to Division two and his analysis of temporality as well as his further work with authenticity.

PHIL 474. Sartre: Being and Nothingness. 3 cr.
This course focuses on a careful reading of Jean-Paul Sartre’s *Being and Nothingness*. We read much of this text closely, concentrating on Sartre’s methodology, goals, and philosophical accomplishments. In addition, we discuss the philosophies that influenced Sartre’s existential phenomenology, especially Husserlian phenomenology and Heideggerian existentialism.

PHIL 476. Husserl. 3 cr.
This course touches upon several of Husserl’s more important texts, such as *Logical Investigations, Ideas, Crisis of European Sciences, On the Phenomenology of the Consciousness of Internal Time*, and *Cartesian Meditations*. While analyzing the texts themselves, we will focus also on the development of certain issues within Husserl’s phenomenology, such as temporality, corporeality, and intersubjectivity.

PHIL 498. Philosophy of God. 3 cr.
This course introduces students to selected traditional and contemporary texts and basic themes in types of religious experience, such as Babylonian, Greek, and Judaeo-Christian. It delineates such questions as: What is the Holy? What is the status of arguments for the existence of God? Why is there human suffering if God is good and all-powerful?

DEPARTMENT OF POLITICAL SCIENCE
Chairperson:
Pat Dunham, Ph.D.

Political Science studies the ideas, institutions, behavior, values, and goals of human collective life. The department stresses that understanding political life is a necessary part of the study of human existence, since politics is an expression of our deepest human concerns, e.g. for justice and order. Empirical and normative methods of understanding political life will lead students to an appreciation for subjects such as: sources of conflict in international and domestic politics, similarities and differences among political structures and goals worldwide, debates about political ideals over the centuries, and United States’ political institutions and public law.

Political Science majors go on to law school and careers in law; government and administrative work at the local, state and national levels; jobs in private industry, finance, or the mass media; and continued studies at the graduate level. The Department coordinates with the Departments of History and Modern Languages for a major in International Relations.

REQUIREMENTS FOR THE MAJOR

Thirty credits are required, no more than six of which can be at the 100-level. These credits must include 105, 208 or 209, 245, 317 or 318, and 427 or 436.

Students transferring to Duquesne from another College or University may receive a maximum of 12 transfer credits applied to their major requirements.

REQUIREMENTS FOR THE MINOR

Fifteen credits are required, no more than three of which can be at the 100-level. A maximum of six transfer credits can be applied to the minor.
105. **American National Government.** 3 cr.
This institutional structure and policy-making processes of national government are examined as reflections of the assumptions of liberal democracy and of the American social and economic systems.

110. **Current Problems in International Politics.** 3 cr.
An analysis of the causes and potential solutions of many of the dominant international issues and threats that states currently face.

115. **Human Being and Citizen.** 3 cr.
An introduction to the perennial conflicts of political life, using literature, plays, music and works of political thought.

120. **Introduction To Political Economy.** 3 cr.
An introduction to how government decisions about trade, investment, debt and market developments impact people domestically and worldwide. Special attention is given to the problems experienced by poorer countries and responsibilities of developed nations.

203. **The American Congress.** 3 cr.
An investigation of the operation of the Congress within the American system of government.

208. **Comparative Political Systems: Advanced Industrial States.** 3 cr.
A comparative analysis of political systems of Western Europe and other advanced democracies. Emphasis is on the political history, institutions, parties, and major policy issues facing these countries.

209. **Comparative Political Systems: Developing States.** 3 cr.
An examination of democratization, economic development, cultural conflicts, and regional relations in developing states such as India, China, Nigeria and Iraq.

220. **The Politics of Public Finance.** 3 cr.
This course is an introduction to the politics and mechanics of the budgeting and appropriating processes. The course examines the key actors, institutional procedures, actor strategies, and policy products in these areas, considered at the federal, state and local levels of governance.

235. **Mass Media and Politics.** 3 cr.
A study of the mass media and its nature, role, and impact on U.S. politics. The emphasis is on the media as instruments of political communication and opinion leadership.

245. **International Relations.** 3 cr.
This course introduces the major paradigms of international relations theory, and surveys the main elements of the Westphalian System of inter-state relations in the world today. It pays particular attention to important global institutions like the United Nations, the World Bank and the IMF, as well as transnational phenomena such as environmental, migratory and security threats.

255. **American Foreign Policy.** 3 cr.
An analysis of how such factors as power, ideologies, institutions, bureaucracies, and human psychology help us understand American foreign policies from the founding until today.

276. **Elections, Campaigns, and Voting Behavior.** 3 cr.
An examination of the determinates of opinions and political beliefs, political participation, and voting behavior; the significance for democratic government of findings in these areas.

290. **American Political Thought.** 3 cr.
An analysis of diverse perspectives on key issues, such as equality, rights, race, or religion, that define the distinctive character of American politics.

292W. **Public Policy.** 3 cr.
A study of how and why government responds to problems.

294W. **The American Presidency.** 3 cr.
A study of the role of the President at the center of the decision making process in the American political system.

295. **War and Peace in the Nuclear Age.** 3 cr.
The advent of weapons of mass destruction has forever altered the way nations can think about security. This course surveys the basic tenets of employing force in the interests of the State, and investigates the way new threats – from WMD to Fourth Generation Warfare – are presenting new challenges to security.
317W, 318W. Western Political Thought I and II. 3 cr. each
A study of the ideas that constitute our western heritage of reflection on perennial political issues. 317 considers theorists from the classical period to the early 16th century; 318 considers theorists from the late 16th to the late 19th centuries.

322W. Government and Politics of Russia and the Independent States. 3 cr.
An examination of the political and culture challenges in democratization and market economy transition.

323W. Constitutional Law: Federalism. 3 cr.
A study of constitutional interpretation as it relates to federalism and the separation of powers.

324W. Constitutional Law: Civil Liberties. 3 cr.
A survey of problems and cases in civil liberties and civil rights, e.g. freedom of speech, freedom of religion, privacy, and equal protection. Students read and brief court decisions.

325W. Constitutional Law: Criminal Law. 3 cr.
This course will consider cases in criminal rights, and major aspects of criminal procedure. Students read and brief court decisions.

326W. Constitutional Law and Politics: Civil Liberties and Civil Rights. 3 cr.
This course examines constitutional law and politics arising from the Bill of Rights and the 14th Amendment. Special attention is given to religious establishment; free exercise of religion; freedom of speech; protection against unreasonable searches and seizures, compelled confessions, and cruel and unusual punishment; due process; privacy; and equal protection of the laws.

327W. Constitutional Law and Politics: The Powers of Government. 3 cr.
This course examines the constitutional law and politics of separation of powers and federalism. Topics include the powers of war and peace; emergency executive powers; executive privilege; executive immunity; impeachment; congress’s power to regulate interstate commerce; delegation; the supremacy clause, nullification and interposition; and state sovereign immunity.

330. Contemporary Affairs Seminar. 3 cr.
This course introduces the student to contemporary debates in social and public policies, while also preparing the student to compete for nationally prestigious scholarships and research fellowships. Permission of instructor required.

345W. Ethics and International Relations. 3 cr.
An analysis of the possibilities, limits, and obligations of ethical action in international relations. The class explores a number of theoretical approaches and applies them to key policy issues and events.

349. United Nations I. 1 cr.
Examines the processes and policies of the United Nations. Participation in local and national model United Nations conferences is required. Permission of instructor required.

350. United Nations II. 1 cr.
Examines the processes and policies of the United Nations. Participation in local and national model United Nations conferences is required. Permission of instructor required.

353. United Nations III. 2 cr.
Examines the processes and policies of the United Nations. Participation in local and national model United Nations conferences is required. Permission of instructor required.

354. United Nations IV. 2 cr.
Examines the processes and policies of the United Nations. Participation in local and national model United Nations conferences is required. Permission of instructor required.

360. Crisis Management in Complex Emergencies. 3 cr.
Crisis theory in international and civil crises is the center focus of this course. How planners prepare to handle and then process high pressure threats in a shrinking window of opportunity is analyzed through a series of Case Studies which include diplomatic, military and environmental emergencies. A major crisis management simulation is the capstone of the coursework.

375. Catholic Theory and International Relations. 3 cr.
The class develops and analyzes Catholic political thought as an international relations theory, and then articulates the strengths and weaknesses of this approach in comparison to other prominent traditions.

380W. Controversies in Public Policy. 3 cr.
Analysis of the sources of conflict in contemporary public policy making.
385. International Law and Organization. 3 cr.
Examines the historical development and present role played by international law and organizations.

390. Asian Politics. 3 cr.
Examines key issues in Asian politics including democratization and the state; the role of religion, caste, ethnicity, and gender; and problems of population, poverty, and development. Countries considered include China, Japan, and India.

407. Terrorism. 3 cr.
The phenomenon of transnational violence perpetrated by non-state actors against civilians has become the single most pressing security issue in the modern era. This sort of violence – terrorism – is studied here in all its facets: motivations, organization, funding, tactics and goals. Furthermore, kinetic as well as soft-power counterterror strategies are also reviewed from the policy, legal and moral perspectives, among others.

408W. Democracy, Conflict, and World Politics. 3 cr.
Examines power, conflict, and democratization primarily in countries outside the U.S.

409. Public Administration. 3 cr.
Have you ever wondered why “government bureaucrat” is a pejorative term? Or why seemingly simple regulatory requirements result in a mass of red tape for citizens? Have you ever encountered the public bureaucracy as either an employee or a customer and puzzled at what you found? This course is designed to shed light on these mysteries and to provide students with an opportunity to explore the complexities inherent in the process of administering the laws, policies, and regulations of our country.

412. Arab Israeli Conflict. 3 cr.
The clash between Jewish Zionists and the Arab peoples of Palestine and surrounding countries has been a focal point of world politics for roughly the last 100 years. It has involved six wars, as well as near-continual violence short of outright war. This course is designed to make the major issues comprehensible and to enable students to begin to form their own assessments of what is needed for a just and lasting resolution.

413W. Human Rights: Politics and Policy. 3 cr.
Explores the international human rights regime including philosophical sources, legal instruments, governmental and non-state actors, and impacts on the international system.

414W. Political Economy of Russia and the Independent States. 3 cr.
A study of the way in which economic and political forces interact in the restructuring of a nation, with special attention given to trade issues, commercial ventures, banking reform, and environmental questions.

418. Politics of Civic Problems. 3 cr.
This course examines the impact of various economic and social policies on the quality of life and economic vitality of our citizens, with particular attention paid to Western Pennsylvania.

419W. Ethnic Conflict: Politics and Policy. 3 cr.
Why do people identify with ethnic groups? Why does ethnic identity sometimes lead to private ritual, sometimes to peaceful mobilization through mass movements or political parties, and sometimes to violent conflict, pogroms and genocide? Most pressing, are there solutions to ethnic conflict, particularly in deeply-divided, violence-ridden countries? This course discusses these questions, focusing particularly on the developing world.

420. Contemporary Political Thought. 3 cr.
A study of the central controversies in political thought during the 20th century.

422W. American Defense Policy. 3 cr.
This course begins with the onus of major international security obligations for the U.S. which commence after 1945. It reviews the various political and military architectures which the United States developed to meet those needs. Further, it surveys American grand strategy throughout the past several decades – considering the political, budgetary and national security processes which powered those decisions. Permission of instructor required.

424. Women and Politics. 3 cr.
An examination of the political socialization and behavior of women in the U.S. political culture; their role in elections; their impact as an interest group; and the public policies particularly affecting women or affected by women.

426. American Politics and Policy. 3 cr.
This course studies the political environment for public policy analysis in the United States at the federal level. Permission of instructor required.
427. **Quantitative Analysis.** 3 cr.
Examines quantitative research methods for the analysis of political phenomena.

428W. **Global Energy Policy.** 3 cr.
The impact of oil and natural resource issues have on decision making by governments and international organizations. Global market impacts and the activities of multinational cartels are also studied.

429W. **Comparative Intelligence Agencies.** 3 cr.
An examination of the development, structure and usage of intelligence agencies with particular emphasis on how such functions impact upon national policy makers and the policy making process. The primary focus of the course centers on a study of the CIA, British MI6 and Russian KGB/FSB.

430W. **Internship in Practical Politics.** 4 cr.
A work experience in government offices. Permission of department required.

The struggle among communities of South Africans for security, dignity, prosperity, and a sense of control over their own destiny is over 350 years old. This course highlights the clash between the Afrikaner national movement, which was in power from 1948-1994, and the African National Congress (ANC), which governs today.

436W. **Advanced Seminar.** 3 cr.
An in-depth consideration of selected topics in the discipline. Open to seniors and advanced juniors only. Permission of instructor required.

499. **Directed Readings in Political Science.** 1-3 cr.
An opportunity for selected students to engage in independent study and research. Permission of instructor required.

---

**DEPARTMENT OF PSYCHOLOGY**

*Chairperson:*
Daniel Burston, Ph.D.

The Duquesne University Psychology Department is renowned throughout the world for its scholarship in the area of human science psychology. What does it mean to conceive and practice psychology as a “human science?” This approach includes a variety of interpretative perspectives sharing common roots and similar understandings about what it is to be human. These perspectives guide the goals and methods of research and practice. Traditionally, the natural sciences have relied on quantitative, experimental research methods to achieve their goal of prediction and control. Human science psychologists have long held that while this approach may be appropriate when applied to physical objects (such as those studied by physics and chemistry), it is often inappropriate when applied to human phenomena such as history, culture, art, and much of psychology. The psychological study of human beings often requires distinctive methodologies which seek to understand people (rather than controlling them) and which enable the sharing of this understanding in the service of health and well-being. Following from this perspective, human science psychology emphasizes qualitative research that explores questions regarding meaning, values, experience, and culture. Similarly, in the field of clinical psychology, human science psychologists incorporate this perspective and its research findings into the practice of psychotherapy.

Duquesne’s emphasis on psychology as a human science means that coursework fosters critical and creative thinking about the nature of psychological phenomena and about the presumed facts discovered in research and practice. Students are encouraged to consider the assumptions about human beings that underlie various therapeutic and research approaches, theories, and practices, and to discover the relevance of psychology in their own experience and daily life. The scholarship of our Psychology faculty is highly esteemed throughout the United States and around the world. As in other disciplines at Duquesne, undergraduates have the considerable advantage being taught by these prestigious scholars and benefiting from their cutting-edge research. The Department operates a Psychology Clinic which serves the campus community as well as clients from outside the university.

**GOALS OF THE UNDERGRADUATE PSYCHOLOGY PROGRAM**

Duquesne’s undergraduate psychology program aspires to help students:

- Understand the fundamental concepts, issues, and interest areas of psychology;
- Think critically and creatively about human psychology and life as a whole;
• Communicate effectively in writing and speech;
• Draw upon psychology as a way of being critically and socially engaged with the contemporary world, including being of service to others;
• Work with and apply ethical principles, both personally and in service;
• Become prepared for careers and/or graduate study in psychology, social work, and counseling, and in related fields such as education, business, law, health care, and human services;
• Cultivate their potential as distinctive individuals and participants in society.

REQUIREMENTS FOR THE PSYCHOLOGY MAJOR

The major involves 36 credits in Psychology with requirements in specified areas of study (as noted below) and opportunities for electives in areas of special interest. Valuing experiential education, the Department offers practicum opportunities in applied settings such as a psychiatric hospital, an elder care division of a medical hospital, and a school. Practica are supervised by professionals on site and are awarded course credit upon completion. In their Senior year, Psychology majors participate in a capstone Integrative Seminar course that includes a service learning project. This course helps students integrate their four years of undergraduate psychology and prepare for work or graduate study following graduation. A minimum of 24 credits in psychology must be taken at Duquesne University for the major. To earn a B.A. degree in Psychology, students must also complete all University and College requirements for the B.A. degree. Students should consult their college advisor and the Undergraduate Catalogue regarding these requirements.

REQUIREMENTS FOR THE MINOR

Requirements for a minor are Psych 103, 203 and three other psychology courses. A minimum of nine credits in psychology must be taken at Duquesne University for the minor.

INSTRUCTION

103. Introduction to Psychology. 3 cr.
Introduction to fundamental concepts and methods of psychology, examined from both traditional and human science perspectives. Prerequisite for all other departmental courses.

203. Introduction to Psychology as a Human Science. 3 cr.
This course introduces the student to a variety of non-positivist traditions in Continental philosophy, and their implications for psychology.

210. History and Systems of Psychology. 3 cr.
Survey of the psychologies of previous eras, the development of the modern science of psychology, and the diverse approaches within the discipline today.

220. Brain, Behavior, and Cognition. 3 cr.
The course explores the biological, behavioral and cognitive approaches to psychology, with particular attention to assumptions that underlie each system of thought. The course emphasizes both classical theories and current findings.

225. Developmental Psychology I: Infancy to Adolescence 3 cr.
This course focuses on the development of children from infancy through adolescence, addressing social, cultural, biological, cognitive, and existential aspects of child development.

226. Dev. Psychology II: Adulthood. 3 cr.
Development from adolescence, through adulthood, addressing social, cultural, biological, cognitive, and existential aspects of development.

270. Special Topics 3 cr.
A faculty member presents highly specialized studies or an experimental course. This course may occasionally be a team taught course. Repeatable. Prerequisite: Intro to Psych.

324. Perspectives on Disability & Illness. 3 cr.
An overview of the impact of the environment and individual experience on issues related to having a disability or chronic illness. The influence of lifestyle occupations, personal attitudes and social justice are used to explore the unique biopsychosocial person-environment interaction when a person of any age experiences disability and chronic illness. Also listed as OCCTH 324.

328W. Psychology of Personality. 3 cr.
Critical examination of major theories of personality. Writing-intensive course.

330. Organizational Psychology. 3 cr.
An overview of psychological theory and research
relevant to organizations, with particular emphasis on the effective utilization of human resources within organizations.

340W. Social Psychology. 3 cr.
Foundations of social processes, attitudes, values and roles, public opinion, propaganda and communication, personal participation in society. Writing-intensive course.

350. Psychology & Religion. 3 cr.
The aim of this course is to familiarize the student with psychological perspectives on religion and spirituality, and religious and spiritual perspectives on the various mental health professions.

352W. Psychological Disorders. 3 cr.
An examination of the clinical features, topical questions, and main theoretical approaches to abnormal psychology. Writing-intensive course.

361. Psychology of Identity and Fulfillment. 3 cr.
The ways in which identity is lived individually and collectively. Designed to be personally relevant to the life of the student.

370. Psychology of Aesthetic Experience. 3 cr.
Theoretical and empirical explorations of aesthetic experience.

391. Applied Psychology Practicum. 3 cr.
An applied psychology setting provides the opportunity for interacting with clients under the supervision of professionals. Settings have included psychiatric hospitals, medical hospitals, and schools. By application. Majors only. Permission of Department Chair or Director of Undergraduate Programs.

394. Psychology of Language and Expression. 3 cr.
Communication as a life-embodied relation of person to world and others. Emphasis is on phenomenological, modern psycholinguistic, and/or post-structuralist approaches. Permission of department head or director of undergraduate psychology for non-majors.

411W. Post-structural and Critical Psychology. 3 cr.
This course investigates the social construction of psychological dynamics and social realities, emphasizing the role of taken-for-granted systems such as language and economics. Critical psychology is developed by asking how the fields and practices of psychology are socially constructed, and how psychology in turn nurtures the political environment in which it develops. Writing-intensive course.

412W. Psychoanalytic Psychology. 3 cr.
An in-depth examination of the contributions of Freud (and possibly of other psychoanalysts as well), with attention to the difference between Freud’s times and cultural context and our own. Writing-intensive course.

413W. Humanistic and Transpersonal Psychology. 3 cr.
An in-depth exploration of major theories, concepts, and practices of humanistic and transpersonal psychology, two distinctive approaches within the human science model of psychology. Writing-intensive course.

420. Research Methods in Psychology. 3 cr.
Introduction to experimental and qualitative psychological research. Emphasis on reading and evaluating research. Prerequisite: Intro 103 and Math 125 or Math 225.

427. Developmental Psychology III: Aging and the Elderly. 3 cr.
Development through late adulthood, addressing social, cultural, biological, cognitive, and existential aspects of development. The course is co-taught with Sociology and with the graduate course, Aging and Mental Health. Thus there is an emphasis on the mental health problems of old age, including the dementias, mood disorders, etc. Some practicum experience is typically required in this course.

453. Psychology of Gender. 3 cr.
This course explores men’s and women’s existence as gendered beings. The theoretical as well as existential dimensions of gender are thematized, and the biological, social, and personal contexts will be discussed.

454. Psychology of Social/Cultural Diversity. 3 cr.
This course critically explores some of the ways in which psychology understands cultural and/or social diversity and difference.
455. Psychology of Peace and Conflict. 3 cr.
This course examines theories of conflict and violence at interpersonal, intergroup, and international levels. Additionally, theories of peace, and attempts at conflict resolution, management, and control, will also be covered.

456. Psychology of Disability. 3 cr.
The psychology of disability proceeds broadly from two interrelated foci. Firstly it examines theoretical and research findings with respect to psychological meaning-making processes and dynamics among people with disabilities. Secondly, the course examines some of the ways disability is viewed, perceived, and responded to by a broader, non-disabled culture. As such, issues of stigma, identity, social policy, stereotypes, self-perception, coping and adaptation, interpersonal relations, and technology may be addressed within the course.

457. Independent Studies. 3 cr.
A tutorial course for an exceptional student who wishes to pursue a particular study with a faculty member. For majors only; usually those intending graduate study; advanced coursework completed. Permission of faculty member and either Department Chair or Director of Undergraduate Psychology required.

480. Psychology and Social Engagement: An Integrative Seminar. 3 cr.
A senior level seminar designed to help students integrate their various studies in psychology. The interrelationship of psychology, social engagement, and service to others will be explored. Students participate in an experiential service learning project and create an integrative portfolio of their development as students of psychology.

490. Special Topics. 3 cr.
A visiting professor presents his or her specialty, or a regular faculty member presents highly specialized studies or an experimental course. Repeatable. Prerequisites vary with instructor.

**DEPARTMENT OF SOCIOLOGY**
Chairperson:
Michael D. Irwin, Ph.D.

Sociology offers students a greater understanding of the social structures and processes that underlie our daily lives, and an awareness of the possibilities of social-scientific research for increasing our understanding of society.

Duquesne’s program in sociology provides a strong academic foundation. Our core curriculum teaches social theory and research methods, which provide the basic knowledge necessary for graduate study or employment in the social sciences. Our elective courses offer knowledge relevant to specific areas of students’ interests.

For students who wish to specialize early in their careers, we offer academic concentrations in Criminal Justice, Human Services, and Social Justice & Policy. The Criminal Justice concentration provides substantive background for work or further education in the criminal justice field. The Human Services concentration is a pre-professional preparation for careers or graduate training in the human services arena. Our concentration in Social Justice & Policy prepares students for graduate programs in social science and for research in government agencies, private research firms, the non-profit sector and other applied research areas.

For students who wish to move quickly and efficiently into graduate study we offer a five-year program which leads to both a BA in sociology and an MA in Social and Public Policy. Qualifying students may apply in their third year for this program. The fourth year curriculum overlaps the two programs as these courses count for both undergraduate and graduate credit. The MA degree is then completed during the fifth year. Leaving Duquesne with two degrees in social science can provide students with a significant advantage in the job market, or a rapid track toward a Ph.D.

**REQUIREMENTS FOR THE MAJOR**
A minimum of thirty-four semester hours is required for the major. These must include:

- 101 Survey of Sociology
- 200W Classical Sociological Theory
- 201 Sociological Methods I
- 202 Sociological Methods II
- 202L Sociological Methods II Lab
- 455W OR 456W Senior Seminar

Majors may choose one of three areas of concentration: Criminal Justice, Human Services, or Social Justice and Policy.

Students may also choose to major in sociology without a concentration. In this case they may choose the remaining 18 credits from any of the Department’s course offerings.
Courses within the major should be scheduled in consultation with the student’s faculty mentor. In addition, the major must complete Math 125 Fundamentals of Statistics, offered by the Department of Mathematics and Computer Science. This course may also satisfy the University Core requirement.

CONCENTRATIONS IN THE MAJOR

Criminal Justice
This program provides the student with the opportunity to develop knowledge and skills in preparation for advanced study or for career pursuits in areas including probation, parole, law enforcement, investigation, corrections, and research.

Required courses:
- 101 Survey of Sociology
- 103 Introduction to Criminal Justice
- 200W Classical Sociological Theory
- 201 Sociological Methods I
- 202 Sociological Methods II
- 202L Sociological Methods II Lab
- 456 Senior Seminar - Criminal Justice

Nine of the remaining fifteen credits must be selected from any of the following:
- 211 Social Deviance
- 212 Drugs and Society
- 213 Criminology
- 216 Delinquency and Society
- 218 Treatment and Community Corrections
- 222 Introduction to Peace and Justice
- 264 Police and Society
- 310 The Law and the Juvenile Offender
- 311 The Law and the Adult Offender
- 314 The American Judicial System
- 321 White Collar and Corporate Crime
- 369 Race, Gender and Crime
- 409/509 Correctional Policy and Practice
- 421/521 Criminal Justice Policy
- 454 Selected Readings

A minimum of three credits must be selected from other Departmental offerings. We recommend that at least six credits be selected from courses at the 300-level or above.

Human Services
This concentration is designed to provide a knowledge base and fundamental skill development to those students interested in pursuing careers and graduate training in social work, human services administration, and community organization. It is a pre-professional concentration in its focus on both theoretical and applied concepts. As such, it combines course work with an internship experience.

Required courses:
- 101 Survey of Sociology
- 200W Classical Sociological Theory
- 201 Sociological Methods I
- 202 Sociological Methods II
- 202L Sociological Methods Lab
- 214 Helping Process
- 219 Introduction to Human Services
- 450 OR 451 Fieldwork (6 credits)
- 455W Senior Seminar - Sociology

Three credits must be selected from the following:
- 106 Social Problems and Social Policy
- 203 Sociology of Aging
- 207 Sociology of Health and Illness
- 208 Racial and Ethnic Groups
- 218 Treatment and Community Corrections
- 225 Family Systems
- 315 Socialization and the Life Course
- 318 Sociology of the City
- 411 Aging and Mental Health
- 450 Fieldwork

Three credits must be selected from the following:*:
- 415/515 Health, Illness, and Social Policy
- 416/516 Minorities and Public Policy
- 421/521 Criminal Justice Policy
- 440/540 Family and Policy

Note: The above courses may be taken only during the student’s senior year.

*Students may petition the Curriculum Committee for a substitution if they encounter scheduling difficulties.

Social Justice and Policy
This concentration is designed for the student who is interested in applying sociological theory and research to an understanding of social policy and its applications. It prepares the student for advanced study or careers in such areas as urban planning, local government, human services, and gerontology. The student may be interested in applying to Duquesne’s Graduate Center for Social and Public Policy. The successful applicant may apply six credits of 400/500 level courses toward the Master’s degree.
Required courses:

- 101 Survey of Sociology
- 106 Social Problems and Social Policy
- 200W Classical Sociological Theory
- 201 Sociological Methods I
- 202 Sociological Methods II
- 202L Sociological Methods II Lab
- 455 Senior Seminar – Sociology

Nine credits from the following:

- 205 Person and Society
- 208 Racial and Ethnic Groups
- 215 Mass Media and Society
- 217 Social Movements
- 222 Intro to Peace and Justice
- 225 Family Systems
- 315 Socialization and the Life Course
- 318 Sociology of the City
- 320W Organizations
- 450 Fieldwork

The remaining six credits may be selected from any of the following: *

- 404/504 The Social Landscape: Place, Space and Society
- 405/508 Population
- 409/509 Correctional Policy and Practice
- 415/515 Health, Illness and Social Policy
- 416/516 Minorities and Public Policy

Note: The above courses may be taken only during the student’s senior year.

*Students may petition the curriculum committee for a substitution if they encounter scheduling difficulties.

THE GERONTOLOGY CERTIFICATE

The Department offers a fifteen-credit program leading to a Certificate in Gerontology to all majors and minors, as well as students and para-professionals outside the Department and the University. Students from outside the University who register for the Certificate do so through the School of Leadership and Professional Advancement.

To earn the Certificate in Gerontology, the student must complete 101 Survey of Sociology, 203 Sociology of Aging and three of the following courses:

- 106 Social Problems and Social Policy
- 207 Sociology of Health and Illness
- 214 Helping Process
- 219 Introduction to Human Services
- 225 Family Systems
- 315 Socialization and the Life Course
- 408 Sociology of Mental Health and Illness
- 415/515 Health, Illness and Social Policy
- 450 Fieldwork

To apply for the Certificate program, students must complete the application form obtained in the Sociology Department Office, and officially register for the Certificate during the appropriate semester.

THE GOETT ENDOWED SCHOLARSHIP

At the end of each academic year, the Sociology Department awards a merit scholarship to an outstanding sociology major. The amount of the award varies from year to year. The criteria for merit are scholarship, service and leadership, and commitment to sociology. Interested students are required to apply between January 15 and April 20. Details on eligibility and procedures may be secured from the Sociology Department office or by visiting the department website at www.sociology.duq.edu.

THE SOCIOLOGY CLUB

Sociology majors are invited to join the Sociology Club of Duquesne University. The Club meets regularly throughout the year to enhance the culture of our major on campus, and schedules special events and field trips to sites of sociological interest. The requirements for membership are as follows:

- The student must be enrolled in a sociology course.
- A minimum 2.00 QPA.
- A genuine interest in sociology.

ALPHA KAPPA DELTA

Sociology majors who meet the following requirements may be invited to join the Delta Chapter (Pennsylvania) of Alpha Kappa Delta, International Honorary Sociology Society. Each academic year the files of sociology majors are reviewed and invitations sent to eligible students. The student must be at least a junior with a minimum cumulative QPA of 3.00, a 3.00 QPA in sociology, and a minimum of twelve credits in sociology.
COURSE DESCRIPTIONS

101. Survey of Sociology. 3 cr.
An introduction to the basic concepts, processes, and institutions which are the subject matter of sociology as an academic discipline. Required for all Sociology Majors and Minors.

103. Introduction to Criminal Justice. 3 cr.
An introduction to the criminal justice system, including police, courts, correctional facilities and community based corrections. Required for the Criminal Justice Concentration.

104. Cultural Anthropology. 3 cr.
An introduction to a major sub-field of Anthropology which explores the origins, development and diversity of human cultures.

106. Social Problems and Social Policy. 3 cr.
A study of major social problems in American contemporary society; including poverty, violence, and environmental decline. Required for students in the Social Policy Concentration.

124. Global Sociology. 3 cr.
Global sociology has two emphases: the sociological study of non-US cultures, and the study of large-scale social processes such as globalization.

200W. Classical Sociological Theory. 3 cr.
An intensive review of basic sociological principles and a study of selected classical theories and schools of thought. Prerequisite: 101. Required for all Sociology Majors.

201. Sociological Methods I. 3 cr.
A discussion and application of the techniques and research procedures used in sociological research. Prerequisite: 101. Required for all Sociology Majors.

202. Sociological Methods II. 3 cr.
A study of quantitative research methods used in social science. Emphasis is placed on the application and interpretation of statistics using computerized statistical packages such as SPSS. Prerequisites: 101 and 201. It is highly recommended that MATH 125, Fundamentals of Statistics, be completed before taking this course. Required for all Sociology Majors. All students must be concurrently enrolled in SOC 202L.

202L. Sociological Methods II Lab. 1 cr.
This lab provides guided computer training in data set construction and analysis. Prerequisites: 101 and 201 and concurrent enrollment in SOC 202.

203. Sociology of Aging. 3 cr.
An examination of the social and cultural forces that impact the process of aging and the statuses and roles of the aged in human societies. Required for students seeking the Certificate in Gerontology.

205. Person and Society. 3 cr.
A study of the person’s interaction with societal groups, organizations and institutions. Prerequisite: Any 100-level Sociology course.

207. Sociology of Health and Illness. 3 cr.
What social and cultural factors affect the health of human populations? This study examines the social organizations and social processes related to well-being and sickness in various societies. Prerequisite: Any 100-level Sociology course.

208. Racial and Ethnic Groups. 3 cr.
A comprehensive survey of roles performed and problems faced by racial and ethnic groups. Prerequisite: Any 100-level Sociology course.

209. Social Stratification. 3 cr.
The class system, with a primary focus on the US. Prerequisite: Any 100-level Sociology course.

210. Sociology of Sex and Gender. 3 cr.
The study of how conceptions of masculinity and femininity are influenced by social institutions; how gender shapes the self, behavior and social relationships, and the characteristics of gender inequality. Prerequisite: Any 100-level Sociology course.

211. Social Deviance. 3 cr.
A study of the forms and consequences of social deviance and law. Prerequisite: Any 100-level Sociology course.

212. Drugs and Society. 3 cr.
Drug use as a socially constructed deviant activity. The political, practical, and personal effects of substance use on society and individuals.

213. Criminology. 3 cr.
A study of sociological explanations of criminal behavior. Prerequisite: Any 100-level Sociology course.
214. Helping Process.  3 cr.
An analysis of the helping relationship, both as a formal professional intervention and as an informal response to anyone in need. Knowledge of the techniques of helping and their application are among the goals of the course. Required for students in the Human Services concentration.

215. Mass Media and Society.  3 cr.
The study of the role of mass media in contemporary societies by examining the social, economic, political, and cultural contexts within which they operate. Prerequisite: Any 100-level Sociology course.

216. Delinquency and Society.  3 cr.
The nature of juvenile delinquency: Theories regarding the causes of juvenile delinquency. Evaluation of policies designed to lessen juvenile delinquency. Prerequisite: Any 100-level Sociology course.

217. Social Movements.  3 cr.
A study of sociological theories of social movements; an exploration of contemporary examples. Prerequisite: Any 100-level Sociology course.

218. Treatment and Community Corrections.  3 cr.
Community and institutional rehabilitative programs are considered in terms of treatment methods used and their effectiveness. Prerequisite: Any 100-level Sociology course.

219. Introduction to Human Services.  3 cr.
This course is an overview of the policies and practices of human services programs. It is designed to introduce the student to the interventions, activities, skills, values, and techniques typical of human services workers and agencies. Required for students in the Human Services concentration.

222. Introduction to Peace and Justice.  3 cr.
An introduction to conceptual, practical, and spiritual dimensions of peace and justice. Peace and justice are treated as the by-products of intra psychic, interpersonal, situational, organizational, regional, national, and global conflict.

225. Family Systems.  3 cr.
A study of the family institution and its interaction with other community institutions.

233. Sociology of Catholicism.  3 cr.
This course draws upon the Catholic Intellectual Tradition from the time of the Early Christians and Church Fathers, through medieval and Counter-Reformation moments, into the modern and postmodern age through the lens of sociological and anthropological theory. It focuses on how the Catholic tradition shapes the understanding of religion, and the social realm alike.

250. Italy Through Italian Film.  3 cr.
Examine Italian culture through the lens of Italian cinema to understand how Italians survived W.W. II, interpreted the twentieth century legacy of fascism and adapted to a contemporary culture of material wealth and high style. Italian campus only.

264. Police and Society.  3 cr.
The occupation of policing; an analysis of the role of police in the community, and an examination of critical issues in law enforcement. Prerequisite: Any 100-level Sociology course.

270. Anti-Semitism: The Persecution of Jews in the West.  3 cr.
The course explores the nature of anti-Semitism in the Western world through an examination of its roots in the pagan world and Christianity and through an examination of racial, political and economic forms of anti-Semitism in the medieval and modern world.

300W. History of Social Thought.  3 cr.
An introduction to Western thought which predates the formal discipline of Sociology and an examination of the social context which led to the development of these ideas. Prerequisite: Any 100-level Sociology course.

301W. Contemporary Sociological Theory.  3 cr.
A study of selected contemporary theories and schools of thought. Prerequisite: Any 100-level Sociology course.

310. The Law and The Juvenile Offender.  3 cr.
A survey of those aspects of the legal system that relate to the identification, processing, and rehabilitation of the juvenile offender. Prerequisite: Any 100-level Sociology course.

311. The Law and The Adult Offender.  3 cr.
The legal procedure from arrest through sentencing emphasizing applicable state statutes and U.S. Supreme Court cases. Prerequisite: Any 100-level Sociology course.

314. The American Judicial System.  3 cr.
Development of local, state, and federal court systems, the operation of these courts and the issues
in administration and case law. Prerequisite: Any 100-level Sociology course.

315. Socialization and the Life Course. 3 cr.
An examination of the socialization process throughout life, with a particular focus on the adult years. A study of stability and change in statuses and roles of age groups. Prerequisite: Any 100-level Sociology course.

318. Sociology of the City. 3 cr.
This course provides an overview of the patterns, problems and persistence of cities. We study the relationship between cities and society; including how this relationship has changed as societies have developed. Prerequisite: Any 100-level Sociology course.

320W. Organizations. 3 cr.
A critical examination of organizations in contemporary society. Emphasis is placed on the sociological interpretations and critical/analytical understandings of contemporary social organization. Prerequisite: Any 100-level Sociology course.

321. White Collar Crime. 3 cr.
The study of the character, causes, and consequences of white-collar crime in the United States. Prerequisite: Any 100-level Sociology course.

332. Sports and Society. 3 cr.
This course investigates organized sports in North America, including the structures, processes, and problems of sports as an institutionalized social system and as an institution that shapes and guides society.

333. Sociology of Religion. 3 cr.
This course explores the role of religion in contemporary society and the cultural and social forces that shape religious beliefs and practices. Prerequisite: Any 100-level Sociology course.

360. Italian Cultural Studies. 3 cr.
The sociological study of Italian culture, including but not limited to family life, Italian character and personality; the evolving role of religion, population dynamics and migration, Italian cinema, fashion, food, and the built environment. Prerequisite: Any 100-level Sociology course or permission of the instructor.

369. Race, Gender and Crime. 3 cr.
This course examines how different races, genders, and social classes experience crime, both as offenders and victims. Prerequisite: Any 100-level Sociology course.

NOTE: SEVERAL OF THE FOLLOWING COURSES ARE CROSS-LISTED WITH THE GRADUATE CENTER FOR SOCIAL AND PUBLIC POLICY.

404/504. The Social Landscape: Place, Space and Society. 3 cr.
This course examines relationships between social systems and their environments. Students learn to use Geographic Information Systems (GIS) to map and analyze social, economic and political patterns impacting communities, land use and the environment. Prerequisite: Any 100-level Sociology course.

405/505. Sociology of Education. 3 cr.
A sociological study of the educational institution in a variety of societies and cultures with a focus on lifelong education including some emphasis on childhood socialization and educational structures serving both adolescent and adult education. Prerequisite: Any 100-level Sociology course or permission of the instructor.

408/508. Population. 3 cr.
This course examines interrelationships among population processes and social, economic and political patterns of development. Specific emphasis is placed on the demographic contexts and consequences for policies in developing and developed societies. Prerequisite: Any 100-level Sociology course.

409/509. Correctional Policy and Practice. 3 cr.
In this course we examine the methods and motives of punishing criminals. In addition, we investigate the history of correctional policy and practice. Prerequisite: Any 100-level Sociology course.

415/515. Health, Illness and Social Policy. 3 cr.
This course considers the major health and illness issues apparent in both regional and national areas. An opportunity to study the nature of and developments in social policy with special reference to HIV, smoking and illness, and national health insurance. National and International data set analysis is possible. Prerequisite: Any 100-level Sociology course.
416/516. Minorities and Public Policy. 3 cr.
The historical evolution of American public policy toward minorities. This includes the legal/constitutional changes, migratory patterns, social institutions and political mobilization. Contemporary problems and issues are evaluated within this context. Prerequisite: Any 100-level Sociology.

421/521. Criminal Justice Policy. 3 cr.
An examination of policies related to the criminal justice system. Analysis and evaluation of existing and proposed policies, including special topics such as capital punishment and rehabilitation are the focus of the course. Prerequisite: Any 100-level Sociology course.

427. Visual Sociology. 3 cr.
Visual Sociology is a course in which students take photographs to study social life. Readings are drawn from sociology, photojournalism, documentary photography and philosophy and conventional issues in sociological methodology frame the discussion.

440/540. Family and Policy. 3 cr.
A survey of the wide range of policy analyses and proposals from various perspectives concerning the modern family life. Critical evaluation of these policies is based on an examination of the theoretical and conceptual foundations, the empirical bases, and the consequences that flow from the policies. Prerequisite: Any 100-level Sociology course.

450. Fieldwork. 3, 6, 9 or 12 cr.
Internships in a number of different settings. A minimum of 113 hours in placement is required for 3 credits, 225 for 6 credits, 338 hours for 9 credits and 450 hours for 12 credits. This course may be repeated once. Required of students in the Human Services and Social Justice and Policy concentrations, elective for Criminal Justice concentration and General Sociology major. Prerequisite: Majors must have completed twenty-one credits in the major.

454. Selected Readings. 1-3 cr.
Independent supervised reading. Prerequisite: twenty-seven completed credits in the major. SENIORS AND MAJORS ONLY

455W. Senior Seminar—Sociology. 3 cr.
A seminar designed to serve as a capstone to the student’s academic career. Prerequisite: twenty-one completed credits in the major. Required for Sociology Majors who graduate without a concentration, and for all students who choose our Human Services or Social Policy Concentrations. SENIORS AND MAJORS ONLY. OFFERED ONLY IN THE SPRING SEMESTER.

456W. Senior Seminar—Criminal Justice. 3 cr.
A seminar designed to serve as a capstone to the student’s academic career. Prerequisite: twenty-one completed credits in the major. Required for Sociology Majors with a Criminal Justice concentration. SENIORS AND MAJORS ONLY.

498. Special Topics. 3 cr.
These courses cover new and noteworthy topics of sociological interest. Prerequisite: Any 100-level Sociology course.

STUDIO ART
Director:
Madeline C. Archer, Ph.D.

Through the Studio Art program, students can receive training and guidance in a broad spectrum of art skills and media. Courses focus on the formulation of concepts and ideas and their realization through the mastery of theory and media. Both traditional studio courses and computer art courses are offered. Students seeking a waiver of prerequisites for any course should contact the program director.

REQUIREMENTS FOR THE MINOR:

Five courses in studio art, including FINR 101 and 103.

101. Design I 3 cr.
Design I is a foundation course that prepares students for more advanced work in art. It introduces the basic visual elements, principles of composition, and introductory design theory. Most of the work is two-dimensional and in black and white.

103. Drawing 3 cr.
An introductory course that exposes students to a systematic study of formal elements, visual perception, and drawing techniques and media. Problems lead students from simple forms and concepts to more complicated ones, culminating in drawing the human form.

105. Drawing for Scientists 3 cr.
This course exposes students to the formal elements of art and develops their drawing skills with the goal of applying those skills to the challenges of artistically documenting and presenting science through visual forms.
120. Advanced Design 3 cr.
This course builds on the principles introduced in Design I, with additional work and study in three-dimensional design and color theory. Students are encouraged to move away from preconceived notions about art and to develop critical thinking skills in their discussion and analysis of compositions. An introduction to graphic art principles is included.

130. Painting I 3 cr.
This is a foundation course that employs the acrylic medium. Students execute a series of projects that explore and develop design and compositional issues, color theory, expressive issues, and conceptual development.

203. Figure Drawing 3 cr.
This course provides students with the opportunity for intensive study of the human figure through various drawing techniques. Prerequisite: 103 or 105.

227. Photography I 3 cr.
This course is an exploration of photography as a fine art medium, and covers technical, formal and conceptual skills and goals. Students will develop integrative skills that include problem solving, critical analysis, and artistic expression. Students will achieve a fundamental understanding of how to take a good photograph and how to begin to see the world around them as if through the lens of a camera. Digital cameras will be used, and digital printing will be introduced.

230. Advanced Painting 3 cr.
A further development of the skills and theory introduced in FINR 130. The acrylic medium is used. Prerequisites: 101 or 103, and 130.

235. Introduction to Computer Art 3 cr.
Students will be engaged in expression through digital media and immersed in computer-mediated artistic activity. Through practice and application, computer tools will become effective vehicles for expressing conceptual ideas. The developing theory regarding computer-generated art and design will be studied, and students will be encouraged to analyze their own content, decisions, and techniques.

245. Computer Graphic Design 3 cr.
Using graphics software such as Adobe Illustrator and Photoshop, students will be exposed to current design aesthetics and historical design criteria. Work ranges from creative typography and free hand drawing to digitally composed pieces, fusions of graphics and text, industrial graphic design, and advertising. Prerequisites: 103 and 235, or permission of the Department.

315. Relief Printmaking 3 cr.
This course enables students to explore printmaking media such as woodcut and lino cut, as well as more recent relief technologies.

320. Watercolor and Pastel Painting 3 cr.
Both optical and conceptual compositions are developed in this course using the watercolor and pastel techniques. Prerequisite: 101 or 103.

330. Oil Painting 3 cr.
Still life, figure painting, illustration and abstract problems are explored using the oil medium.

335. Advanced Computer Art 3 cr.
The focus of this course is on conceptual projects and refining and applying skills acquired in FINR 235. Work includes high-resolution production and color printing, and the use of interactive media and video to create digital narrative pieces. Prerequisite: 235.

350. Illustration Methods and Techniques 3 cr.
This course explores the integration of drawing, painting, design and concept, expressed in illustrative compositions. Students study the history, problems and processes of illustration and engage in series of projects that introduce them to variety of visual problems and possibilities in illustration practices. Prerequisites: 103 or 105 (120 and 203 recommended).

352. Narrative Illustration 3 cr.
Through the exploitation of illustration techniques, students in this course explore how to conceptualize visually communicated stories for purposes such as book illustration, graphic novels, comic books, computer gaming and commercial art applications. Prerequisites: 103 or 105 (120 and 203 recommended.)

360. Sculpture I 3 cr.
This course explores sculptural elements through various materials and techniques with the goal of increasing the student’s spatial conceptual abilities. Prerequisites: 101 and 120.

365. Advanced Sculpture 3 cr.
A continuation of the principles introduced in FINR 360, using more permanent materials and more complex forms and projects. Prerequisites: 101, 120 and 360.
375. **Computer Assisted Illustration** 3 cr.
Computer technology and software are explored as aides to solving problems in illustration. Prerequisites: 101, 103, 235.

**400. Capstone Portfolio** 1 cr.
Working with their mentor, studio art majors in their final semester will review their cumulative portfolio and evaluate their learning and achievements in the discipline. Required of students who declared a studio art major between July 1, 2006 and September 2007.

**425. Advanced Computer Imaging** 3 cr.
Prerequisites: 101, 103, 235.

Prerequisites: 245.

**445. Introduction to Multimedia** 3 cr.
Through the use of multimedia authoring software, students study and practice the integration of visual, audio and text sources that culminate in animated and interactive pieces. Both commercial and purely artistic problems will be explored. Prerequisites: 101, 120, 235 and 245.

**475, 476, 477, 478, 480. Special Topics** in computer assisted design and imaging, such as animation, advanced multimedia and computer assisted illustration. 3 cr. each
Prerequisites: As indicated for special topic. Permission of Department required.

**405. Independent Study.** 3 cr.
Permission of Department required. Minimum of 18 credits of studio art must have been completed.

**410. Studio Art Internship.** 1-3 cr.
Permission of Department required. Minimum of 18 credits of studio art must have been completed.

**DEPARTMENT OF THEOLOGY**
*Chairperson:*
George S. Worgul, Jr., Ph.D., S.T.D.

Duquesne’s Department of Theology offers a program which undertakes an academic study of religion and experience. The Department emphasizes Catholic Theology, in dialogue with other Christian traditions, non-Christian traditions and Judaism.

**REQUIREMENTS FOR THE MAJOR**
The major program consists of a minimum of 27 credits taken at the 200-level and above, chosen with the departmental mentor’s approval. These credits will include 2 courses in Biblical Studies, 3 in Religious and Theological Studies, 2 in Ethical Studies, 2 elective course from any of the above areas. A minimum of 12 credits must be done in the Department.

**REQUIREMENTS FOR THE MINOR**
A minor consists of 12 credits taken at the 200-level or above. Students should consult the undergraduate mentor of the Theology Department for the design of the minor.

**COURSE INFORMATION**
The Department has organized its courses into three divisions: Biblical Studies, Religious and Theological Studies, Ethical Studies.

The numbering of the courses indicates the level of the approach.

- **200:** These are courses introducing students to particular areas or questions in theology.
- **300:** These courses explore subject matter in greater depth and specificity than do courses at the 200-level.
- **400:** In these courses selected topics are dealt with at a more advanced level; independent research is required.

Intensive writing or service learning are sometimes a part of Theology courses; for detailed information on what a course will involve, ask the instructor or the departmental mentor.

**Biblical Studies**

**213. The Old Testament.** 3 cr.
A presentation of the Old Testament writings in the context of their culture, literary modes, theologies, and themes.

**214. The New Testament.** 3 cr.
A presentation of the books of the New Testament, including their literary makeup, historical origins and theological content.

**311. The Torah.** 3 cr.
A study of the first five books of the Bible in the light of their historical, literary and theological features.
313. Archaeology and the Bible. 3 cr.
An illumination through archaeology of the historical setting, the cultural background, and the events described in the Bible.

315. Prophetic Literature of The Old Testament. 3 cr.
A study of classical Israelite prophetism, which was characterized by sharp protests against social abuses and by an urgent call to return to the roots of the Israelite faith.

316. The Pauline Literature. 3 cr.
A critical study of the letters traditionally attributed to Paul (including Hebrews).

317. The Wisdom Literature of The Old Testament. 3 cr.
A study of Proverbs, Ecclesiastes, Job and other wisdom writings, which treat both the practical search for happiness and the more speculative quest for meaning in life.

321. The Gospel Literature. 3 cr.
A critical study of the four Gospels in the light of contemporary scholarship.

324. The Johannine Literature. 3 cr.

329. Special Topics in Biblical Studies. 3 cr.
An opportunity to pursue a particular interest of professor and students.

Independent Study. Department permission required.

Religious And Theological Studies

205. The Mystery of God. 3 cr.
An exploration of basic questions concerning God and the world and how it is possible to think about them.

220. Jesus the Christ. 3 cr.
A study of the humanity and divinity of Jesus, in Scripture, church tradition, and contemporary times.

230. The Church. 3 cr.
The major influences that have shaped the Christian community, and how they provide insights for contemporary Church and society.

232. Faith and Atheism. 3 cr.
An examination of the claims which atheists make against the faith and the response made by believers to these arguments.

235. Christian Worship. 3 cr.
An experience-based study of how ritual functions in human life, leading to a survey of how worship has both expressed and formed Christian tradition.

242. Love in Theological Thought. 3 cr.
A study of family love, friendship, and romantic love and their relationship to God.

258. Catholicism. 3 cr.
The spirit, beliefs and practices of Roman Catholicism, and issues confronting it today.

271. Eastern Christianity. 3 cr.
A study of Christianity as expressed in the Eastern church traditions, especially various branches of the orthodox communities.

273. Judaism, Christianity, and Islam. 3 cr.
A study of the beliefs and practices of these three monotheistic religions: the distinct character of each, the varieties within each religion, and the continuities and the differences among all three.

274. Beginnings of Christianity. 3 cr.
How in 300 years the Jesus whom the Romans crucified became the God even the emperor worshipped.

280. Religious Experience. 3 cr.
How the Divine is sensed and responded to in various geographical, cultural, and chronological contexts.

301. Marriage. 3 cr.
An examination of conjugal love as the basis for marriage as a Christian sacrament.

331. The Church in the Modern World. 3 cr.
How the Christian community is a prophetic presence in secular society and a community which affirms and sustains human dignity and values.

335. Theology of the Sacraments. 3 cr.
The seven sacraments as rituals and symbols in the growth of the life of Christians.

345. Women and Christianity. 3 cr.
From the Bible to the churches today, with special attention to contemporary roles and spirituality.
348. Religion in the United States. 3 cr.
The role played by religion in American society and culture, with special attention to historical developments and contemporary trends.

372. Religious Themes in Literature and Film. 3 cr.
An exploration of religious experience and religious concepts as expressed in significant worlds in film and literature.

375. Special Topics in Theology. 3 cr.
An opportunity to pursue a particular interest of professor and students.

473. Spiritual Theology. 3 cr.
A study of the theological dimension of Christian spirituality in its major historical manifestations.

494. Directed Readings in Religious and Theological Topics. 3 cr.
Independent Study. Department permission required.

Ethical Studies

245. God, Money, and Power. 3 cr.
A study of the religious and ethical meaning of wealth and power in human life, both personally and socially.

248. Religion and Ecology. 3 cr.
A study of the relation of the human to the rest of the earth community and the role religion has played in defining it.

251. Sexuality, Sex and Morality. 3 cr.
An analysis of the nature of sex and sexuality in Christian thought, the relevance of these concepts for contemporary moral life.

412. Social Justice. 3 cr.
A study of the ethical, religious, and political aspects of human rights, social justice, and peace, with attention to historical and contemporary issues.

495. Directed Readings in Christian Ethics. 1-3 cr.
Independent Study. Department permission required.

MINOR IN WOMEN’S AND GENDER STUDIES

The Women’s and Gender Studies minor is an inter- and multi-disciplinary program, based in the humanities and social sciences, that offers an undergraduate minor to all students across the University. This program introduces students to the rapidly expanding areas of scholarship focused upon women, men and gender that have developed within the academy that is transforming scholarship in virtually every academic discipline today. The program promotes open dialogue directed toward a vision of a world community that embraces diversity, justice, peace, freedom—values central to a liberal education. This program thus participates in Duquesne University’s mission to provide for its students not only intellectual breadth but also a moral and ethical foundation for their lifelong personal and professional growth.

The minor consists of a total of 15 credit hours, including WSGS 200, Introduction to Women’s and Gender Studies, and 12 credits of electives that include more than one discipline; these electives are cross-listed under WSGS and other departments each semester. Students may petition the WSGS Steering Committee to take one course that is not cross-listed; and they may petition the committee to take one directed readings course. One course in the student’s major or another minor may also be counted.
Bayer School of Natural and Environmental Sciences

Administration:
Dean: David W. Seybert, Ph.D.

HISTORY
The School was created in 1994 as a result of the division of the Departments of Biological Sciences, Chemistry and Biochemistry, and Physics from the former College of Liberal Arts and Sciences. In 1995, the School was named in honor of the Bayer Corporation, which chose to support the School for its outstanding accomplishments in both the natural and environmental sciences. The School offers undergraduate and graduate programs and includes the Center for Environmental Research and Education.

DEGREES
The Bayer School of Natural and Environmental Sciences (BSNES) offers Bachelor of Science degrees in Biological Sciences, Biochemistry, Chemistry, Environmental Chemistry, Environmental Science, and Physics, as well as Bachelor of Arts degrees in Biochemistry and Physics. Those students enrolled in the Binary Engineering program also receive a B.A. in Physics. Also offered is a freshman entry level five year Master's degree in Forensic Science and Law. The Master’s in Forensic Science and Law has optional Bachelor degrees in Biochemistry and Biology. Science majors may apply for the Pre-Health Profession’s Program. Science majors may also apply for a dual degree in the following programs:

• BS Biology/MS Environmental Science & Management
• BS Chemistry/MS Environmental Science & Management
• BS Environmental Science/MS Environmental Science & Management
• BS Biology/MS Education
• BS Chemistry/MS Education
• BS Physics/MS Education
• BA Physics/BS Engineering*
• The Binary Engineering program in cooperation with Case Western Reserve University or the University of Pittsburgh.

GRADUATION REQUIREMENTS
To receive the Degree of Bachelor of Science or Bachelor of Arts in the BSNES, a student must complete the following requirements:

• A minimum of 120 semester hours of course credits. The last 30 hours must be taken at the University.

• University Core Curriculum as described below:
  Thinking and Writing Across the Curriculum 3 cr.
  Imaginative Literature and Critical Writing 3 cr.
  Problem Solving and Creative Math WAIVE
  Core Science (Biology, Chemistry or Physics) WAIVE
  Basic Philosophical Questions 3 cr.
  Core Theology 3 cr.
  Core Ethics 3 cr.
  Course in Creative Arts 3 cr.
  Course in Faith and Reason 3 cr.
  Course in Global Diversity 3 cr.
  Course in Social Justice 3 cr.
  Research & Information Skills 1 cr.
  28 cr.

• BSNES Core Requirements as described below:
  Science Writing........................................ 3 cr.
  History of Science.................................... 3 cr.
  Career Development Seminar.................. 1 cr.
  Math credits depending on major ............ 10 cr.
  General electives.................................... 6 cr.
  23 cr.

• Major program (refer to departmental requirements).

• An overall minimum cumulative quality point average of 2.0 in the major.

• Pre-registration (with academic advisor) for B.S./B.A. degree in major field. Submission of application for the degree on form provided by the Registrar, before the deadline published in the current University calendar. No student is considered a degree candidate prior to submission of this form.

ACADEMIC POLICIES

Effective Catalog
The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual students and the School. The Bayer School of Natural and Environmental Sciences reserves the right to alter or amend the terms, conditions, and
requirements herein, and to eliminate programs or courses as necessary. Once enrolled students should consult on a regular basis with their Faculty Mentor and Academic Advisor for specific information regarding academic policies pertaining to their respective program.

QPA

Students must maintain a quality point average (QPA) of 2.00 or better to remain enrolled in the School. For students wishing to transfer into the school, a minimum QPA of 2.50 is required.

Academic Load

Students normally carry five courses (15-17 credits) in one semester, although a 12-credit schedule in a regular semester is considered full-time study. A schedule of more than 18 credits must be approved by the Student Advisor. Students on academic probation have their credits stipulated by the Student Standing Committee. Students who wish to carry more than 12 credits of courses in the summer sessions must consult with the Chair of the department in which the student is majoring.

Residence Requirement

The last thirty credits must be taken in residence at Duquesne University.

Majors

A major may be declared at the time of a student’s admission into BSNES, and must be declared at the end of the student’s freshman year. Transfer students must declare a major when accepted into BSNES.

Minors

A student may, at his/her discretion, declare a minor. An overall minimum cumulative quality point average of 2.0 is required in the minor for graduation. Refer to the Departmental listing for specific minor requirements.

Sequential Courses

Sequential courses must be taken in proper sequence. Credit will not be given for a prerequisite course if courses for which it is a prerequisite already have been taken.

BSNES Temporary Transfers (Summer Classes)

No course taken by a student in the BSNES as a Temporary Transfer at another institution may count toward the degree unless approved by the academic advisor and/or department.

• Science classes – The BSNES will accept science courses taken at a 4-year college/university outside Duquesne University upon the approval of the course description by the department of the student’s major. If the student has not yet reached 60 credits, (s)he may take the class at a two-year college upon the approval of the student’s major department.

• Non-science classes – The BSNES will continue to accept courses that are not science courses taken at a 4-year college/university outside Duquesne University. The course description should be approved by the student’s academic advisor prior to taking the course. If the student has not yet reached 60 credits, (s)he may take the class at a two-year college.

CLEP and Advanced Placement

(Refer to page 11 of the Undergraduate Catalog)

University-Level Courses Taken While in High School

University-level courses taken by entering freshmen students while in high school will be evaluated for credit if the following criteria have been met:

1. The courses are recorded on an official transcript from an accredited institution of higher learning.
2. The grades are C or better.

SPECIAL PROGRAMS

Pre-Law

Students who intend to prepare for a career in law may select any subject area for the undergraduate major. In consultation with the Pre-Law advisor, the students will be expected to meet degree requirements in the major department, as well as admission requirements of the law school of their choice.

Binary Engineering

Students who intend to prepare for a career in engineering may enter a binary program that Duquesne University maintains with Case Western Reserve University in Cleveland, Ohio, and the University of Pittsburgh. Under the guidance of a faculty mentor, students will follow a three-year program at Duquesne University, then enter an engineering program at Case Western Reserve University or the University of Pittsburgh.

Upon completion of the program at Case Western Reserve University or the University
of Pittsburgh, students will be awarded the B.A.
Degree in Physics from Duquesne and B.S. degree
from the School of Engineering.

For details, consult with the faculty mentor for
the Binary program in Engineering in the Physics
Department.

Bachelor-Master’s Program In Biology,
Chemistry, Environmental Science, And
Environmental Science And Management
For students planning careers as environmental
professionals, the School offers a unique, five-year
program providing a bachelor of science degree in
biology, chemistry, or environmental science and
a master of science in environmental science and
management.

Students who wish to complete the joint BS/
MS program will follow the curriculum for the
appropriate major in the Bayer School of Natural
and Environmental Sciences. They may begin
course work in the environmental sciences in the
third year. The bachelor of science degree will
be awarded at the end of the fourth year if all
University and College Core Curriculum require-
ments have been met. Students must have earned
a cumulative QPA of 3.0 or better to be permitted
to continue graduate course work in the Environ-
mental Science and Management (ESM) program
during the fifth year.

Joint Degree Programs For Science Teachers
For students who are seeking a rewarding career as
science educators, the BSNES and the School of
Education offer a unique five-year Bachelor of Sci-
ence in biology, chemistry, or physics and a Master
of Science in education joint degree program.

Students enroll in the BSNES in the Departments
of Biological Sciences, Chemistry and Biochem-
istry, or Physics and apply to the Graduate School
of Education in their junior year. The Bachelor of
Science degree is generally awarded in the senior
year after completion of the undergraduate course
requirements and the Master of Science in Educa-
tion degree in the fifth year of study after comple-
tion of all graduate course requirements.

Further information is available from the Student
Advisor or the Graduate Education Office.

Second Bachelor’s Degree
A student who has received a bachelor’s degree
from another school may become eligible for a
second bachelor’s degree by earning an additional
30 semester hours in residence in the BSNES and
by meeting all department and School requirements
if not already satisfied. The additional 30 credits
must be completed at the University and may not
be taken through cross-registration. Further infor-
mation is available from the Student Advisor.

Three-Year Bachelor’s Degree
For more information contact the Office of
Admissions

Majors
Biochemistry
Biology
Chemistry
Environmental Chemistry
Environmental Science
Physics

THERE ARE THREE COURSES IN THE
UNIVERSITY SCIENCE PROGRAM (SPRG):

SPRG 104. Internship 0-6 crs.

SPRG. 105 Career Development Seminar 1 cr.
Students will learn the skills and be given back-
ground information necessary to make informed
career decisions in the natural and environmental
sciences. Basic skills such as resume writing,
application processes, and interview skills will be
discussed during the initial part of the course. In
addition, each student will prepare a career plan,
resume, and cover letter. Subsequent sessions will
involve outside speakers who will discuss their
careers. Pass/Fail.

SPRG 106. Chinese Cultural Experience*3 crs.
This course provides an in-depth three-week sci-
entific and cultural experience in China facilitated
through Duquesne University and the Chinese
Association of Science and Technology. Students
will travel to several universities in China and work
in seminars or small groups with the opportunity
to (1) communicate orally and in writing in top-
ics such as environmental science and pollution
abatement; (2) acquire appropriate learning skills
for collective laboratory work; (3) become familiar
with global scientific issues through actively par-
ticipating in scientific presentations. Students must
participate in pre-trip seminars during the spring se-
mester, in the August three-week trip including all
activities during the trip, in the writing of reports
to include in the trip summary document, and in a
post-trip presentation to the public. Graded.

*Study Abroad Fee.
DEPARTMENT OF BIOLOGICAL SCIENCES

Chair:
Philip E. Auron, Ph.D.

Professors:
Philip E. Auron, Ph.D.
Peter Castric, Ph.D.
Richard P. Elinson, Ph.D.
John F. Stolz, Ph.D.

Associate Professors:
Mary Alleman, Ph.D.
David J. Lampe, Ph.D.
Joseph R. McCormick, Ph.D.
Jana Patton-Vogt, Ph.D.
John A. Pollock, Ph.D.
Kyle W. Selcer, Ph.D.
Nancy Trun, Ph.D.

Assistant Professors:
Lisa Ludvico, Ph.D.
Susan A. Moore, Ph.D.
Becky Morrow, D.V.M.
Brady Porter, Ph.D.
Michael Seaman, Ph.D.
W. Bruce Sneddon, Ph.D.
Sarah Woodley, Ph.D.

Professor/Chair Emeritus:
H. Bernard Hartman, Ph.D.

Executive Faculty:
Alan W. Seadler, Ph.D.

Adjunct Assistant Professor:
Todd Katzner, Ph.D.

Instructor:
Lalitha Rajakumar, M.S.
Jeanne Workman, M.S.

Biology is the study of mechanisms and principles governing living systems. Based upon chemistry, physics and mathematics, knowledge of biology is an essential element in a liberal education. Through lectures, seminars, laboratories, and participation in research projects, the department of Biological Sciences at Duquesne University provides not only insight into this vast and exciting area, but intellectual enrichment, as well as preparation for professional careers.

Students majoring in biology develop a course of study suited to their long-term goals. They are assisted in their course selections each semester by biology department faculty mentors. Mentors provide advice to students wishing to pursue graduate training, or the many and diverse bio-technological research career opportunities in industry, government or universities. For those interested in health professions, the Pre-Medical Professions Program advisor counsels students as they progress through their curriculum and apply for admission to health-related professional schools.

REQUIREMENTS FOR THE MAJOR

The Department of Biological Sciences offers a Bachelor of Science in Biological Sciences. Of the credits required for graduation from Duquesne University, majors in biological sciences are required to complete the University Core (28 credits), Bayer School Core (23 credits), biology requirements (42 credits), and additional requirements (29 credits).

Course objectives are met through lectures, laboratory experiments and exercises, field work, participation in professional organizations, weekly seminars, and research. Students are encouraged to become involved in undergraduate research projects with faculty.

REQUIREMENTS FOR THE B.S. IN BIOLOGICAL SCIENCES (122 CREDITS)

Biology Requirements: Total Credits: 42

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology I and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>Biology II and Lab</td>
<td>4 cr</td>
</tr>
<tr>
<td>Cell and Molecular Biology</td>
<td>4 cr</td>
</tr>
<tr>
<td>Biology Seminar</td>
<td>1 cr</td>
</tr>
<tr>
<td>Genetics and Molecular</td>
<td></td>
</tr>
<tr>
<td>Biology concentration</td>
<td>3 cr</td>
</tr>
<tr>
<td>Organismal concentration</td>
<td>3 cr</td>
</tr>
<tr>
<td>Supra-Organismal concentration</td>
<td>3 cr</td>
</tr>
<tr>
<td>Lab I: Experimental</td>
<td>4 cr</td>
</tr>
<tr>
<td>Lab II, III or IV</td>
<td>4 cr</td>
</tr>
<tr>
<td>Biology Electives</td>
<td>12 cr</td>
</tr>
</tbody>
</table>

Courses in CONCENTRATIONS:

Genetics And Molecular Biology: Pick One

Genetics
General Microbiology
Microbial Genetics
Endocrinology
Human Genetics
Neurobiology
Molecular Biology and Genomics
Immunology

Organismal: Pick One

Developmental Biology
Mammalian Physiology
General Microbiology
Plant Biology, Biotechnology and Genomics
Pathogenic Microbiology
Microbial Physiology
Immunology
Reproductive Physiology
Comparative & Environmental Physiology
Endocrinology
Neurobiology
Physiology I (HLTS 480 through Rangos School)

Supra-Organismal: Pick One
Animal Behavior
Vertebrate Anatomy, Development and Evolution
Evolution
Microbial Ecology
Applied and Environmental Microbiology
Environmental Biology
Comparative and Environmental Physiology
Terrestrial Field Biology
Stream Field Biology

Biology Electives:
May be chosen from courses listed above, other departmental majors courses, Biochemistry 1 and 2 (CHEM 401, 402), approved courses in other departments/schools, undergraduate research, honors seminar, honors research/thesis. Biology Seminar (BIOL 490) may not be taken for elective credit. Students are not permitted to use more than 6 credits of research (398/399) towards their requirement of 12 credits of biology electives.

Math Requirements: *Total Credits 10-11
Calculus I .......................................................... 4 cr.
Biostatistics I ................................................... 3 cr.
Calculus II or Biostatistics II ......................... 3-4 cr.

*Math credits listed are incorporated as part of the Bayer School Core for biology majors.

Additional Requirements: Total Credits: 29
General Chemistry I ............................................. 4 cr.
General Chemistry I Lab .................................. 1 cr.
General Chemistry II ....................................... 4 cr.
General Chemistry II Lab ................................ 1 cr.
Organic Chemistry I ......................................... 3 cr.
Organic Chemistry I Lab ................................... 1 cr.
Organic Chemistry II ........................................ 3 cr.
Organic Chemistry II Lab ................................ 1 cr.
Physics for Life Sciences I ................................ 4 cr.
Physics for Life Sciences II ................................ 4 cr.
General Elective ............................................... 3 cr.

REQUIREMENTS FOR THE MINOR
A minor in Biology consists of BIOL 111, 111L, 112, 112L and a minimum of 12 credits selected from the Department’s courses numbered 200–495. Normally, this will include BIOL 212 and 2-3 other courses. Individual prerequisites for courses must be satisfied.

NON-MAJOR COURSES (Courses may not be taken for Biology major credit.)

101. Introduction to Life’s Processes 2 cr.
An emphasis on the fundamental biochemical and cellular concepts required for a solid understanding of life’s processes. This information will provide the background for the Anatomy & Physiology and Introductory Microbiology courses. Lecture and recitation.

102. Introduction to Life’s Processes Laboratory 1 cr.
Laboratory experiments and demonstrations illustrating biochemical and cellular processes. The lab is designed to accompany the Lecture & recitation.

203. Introductory Microbiology 3 cr.
Introduction to microorganisms, their morphology, metabolism, ecology, and cultural characteristics, with emphasis on their interaction with other organisms, including man. Principles of medical and health related aspects of microbiology, immunology and animal virology are presented. This course is restricted to Health Sciences and Nursing students only. Prerequisite: C or better in BIOL 101/102 or 111/111L. Lecture.

204. Introductory Microbiology Laboratory 1 cr.
Prerequisite: 203 (or concurrent registration).

207. Anatomy and Physiology I 3 cr.
This course is for aspiring health care workers. It provides a solid foundation in normal human anatomy and physiology, then helps the student to integrate the knowledge with exposure to pathological conditions and clinical applications. The focus during this first semester is on body organization, movement and control mechanisms. Prerequisite: C or better in BIOL101/102 or 111/111L. Lecture.
208. Anatomy and Physiology I Laboratory 1 cr.
Laboratory exercises include both microscopic and gross examination of human anatomy, studies of physiological processes and exposure to basic clinically significant procedures. The “hands-on” approach in the laboratory provides an opportunity for students to experience and better understand the topics covered in lecture. Prerequisite: BIOL 207 (or concurrent registration).

209. Anatomy and Physiology II 3 cr.
Continuation of BIOL 207, emphasizing the mechanisms employed to maintain the body. Prerequisites: C or better in BIOL 207/208 or permission of the Instructor. Lecture.

210. Anatomy and Physiology II Laboratory 1 cr.
Continuation of BIOL 208. Prerequisite: BIOL 209 (or concurrent registration). Laboratory.

MAJOR COURSES

All courses for majors are also open to non-majors, providing that individual course prerequisites/background expectations are satisfied.

111. Biology I: Cells, Genetics, Development 4 cr.
Study of living systems at the molecular, cellular, and multicellular levels. An introduction to cell chemistry, cell structure and function, energetics, inheritance, reproduction and development. This course and Biology II provide basic information and concepts necessary to understanding living systems and their interrelationships. Must be taken with BIOL 111L. Lecture.

111L. Biology I Laboratory 0 cr.
Laboratory experiments and demonstrations illustrating cellular and molecular biological principles, energetics, inheritance, reproduction and development. Must be taken with BIOL 111.

This course is an introduction to the scientific study of living systems at the organismal, community, and ecosystem levels by surveying diversity in the five kingdoms, ecology and evolution. BIOL 111 is not a prerequisite to BIOL 112. Must be taken with BIOL 112L. Lecture.

112L. Biology II Laboratory 0 cr.
Laboratory experiments and demonstrations which illustrate animal and plant diversity, ecological principles, and evolutionary concepts. Must be taken with BIOL 112.

115. Biological Inquiry I 4 cr.
This course investigates the biological world at the level of biomolecules and cells. It also provides an introduction to the mechanisms of inheritance, how genes work, and the process of development -- the progression from fertilized egg to adult. Information and concepts essential to understanding the biological sciences are integrated with the process and excitement of scientific discovery. BIOL 115 is not a prerequisite for BIOL 117 or BIOL 112. This course is restricted to science majors. Prerequisite: permission of instructor. Must be taken with BIOL 115L.

115L. Biological Inquiry I Laboratory 0 cr.
Laboratory experiments in cellular and molecular biology, genetics, and development focusing on the process of scientific discovery. Experiments, data analysis, and laboratory reports are emphasized. This course is restricted to science majors. Prerequisite: permission of instructor. Must be taken with BIOL 115.

117. Biological Inquiry II 4 cr.
This course investigates living systems at the organismal, community, and ecosystem levels. Included is a survey of the diversity of life, ecology, and evolution. The information and concepts essential to understanding the biological sciences are integrated with the process and excitement of scientific discovery. This course is restricted to science majors. Prerequisite: permission of instructor. Must be taken with BIOL 117L.

117L. Biological Inquiry II Laboratory 0 cr.
Laboratory experiments and demonstrations illustrating the diversity of life, ecological principles, and evolutionary concepts. Experiments, data analysis, and laboratory reports are emphasized. This course is restricted to science majors. Prerequisite: permission of instructor. Must be taken with BIOL 117.

212. Cell and Molecular Biology 4 cr.
An introduction to biological macromolecule structure, macromolecular synthesis and the control of gene expression. Techniques for purifying proteins and manipulating nucleic acids will be emphasized. Also this course will include
examinations of cellular organelles, nuclear and chromatin structure, membrane systems, protein trafficking, the cytoskeleton, the cell cycle, cell-cell communication and extracellular matrices. Prerequisites: Must have a C or better in BIOL 111/112 (or BIOL 115/117) and BIOL 111L/112L (or BIOL 115L/117L) and a C or better in CHEM 121, 122. Lecture and Recitation.

212R. Cell and Molecular Biology Recitation 0 cr.

250. Genetics 3 cr.
This course is a survey of the subject of genetic analysis in biology. A problem solving approach is used to demonstrate the principles of genetics. Topics include classical Mendelian genetics, chromosomal inheritance, human genetic disease, population genetics, and gene expression. Prerequisites: C or better in BIOL 212 or permission of instructor. Lecture and recitation.

250R. Genetics Recitation 0 cr.

313. Developmental Biology 3 cr.
The study of the progression through time and space from a single cell, the fertilized egg, to a complex multicellular organism. The powerful tools of molecular and cellular biology have linked the fields of embryology, morphology, genetics, and evolutionary biology to reveal how cells, tissues, organs, and organisms develop. This course explores the processes of morphogenesis, differentiation, pattern formation, growth, and reproduction at the molecular, cellular, and organismal levels to provide a current overview of development in a wide variety of organisms. Prerequisite: C or better in BIOL 212. Lecture.

315. Mammalian Physiology 4 cr.
Examination of the molecular and cellular mechanisms of mammalian body function, including consideration of the basic components of biological control systems and the manner in which various tissues and organ systems contribute toward the maintenance of physiological homeostasis in health and disease. Prerequisite: C or better in BIOL 212 or permission of the instructor. Lecture and weekly recitation.

315R. Mammalian Physiology Recitation 0 cr.

316. Comparative and Environmental Physiology 3 cr.
This course focuses on the diversity of physiological mechanisms that different animals employ, including the high level of physiological and biochemical adaptation and specialization found in animals that live in diverse and challenging environments, or that possess other exceptional physiological abilities. Prerequisite: C or better in BIOL 212 or permission of the instructor. Lecture.

319. General Microbiology 3 cr.
Survey of the microbial world, metabolism, biosynthesis, regulation, growth, structure and function. Also included is an introduction to the fundamentals of immunology and virology. Recommended for students majoring in biology and post-baccalaureate students. Prerequisite: C or better in BIOL 212. Lecture.

322. Animal Behavior 3 cr.
An evolutionary approach to study the behavior of animals. Using the Darwinian framework, one can understand basic life history events such as natal dispersal. Moreover intra-sexual selection and inter-sexual selection (mate choice) will be examined in several taxa. Finally intra-specific variation (or culture) will be explored among several animal populations. Prerequisite: C or better in BIOL 111/112 and 111L/112L. Lecture.

335. Vertebrate Anatomy, Development and Evolution 3 cr.
This course emphasizes comparative development, functional anatomy and macroevolution of vertebrate body plans. Topics include the diversity and phylogenetic history of fossil and local forms, development and comparative embryology of each organ system, and comparative functional anatomy of the major clades of living vertebrates within an evolutionary framework. Prerequisite: C or better in BIOL 212. Lecture and Laboratory.

340W. Evolution 3 cr.
Evolution is the single most important concept uniting the many fields of biology. This course covers the theory of evolution and the various levels at which evolution works in living systems. Topics to be addressed include evolutionary genetics (including molecular evolution), adaptation and natural selection, evolution and diversity (including phylogeny reconstruction), and paleobiology and macroevolution. Prerequisites: C or better in BIOL 212; a genetics course is strongly recommended. Lecture.

344. Plant Biology, Biotechnology, and Genomics 3 cr.
This course is an in-depth examination of plant biochemistry, physiology genetics, and
development; a merger of basic biology, molecular biology, and biotechnology. Emphasis is placed upon linking basic plant systems to current research problems and developments in biotechnology and genomics. Typical topics will include applications of plant molecular biology to understand cellular structure and function, ecological physiology, genomics, developmental genetics, plant/pathogen relationships, and the production of genetically-modified organisms for biotechnology. The course will also discuss the issue of plant biology as it pertains to world economics and food production. Prerequisites: C or better in BIOL 212; Basic course in molecular and cellular biology or consent of instructor. Lecture.

370W. Lab I: Experimental Biology 4 cr.
This junior level lab course sequence is designed to provide students with a multidisciplinary lab that reflects the integration among different disciplines in the broad areas of cellular and molecular biology. The course emphasizes techniques and approaches in the molecular, biochemical, and cellular biology of organisms from bacteria to mammals. Included are an introduction to research skills (computer use, library resources), characterizations and manipulations of cellular macromolecules including proteins and nucleic acids, and microscopy. Prerequisites: C or better in BIOL 212. Laboratory and recitation.

371W. Lab II: Cell and Molecular Biology 4 cr.
This course builds on BIOL 370W through investigative labs in cellular and molecular biology including cell culture, genetic mapping, constructing transgenic organisms, and microscopy of cellular structures. Prerequisite: BIOL 370W. Laboratory and recitation.

372W. Lab III: Cell and Systems Physiology 4 cr.
This course builds on BIOL 370W through investigative labs in cardiovascular/respiratory physiology, muscle and neurophysiology, and endocrinology. Students will investigate selected physiological processes at different levels (whole organism to molecular) using a range of techniques (electrophysiological, isolated organ, pharmacological, cellular, molecular) and procedures (computer-based data acquisition, surgical, tissue culture, microscopy). This course exposes students to a broad range of skills and understandings that contemporary physiological research encompasses. Prerequisite: BIOL 370W. Laboratory and recitation.

373W. Lab IV: Microbiology 4 cr.
This course builds on BIOL 370W through investigative labs in microbial physiology, ecology and genetics. This laboratory also includes an independent research project designed and conducted by each student. Prerequisite: BIOL 370W. Laboratory and Recitation.

391. Biology Experience in China 3 cr.
This course provides an in-depth three-week scientific and cultural experience in China facilitated through Duquesne University and the Chinese Association of Science and Technology. Students will travel to a variety of locations in China and work in seminars or small groups with the opportunity to (1) communicate orally and in writing in topics such as environmental science and pollution abatement; (2) acquire appropriate learning skills for collective laboratory work; (3) become familiar with the Chinese scientific issues through actively participating in scientific presentations. Students must participate in pre-trip seminars during the prior spring semester, in the three-week trip (typically in August) including all activities during the trip, in the writing of reports to include in the trip summary document, and in a post-trip presentation to the public. This course is for undergraduate students in biology. Pass/Fail.

395. Special Topics – Biology I 1-3 cr.
Treatment of topics of current or special interest in biology. Lecture, laboratory or combinations.

396. Special Topics – Biology II 1-3 cr.
Treatment of topics of current or special interest in biology. Lecture, laboratory or combinations.

398, 399. Undergraduate Research 1-3 cr.
Opportunity for selected students to work in the laboratory on research problems under the direction of a faculty member. Registration by permission of instructor. Pass/Fail only. Laboratory.

405. Microbial Genetics 3 cr.
A course providing the fundamentals to the rapidly growing field of microbial genetics. Emphasis is on gene structure and function. Areas to be discussed are DNA replication, control of gene expression, recombination, transformation, conjugation, transduction, transposition, genetic fine structure and colinearity, mapping methods, mutation, DNA repair, plasmids and their properties. Genetic engineering and gene cloning are described. Prerequisite: C or Better in BIOL 212. Lecture.
414H. Honors Seminar 1 cr.
Discussion of current issues and research literature in the Biological Sciences. Format includes student presentations, faculty seminars, and invited speakers. Prerequisite: Application and acceptance into the honors program in Biology. 1 hour seminar per week. May be taken a total of two times for credit.

415H. Honors Thesis 2 cr.
A written honors thesis to be based on research that was conducted under the mentorship of faculty in the Department of Biological Sciences. Also includes a public presentation of the thesis research. Prerequisite: 1-4 credits of BIOL 416H and application and acceptance into the honors program in Biology.

416H. Honors Research 1-4 cr.
Laboratory research under the direction of a faculty mentor leading to a written honors thesis (BIOL 415H, Honors Thesis) and a presentation of the thesis research. Prerequisite: Application and acceptance into the honors program in Biology. May be taken more than once for a total of 4 credits.

424. Immunology 3 cr.
A course in the fundamental mechanisms of the immune system with applications in basic research, medicine and public health. Topics include the mechanisms of induction, regulation, and expression of the cellular and humoral immune responses, immunochemistry, antigen-antibody reactions, immunogenetics, immunopathologies, and immunodeficiencies. Prerequisite: C or Better in BIOL 212. Lecture.

426. Pathogenic Microbiology 3 cr.
Study of the infectious agents of human disease with emphasis on host-parasite relationships, unique aspects of microbial activities and organization, metabolism, regulation and genetics which contribute to pathogenicity, including identification and principles of prevention, treatment, and laboratory diagnosis. Prerequisite: C or Better in BIOL 212. Lecture.

427W. Microbial Ecology 3 cr.
In this course the interaction of microorganisms, primarily prokaryotes, with each other, plants, animals, and fungi, and the environment is explored. The course takes a systematic approach, examining these interactions at the ecosystem, organismal, subcellular, and historical level. Topics include microbial primary production and photosynthesis, biogeochemical cycling, the structure of microbial communities, modeling, symbiosis, and microbial evolution. Prerequisites: C or Better in BIOL 212, BIOL 319, and CHEM 212 or permission of the instructor.

429. Microbial Physiology 3 cr.
This course focuses on bacterial structure and function. Topics covered include mechanisms of protein secretion, structure and synthesis of the cell envelope, and examination of the organelles associated with motility. The role of the features examined in terms of bacterial pathogenesis will be emphasized. Energy metabolism including chemoorganotrophy, chemolithotrophy, and phototrophy will also be covered. Prerequisites: C or better in BIOL 212 and organic chemistry or permission of the instructor. Lecture.

432W. Applied and Environmental Microbiology 3 cr.
This course takes an in-depth look at microbial biogeochemical cycling and the application of microbial processes (both prokaryotic and eukaryotic) for biotechnology and bioremediation. Topics include biogeochemistry, the design and application of genetically engineered microbes (GEMS), natural attenuation, fermentation, and water treatment, in addition to current issues in environmental science. Prerequisites: C or better in BIOL 212, BIOL 319, and CHEM 212 or 212H or permission of the instructor.

436. Environmental Ecology 3 cr.
This course provides an overview of man’s impact on the environment. Basic ecological principles are examined in the context of man’s interaction with the biosphere. The ecological effects of pollution and other man-made disturbances are described. Topics include: principles pertaining to ecosystems, communities and populations; biogeochemical cycles; sources of pollution; effects of pollutants on terrestrial and aquatic ecosystems; deforestation; loss of species richness; biomarkers; and bioremediation. The course is appropriate for science majors and for non-majors with a strong science background. Prerequisite: consent of instructor. Lecture.

438. Environmental Biology 3 cr.
The course provides an overview of life and the environment. Basic biological principles are examined in the context of the impact humans have on the biosphere. Topics include: ecological principles at the population, community and ecosystems levels; climate; biogeochemical cycles; human population growth; sources and effects of
pollution; deforestation and habitat loss; loss of species richness; extinction; global warming; disease; biomarkers; biotechnology; and bioremediation. The course is appropriate for science majors and for non-majors with a strong science background. Prerequisites: BIOL 111/112 or consent of instructor. Lecture.

**457W. Reproductive Physiology** 3 cr.
This course offers a broad overview of mammalian reproductive physiology. The major emphasis will be on human/primate biology, but other mammalian species will be included for comparison. The application of modern techniques of cellular and molecular biology to answer central questions of reproductive physiology will be explored in more detail. Prerequisite: BIOL 315 or BIOL 316 or comparable and permission of the instructor. Lecture.

**460W. Endocrinology** 3 cr.
This advanced integrative physiology course investigates the role of the endocrine system in coordination and regulation of body activities. Topics include homeostasis, reflex arcs, hormone synthesis, hormone action and signal transduction, hypothalamic/pituitary axis, regulation of salt, mineral and water balances, regulation of energy metabolism, reproduction, growth and development. This course is appropriate for biology and biochemistry majors interested in physiology, as well as for pre-health profession students. Prerequisite: C or better in BIOL 212. Lecture.

**466. Terrestrial Field Biology** 3 cr.
This applied ecology course is designed to present an overview of field and laboratory methods used by ecologists to describe and analyze plant and animal aggregations and their environments. The course focus is on the principles and practice of various ecological procedures with explanation of how to collect, record and analyze data. The course reviews the basic concepts of ecology that are needed to understand the various methods and their significance. The course material is presented as a combination of lecture, laboratory and field sessions. Prerequisites: There are no specific course prerequisites; however, students should have knowledge of basic biology, chemistry and fundamental algebra. Lecture and Laboratory.

**467. Genomics** 3 cr.
This course examines the structure, function, and evolution of genomes, including both prokaryotes and eukaryotes. Topics covered will include genome sequencing methods and analysis, gene expression, chromosome structure, proteomics, bioinformatics, and genome evolution. Prerequisites: C or better in BIOL 212 and BIOL 250 (or BIOL 405 or BIOL 468), or CHEM 402. Lecture.

**468. Human Genetics** 3 cr.
In this course, we discuss the basic processes of genetics, as well as the essential information needed to use genetics. The essential information includes the expression, inheritance, function, and maintenance of genetic material – chromosomes, DNA, and genes. The course focuses on the primary issues of human molecular genetics and deals with each one in depth. The objective is to compare genetic analysis in humans with that of experimental organisms. The topics include: What is a gene? How do mutations alter the phenotype? How do you map genes in humans and in experimental organisms? What is meant by the terms “complex genetics and complex phenotypes”? How is the human genome organized? How are genes cloned? What is the effect of mutation on human populations? Prerequisites: C or better in BIOL 212, or instructor approval. Lecture.

**475. Neurobiology** 3 cr.
This course will survey topics found in the science of neurobiology. Neurobiology is the study of the nervous system, its development, its function and its diseases. Topics will include evolution and development of the nervous system, electrophysiology of neurons, human neuroanatomy, anatomy and functioning of the sensory systems and molecular genetics of the nervous system. The focus of the course is on how a scientist discovers the inner workings of the brain. A vast array of living organisms have brains. Science has shown that the study of “simple” brains can tell us a great deal about how all brains function, including human brains. As such, in this class, we will study aspects of the neurobiology of many different organisms. Prerequisite: C or better in BIOL 212 or permission of instructor.

**480. Readings in Biology I** 1 cr.
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature.

**481. Readings in Biology II** 1 cr.
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature.
490. Seminar 1 cr.
Students attend and participate in weekly departmental research presentations and demonstrations by biological scientists from the Department of Biological Sciences, field stations, biotechnology laboratories, and other universities. May only be taken once for credit. Pass/Fail only.

492W. Stream Field Biology 3 cr.
This course is the study of the functional relationships and productivity of fresh water streams as they are affected by their physical, chemical and biotic environment. The course material is presented as a combination of lecture, laboratory and field sessions. Prerequisites: There are no specific course prerequisites; however, students should have knowledge of basic biology, chemistry and fundamental algebra.

530W. DNA Methods Population Genetics 4 cr.
This combined laboratory and lecture course examines the biology underlying the most common genetic marker systems used in the forensic community. The basics of population genetics and DNA analysis methodologies will be covered, including the CODIS database. Techniques include extraction protocols, amplification of DNA, methods for labeling DNA, and ultimately the construction of a genetic profile using an ABI 3100 Avant Genetic Analyzer. Mitochondrial DNA, the Y-chromosome, and Amelogenin, the most commonly used gender identification locus, will also be experimentally explored. Prerequisites: BIOL 468 and permission of the instructor if not in Forensic track. Laboratory and lecture.

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

Chairperson:
Jeffry D. Madura, Ph.D.

Professors:
Bruce D. Beaver, Ph.D.
Jeffrey D. Evanseck, Ph.D.
Fraser F. Fleming, Ph.D.
H. M. Kingston, Ph.D.
Jeffry D. Madura, Ph.D.
David W. Seybert, Ph.D.

Associate Professors:
Partha Basu, Ph.D.
Mitchell E. Johnson, Ph.D.
Shahed U. M. Khan, Ph.D.
Julian Talbot, Ph.D.

Assistant Professors:
Jennifer Aitken, Ph.D.
Ellen Gawalt, Ph.D.
Paul G. Johnson, Ph.D.
Rita Mihailescu, Ph.D.
Alicia Paterno, Ph.D.
Tomislav Pintauer, Ph.D.
Stephanie Wetzel, Ph.D.

Professor Emeritus:
Jack W. Hausser, Ph.D.
Kurt C. Schreiber, Ph.D.
Omar W. Steward, Ph.D.

The Chemistry program is designed to provide the student with a fundamental background in chemistry and an understanding of the relationship of chemistry to other sciences and disciplines. Elective courses and the opportunity to do undergraduate research allow the chemistry major to develop interests in a specialized area of chemistry, such as analytical, inorganic, physical chemistry, and biochemistry.

Because of the fundamental nature of chemistry as a science, numerous opportunities for advanced study, as well as employment, are open to chemistry and biochemistry majors. A large percentage of students elect to continue their study in graduate programs in chemistry and related fields. Chemists and biochemists provide a core of personnel in pure and applied research, technical sales, technical libraries, management positions in the chemical and related industries, the space industry, education, the
environmental sciences and the health professions, such as medicine, dentistry and veterinary medicine. The major in biochemistry centers around the core of basic chemistry courses while also providing advanced courses in biochemistry and electives in biology.

Research is the essence of science, and therefore, attaining both breadth and excellence in research, as demonstrated by a high quality thesis, is the goal of an “Honors” Student. The Department has recently established a research based Honors program to encourage undergraduate scholarship. Honors students are expected to perform extensive high quality laboratory based research and will be held to a rigorous standard of excellence. Two junior and two senior students from the Honors program will be selected each year to receive the John V. Crable Summer Undergraduate Fellowship which will support their summer research, travel to professional conferences and preparation of each student’s thesis.

REQUIREMENTS FOR THE CHEMISTRY AND BIOCHEMISTRY MAJORS


Chemistry Major:
B.S. Chemistry. 124 cr. All students must take 211H, 212H, 211HL, 212HL, 312, 321, 322, 401, 412, two 400-500 level Science/Math electives of 3 or 4 credits each; Physics 211, 212, and Math 215.

Environmental Chemistry Major:
B.S. Environmental Chemistry. 127 cr. All students must take Chem. 211H, 212H, 211HL, 212HL, 321, 322, 275; Math 215, 225; Physics 211, 212 and four environmental science electives.

Biochemistry Major:
B.A. Biochemistry. 122 cr. All students must take 211, 212, 211L, 212L, 301, 401, 402 and Physics 201, 202 and Math 225, 335; one 400-500 level biology elective, and two science/math electives of 3 or 4 credits each.

B.S. Biochemistry. 126 cr. All students must take 211H, 212H, 211HL, 212HL, 321, 322, 401, 402, 508 and Physics 211, 212, two 400-500 level Science/Math electives of 3 or 4 credits each, and Math 225, 335.

Approved chemistry electives are the following: 401, 402, 503, 504, 534, 540, 546, 548, 565, 574, 581, 582, 585, 586, 587, 598.

To meet the American Chemical Society’s requirements for Professional Certification, the B.S. students in chemistry must also take Math 314. B.S. students in Biochemistry must take Chem 312, Math 314, and an additional chemistry elective.

REQUIREMENTS FOR THE MINORS

A minor in Chemistry or Biochemistry consists of 121, 122 and a minimum of 12 credits selected from Departmental courses numbered 200 or above. Normally, 211, 211L, 212, 212L, 401, and 402 will constitute a minor in Biochemistry. Individual course prerequisites must be satisfied.

121, 122. General Chemistry 4 cr. each
The fundamental principles and concepts of chemistry are presented from the standpoint of atomic and molecular structure with illustrative examples from descriptive chemistry. The basic concepts of thermodynamics, chemical kinetics and equilibrium are introduced. The laboratory portion of the first semester illustrates the principle of ionic equilibria including qualitative inorganic analysis. Prerequisite for 121: Math 105 (College Algebra and Trigonometry) or a Math SAT greater than 500 and/ or Math Placement Exam score greater than 17. Toledo Chemistry Placement Exam is required by all students. Prerequisite for 122: C or better in 121. Lecture, three hours; recitation, two hours.

121L, 122L. General Chemistry Lab 1 cr. each
This laboratory introduces students to techniques such as gravimetric analysis, pipeting, performing titrations, and qualitative analysis within the context of the major topics discussed in General Chemistry 121 and 122. The students also learn how to record observations in a laboratory notebook and write a scientific style lab report. Prerequisites: a C or better in 121L for 122L. 121 must be taken prior to or concurrent with 121L. 122 must be taken prior to or concurrent with 122L. Laboratory, three hours.

121H, 122H. Honors General Chemistry 5 cr. each
The fundamental principles and concepts of chemistry are presented from a molecular standpoint. The basic concepts of bonding, molecular structure, intermolecular forces, thermodynamics, chemical kinetics, and equilibrium are introduced with
relevant biological and environmental examples. A discovery-based approach format is used in the laboratory. Toledo Placement exam is required. Prerequisite for 122H: C or better in 121H. Lecture, three hours; laboratory, three hours; recitation, two hours.

131, 132. Fundamentals of Chemistry 5 cr. each
This course covers the fundamental principles of inorganic chemistry, organic chemistry, and biochemistry in an integrated two semester sequence. The first part of the course deals with basic chemical concepts, including stoichiometry, the periodic table, equilibrium, structure and bonding, and acid-base chemistry. The next part of the course provides a survey of the chemical properties of the principle functional groups of organic chemistry, including alcohols, aldehydes, ketones, carboxylic acids and carboxylic acid derivatives. Integrated with this functional group discussion is an introduction to the carbohydrates, lipids, and proteins. The latter portion of the course provides an overview of metabolism and emphasizes the roles of enzymes in catalyzing and regulating the various reactions involved in energy transformations in the cell. This course does not serve as a prerequisite for CHEM 211, 212. Prerequisite for 131: high school algebra or its equivalent, as evidenced by satisfactory performance on a math placement examination. Prerequisite for 132: a C or better in 131. Lecture, four hours; laboratory, three hours; recitation, two hours.

211, 212. Organic Chemistry 3 cr. each
Students are given a firm foundation in the fundamentals of the structure and reactivity of organic compounds. Emphasis is on the basic mechanistic principles of the reactions and the strategies used to synthesize organic compounds. The use of NMR and IR spectroscopy to identify organic compounds is also emphasized. Prerequisites: a C or better in 122 for 211; a C or better in 211 or 211H for 212. Lecture, three hours.

211H, 212H. Honors Organic Chemistry 3 cr. each
Students are given a firm foundation in the fundamentals of the structure and reactivity of organic compounds with the use of relevant biological examples. Emphasis is on the basic mechanistic principles of the reactions and the strategies used to synthesize organic compounds. The use of NMR, MS, IR and UV-visible methods in organic chemistry is stressed. Prerequisite: a C or better in 122 or 122H for 211H. Prerequisite for 212H: a C or better in 211H. Lecture, four hours.

211L, 212L. Organic Chemistry Lab 1 cr. each
This lab exposes students to basic synthetic and purification techniques used in organic chemistry. Both microscale and macroscale equipment are used. The student acquires a knowledge of the various wet methods of qualitative organic analysis and also learns to generate and interpret IR and NMR spectra. Prerequisites: 211L for 212L. 211 must be taken prior to or concurrent with 211L. 212 must be taken prior to or concurrent with 212L. Laboratory, three hours.

211HL, 212HL. Organic Chemistry Honors Lab 1 cr. each
Students cover the same techniques as the 211L, 212L labs. In the Honors lab students are taught additional techniques useful for undergraduate research. They are permitted hands-on use of various instrumentation such as NMR spectrometer, gas chromatograph, and GC-MS instruments. Students are introduced to the chemical literature. Prerequisites: 211H lab for 212H lab, 211H and 212H must be taken prior to or concurrent with 212H lab. Laboratory, three hours.

211L, 212L. Research Laboratory Techniques 2 cr.
This lab emphasizes the refinement of quantitative analytical techniques and the application of basic statistical methods of data analysis. Students will learn methods of standardization, calibration, titration, and spectroscopy through a series of wet chemical and instrumental experiments. Corequisite: 122. Laboratory, four hours; recitation, two hours.

275. Environmental Chemistry 3 cr.
Provides students with training in correlation, interpretation, and analysis of related topics and issues involved in environmental chemistry including aquatic, atmospheric, and geochemical interactions. They will receive experience in environmental chemical sampling, modeling and testing methods. Prerequisite: a C or better in 211 or 211H.

301. Physical Chemistry for the Life Sciences 4 cr.
This one semester course will present the principles of physical chemistry and its application in the life and forensic sciences. Areas that will be covered include enthalpy, entropy, free energy, chemical and biochemical equilibria, red ox chemistry, kinetics and spectroscopy. Illustration of how these principles are applied to fundamental problems in the
life sciences, forensic sciences, and biochemistry will be made. Prerequisite: a C or better in 212 or 212H. Lecture, 4 hours.

312. Inorganic Chemistry I 3 cr.
A survey of the basic principles required for understanding inorganic chemistry including molecular structure, periodic trends, bonding models, crystal structure, and the 18-electron rule, as well as aqueous and non-aqueous solvents. These principles will be applied principally to the main-group elements and their compounds. An introduction to molecular symmetry and transition metal chemistry will also be provided. Prerequisite: a C or better in 321 (or 301). Lecture, three hours.

321, 322. Physical Chemistry. 4 cr. each
A study of the structure and properties of the various states of matter, thermodynamics, thermoch­emistry, kinetics and an introduction to quantum chemistry. Prerequisites: a C or better in Physics 202 or 212, a C or better in Chemistry 122, a C or better in Mathematics 116. Prerequisite for 322: a C or better in 321. Lecture, four hours.

325L, 325R. Advanced Integrated Lab I 4 cr.
Students consolidate basic laboratory technique and learn to use and interpret results from modern chemical analytical instrumentation. Experiments are open-ended allowing students to approach problems in a genuine scientific format of designing their approach to defined problems, executing the experiments, and interpreting the results. Topic areas are drawn from inorganic synthesis, kinetics, chemical analysis, biochemical analysis, and spectroscopy. Techniques include chromatography, spectroscopy, electrophoresis, computational methods and statistics. Students will begin learning to interpret and communicate their work. Prerequisite: a C or better in 301 or 321, and a C or better in 423. Laboratory, eight hours; recitation, two hours.

371W. Forensic Chemistry Lab I 2 cr.
Students will learn the basic techniques used in a forensic laboratory. They will use microscopy, IR, visible spectroscopy, and GC-MS to analyze hair, fabrics, fingerprints, and glass fragments. They will learn to detect metal residues, flammable liquids, and poisons. Laboratory, six hours. Prerequisite: a C or better in 423.

372W. Forensic Chemistry Lab II 2 cr.
Students will become very familiar with the main tools in the forensic laboratory; IR and GC-MS. They will develop the knowledge and ability to apply these techniques to solve complicated forensic analysis problems. Prerequisite: a C or better in CHEM 371W. Laboratory, six hours.

391. Chemistry Experience in China 3 cr.
This course provides an in-depth three-week scientific and cultural experience in China facilitated through Duquesne University and the Chinese Association of Science and Technology. Students will travel to several universities in China and work in seminars or small groups with the opportunity to (1) communicate orally and in writing in topics such as environmental science and pollution abatement; (2) acquire appropriate learning skills for collective laboratory work; (3) become familiar with global scientific issues through actively participating in scientific presentations. Students must participate in pre-trip seminars during the spring semester, in the August three-week trip including all activities during the trip, in the writing of reports to include in the trip summary document, and in a post-trip presentation to the public. Pass/Fail.

401. General Biochemistry I 3 cr.
An introduction to modern biochemistry at the molecular level. The course includes discussion of the structure and function of proteins, the chemical mechanisms and regulation of enzyme catalysis, biomembrane structure and function, the structure and metabolism of carbohydrates, and the bioenergetics of ATP synthesis and utilization. Prerequisite: a C or better in 212 or 212H. Lecture, three hours.

402. General Biochemistry II 3 cr.
This course is a continuation of CHEM 401. The course presents an overview of the metabolic transformations of fatty acids, complex lipids, amino acids, and the purine and pyrimidine nucleotides. The second half of the course offers a discussion of the molecular basis of genetics, including DNA and RNA metabolism, protein biosynthesis, and an introduction to the biochemical basis of recombinant DNA methodology. Prerequisite: a C or better in 401. Lecture, three hours.

412. Inorganic Chemistry II 3 cr.
The course heavily draws upon the basic principles of inorganic chemistry and applies them to transition metal chemistry. Topics include organometallic compounds, coordination compounds, point group symmetry, ligand field theory, and its applications, as well as electronic spectra, inorganic reaction mechanisms, and extended solids. Prerequisite: a C or better in 312 and 322. Lecture, three hours.
423. Analytical Chemistry 3 cr.
Theoretical and practical training in modern chemical analysis with emphasis on instrumental methods. Corequisite: 301 or 321. Prerequisite: a C or better in 230L. Lecture, three hours.

425L, 425R Advanced Integrated Lab II 4 cr.
Students work in small teams on real research problems. Each team contributes to a single problem, and several chemical and biochemical problems may be studied over the course of a semester. Examples include determining the expression of quality markers and antioxidants in wine production, problems of self assembled biomolecules, protein structure-function relationships, lipid reactivity and physiochemical behavior, etc. Problems are designed according to student career interests. They will also learn advanced data analysis and communication skills. Prerequisite: a C or better in 325L, 325R. Laboratory, 8 hours; recitation, two hours.

475. Senior Seminar 1 cr.
A capstone course exhibiting the interdisciplinary nature of chemistry. Each faculty member will provide a perspective on how their discipline contributes to the frontiers of science.

475H. Honors Senior Seminar. 1 cr.
The primary goal of this class is the construction of a high quality Honors Thesis and manuscripts for submission to professional science journals. The students will learn to access and use scientific references, journals and electronic information as they prepare their Thesis. Students will incorporate different types of multimedia in presenting a Department wide defense of their Thesis project. Prerequisite: 325L and entry into the Honors program.

490. Undergraduate Research. Maximum 2 cr. / semester
Selected students work on a research problem under the direction of a staff member.

490H. Honors Undergraduate Research. Maximum 2 cr. / semester
Exceptional undergraduates that have been accepted into the Department of Chemistry and Biochemistry Honors program will perform advanced level research with the goal of producing sufficient quality data to enable them to prepare an Honors Thesis and manuscripts for publication.

DEPARTMENT OF PHYSICS

Chairperson: Simonetta Frittelli, Ph.D.

Professors: K. Thomas R. Davies, Ph.D.

Associate Professors: Scott Cohen, Ph.D. Simonetta Frittelli, Ph.D. Monica Sorescu, Ph.D.

Assistant Professors: Derrick Hilger, Ph.D.

Instructor: Darryl Ozimek, M.S.

Adjunct Associate Professors: Julian Talbot, Ph.D.

Professors Emeritus: Shih-Chi Chang, Ph.D.

The most fundamental of the basic sciences, physics seeks the answers to the most fundamental questions in nature, thereby opening new and often unforeseeable paths to the future of knowledge and technology. A physics degree is either an end in itself for individuals interested in contributing skill and expertise to science and technology businesses, or a solid foundation for those seeking advanced degrees, not only in academic disciplines such as physics, astronomy, chemistry, atmospheric sciences and mathematics, but also in professional fields as diverse as engineering, medicine, business, dentistry and law. Physics graduates across the nation opt for one or the other career path in roughly equal numbers.

Students in the physics programs at Duquesne enjoy the many benefits of a small student-to-faculty ratio: student-centered instruction, close mentoring by faculty, hands-on learning, participation in ongoing research of the Department and attention to individual needs and interests. Besides a strong traditional component, the curriculum offers a selection of unconventional physics electives specifically designed to bring the leading edge of the field into the classroom.

REQUIREMENTS FOR THE MAJOR

Two degree options exist for students majoring in physics: the Bachelor of Science (B.S.) and the Bachelor of Arts (B.A.). The B.S. program, with
two credit hours of research and a minimum of 39 to 45 credit hours of physics coursework depending on the track, is recommended for students interested in pursuing employment in science and technology businesses or advanced degrees in physics, astronomy, chemistry, engineering and secondary education. The B.A., with a minimum of 32 credit hours of physics coursework, is suitable for students with a broader range of interests, particularly those planning to seek professional degrees in law, medical or dental school. Conversely, a B.A. degree in mathematics is directly accessible to students majoring in physics at no additional credit load, by appropriate choice of unrestricted electives. A grade of C or better in all physics courses is required for graduation in the major.

The following science and mathematics courses, for a total of 34 credits, are required for all majors:

- **CHEM 121/121L General Chemistry I and Lab** 5 cr
- **CHEM 122/122L General Chemistry II and Lab** 5 cr
- **MATH 115 Calculus I** 4 cr
- **MATH 116 Calculus II** 4 cr
- **MATH 215 Calculus III** 4 cr
- **MATH 310 Linear Algebra** 3 cr
- **MATH 314 Differential Equations** 3 cr
- **MATH 308 Numerical Methods or MATH 301 Probability and Statistics I** 3 cr
- **COSC 160 Scientific Programming: C++** 3 cr

**REQUIREMENTS FOR THE B.S. IN PHYSICS**

A total of at least 128 credits are required, which must include 35 physics core credits, 12-13 track-specific credits and 6-5 unrestricted elective credits.

**Physics Core:** 211, 212, 302, 312, 332, 364, 374, 401, 461, 472, 474, 499W.

**Track-specific requirements**

- **Broad track:** 350 and at least 9 credits from: 480, 481, 482W, 485, 491, 492, 493, 494, with no more than 6 credits in the 491-494 sequence.
- **Condensed Matter concentration:** 491, 492, 493, 494.
- **Astronomy concentration:** 3 credits in introductory astronomy, 3 credits in stellar science, 3 credits in galaxies and cosmology, and 3 credits in astronomical techniques, available through cross-registration at the University of Pittsburgh and Carnegie Mellon University.
- **Education track:** 481, 482W, UCOR 124, and either BIOL 111-111L or BIOL 112-112L.

**PHYSICS COURSE DESCRIPTIONS**

**167. Science, Technology, and Society** 1 cr.

This reading course can emphasize a variety of topics, including the history and applications of science and technology, and the impact of science and technology on society. Readings (one hour). Fall, spring and summer.

**170. Acoustics** 3 cr.

Physical principles underlying the production, propagation, and perception of sound. Examples of the principles are drawn mostly from the world of musical sound. No mathematical preparation beyond high school algebra is necessary. Lecture (three hours). Spring.

**200. Essential Physics** 4 cr.

A one-semester algebra-based physics course especially designed to provide the elements necessary for a basic understanding of physics. Meets requirements of the Mylan School of Pharmacy program. Topics covered may include: kinematics in one dimension, forces and Newton’s laws of motion, work and energy, torques, impulse and momentum, fluid flow, electric forces and electric fields, electric potential energy and the electric potential, electric circuits, magnetic forces and magnetic fields, and some aspects of modern physics. In addition to being introduced to the physical

**REQUIREMENTS FOR THE B.A. IN PHYSICS**

A total of at least 120 credits are required, which must include 211, 212, 302, 312, 374, physics electives at 300 level or above (17 credits) and unrestricted electives (13 credits).

**REQUIREMENTS FOR THE B.A. IN PHYSICS AS PART OF THE BINARY ENGINEERING PROGRAM**

A total of at least 100 credits are required, including 211, 212, 302, 312, 374 and 10 credits of physics electives at the 300 level or above. Completion of the B.S. in engineering degree at Case Western Reserve University or the University of Pittsburgh is a requirement for graduation.

**REQUIREMENTS FOR THE MINOR**

A student may choose to minor in physics by completing 211, 212 and 12 additional credits in physics courses numbered 300 or above, all with a grade of C or better. Individual course prerequisites must be satisfied.
concepts, the student will also be instructed in the analytical approach to problem solving that is useful in all disciplines. The content of the course may be varied according to the needs of the students taking the course. Prerequisite: A good knowledge of high-school algebra and trigonometry is required. Does not meet requirements of the Pre-Medical Professions program. Lecture (four hours), laboratory (two hours) and recitation (one hour). Fall and summer.

201. Physics for the Life Sciences I 4 cr.
First of a two-semester algebra-based and problem-oriented introductory physics sequence. Topics normally covered are drawn from Newtonian mechanics in two dimensions and include velocity and acceleration, Newton’s laws and energy for linear and rotational motion, simple harmonic motion and fluids. Time permitting, heat and thermodynamics may be included. A good base of high-school algebra and trigonometry is assumed, and completion of homework and lab are requirements for a passing grade. Meets requirements of physical therapy and the Pre-Medical Professions programs. Does not meet requirements of physics or engineering programs. Lecture (four hours) and laboratory (two hours). Fall and summer.

202. Physics for the Life Sciences II 4 cr.
Second of a two-semester algebra-based and problem-oriented introductory physics sequence. Topics normally covered include waves and sound, electricity, magnetism and optics. Time permitting, relativity, atomic and nuclear physics may be included. Completion of homework and lab are requirements for a passing grade. Meets requirements of physical therapy and the Pre-Medical Professions programs. Does not meet requirements of physics or engineering programs. Lecture (four hours) and laboratory (two hours). Prerequisite: PHYS 201. Spring and summer.

211. General Analytical Physics I 4 cr.
First of a two-semester calculus-based and problem-oriented introductory physics sequence. A good algebra and trigonometry background is presumed and methods of using calculus are presented. The approach is strongly quantitative and emphasizes the solving of problems. Topics normally covered are drawn from electromagnetism and include electrostatic field, potential and energy, electric circuits, magnetostatics, and electromagnetic induction. Time permitting, wave motion, electromagnetic waves and optics may be included. Completion of homework and lab are requirements for a passing grade. Meets requirements of physics, engineering, chemistry, mathematics, forensic science and the Pre-Medical Professions program. Lecture (three hours), laboratory (two hours) and recitation (one hour). Prerequisite: MATH 115. Fall and summer.

212. General Analytical Physics II 4 cr.
Second of a two-semester calculus-based and problem-oriented introductory physics sequence. A good algebra and trigonometry background is presumed and methods of using calculus are presented. The approach is strongly quantitative and emphasizes the solving of problems. Topics normally covered are drawn from electromagnetism and include electrostatic field, potential and energy, electric circuits, magnetostatics, and electromagnetic induction. Time permitting, wave motion, electromagnetic waves and optics may be included. Completion of homework and lab are requirements for a passing grade. Meets requirements of physics, engineering, chemistry, mathematics, forensic science and the Pre-Medical Professions program. Lecture (three hours), laboratory (two hours) and recitation (one hour). Prerequisite: PHYS 211. Co-requisite: MATH 116. Spring and summer.

302. Optics 3 cr.
Modern and classical optics at an intermediate level. Ray optics is introduced first, with applications of reflection and refraction ranging from spherical surfaces to optical instrumentation. Topics in wave optics include wave motion and superposition, Fresnel equations, interference and interferometry, Fraunhofer and Fresnel diffraction. Time permitting, elements of Fourier optics or other selected advanced topics may be included. Lecture (three hours). Prerequisites: PHYS 212. Co-requisite: PHYS 312. Fall.

312. Optics Lab 1 cr.
Laboratory demonstrating optical principles and applications. Experiments may vary, ranging from basic single optical component set-ups to multi-component set-ups, basic and advanced interferometry, polarization and holography. Laboratory (three hours). Prerequisites: PHYS 212, or PHYS 202 and instructor’s permission. Fall.

332. Analog Electronics 3 cr.
An introduction to the fundamental principles of analog circuit analysis and design: direct current circuits and alternating current circuits containing passive and active discrete components (e.g. resistors, capacitors, inductors, diodes, transformers, transistors, etc.), semiconductor devices (e.g. diodes), integrated components (e.g. operational
amplifiers), and non-linear circuits. Standard testing equipment (e.g., multimeter, function generator, oscilloscope, etc.) is integrated into a practical laboratory setting. Lecture (two hours) and laboratory (three hours). Prerequisites: PHYS 212, or PHYS 202 and the consent of the instructor. Fall.

A variety of theoretical methods that are useful for general problem-solving in advanced science and engineering courses: complex numbers and functions of a complex variable, Fourier series and transforms, Laplace transforms, Legendre, Laguerre and Hermite polynomials, calculus of variations, special functions and tensor analysis. Lecture (three hours). Prerequisite: MATH 215. Co-requisites: MATH 310 and MATH 314. Spring.

364. Modern Physics Lab 1 cr.
Experiments demonstrating principles and applications of quantum physics. Students have the opportunity to reproduce historically crucial experiments such as the photoelectric effect, the Franck-Hertz experiment and the Millikan oil-drop experiment, and to experiment with nuclear decay, superconductivity and pulsed nuclear-magnetic-resonance spectrometry. Laboratory (three hours). Prerequisites: PHYS 212, or PHYS 202 and instructor’s permission. Spring.

374. Modern Physics 3 cr.
Intermediate-level introduction to relativity, quantum physics and statistical mechanics. Topics include: special relativity, Planck spectrum and quantization of light, wave-particle duality, quantization of atomic energy levels, wavefunctions and Schrödinger equation in one and three-dimensions, elementary quantum angular momentum theory, exclusion principle and the period table, and elements of classical and quantum statistical mechanics. Select developments in nuclear physics, condensed-matter physics, and elementary-particle physics may be included, time permitting. Lecture (three hours). Prerequisites: PHYS 212 and MATH 215. Spring.

401. Thermal Physics 3 cr.
Fundamental principles of thermodynamics, kinetic theory and statistical mechanics at the advanced level. Topics generally included are the ideal gas, equipartition of energy, work and heat, heat capacities, latent heat and enthalpy, the First and Second Laws of Thermodynamics, entropy, the Carnot cycle, the Helmholtz and Gibbs free energies, phase transformations, the Clausius-Claypon equation, Boltzmann statistics, the Maxwell speed distri-

bution, the Gibbs factor, bosons and fermions, the Fermi-Dirac and Bose-Einstein distributions, white dwarf stars and neutron stars, blackbody radiation and the Planck spectrum, and the cosmic microwave background radiation. Lecture (three hours). Prerequisite: PHYS 374. Odd fall.

461/561. Mechanics 4 cr.
Advanced-level classical mechanics in three dimensions. Topics include 3-dimensional kinematics, solutions of the Newtonian equation of motion with drag, conservative forces and potential energies, work and energy theorems, central forces, inverse-square law and Kepler’s problem, damped and driven oscillations, Fourier analysis, and the Lagrangian and Hamiltonian formulations. Lecture (four hours). Prerequisites: PHYS 212, MATH 215, MATH 310, MATH 314 and junior status. Odd fall.

472/572. Electromagnetism 4 cr.
Electricity and magnetism at the advanced level. Topics include vector calculus, electrostatic fields from point charges and continuous charge distributions, Gauss’ law, electrostatic potential, conductors, methods for Laplace’s equation including images, separation of variables and multipole expansions, magnetostatic fields, Ampere’s law, electromagnetic induction, Maxwell’s equations. Lecture (four hours). Prerequisites: PHYS 212, MATH 215, MATH 310, MATH 314 and junior status. Even spring.

474. Quantum Mechanics 3 cr.
Undergraduate introduction to the formalism of modern quantum theory. The course usually begins with a review of Schrödinger theory. The main course content includes one-dimensional potentials, the harmonic oscillator, angular momentum, spin, and perturbation theory. Throughout the course, emphasis is placed on the Hilbert space formulation, the Dirac notation and the matrix representation. Lecture (three hours). Prerequisites: PHYS 374, MATH 310 and MATH 314. Even fall.

480/580. Chaos 3 cr.
This course provides an introduction to the theory and applications of chaos. The topics presented may include: characterizations of dynamical systems and of maps and flows; sensitivity to initial conditions; studies of one-dimensional maps including fixed points, periodic orbits, bifurcation theory, the period-doubling cascade to chaos, universal scaling laws and the Feigenbaum constants; the Schwarzian derivative and the critical orbit; and the Newton Fixed Point Theorem. Then, the last part of the course is devoted to fractals, Julia Sets, and the Mandelbrot Set. If time permits we may study the Lyapunov exponents and
the Lorenz attractor. Students taking this course are strongly urged to take 480L. However, all majors enrolled are required to take 480L. Lecture (three hours). Prerequisite: MATH 115. Spring.

480/580L. Chaos Computer Laboratory 1 cr. Computer studies of the concepts introduced in 480. An important topic is the period-doubling cascade to chaos for the one-dimensional logistic map. We may also study the Hénon Map, the Lorenz attractor, Julia Sets, and the Mandelbrot Set. Laboratory (two hours). Prerequisite: MATH 115. Spring.

481. Descriptive Cosmology 3 cr. Modern scientific understanding of the origin and evolution of the universe at a straightforward descriptive level. Topics include: redshift of distant galaxies, cosmic background radiation, cosmic abundance of hydrogen and helium, inflation, dark matter, dark energy and big-bang models of the universe, with discussion of relevant astrophysics including stellar evolution and black-hole science. Emphasis is on the current status of the field as per public media sources. Delivery is based on a variety of visual aids, including acclaimed public television programs. Internet-based searches, readings from public sources and fieldtrips to local observatories are some of the activities included for credit. No science or mathematics background presumed. Does not meet requirements of astronomy programs. Lecture (three hours). Prerequisite: junior status or instructor’s permission. Odd spring.

482W. Elementary Particle Physics 3 cr. This course will include elements of nuclear structure, as well as the discoveries and ideas of modern elementary particle physics. The material covered will be, in part, cultural and historical. The topics presented may include: the Special and General Theories of Relativity; an introduction to quantum mechanics; the charge-independent, nuclear interaction; the four fundamental forces in nature; the properties of baryons, mesons, and leptons; the quark structure of the hadrons, including the “flavor” and “color” labels; “asymptotic freedom” and “infrared slavery”; parity violation in the weak interactions and other symmetries obeyed or violated in the various interactions; the electroweak theory; the unification of the various forces; and GUTS, supersymmetry, and string theories. Connections between particle physics and cosmology may be discussed. Lecture (three hours). Prerequisites: PHYS 374 and MATH 310. Even spring.

485. Relativity 3 cr. Introduction to the Special and General Theories of Relativity. Topics that may be discussed are: space-time coordinates and four vectors, the metric tensor, the Lorentz transformation, simultaneity, the Lorentz contraction, time dilation, relativistic dynamics, relativistic threshold problems, the principle of equivalence, space-time curvature, the Schwarzschild metric, the gravitational redshift, the bending of light, the Einstein equations, and applications to astrophysics and cosmology. Lecture (three hours). Prerequisites: PHYS 461 with C or better, or MATH 215 and instructor’s permission. Odd spring.

487/587. Problems in Physics 1-4 cr. Special topics and problems in physics and related subjects suitable for an independent study. Fall, spring and summer.

488. Advanced Problems in Physics 1-4 cr. Problems usually of a more sophisticated nature than those in PHYS 487. Fall, spring and summer.

491. Introductory Materials Science I 3 cr. The main topics covered are atomic bonding, crystalline structure, diffusion, mechanical behavior, thermal behavior, failure analysis and prevention, phase diagrams and kinetics. The course is an accurate description of the balance between scientific principles and practical engineering that is required in selecting the proper materials for modern technology. Lecture (three hours). Prerequisite: PHYS 374 with C or better. Odd fall.

492. Introductory Materials Science II 3 cr. The course will address the properties of structural materials (metals, ceramics and glasses, polymers and composites), electronic, optical and magnetic materials (electrical behavior, optical behavior, semiconductor materials and magnetic materials) and materials in engineering design (environmental degradation and materials selection). Lecture (three hours). Prerequisite: PHYS 491. Even spring.

493. Solid State Physics I 3 cr. Bulk properties of materials are discussed with both the phenomenological and microscopic approaches. Topics include a review of quantum theory, crystal structure, crystal diffraction and binding, lattice vibrations, thermal and electronic properties. Lecture (three hours). Prerequisites: PHYS 374 with C or better. Even fall.
494. Solid State Physics II 3 cr.
Bulk properties of materials are discussed with both the phenomenological and microscopic approaches. Topics will include band theory of solids, Fermi surfaces, electrical conductors, semiconductors, magnetism, optical properties of solids, and superconductivity. Lecture (three hours). Prerequisite: PHYS 493. Odd spring.

499W. Senior Research 2 cr.
Research experience under the guidance of a faculty mentor, culminating in a senior thesis. A public oral presentation or poster is a requirement for a passing grade. Prerequisite: senior status. Spring.

CENTER FOR ENVIRONMENTAL RESEARCH AND EDUCATION

Interim Director:
Robert D. Volkmar, QEP

Research Professor:
Stanley J. Kabala, Ph.D.

Affiliated Faculty:

Professors:
H.M. Kingston, Ph.D., Department of Chemistry and Biochemistry

Associate Professors:
Kyle W. Selcer, Ph.D., Department of Biological Sciences
John F. Stolz, Ph.D., Department of Biological Sciences

Assistant Professor:
Brady Porter, Ph.D., Department of Biological Sciences

Human influence on the environment promises to be one of the most pressing problems of the 21st century. Because assertions based on a lack of empirical evidence frequently occupy center stage in environmental debates, sound science is needed for environmental decision-making. Duquesne University has responded to this need with the Bachelor of Science in Environmental Science. The B.S. in Environmental Science provides a broad environmental background. The flexible curriculum enables students to minor in biology or chemistry. Career choices could include positions in the private, public and non-profit sectors. Graduates would be prepared to work in such areas as: environmental consulting, laboratory or field research, conservation, regulatory compliance, and environmental education.

Students also have the opportunity to enroll in a dual B.S./M.S. program and receive the Master of Science in Environmental Science and Management at Duquesne. Graduates of the M.S. program would also gain background in environmental management systems, public policy, and law.

REQUIREMENTS FOR THE MAJOR

It is our belief that students should receive individual attention during their entire undergraduate career. Each student plans a course of study in close cooperation with a faculty advisor, and the student's progress is closely coordinated with developing interests. Undergraduates are strongly encouraged to pursue independent research as an essential part of their educational program. Research permits students to develop an even closer relationship with a faculty research director, who then serves as a mentor during career planning.

Requirements For The B.S. In Environmental Science (127 Credits)

Foundational science requirements:
Total credits: 41

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 121</td>
<td>General Chemistry I</td>
<td>4 cr.</td>
</tr>
<tr>
<td>CHEM 121L</td>
<td>General Chemistry I Lab</td>
<td>1 cr.</td>
</tr>
<tr>
<td>CHEM 122</td>
<td>General Chemistry II</td>
<td>4 cr.</td>
</tr>
<tr>
<td>CHEM 122L</td>
<td>General Chemistry II Lab</td>
<td>1 cr.</td>
</tr>
<tr>
<td>CHEM 211</td>
<td>Organic Chemistry I</td>
<td>3 cr.</td>
</tr>
<tr>
<td>CHEM 211L</td>
<td>Organic Chemistry I Lab</td>
<td>1 cr.</td>
</tr>
<tr>
<td>CHEM 212</td>
<td>Organic Chemistry II</td>
<td>3 cr.</td>
</tr>
<tr>
<td>CHEM 212L</td>
<td>Organic Chemistry II Lab</td>
<td>1 cr.</td>
</tr>
<tr>
<td>BIOL 111/111L</td>
<td>Biology I and Lab</td>
<td>4 cr.</td>
</tr>
<tr>
<td>BIOL 112/112L</td>
<td>Biology II and Lab</td>
<td>4 cr.</td>
</tr>
<tr>
<td>BIOL 212</td>
<td>Cell and Molecular Biology</td>
<td>4 cr.</td>
</tr>
<tr>
<td>BIOL 319</td>
<td>General Microbiology</td>
<td>3 cr.</td>
</tr>
<tr>
<td>PHYS 201</td>
<td>Physics for Life Sciences I</td>
<td>4 cr.</td>
</tr>
<tr>
<td>PHYS 202</td>
<td>Physics for Life Sciences II</td>
<td>4 cr.</td>
</tr>
</tbody>
</table>

Required math courses: Total credits 13-14

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td>4 cr.</td>
</tr>
<tr>
<td>MATH 225</td>
<td>Biostatistics I</td>
<td>3 cr.</td>
</tr>
<tr>
<td>MATH 335</td>
<td>Biostatistics II</td>
<td>4 cr.</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Calculus II or math elective</td>
<td>3-4 cr.</td>
</tr>
<tr>
<td></td>
<td>as approved by faculty mentor</td>
<td></td>
</tr>
</tbody>
</table>

Environmental science courses: Total credits: 11

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVI 452</td>
<td>Environmental Chemistry</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENVI 472</td>
<td>Environmental Biology</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>
ENVI 551  Principles of Environmental Science .......... 3 cr.
ENVI 670  Environmental Toxicology .... 2 cr.

Environmental science electives:  Total credits: 21 to be selected from the following:

BIOL 335  Vertabrate Anatomy and Development
BIOL 340W  Evolution
BIOL 398/399  Undergraduate Research
CHEM 230L  Research Lab Techniques (2cr.)
CHEM 301  Physical Chemistry for Life Sciences
CHEM 423  Analytical Chemistry
CHEM 504  Microwave Enhanced Chemistry
CHEM 321  Physical Chemistry I (4 cr.)
CHEM 565  Advanced Instrumental Analysis
ENVI/BIOL 466  Terrestrial Field Biology
ENVI/BIOL 492W  Stream Field Biology
ENVI/BIOL 499  Microbial Ecology
ENVI 391  Environmental Experience in China
ENVI 491  Environmental Hydrogeology
ENVI 494  Environmental Sampling
ENVI 497  Applied and Env. Microbiology
ENVI 544  Environmental Policy and Politics
ENVI 570  Air Pollution Prev and Control
ENVI 571  Water Pollution Prev and Control

(All courses above are 3 credits unless otherwise indicated. Students must take at least one field course equal to ENVI 466, 492W, 494 or other course approved by their faculty mentor. Other courses, including courses at other institutions, may be approved by the student’s faculty mentor.)

MAJOR COURSES

391.  Environmental Science Experience in China  3 cr.
This course provides an in-depth three-week scientific and cultural experience in China facilitated through Duquesne University and the Chinese Association of Science and Technology. Students will travel to several universities in China and work in seminars or small groups with the opportunity to (1) communicate orally and in writing in topics such as environmental science and pollution abatement; (2) acquire appropriate learning skills for collective laboratory work; (3) become familiar with global scientific issues through actively participating in scientific presentations. Students must participate in pre-trip seminars during the spring semester, in the August three-week trip including all activities during the trip, in the writing of reports to include in the trip summary document, and in a post-trip presentation to the public. Pass/Fail.

452.  Environmental Chemistry  3 cr.
The course provides students with an appreciation and understanding of the fundamental and theoretical background and concepts in environmental chemistry. Students will learn environmental testing methods and gain the knowledge necessary for critical evaluation of fundamental aspects of testing procedures and data derived from environmental testing. Pre-requisites: CHEM 121, CHEM 122, MATH 115.

466/566.  Terrestrial Field Biology  3 cr.
This applied ecology course is designed to present an overview of field and laboratory methods used by ecologists to describe and analyze plant and animal aggregations and their environments. The course focus is on the principles and practice of various ecological procedures with explanation of how to collect, record and analyze data. The course reviews the basic concepts of ecology that are needed to understand the various methods and their significance. The course material is presented as a combination of lecture, laboratory, and field sessions. (3 credits, cross-listed with BIOL 466/566) Pre-requisites: BIOL 111/111L, BIOL 112/112L.

491/591.  Environmental Hydrogeology  3 cr.
The course introduces students to the fundamentals of geologic materials and soils and deals with ground and surface water and hazardous earth processes, such as flooding and earth movements. Geological issues of solid waste disposal, hazardous waste management, and land-use planning will be covered. The course will include case histories and field trips. Pre-requisites: BIOL 111/111L, BIOL 112/112L.

492W/592W.  Stream Field Biology  3 cr.
Stream Field Biology is the study of the functional relationships and productivity of fresh water streams as they are affected by their physical, chemical and biotic environment. The dynamics of flowing streams, with their linear pattern, makes an ever-changing ecosystem dominated by constant erosion and deposition. Increasing knowledge about the operational stream ecosystem and factors that regulate productivity of the total watershed is crucial. The participants in this
course will categorize stream order in a watershed; explain the abiotic and biotic relationships that exist with stream ecosystems; analyze the parameters of a watershed; and evaluate the trade-offs, costs and benefits of conserving stream watersheds. Pre-requisites: BIOL 111/111L, BIOL 112/112L.

494/594. Environmental Sampling 3 cr. Environmental sampling will explore the fundamentals of sample collection and the various methods used for obtaining environmental samples from air, water, and sediment. Field trips on the Pittsburgh Voyager are used to obtain samples from the Three Rivers. (3 credits). Pre-requisites: BIOL 111/111L, BIOL 112/112L.

497/597. Applied and Environmental Microbiology 3 cr. This course takes an in depth look at microbial biogeochemical cycling and the application of microbial processes (both prokaryotic and eukaryotic) for biotechnology and bioremediation. Topics include biogeochemistry, the design and application of genetically engineered microbes (GEMS), natural attenuation, fermentation, and water treatment, in addition to current issues in environmental science. (3 credits) Prerequisites: BIOL 212, 319, and CHEM 222 or permission of the instructor.

498/598 Environmental Ecology 3 cr. This course provides an overview of man’s impact on the environment. Basic ecological principles are examined in the context of man’s interaction with the biosphere. The ecological effects of pollution and other man-made disturbances are described. Topics include: principles pertaining to ecosystems, communities and populations; biogeochemical cycles; sources of pollution; effects of pollutants on terrestrial and aquatic ecosystems; deforestation; loss of species richness; biomarkers; and bioremediation. (3 credits) BIOL 111/111L, BIOL 112/112L.

499/599 Microbial Ecology 3 cr. In this course the interaction of microorganisms, primarily prokaryotes, with each other, plants, animals, and fungi, and the environment is explored. The course takes a systematic approach, examining these interactions at the ecosystem, organismal, subcellular, and historical level. Topics include microbial primary production and photosynthesis, biogeochemical cycling, the structure of microbial communities, modeling, symbiosis, and microbial evolution. Prerequisites: BIOL 212, 319, and CHEM 222 or permission of the instructor.

544. Environmental Policy & Politics 3 cr. This course addresses the interplay of science, politics, and economics in the development of environmental policy in the United States. Students examine the roles of civic concern, political institutions, regulatory agencies, non-governmental agencies, business and industry, scientific information, and technology. Through lectures, reading, films, and discussion, students develop an understanding of the principal issues associated with environmental policy development.

551. Principles of Environmental Science 3 cr. The course provides students with an understanding of the fundamental concepts and issues in environmental science. The impact of population growth on ecosystems, fossil and nuclear energy, resources and resource management, and population and risk assessment are among the topics discussed. The course also deals with such issues as global warming, deforestation, biodiversity and ozone depletion. This course provides a foundation for integrating other courses.

570. Fundamentals of Air Pollution Prevention and Control 3 cr. This course will provide the skills required by environmental professionals to deal with Federal and State Air Quality Standards. The course will be structured to blend technical, social, and political air quality issues into real world activities. It will provide students with information needed to carry out daily management activities in the air pollution field by enabling them to recognize key air quality issues and how to best deal with them. Students will also be grouped and asked to work as a team to submit and to review air quality plan approval and permit applications. In addition to the traditional classroom setting, two classes will be held at site locations to enhance the learning experience.

571. Fundamentals of Water Pollution Prevention and Control 3 cr. This course is designed to provide the student an overall understanding of the science, law, regulations, and technologies associated with the protection of surface and ground waters. It is a non-engineering course that prepares students to understand and deal with water pollution issues in the workplace. The course begins with a review of the basic science associated with the properties
and behavior of water. It then progresses to an
examination of the various types of water pollution
and their sources. The legal framework for water
pollution control in the United States is addressed
via a review of the structure and requirements of
the Clean Water Act (CWA). This is followed by
an examination of regulatory requirements, includ-
ing ambient water quality criteria, effluent limits,
permitting, and other topics. The latter half of the
course focuses on water conservation and water
pollution control and prevention technologies.

MASTERS DEGREE OF FORENSIC
SCIENCE & LAW

Director:
Frederick W. Fochtman, Ph.D.

Affiliated Faculty:

Professors:
Samuel Astorino, J.D., School of Law
Kellen McClendon, J.D., School of Law
Mark Yochum, J.D., School of Law

Associate Professors:
Vanessa Browne-Barbour, J.D., School of Law
Mitchell E. Johnson, Ph.D., Department of
Chemistry and Biochemistry
John T. Rago, J.D., School of Law

Assistant Professors:
Bruce Antkowiak, J.D., School of Law
Lisa Ludvico, Ph.D., Department of Biological
Sciences
Kirk Junker J.D., School of Law
Stephanie Wetzel, Ph.D., Department of Chemistry
and Biochemistry

Adjunct Professor:
Cyril H. Wecht, M.D., J.D., Adjunct Professor of
Law

Adjunct Faculty:
Jacquelyn Bales, Scientist, Serology/DNA,
Allegheny County Medical Examiner’s Office
Forensic Laboratory Division
Laramey Dille, Tenprint Examiner, Biometric
Examination Services Team, Ideal Innovations,
Inc.
David Exline, Director, Pharmaceutical Services
and Biotechnology, RJ Lee Group, Inc.
Ron Freeman, Retired Homicide Detective,
Pittsburgh Police
Kevin J. Garber, J.D., Ph.D., Shareholder, Babst
Calland Clements & Zomnir, P.C.
Sara Hochendoner, Scientist, Serology/DNA,
Allegheny County Medical Examiner’s Office
Forensic Laboratory Division
Charles Kritko, Former Deputy Director, Allegheny
County Medical Examiner’s Office Forensic
Lab Division
Michael Leone, Retired Forensic Laboratory
Manager, Evidence Handling, Allegheny
County Medical Examiner’s Office Forensic
Lab Division
Robert Levine, Forensic Laboratory Manager,
Firearms and Tool Marks, Allegheny
County Medical Examiner’s Office Forensic
Lab Division
Madelyn A. Reilly, J.D., Corporate Counsel,
Compliance and Enterprise Risk
Christine Tomsey, Retired DNA Technical Leader
and Forensic DNA Manager, Pennsylvania
State Police

The Masters in Forensic Science and Law Program
is designed to provide the education and training
for students who are planning a career as a
scientist, consultant, or administrator in the foren-
sic sciences. This five-year Program of rigorous
study is open to graduating high school seniors
who have demonstrated an interest in the sciences
and their application in the context of criminal or
civil law. The Program is unique in that the Fac-
ulty includes professors from the Natural Sciences,
Forensic Sciences, and the Law School. It is a
multi-disciplinary program of study that explores
the promise of what science brings to our pursuit
of the truth. The Program engenders in its students
an appreciation of the need to expand understand-
ing of forensic science through the integration of
the skills of the scientist and those who would
apply the sciences in judicial proceedings.

At Duquesne University, this Masters Degree
Program in Forensic Science and Law prepares
students to be highly skilled in applying the prin-
ciples and techniques of the physical and natural
sciences to the analysis of many types of evidence.
The program curriculum allows the students to
take course work towards earning either a
Bachelor’s Degree in Biochemistry or Biology.

REQUIREMENTS FOR THE MASTERS IN
FORENSIC SCIENCE AND LAW

Forensic Science and Law Requirements:
Total Credits: 45
American Legal History......................... 1 cr.
Chemistry, Toxicology,
Arson Applications Lab ......................... 1 cr.
Constitutional Criminal Procedure .......................... 1 cr.
Environmental Law .................................................. 1 cr.
Evidence/Case Management ........................................ 1 cr.
Expert Qualification .............................................. 1 cr.
Explosives and Arson Investigation .............................. 2 cr.
Firearms & Toolmarks ............................................. 2 cr.
Ethics in Forensic Science and Professional Responsibility ...... 1 cr.
Forensic Drug Analysis ............................................ 2 cr.
Forensic Investigation I and II ................................... 6 cr.
Forensic Serology/DNA ........................................... 3 cr.
Forensic Toxicology ................................................ 3 cr.
Latent Fingerprint Analysis ...................................... 1 cr.
Introduction to Criminal Justice .................................. 3 cr.
Introduction to Forensic Science and Criminal Law .......... 2 cr.
Law, Science, and Philosophy .................................... 2 cr.
Quality Assurance & Lab Administration Management .......... 2 cr.
Seminar/Journal Club I and II .................................... 2 cr.
Serology DNA Applications Lab .................................. 1 cr.
Torts ........................................................................ 1 cr.
Trace Evidence and Environmental Science ...................... 3 cr.
Trace Evidence Applications Lab ................................... 1 cr.
Wrongful Convictions .............................................. 2 cr.

Biology Requirements: Total Credits: 23/27*
Biology I and II ....................................................... 8 cr.
Cell and Molecular Biology ...................................... 4 cr.
Mammalian Physiology ............................................ 4 cr.
Human Genetics ...................................................... 3 cr.
DNA Methods Population Genetics ............................... 4 cr.
Biological Elective 250-475* ....................................... 3 cr.
Senior Seminar (Biology)* ........................................ 1 cr.

Chemistry Requirements: Total Credits: 37/38**
General Chemistry I and II ....................................... 8 cr.
General Chemistry I and II Lab ................................... 2 cr.
Organic Chemistry I and II ....................................... 6 cr.
Organic Chemistry I and II Lab ................................... 2 cr.
Research Lab Techniques .......................................... 2 cr.
Biochemistry I and II .............................................. 6 cr.
Analytical Chemistry ............................................... 3 cr.
Forensic Chemistry I and II ....................................... 6 cr.
Physical Chemistry For Life Sciences ........................... 4 cr.
Senior Seminar (Chemistry)** .................................... 1 cr.

Mathematics Requirements: Total Credits: 14
Calculus I and II ....................................................... 8 cr.
Introduction to Biostatistics ....................................... 3 cr.
Biostatistics II .......................................................... 3 cr.

Physics Requirements: Total Credits: 8
Physics for Life Science I and II ................................... 8 cr.

University UCOR & Bayer School Core Requirements: Total Credits: 28
A cumulative QPA of 3.0, and 2.5 QPA in math and science is required to enter the third year of the curriculum. Students must maintain a 3.0 cumulative average in subsequent years to remain in good standing.

* These courses are required for the Bachelor of Science in Biology.

** This course is required for the Bachelor of Arts in Biochemistry.

FORE 101. Introduction to Forensic Science and Criminal Law I 2 cr.
The intersection of science and law provides us with new tools and methodologies for discovering truth. This introductory course, in part, is designed to provide you with a broad overview of the law that you will cover throughout the entire 5 year program. Concepts and doctrines in the areas of criminal and civil law, the roles of the expert, pertinent rules of evidence, and wrongful convictions will be covered. The importance of ethical considerations in forensic science and law is emphasized. Included is an introduction to the classical areas of the forensic sciences and how the sciences interrelate with the law.

FORE 201. Law, Science, and Philosophy 2 cr.
This course is designed to help students to integrate the scientific knowledge in forensic science studies into the social context of the making, enforcing and interpreting of the law. In so doing, the student will be introduced to some basic concepts of the law, and the ways in which the forensic scientist participates in the practices of the law. In addition, the course uses the formal disciplinary study of philosophy as an analytical tool for examining science, law and their intersections. Prerequisite: FORE 101.

FORE 301W. Wrongful Convictions 2 cr.
This upper level course will examine, from an interdisciplinary perspective, the principal problems that lead to the conviction of the innocent and the leading proposals for reform. Strong consideration will be given to the ethical imperatives of the police, prosecution, defense lawyers, and the scientific community. Approximately one-half of the class time throughout the semester will be used to cover these ethical considerations. Topics covered will include mistaken eyewitness identification;
false confessions; junk forensic science; the role of forensic DNA testing; post-conviction remedies for innocence claims; the use of "jailhouse snitches" and cooperating witnesses; incompetent defense counsel; police and prosecutorial misconduct; ethical and moral problems posed by innocence and the death penalty; and the legal, practical, and ethical issues that arise for policy makers. Drawing on these topics, students will work in teams to study actual innocence/wrongful convictions in Pennsylvania and other jurisdictions. Prerequisite: FORE 101.

CHEM 371W. Forensic Chemistry Lab I 2 cr. Students will learn the basic techniques and instrumentation used in a forensic laboratory. They will use microscopy, IR, visible spectroscopy and liquid chromatography to analyze hair, fibers, fingerprints, and pharmaceuticals. Prerequisite: CHEM 230L and C or better in CHEM 423. Laboratory, six hours.

CHEM 372W. Forensic Chemistry Lab II 2 cr. Students will continue to learn the instrumentation and more advance techniques used in a forensic laboratory. They will use GC-MS, LC-MS, IR, PXRD, chemical tests and microscopy to detect metal residues, flammable liquids, explosives, poisons, and drugs. Prerequisite: Forensic Chemistry Lab I. Laboratory, six hours.

FORE 391. Forensic Science Experience in China 3 cr. This course provides an in-depth three-week scientific and cultural experience in China facilitated through Duquesne University and the Chinese Association of Science and Technology. Students will travel to several universities in China and work in seminars or small groups with the opportunity to (1) communicate orally and in writing in topics such as environmental science and pollution abatement; (2) acquire appropriate learning skills for collective laboratory work; (3) become familiar with global scientific issues through actively participating in scientific presentations. Students must participate in pre-trip seminars during the spring semester, in the August three-week trip including all activities during the trip, in the writing of reports to include in the trip summary document, and in a post-trip presentation to the public. Pass/Fail.

FORE 401. American Legal History 1 cr. This course is an introduction to the basic institutions and concepts of the American legal system. Attention is focused upon courts, their law making capacity and their relationship to other branches of government particularly the legislature. This course examines the fundamentals of our criminal and civil systems of justice. Prerequisite: FORE 101

FORE 402. Torts 1 cr. This course exposes students to Torts using case law, statutes and other authorities, such as the Restatements of the American Law Institute. Students also are presented with a basic explanation of the American Legal System. The course is conducted primarily by lectures with some Socratic methodology where appropriate. A textbook and outside readings are used. Prerequisite: FORE 101

FORE 410. Forensic Investigation I 3 cr. This course introduces the student to modern crime scene investigative techniques and will also explore the historical evolution of crime scene investigation. We shall study basic and advanced procedures employed by crime scene investigators with an emphasis on the detection, collection, and presentation of physical and testimonial evidence. The course identifies items commonly found at crime scenes and examines their significance in identifying and prosecuting people accused of committing crimes. Aspects of psychological and transient evidence associated with criminal activity will be explored including the difficulties of presenting non-tangible evidence to a court and jury. Theories of information, observation, and interrogation as they relate to crime scene investigation will be examined, as will the ethics of current investigative procedures utilized by modern law enforcement agencies. Prerequisite: FORE 101

FORE 411. Forensic Investigation II 3 cr. This course is a continuation of Forensic Investigation I with an emphasis on the study of the practical application of modern investigative techniques to a variety of criminal activities. Actual cases, accompanied by crime scene photographs will be presented, giving the student a factual view of techniques, procedures and strategies utilized by law enforcement officers conducting criminal investigations. We shall explore investigative relationships between local and federal law enforcement agencies and the potential resources each agency contributes to an investigation. Prerequisite: FORE 410

FORE 421. Environmental Law 1 cr. This course will use lectures, readings, discussions and class presentations to introduce the students to the field of environmental law. The object is to familiarize the students with the legal background in which they may be called upon to practice their scientific training in the Forensic Science and Law Program, whether as consultants, regulatory or
compliance specialists, or expert witnesses. Prerequisite: FORE 101

FORE 450/460. Internship 1 - 6 cr.
The Forensic Science and Law Internship provides the student with a professional work experience in an organizational environment. The internship is an extension of the curriculum and provides meaningful experience related to the student’s area of concentration. The internship responsibilities must be approved in advance by a program coordinator. The student is supervised within the work setting and also by a faculty sponsor from the Forensic Science and Law Program. FORE 460 is Pass/Fail. Prerequisite: Student must have earned 60 credits.

FORE 470. Research Internship 1 - 3 cr.
Opportunity for selected Forensic Science Students to work in either the Forensic Chemistry or Forensic DNA Laboratory on a research problem under the direction of a faculty mentor. In the Forensic Chemistry lab students work on several ongoing research projects, learning experiment development, problem solving and instrumental methods. In the Forensic DNA Laboratory students are responsible for sample processing, performing extractions on a variety of source material (bone, tissue, etc), quantification, PCR and genotyping, including database construction.

FORE 500. Internship 0 cr.
The Forensic Science and Law Internship provides the student with a professional work experience in an organizational environment. The internship is an extension of the curriculum and provides meaningful experience related to the student’s area of concentration. The internship responsibilities must be approved in advance by a program coordinator. The student is supervised within the work setting and also by a faculty sponsor from the Forensic Science and Law Program. Pass/Fail. Prerequisite: Student must have earned 90 credits.

FORE 501. Trace Evidence & Environmental 3 cr.
The Trace Evidence course will provide the student with basic insight into background, theory, principles, scene investigation, sample collection, identification and classification of various types of trace evidence. Prerequisite: FORE courses, levels 100 through 400.

FORE 510. Ethics in Forensic Science and Professional Responsibility 1 cr.
Ethical conduct and professional responsibility of the forensic scientist are critical for the proper functioning of the criminal justice system. Inevitably, the forensic scientist works within the legal system and their role in that system is controlled by lawyers and the rules of that system. The forensic scientist faces challenges in our adversary system, particularly when scientifically ethical behavior may conflict with the ethical restrictions presented in the legal setting. Forensic professionals are, in fact, bound by legal ethics when working for lawyers (including prosecutors). This course reviews common problems of legal ethics, important to the practice of forensic science. We will also discuss common scientific values and how they complement or contradict the values evidenced by legal ethical thought. Prerequisite: FORE 101.

FORE 511. Forensic Drug Analysis 2 cr.
The Forensic Drug Analysis course is designed to provide the student with the basic knowledge and skills necessary to perform routine examinations and identification/classification of illicit drugs and chemicals. A thorough knowledge of the chemistry of selected classes of drugs is emphasized. Prerequisite: FORE courses, levels 100 through 400.

FORE 513. Firearms and Toolmarks 2 cr.
The use of firearms comprises a large percentage of crimes in the United States. The course is designed to provide the student with the principles of firearms examination and firearms identification as well as other firearms related evidence. In addition, shoe print and tire print evidence will also be discussed. Prerequisite: FORE courses, levels 100 through 400.

FORE 521. Forensic Serology and DNA Analysis 3 cr.
This course presents the theory and methodology used in the examination and identification of body fluid stains, including blood, semen and saliva. The determination of species origin and sources of false positive and negative results will also be covered. Students will cover techniques and methods of forensic DNA analysis, as well as statistical interpretation of results, report writing and quality control issues. Students will process mock forensic casework. Prerequisite: FORE courses, levels 100 through 400.

FORE 522. Quality Assurance & Lab Administration Management 2 cr.
Forensic science is an applied science. The ability to consistently and reliably obtain results time after time and to demonstrate that this is done is important to courts and society. Also, the testing must
evolve with advances in science. The human element introduces confounding factors that have to be managed as well. Ethical questions are emphasized throughout the course. This course is designed to provide you with tools to assure laboratory quality and manage the human and nonhuman laboratory resources in a forensic science laboratory context. Prerequisite: FORE 101

FORE 525. Forensic Toxicology 3 cr. The Forensic Toxicology course is designed to provide the student with the basic knowledge to understand the deleterious effects of drugs and chemicals on the human body. In addition to the basic analytical principles the student will be involved with analyzing and interpreting cases in post-mortem, human performance and drug testing forensic toxicology. Prerequisite: FORE courses, levels 100 through 400.

BIOL 530W DNA Methods Population Genetics 4 cr. This combined laboratory and lecture course examines the biology underlying the most common genetic marker systems used in the forensic community. The basics of population genetics and DNA analysis methodologies will be covered, including the CODIS database. Techniques include extraction protocols, amplification of DNA, methods for labeling DNA, and ultimately the construction of a genetic profile using an ABI 3100 Avant Genetic Analyzer. Mitochondrial DNA, the Y-chromosome, and Amelogenin, the most commonly used gender identification locus, will also be experimentally explored. Prerequisites: BIOL 568 Laboratory and lecture.

FORE 535. Evidence and Case Management 1 cr. The student is introduced to the process of receiving evidence, documenting chain of custody, and evidence security. Utilizing a LIMS for evidence tracking and case management will be covered. Stressed is the overall importance of the integrity of forensic evidence. Handling hazardous evidence is also covered. Prerequisite: FORE courses, levels 100 through 400.

FORE 540. Constitutional Criminal Procedure 1 cr. Criminal procedures for searches and seizures of evidence as constrained by the U.S. Constitution may affect the admissibility of forensic scientific analysis performed in the evidence in the laboratory. The forensic scientist should understand the constitutional dimensions of the law enforcement powers. In this course, significant U.S. Supreme Court cases will be read and discussed. This course is not an exhaustive or comprehensive study of the subject, but rather a survey of some of the major cases that affect everyday law enforcement. Prerequisite: FORE courses, levels 100 through 400.

FORE 541. Latent Fingerprint Analysis 1 cr. This course is designed to introduce the student to the science of fingerprints. Students will study the biological development of friction ridges, methods for developing, capturing, and preserving latent prints, and the ACE-V methodology for latent print comparison. This course will also provide students with the knowledge of current technology in the fingerprint community and the role of fingerprints in the field of forensic science. Prerequisite: FORE courses, levels 100 through 400.

FORE 545. Explosives and Arson Investigation 2 cr. The Explosive and Arson Investigation course will provide the student with basic insight into theory, principles, scene investigation, sample collection, identification and classification of explosive materials and ignitable liquids. Forensic Science applications for the analytical evaluation of Biological Warfare Agents (BWA) and Chemical Warfare Agents (CWA) will also be emphasized. Prerequisite: FORE courses, levels 100 through 400.

FORE 550/551. Seminar Journal Club 1 cr. each The forensic science graduate experience includes student presentations and discussions of research and topics of interest. One to two major formal powerpoint presentations will be given based upon literature or laboratory research. Journal articles and seminar topics will relate to the subject matter of classes taught during the semester. Prerequisite: FORE courses, levels 100 through 400.

FORE 555. Expert Qualification 1 cr. The Capstone course for the 5 year MFS&L program will prepare students for courtroom testimony and review the forensic science curriculum in preparation for professional certification tests. Prerequisite: FORE courses, levels 100 through 400.
FORE 610. Trace Evidence
Applications Lab 1 cr.
The purpose of this lab is to expand the student’s knowledge of trace evidence analysis techniques. Students will practice collection and analysis techniques. Students will learn what is required for a positive identification, negative identification, and elimination. The student will also be instructed in proper evidence handling techniques and chain of custody preservation. Corequisite: FORE 501.

FORE 620. Serology, DNA
Applications Lab 1 cr.
The purpose of this lab is to familiarize the students with techniques common to forensic serology. Students will learn the methods utilized in forensics laboratories for the collection and identification of physiological fluids while observing chain of custody and proper evidence handling. Corequisite: FORE 521.

630. Chemistry, Toxicology, Arson Applications Lab 1 cr.
An applications laboratory that covers analytical methodologies for detecting, identifying, characterizing, and quantitating chemicals, drugs, and poisons in forensic evidence. The examination of forensic evidence will include samples from arson and explosive investigations; samples from illicit drug distribution; biological samples from death cases; biological samples from illegal drug and alcohol use; and samples from suspected terrorism activity. Corequisite: FORE 525, 545
A.J. Palumbo School of Business Administration

Administration:
Dean: Alan R. Miciak, Ph.D.

Associate Dean, Academic Support and Accreditation: Thomas A. Pollack, Ph.D.

Associate Dean, Academic and Research: William E. Spangler, Ph.D.

HISTORY
The A.J. Palumbo School of Business Administration was established in 1913 as the School of Accounts and Finance. In 1931, the name was changed to the School of Business Administration to reflect the expansion of its course offerings and its growing professional stature in the education community. By 1961, the School had earned accreditation by the premier business school accrediting agency, AACSB, joining the less than 30 percent of business schools nationwide who have achieved this distinction. During the next several decades, new degree programs were added to enhance the scope of the curriculum and help prepare students for careers in all types of organizations.

Following a generous endowment in October of 1991 by Antonio J. Palumbo, an accomplished business professional, the School adopted its current name, the A.J. Palumbo School of Business Administration.

PHILOSOPHY AND OBJECTIVES
The mission of the A.J. Palumbo School of Business Administration is to prepare our students to achieve their full potential as ethical business professionals and community leaders with an understanding of the global context of business and its social impact. We accomplish this through passionate education, creative scholarship and the engagement of partners throughout the community. The Business School creates a learning environment that enables our undergraduate students to:

- Develop cross-functional core business competencies,
- Develop an ethical and moral perspective on organizational behavior,
- Become better decision-makers through critical thinking, problem solving, and effective communication,
- Acquire a knowledge and appreciation of multi-cultural business environments, and
- Become life-long learners through intellectual discovery and professional and personal development

We add value for the greater good of our stakeholders by creating an environment of support for the intellectual pursuits of our faculty, a commitment to excellence in teaching, community outreach, and service.

Driven by its Mission, the School of Business Administration has established the following key guiding principles:

- Appreciating that business education must be dynamic, continuously upgrade the curriculum to meet the rapidly changing needs of the students and the workplace.
- Continue our commitment to outstanding faculty performance, both in developing business knowledge (research) and in delivering that knowledge (teaching).
- Ensure the maximum use of technology by heavily integrating information technology into all course content and delivery, while providing state-of-the-art facilities equipped with the most sophisticated software.
- Espouse ethics as a winning characteristic of organizations that are successful over the long-term and promote a commitment to high standards and values among the Duquesne community.
- Recognizing that the business environment is unmistakably global, cultivate expanded opportunities for international study in distinguished foreign universities.
- Strongly encourage students to study abroad in order to develop a more global perspective.
- Continuously evolve a Mission Statement for our school that optimally guides our commitments to our various customer groups -- students, parents, employers, benefactors, alumni and the community.

The unending search for new and better ways to serve our students is a hallmark of the culture of our School of Business. Whether it is revising a program, renovating a facility, expanding the integration of technology, or creating a stronger international focus, the goal is continuous improvement and contemporary relevance.

The leaders of the 21st century must understand the complex global issues facing modern organizations and be proficient in the use and interpretation of data generated by the most up-to-date technology. They must maintain an interdisciplinary...
approach to problem solving and develop strong communication skills. It is the mission of the A.J. Palumbo School of Business to prepare our students to meet these challenges.

ADMISSION
Students who wish to enroll in the A.J. Palumbo School of Business Administration should apply through the Duquesne University Office of Admissions, 600 Forbes Avenue, Pittsburgh, PA 15282 – Phone: (412) 396-5000. The regular University admission requirements can be found on page ten. Acceptance of all international students will be contingent upon the successful completion of the Duquesne University English Placement tests and any required English language course work. This may involve at least one semester or more of course work until such time as the student’s English proficiency sufficiently improves to take undergraduate classes.

Students transferring from a school of business that is accredited by AACSB International - The Association to Advance Collegiate Schools of Business - must present an overall quality point average of 2.5 (on a 4.0 scale) or better. For other students, including those transferring from another school within the University, an overall quality point average of 2.5 or better, an overall quality point average of 2.0 or better in business courses, and a grade of C in their highest level math course are necessary.

Up to sixty credits of course work taken outside of the School of Business will be accepted for transfer credit. No more than 27 of those credits may consist of business courses. Exceptions will be made if the student is enrolled in a school with an established articulation agreement with Duquesne University. If extenuating circumstances exist, the student may petition the Student Standing Committee. For further information, the student should consult an academic advisor.

DEGREE
The School of Business Administration grants the degree of Bachelor of Science in Business Administration. Descriptions of advanced degrees are found in other publications available from Duquesne University’s John F. Donahue Graduate School of Business.

SECOND BACHELOR’S DEGREE
Persons who have received a bachelor’s degree from an approved college or university may be eligible to enter the program for a second bachelor’s degree in Business Administration. A second degree candidate must meet all requirements of the School’s degree program. A minimum of 30 credits must be completed in residency.

THREE-YEAR BACHELOR’S/J.D.
A student who has completed 93 credits in the A.J. Palumbo School of Business Administration with an overall average of 3.5 or better, and who has satisfied all undergraduate curricular requirements at Duquesne University may apply for a bachelor’s degree after successful completion of the first year of academic work at the Duquesne University School of Law. Students interested in this program should consult their advisors in their sophomore year to plan their program of studies. Because of the restrictive nature of this program, it is not open to transfer students.

EARLY ADMISSION TO MBA PROGRAM-BSBA/MBA
The School of Business Administration provides an opportunity for students in the School who achieve the Dean’s List to apply for early admission to the Master of Business Administration (MBA) program. Provided they receive a satisfactory score on the Graduate Management Admission Test, these students may apply to take certain MBA courses during their senior year. Dean’s List students interested in this program should consult their advisors early in their junior year.

EARLY ADMISSION TO MBA PROGRAM-BS PHARMACY/MBA
The School of Business Administration and the Mylan School of Pharmacy have a cooperative program that enables qualified pharmacy students to apply for early admission to the MBA program. Pharmacy students interested in this program should consult their advisors.

DUAL DEGREE PROGRAM WITH COLLEGE OF LIBERAL ARTS
The School of Business Administration and the College of Liberal Arts have developed a dual degree (BSBA/BA) option. Students interested in this program should consult the advisors in the School of Business Administration or in the College of Liberal Arts.
BUSINESS CERTIFICATE PROGRAM WITH COLLEGE OF LIBERAL ARTS, SCHOOL OF EDUCATION, SCHOOL OF NURSING AND SCHOOL OF MUSIC

The School of Business Administration and the College of Liberal Arts, the School of Education, the School of Nursing and the School of Music have developed certificate programs in business for liberal arts, education, nursing and music students. Students in the College of Liberal Arts, the School of Education, School of Nursing and the Music School who are interested in the program should consult the advisors in the School of Business Administration.

SCHOOL CENTERS/INSTITUTES

The School operates several independent Centers designed to provide students and faculty with an opportunity for professional development, as well as to provide services to the University and the community at large. Among the most active of the Business School’s Centers are the following:

Small Business Development Center (SBDC)
The SBDC was established at Duquesne in 1981 to provide assistance to startup and growing businesses. Funded primarily through the U.S. Small Business Administration (SBA) and the PA Department of Community and Economic Development, the SBDC consults with hundreds of businesses and provides training for nearly 2000 individuals every year. The SBDC also conducts special projects related to entrepreneurial training, international trade assistance, environmental compliance, youth entrepreneurship, women’s business ownership, coordination of the region’s entrepreneurial assistance network, special training events and numerous other projects related to market research.

The Center for International Regulatory Assistance (CITRA)
CITRA, the Center for International Regulatory Assistance, is a self-supporting, non-profit service of the Business School. CITRA helps US exporters comply with foreign technical requirements, product standards and certification requirements. The primary emphasis has been on meeting the challenges of European CE marking and environmental regulation programs. CITRA provides training programs, technical support materials and consulting services to US companies nationwide.

The Beard Center for Leadership in Ethics
The Beard Center for Leadership in Ethics was founded in 1993. Its mission is “to promote moral behavior through ethics education to those who encounter, or are preparing to encounter, moral challenges in the business world.” Important initiatives in this mission, focusing on business students, are the semi-annual Distinguished Speaker Series featuring prominent business and community leaders sharing their insights on ethics and leadership, required core courses in business ethics for undergraduate and graduate business students, specialized advanced courses in leadership and ethics, a master’s degree in leadership and business ethics, student ethics case competitions and attendance at ethics conferences, innovative ethics education practices, and the integration of ethics across the business schools’ curricula.

The Beard Center continues to reach out to our alumni and the business community through our ethics luncheon speaker series. One series focuses on ethical leadership and the second series on ethical issues facing women business professionals. The Beard Center also hosts a quarterly luncheon program for ethics and compliance officers; conducts executive and employee ethics training; provides speakers for various ethics events; develops customized consulting; and engages in applied research projects to enhance the academic and business communities’ understanding of business ethics.

The Center for Corporate and Executive Education (CCEE)
The Center offers a full range of executive education, leadership, professional development and management training services through customized company specific programs, open enrollment classes and workshops, and direct consulting services. Certificate programs are offered, each with a challenging, interactive, and comprehensive curriculum that leads to a certificate from Duquesne University’s Donahue Graduate School of Business.

The Center for Competitive Workforce Development (CCWD)
CCWD conducts policy-oriented research on workforce development issues facing the Pittsburgh and Southwestern Pennsylvania region. The Center focuses on workforce development by conducting applied research and analysis of the regions labor market and business workforce needs. Research in the labor and business workforce market has led CCWD to develop and manage projects directly related to meeting regional challenges. These programs include: the Financial Services Industry Cluster Initiative, the Customer Service Supply Chain Training Program, the Pittsburgh Regional
Internship Collaborative Enterprise, and the Career Literacy for African American Youth (CLAAY).

Investment Center
The School of Business Investment Center is one of only a handful of facilities in the nation designed to allow students to manage real money using state-of-the-art software and computer technology. The Center provides a wide range of analytical models and decision-making tools in a lab equipped with computers and custom software that allows real-time access to stocks, bonds, futures, currencies and options markets from around the world.

SCHOOL OF BUSINESS ADMINISTRATION
COMPUTER FACILITIES
To enhance our students’ learning experience, the School of Business operates an expansive Technology Center on the sixth floor of its facility in Rockwell Hall. This complex features a sophisticated Investment Center that provides online real-time connectivity to all the major financial markets, three technology-rich classroom learning centers that provide access to Enterprise Resource Planning (ERP) and a wide variety of software packages, a networking and RFID (Radio Frequency Identification) laboratory and a general computer laboratory.

STUDENT ORGANIZATIONS
The following student organizations in the A.J. Palumbo School of Business Administration exist for the promotion of the scholarly and professional interests of members:

The American Marketing Association members at Duquesne University interact with the Pittsburgh professional chapter on a regular basis to organize seminars featuring successful marketing executives, workshops, career forums, and networking events. The AMA is dedicated to furthering the profession and developing students’ careers.

Beta Alpha Phi is the local honorary scholarship society of the School. Its membership is limited to juniors and seniors in the Business School who have attained Q.P.A.s of 3.25 or better.

Beta Alpha Psi is the premier national honorary accounting fraternity. Less than 15% of eligible schools accredited by AACSB International -The Association to Advance Collegiate Schools of Business - have achieved active status. The fraternity sponsors professional growth and development programs, as well as community and University service activities.

The Zeta Chapter of Beta Gamma Sigma, a national honorary fraternity for accredited schools of AACSB International -The Association to Advance Collegiate Schools of Business, is chartered at Duquesne University. Membership in this honorary fraternity is limited to juniors in the top five percent of their class and to seniors in the top 10 percent of their class.

The Student Accounting Association is an organization where business students with similar interests network with professionals from the Pittsburgh business community. In very relaxed and informal settings, students learn about career opportunities in accounting, as well as other business fields. Membership is open to all School of Business students.

The Dean’s Student Advisory Council consists of student leaders in the School who meet on a regular basis with the Dean to discuss School matters.

Delta Sigma Pi, a national professional business fraternity, is represented by Theta Rho chapter. The fraternity makes substantial contributions to the University community through its many service activities.

Duquesne Association for Information Technology (DAIT) is a student association dedicated to promoting knowledge in the information technology field. The organization is open to all Duquesne University students, faculty and staff.

Duquesne Entrepreneurial Alliance (DEA) is a student organization for those interested in entrepreneurship. The DEA features presentations from real-world entrepreneurs as well as firsthand access to local angel investors and business opportunities.

Duquesne Supply Chain Council (DSCC) is a student-run organization for Supply Chain Management majors that provides opportunities for students to gain real world experiences, network with industry professionals and enhance their professional development.

The Investment Management Association is a student organization for those interested in careers in investment management.

The International Business Association is a student organization for those with interest in careers in the area of international business.

Phi Beta Lambda, Future Business Leaders of America (FBLA), is a student business association organized to bring business and education together in a positive working relationship through innovative leadership and career development programs.

Pi Sigma Epsilon - Delta Chi Chapter is the national, professional, coeducational fraternity in marketing, sales and communications affiliated with Sales and Marketing Executives International and the Pittsburgh SME chapter.
ADVISORY BOARDS
A number of separate Advisory Boards, comprised of high-ranking business professionals, serve the School of Business. These business executives, representing the various disciplines within the School, offer advice and counsel on matters of curriculum development, promotion, assessment, internship and employment opportunities and other matters of concern to students, faculty and the business community as a whole.

ACADEMIC PROGRAMS

Recommended programs of study for specific disciplines are listed on the pages that follow.

Students entering the School of Business Administration are expected to inform their advisors about their career objectives and their desired academic area(s) of concentration, and to consult with them when planning their program of study. Their proposed curriculum choices must, of course, include the University requirements and Business Administration Core requirements as indicated in the illustrations set forth in this catalog. Students are strongly encouraged to include additional course work in speech/communications and in advanced writing in their programs. Regulations for certification in accounting make the program very rigid; this is dealt with in the section describing the accounting curriculum on the following pages.

Students’ concentrations should be based upon career objectives and constitute a broad and flexible educational process. Students are also encouraged to tailor cross-disciplinary educational programs to meet their individual needs. Career advice should be sought from many and varied sources in the University, but especially faculty. Each student is assigned a faculty mentor prior to his or her junior year. Course suggestions and degree requirements for all major areas of concentration can be obtained from the Academic Advisement office.

PROGRAM FOR PROFESSIONAL DEVELOPMENT
All students in the School of Business Administration are required to participate in the following professional development program in order to complete their degree requirements.

FOUR YEAR SAMPLE PLAN
(Effective Fall 2007)

FRESHMAN YEAR

University Core (Subject to Change)
101 Thinking and Writing Across the Curriculum.................3 cr.
102 Imaginative Literature and Critical Writing.......................3 cr.
100 1Calculus with Algebra I..................3 cr.
110 Calculus with Algebra II..............3 cr.
Natural Science.........................3 cr.
Theology........................................3 cr.
Creative Arts.................................3 cr.
Social Justice...............................3 cr.
030 Research and Info Skills.................1 cr.
25 cr.

TOTAL Credits......................................30 CR.

SOPHOMORE YEAR

Electives and University Core
Ethics.............................................3 cr.
Non Business Elective.......................3 cr.
6 cr

Business Core
283 Business Information Systems........3 cr.
281 Business Analytics.....................3 cr.
284 Business Analytics II..................3 cr.
214 Financial Accounting...................3 cr.
215 Managerial Accounting................3 cr.
201 Principles of Microeconomics ......3 cr.
202 Principles of Macroeconomics ......3 cr.
251W Business Law.................................3 cr.
24 cr.

TOTAL Credits......................................30 CR.

JUNIOR YEAR

Business Core
300. Career Focus.............................0 cr.
342. Global Economic Perspectives ........3 cr.
331. Business Finance.........................3 cr.
361. Introduction to Management...........3 cr.
371. Introduction to Marketing............3 cr.
367. Supply Chain Management............3 cr.
368W. Business Ethics/Communications..........3 cr.
18 cr.

Major Area of Concentration
Major Area of Concentration..............3 cr.
Major Area of Concentration..............3 cr.
Major Area of Concentration..............3 cr.
Major Area of Concentration..............3 cr.
12 cr.

TOTAL CREDITS ................................30 CR.

SENIOR YEAR

Business Core
499W Strategic Management............3 cr.
Culture Requirement....................3 cr.
6 cr.

Major Area of Concentration
Major Area of Concentration..............3 cr.
Major Area of Concentration..............3 cr.
Major Area of Concentration..............3 cr.
Major Area of Concentration..............3 cr.
12 cr.

Electives & University Core
Business & Prof. Communications.......3 cr.
Non-Business Elective....................2 cr.
Faith and Reason..........................3 cr.
Basic Philosophical Questions..........3 cr.
Elective ....................................3 cr.
14 cr.

TOTAL Credits..............................32 cr.
1Clep test available for this course. See advisors for other options.
2Recommended by academic advisor.
3May be business or non-business elective.

ACADEMIC REGULATIONS

ACADEMIC LOAD
Students may normally carry 15 credits in one semester. A schedule of more than 15 credits must be approved by the Advisement Office. Students on academic probation may not take more than 12 credits. In the summer sessions, students normally carry one credit per week; i.e., six credits in the six-week session. A 12-credit schedule in a regular semester is considered full-time study.

EFFECTIVE CATALOG
The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual students and the School. The A.J. Palumbo School of Business reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled, students should consult on a regular basis with their Faculty Mentor and/or Academic Advisor for specific information regarding academic policies pertaining to their respective program. This catalog has been prepared with the best information available as of February 2008.

CLASS ATTENDANCE
Regular class attendance in the School of Business Administration is strongly recommended for maximum educational advantage and, in some cases, may be required. The responsibility for all course material rests wholly with the student. It is the prerogative of each instructor to establish specific policies for attendance at examinations and class lectures, deadlines for reports, and other specific school or course requirements.

A student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstances is responsible for notifying his/her advisor. The student should supply a written verification as soon as possible. A student who is absent for cause is expected to complete all of the work in all courses. It is the student’s responsibility to make up all assignments in all courses and to be familiar with any instructions that may have been given during the absence.

STUDENTS WITH DISABILITIES
Students with disabilities requiring special assistance are urged to notify the Office of Special Student Services before the first day of class.

STUDENTS REGISTERING FOR 300-400 LEVEL BUSINESS COURSES MUST HAVE SUCCESSFULLY COMPLETED 60 CREDITS AND HAVE JUNIOR STANDING. STUDENTS ARE RESPONSIBLE FOR KNOWING AND ADHERING TO THE PREREQUISITES FOR THOSE COURSES IN WHICH THEY ARE REGISTERED.

The sample plan has a degree of flexibility. The University Core and Communication/Culture requirements may be taken at any time during the student’s four years. Students may consult their academic advisor for further information.
ENROLLMENT IN BUSINESS COURSES BY STUDENTS IN OTHER SCHOOLS OF THE UNIVERSITY

Students enrolled in other schools in the University are welcome to take business courses provided they meet all prerequisites. Under no circumstances, however, may a student in another school take more than 27 credit hours in business. Students in the College of Liberal Arts, the Music School, the Nursing School, the School of Health Sciences, and the School of Education who wish to take business courses should follow the business certificate program or the dual degree option. Students should consult their advisors on this matter.

PREREQUISITES - UPPER LEVEL BUSINESS COURSES

In addition to any specific prerequisites that are listed in the course descriptions, all freshman and sophomore required business courses must be completed before the student may enroll for upper level business courses; that is, those business courses numbered in the 300's and 400's. The student must also have completed 60 credits or more.

GENERAL BUSINESS COURSES

These course offerings are required for all students enrolled in the School of Business: Gateway to Business, Decision Tools for Business Analytics, and Career Focus. The Business Administration Internship is strongly recommended for all who qualify.

103. Gateway to Business 2 cr.
This course starts the student on the journey toward becoming a modern business person. It is intended to introduce the student to the inter-connected pieces that make up the (literal) world of business, and to begin instilling the teamwork, problem-solving and communication skills required for future business success. Along the way, the course will expose students to each of the functional areas of business, one or more of which will become their future major and career. Students also will participate in individual and team-based projects intended to demonstrate how the different components of a business – such as accounting, finance, marketing, operations and information systems – work together to produce products and services. Those projects include writing a business plan and managing a virtual company in a computer-based business simulation.

182. Decision Tools for Business Analytics 3 cr.
This course is the first of a 3-course sequence (with QSIS 281 and 284) introducing students to business analytics, which use computer-based tools and quantitative techniques to provide managers with a better understanding of markets, investments and other business issues. This course focuses on the tools, primarily spreadsheet applications, that allow business managers to analyze problems, build decision models, identify patterns and scenarios, and present solutions. The tools are taught with a method designed to develop logic skills and analytic thinking.

300. Career Focus. 0 cr.
Career Focus is intended to help students identify their strengths and interests and develop the skills they will need in order to successfully launch their careers. Students will learn about conducting a personal inventory, the art of networking, and creating resumes and cover letters that are effective. They will also learn how to research a company or an industry, how to use the Internet in their job search and how to make the best impression during an interview. It is expected that students will develop skills that will support their professional development throughout their years.

401. Business Administration Internship. 3 cr.
This internship program provides the student with professional work experience in an organizational environment. Internships must be approved in advance by a faculty sponsor and are available to students in all business concentrations. Grading is Pass-Fail. Prerequisites: Junior standing, six credits completed in major, an overall QPA of 2.5 or better; and completion of at least 15 credits at Duquesne University.

ACCOUNTING CURRICULUM

The Accounting curriculum prepares students for excellent career opportunities as professionals in the areas of corporate, industrial, government, nonprofit and public accounting. The program provides students with a sound theoretical foundation as well as practical business experience opportunities, such as internships. The program also satisfies course preparation requirements for the Certified Public Accountant (CPA) exam and the Certified Management Accountant (CMA) exam.

Students interested in sitting for the CPA exam are strongly encouraged to take the following courses in their major area of concentration: 310, 311, 312,
314, 315, 411, 412 and 414. Additionally, Law 354 is strongly recommended.

Students interested in other areas of accounting should take at least six (6) of the above listed Accounting courses along with additional electives from the areas of Accounting, Information Systems Management or Finance, such as QSIS 481, 485 or Finance 333.

Students should contact an academic advisor or a member of the accounting faculty for further information.

COURSE PREREQUISITES - see p. 176.

214. Financial Accounting. 3 cr.
Provides an introduction to the discipline of accounting: the principles of external financial reporting; and the use of general purpose financial statements (balance sheet, income statement and statement of cash flows) in decision making. Students will develop a basic understanding of how to use the financial statements to assess the profitability, liquidity and solvency of business entities. Prerequisite: BUAD 182.

215. Managerial Accounting. 3 cr.
Provides an introduction to cost concepts, product costing systems, budgeting systems, and the development of accounting data for internal managerial decisions. Prerequisite: ACCT 214.

310. Accounting Information Systems. 3 cr.
Develops a sound understanding of the practices and procedures used to process accounting information. Emphasis is placed on computerized information systems. Prerequisite: ACCT 214.

311., 312. Intermediate Accounting. 3 cr. each
An investigation and analysis of the accounting problems and practices of the corporation, with detailed study of the component elements of the balance sheet and income statement. Basic topics include: generally accepted accounting principles, financial statements, income determination and presentation. Prerequisite: ACCT 214 and 215.

314. Advanced Accounting. 3 cr.
Exposes students to some of the more advanced and topical accounting subject matter. Potential areas of study include accounting for partnerships, accounting for governmental entities, the preparation of consolidated financial statements and foreign currency transactions and translations. Prerequisites: ACCT 311 and 312.

315. Cost Accounting. 3 cr.
Addresses the use of accounting information for purposes of cost determination, cost control and cost analysis. Topics include: cost terminology, cost behavior, job order costing, process costing, cost allocations, and standard costing. Prerequisite: ACCT 215.

411W. Auditing. 3 cr.
Standards and procedures employed by auditors in the examination of financial statements for the purpose of rendering an opinion are studied and evaluated. Case problems are used to demonstrate the application of the principles studied. Prerequisite: ACCT 312.

412. Introductory Income Tax Accounting. 3 cr.
A study of basic tax regulations and procedures affecting individuals, and to a lesser extent, business units. Principle topics include: returns, rates, exemptions, income, deductions, sales and exchanges of assets, and credits. Prerequisite: ACCT 214.

414. Corporate and Partnership Taxation. 3 cr.
Acquaints the student with the principles of taxation as applied to corporations, shareholders, partnerships and partners. Prerequisite: ACCT 412.

COURSE PREREQUISITES - see p. 176.

ACCOUNTING INFORMATION SYSTEMS CURRICULUM
The Accounting Information Systems (AIS) program prepares students for career opportunities in the fields of accounting systems design, accounting systems management, accounting systems auditing and other systems-related areas of accounting. The AIS major addresses the current scarcity of Information Technology graduates who have a fundamentally sound understanding of a firm’s accounting system coupled with conceptual knowledge and hands-on experience with Enterprise Resource Planning (ERP) applications.

For a concentration in AIS, students must complete three accounting courses (ACCT 310, 311 and 315) and three Information Systems Management courses (QSIS 481, 482 and 485).
In addition, students must choose one of the three following accounting electives (ACCT 312, 314 or 411) and one of the Information Systems Management electives (QSIS 384, 385 and 486).

**COURSE PREREQUISITES - see p. 176.**

310. Accounting Information Systems. 3 cr.
See Accounting Curriculum

311. Intermediate Accounting I. 3 cr.
See Accounting Curriculum

315. Cost Accounting. 3 cr.
See Accounting Curriculum

481W. Systems Analysis and Design. 3 cr.
See QSIS Curriculum

482. Database Management. 3 cr.
See QSIS Curriculum

485. Systems Quality Assurance and Control 3 cr.
See QSIS Curriculum

**ECONOMICS CURRICULUM**

Economics studies how, in the presence of the conflicting forces of insatiable wants and limited means, people make choices and societies distribute resources. Economics provides a logical framework for looking at people and society and is relevant to a wide variety of fields from business to psychology to philosophy.

As an undergraduate discipline, economics prepares students both for a wide variety of professional careers and for graduate work. Because the discipline stresses logical thinking and focuses not simply on how people and business behave but why they behave the way they do, an economics education makes the student more adaptable to changing opportunities after graduation and provides excellent preparation for graduate studies in a variety of disciplines.

The program culminates in the Economics Senior Thesis in which each student completes an independent research paper under the direction of a faculty member. For a concentration in economics, all students are required to take ECON 301, 302, 332, 381, 384, 480 and any two economics courses at or above the 300-level (with the exception of ECON 342 and ECON 398, which may not be counted toward the major). Students intending on pursuing law degrees are encouraged to take PHIL 106 Introduction to Logic; students intending on pursuing graduate work in economics, public policy, or business are encouraged to take MATH 315 Linear Algebra and Differential Equations and PHIL 106 Introduction to Logic.

**COURSE PREREQUISITES - see p. 176.**

121. Elements of Economics. 3 cr.
An introductory course that provides an understanding of how a free market economic system works, of the forces which affect the level, composition, and distribution of the output of the economy, and the economics of current issues. Not counted toward a degree in the School of Business Administration.

201. Principles of Microeconomics. 3 cr.
This course introduces students to the way in which a free market economic system resolves the basic social questions of what goods and services to produce, how scarce resources are organized to produce these goods, and to whom the goods are distributed once they are produced. Students will explore the components of the market system, supply and demand, and how they interact under conditions ranging from perfect competition to monopoly. Prerequisites: MATH 100 or knowledge of algebra.

202. Principles of Macroeconomics. 3 cr.
This course introduces students to the basic economic principles of the aggregate economy. Students will explore the determinants of, and relationships among, the level of Gross Domestic Product (GDP), unemployment, inflation, foreign trade and interest rates. In addition, various theories of the role of fiscal and monetary policy to promote stabilization will be addressed. Prerequisite: ECON 201.

301. Intermediate Microeconomics. 3 cr.
The purpose of this course is to develop the analytical skills required for dealing with problems of economic behavior and resource allocation, along with an appreciation of the methodological issues involved in modern economic analysis. The course covers the traditional body of microeconomic theory, including: utility theory and consumer behavior, the analysis of production and the behavior of the firm, coordination in product and factor markets under perfect competition, and the impact on market operations of monopoly, imperfect competition, externalities, asymmetric information, and public goods. Prerequisites: ECON 201 with a C or better, MATH 110 or 115 with a C or better.

302. Intermediate Macroeconomics 3 cr.
This course provides the advanced economic student with a rigorous set of tools with which to evaluate the performance of the U.S. economy, both as a closed entity and as member of the global
economy. On the theoretical side, the course evaluates competing theories of income, inflation, and employment. On the application side, students will be expected to find and empirically evaluate aggregate data. Prerequisites: ECON 201 and 202 and MATH 110 or 115.

324. Comparative Economic Systems. 3 cr.
A comparative study of the history and development of the theories and paradigms of capitalism, socialism, communism and other economic systems. Emphasis will be placed on the philosophies and economic implications of the various systems. Prerequisites: ECON 201 and 202.

328. Urban Land Economics. 3 cr.
A study of the economic forces that influence business and residential location in a metropolitan area. Specific areas of study include transportation, housing, poverty and the urban public sector. Prerequisites: ECON 201 with a C or better, MATH 110 or 115.

332. Money and Financial Institutions. 3 cr.
Examines the influence of monetary policy on such variables as the nominal interest rate, level of income, inflation rate, foreign exchange rate, etc. Specific topics include bank portfolio management, interest rate risk, the yield curve, real versus nominal interest rates, financial intermediation, etc. Prerequisites: ECON 201 and 202 and MATH 110 or 115.

342. Global Economic Perspectives. 3 cr.
This course uses the principles of microeconomics and macroeconomics to evaluate and analyze current global economic events. The course presents the plusses and minuses of globalization, an introduction to international trade and finance, a comparison of different economic systems and philosophies, and alternative theories of global poverty and economic development. Prerequisite: ECON 202 and QSIS 284.

381. Econometrics. 3 cr.
Econometrics is the application of statistical methods for the purpose of testing economic and business theories. This course will introduce students to the skills used in empirical research including, but not limited to, data collection, hypothesis testing, model specification, regression analysis, violations of regression assumptions and corrections, dummy variables and limited dependent variable models. Extensive focus will be on the intuition and application of econometric methods, and as a result, statistical software will be used extensively. Students will be required to complete an independent research project involving the application of regression analysis. Prerequisites: QSIS 284, or MATH 225 or 302.

384. Forecasting Techniques. 3 cr.
In this course, students learn how to apply statistical and econometric tools in an attempt to forecast economic and business data. Drawing on techniques learned in Econometrics, students collect data, build forecasts, evaluate the forecasts, and apply economic theory and econometric techniques to refine the forecasts. Emphasis is placed equally on the student correctly performing and concisely communicating the forecasts. Prerequisite: ECON 381 with a C or better or permission of the instructor.

398. The American Economy. 3 cr.
The American Economy reviews chronologically the history of the United States from the pre-colonial period until the present from an economic perspective. Students will use the fundamental principles of microeconomics and macroeconomics to analyze key events in American history - all from an economic perspective - and relate their implications for the future. Prerequisites: ECON 121 or ECON 201 and 202.

401. Game Theory. 3 cr.
Game theory is a mathematical method of modeling virtually any situation in which humans interact, and it has found applications in virtually every aspect of the social sciences. This course will examine the fundamental tools and concepts of game theory while maintaining a focus on its applications in economics and business. Prerequisites: MATH 110 or 115 and 3 credits in economics with a C or better.

420. Labor Economics. 3 cr.
Analysis of the principles of wage and employment determination in the U.S. economy under non-union conditions as well as under collective bargaining arrangements. Includes the factors underlying labor demand and supply with an emphasis on a human capital approach to relative earnings differentials. Prerequisites: ECON 201 with a C or better, MATH 110 or 115.
425. Current Economic Issues. 3 cr.
This course is designed to present students with current issues and topics in economics and to place them in a historical context. It is designed for students to apply the tools of economics (both empirical and theoretical) learned in previous classes to analyze present and past economic events. At the end of the class, the students will develop a viable research proposal. While aimed towards economics majors, the course is open to all students interested in current economic issues. Prerequisites: ECON 201 and 202.

431. Environmental Economics. 3 cr.
This course uses benefit cost analysis to explain the reasons for environmental pollution and to evaluate the efficiency of alternative abatement strategies and policies. Topics include air and water pollution, toxic waste cleanup, and alternative methods of valuing non-market resources such as clean air, public lands, and other natural resources. Prerequisites: ECON 201 with a C or better, MATH 110 or 115.

442. International Economics. 3 cr.
International economics is the study of economic interactions between nations. The course is a fusion of two economic fields: international trade and international finance. International trade covers topics such as the gains from trade, pattern of trade, and protectionism. International finance covers topics such as exchange rate determination, international lending and borrowing, macroeconomic policy, and international policy coordination. Prerequisites: ECON 201 and 202 with a C or better, MATH 110 or 115.

453. Public Economics. 3 cr.
Public economics evaluates the proper role of government in the market economy and the consequences of its interventions. This course explores core topics in public economics such as public goods, externalities, taxation, spending, and political economy of voting. It will offer a balanced combination of public finance and public choice perspectives, theoretical and relevant empirical evidence. This course provides you with a foundation for objective policy analysis. Prerequisites: ECON 201 with a C or better, MATH 110 or 115.

461. Business Economics. 3 cr.
Business Economics focuses on the formation and qualitative analysis of business decisions. In this course, the student learns to model business phenomena and to qualitatively predict behavior on the basis of those models. Students will take real-world business and economic problems from sources such as The Wall Street Journal, construct models to describe the cases, analyze the models, and construct business recommendations on the basis of the model results. The course equally emphasizes mathematical modeling of business phenomena and the interpretation of models and results in terminology common to non-economists. Prerequisites: ECON 301 with a C or better.

462. Business, Government and Society. 3 cr.
Business, Government and Society is an applications-oriented course examining the relationship between the market sector and government policy. The course will address social regulation, traditional economic regulation and antitrust, economic deregulation, and selected topics. Prerequisites: ECON 201 and 202 and MATH 110 or 115.

480W. Economics Senior Thesis. 3 cr.
The purpose of this course is to sharpen the student’s independent research skills utilizing all of the concepts, tools and techniques learned throughout the economics major. The course focuses on choosing research topics, framing research questions, developing research strategies, collecting data, writing reports, and presenting results. During the term, students undertake a substantive independent research project culminating in both a formal written paper and an oral research presentation to the economics faculty. Prerequisites: ECON 381 and ECON 384.

ENTREPRENEURSHIP CURRICULUM
The Entrepreneurship concentration is a challenging program designed for students who want to develop an understanding of the entrepreneurial process and acquire the knowledge and skills necessary to start and grow their own business, manage in small business environments, or lead entrepreneurial endeavors in larger, established firms. Students are encouraged to pursue their entrepreneurial vision in a creative, innovative environment, which brings together practical research and business professionals. Students will learn methods for creating and growing enterprises from entrepreneurs, recognized for their accomplishments and ties to the business community, who work collaboratively with distinguished Duquesne University faculty. For a concentration in Entrepreneurship, all
students are required to take ENTR 375, 480, 481, 482, 494 and MKTG 476. MKTG 374 is highly recommended.

COURSE PREREQUISITES - see p. 176.

375. Entrepreneurship. 3 cr.
An introductory course that provides an understanding of terminology and key concepts and requires students to create a business plan. The course utilizes entrepreneurs who have started businesses. This course is required for students prior to enrolling in other Entrepreneurship courses.

476. Product Management (See Marketing)

480. Financing, Valuing, and Exiting Businesses. 3 cr.
Students will learn techniques for valuing firms, estimating required financing, obtaining financing and designing and evaluating exit strategies. Emphasis is placed on both analysis and the communication of the results of this analysis to both technical and non-technical audiences. Prerequisite: ENTR 375.

481. Guerilla Marketing. 3 cr.
The primary purpose of this course is to address the marketing challenges that small and medium-sized enterprises face with commercializing a product or service. Focuses on marketing fundamentals, market research, product development, market planning and sales execution. Intended for students who expect to utilize marketing techniques in an entrepreneurial environment. Prerequisite: ENTR 375.

482. Decision Making in High Velocity Entrepreneurial Environments. 3 cr.
This course serves as a “decision lab” by situating students in simulated “entrepreneurial environments” and exposing them to a wide variety of problems faced by managers working in these environments. Provides students with effective decision making frameworks so as to equip them with the competencies necessary when and if they decide to either work for an entrepreneurial start-up, or create their own such organization, upon graduation. Prerequisite: ENTR 375.

494. Small Business Consulting. 3 cr.
The Small Business Development Center (SBDC) is incorporated into the program. This course is the capstone experience for the Entrepreneurship concentration. Students have an opportunity to complete one of the following activities: write a business plan for an existing company, work on a project for a small business other than a business plan, or write their own business plan for a venture they would like to start. Prerequisite: Instructor approval.

FINANCE CURRICULUM
The long-run health of any company requires that decisions made by executives and managers be based on sound financial principles. Because nearly every aspect of business can be viewed through the lens of Finance, it provides, in a real sense, the foundation of virtually all business decision making. The Finance curriculum describes the theory and practice of corporate finance. While financial managers must master the practical aspects of their jobs, they must also respond effectively to change. To do so, they must understand why companies and financial markets behave the way they do, and this requires a grasp of financial concepts and principles. Such a grasp enables business men and women to understand what is happening in the world around them, to ask the right questions when conditions change, and to analyze the right problems.

Required Courses: FINC 330, 333, 432, 450 and ACCT 311 and 312 (or 315). In addition, students must complete at least two of FINC 336, 338, 433, and 437 for a total of 24 credits.

To concentrate in Finance, students must have a minimum QPA of 2.7 in the following courses: Math 100, 110, ECON 201, 202, ACCT 214, 215 and QSIS 281 and 284. In addition, students must pass FINC 331 with a grade of C or better.

COURSE PREREQUISITES - see p. 176.

330. Theory of Finance. 3 cr.
Theory of Finance is a required course for both Finance and Investment Management majors. A particular emphasis is placed on the theory behind constructing optimal investment portfolios and the implications this theory has for asset pricing. A second theme of the course is to examine why market prices are thought to be fairly priced or “efficient” versus the opposing view (behavioral finance) that questions investor rationality and, therefore, efficient market prices. Theory of Finance also serves as the introductory course to the Duquesne University Investment Center in which students become proficient in using Bloomberg, Compustat, Morningstar/Ibbotson and other financial applications. Prerequisite: FINC 331 with a C or better.
331. Business Finance.  3 cr.
Business Finance is the introductory core course required for all undergraduate business majors. Students are introduced to the concept of shareholder wealth maximization through the following topics: financial statement analysis, time value of money, capital budgeting, cost of capital, risk and return, and impact of financial leverage on the value of the firm. Prerequisites: ACCT 214, 215; ECON 201, 202; QSIS 281 and 284. Finance majors must pass the course with a minimum grade of C.

333. Financial Management.  3 cr.
Financial Management, along with Theory of Finance 330, provides the conceptual foundation for upper-level courses in Finance and is required for all students concentrating in Finance. The course provides an in-depth treatment of important topics in the theory and practice of financial management. Students leave this course with a set of conceptual tools that can be applied to evaluating alternative business decisions. More specifically, the course details the links between business decisions and stock prices, and it covers the analytical techniques used to evaluate the impact of alternative business decisions on the firm’s stock price. Topics include: financial statement analysis and financial forecasting, risk and return, valuation of bonds and stocks, the cost of capital, capital budgeting, real options in capital budgeting, corporate valuation and measures of financial performance. Prerequisite: FINC 331 with a C or better.

336. Security Analysis.  3 cr.
This course provides an intensive study of the analytic techniques used to estimate the values of various publicly and privately issued financial securities. It provides an overview of the security valuation process, with an emphasis on equity valuation, as well as various types of valuation methods. Additionally, the course relates the concept of market efficiency to the valuation process. It presents the basic procedure of the top-down valuation approach including stock market-level analysis, industry-level analysis, and company-level analysis. It describes various ways to measure the risks of investing in financial securities and the factors affecting required returns. It describes in detail the Dividend Discount, the Free Cash Flow, Price Multiple/Relative Valuation, and the Residual Income Models. Prerequisite: FINC 331 with a C or better.

338. Futures and Options.  3 cr.
Designed to develop an understanding of futures, options and other derivative financial instruments. The main emphasis is on the reduction of asset and liability risk for business and financial institutions through hedging operations in debt and equity instruments, commodities and currencies. Students will have an opportunity to study actual market behavior through project analysis. Prerequisite: FINC 330.

432. Credit Management.  3 cr.
This course will focus on various analytical tools and techniques used to assess a potential borrower for extending both short and long term credit. Comprehensive financial statement analysis methods are stressed in the course. Students will augment their financial statement analysis with industry considerations, qualitative parameters and various loan structures for credit details. Portfolio considerations will also be evaluated. Prerequisite: FINC 333.

433. Financial Markets.  3 cr.
A comprehensive examination of the evolving nature of the domestic and international money and capital markets, as well as the underlying forces which shape them. Attention is also paid to the clearing, settlements, and payment systems, which play an important part in the markets’ performance. Prerequisites: FINC 330 or 333.

437. International Financial Management.  3 cr.
The course provides the conceptual tools necessary to understanding and making international financial decisions. Topics covered include: foreign exchange markets and exchange rate determination, parity conditions, types of foreign exchange risk and measurement and hedging techniques. Prerequisite: FINC 331.

439. Seminar in Finance.  3 cr.
Concentration upon selected contemporary topics presented by distinguished visiting professors or resident faculty. Open only to senior students. Prerequisites: FINC 330 and 333.

450. Cases in Finance.  3 cr.
As the capstone course in the finance curriculum, students draw on a wide range of concepts and tools from previous finance and accounting courses to address a series of realistic case-based problems
in financial analysis. Emphasis is placed on identifying problems and developing persuasively argued and professionally presented solutions. Cases are selected from a broad range of financial topics including financial forecasting, working capital management, capital structure, dividend policy, valuation, and mergers and acquisitions.

Prerequisites: FINC 333 and ACCT 311.

INFORMATION SYSTEMS MANAGEMENT CURRICULUM
The Information Systems Management program prepares students for career opportunities in the analysis, design, development, implementation, integration, management and maintenance of evolving information systems in organizations. The ISM curriculum provides exposure to established hardware, software and methodologies as well as incorporating emerging technologies. Emphasis is placed on the ability of technology to provide added value to the processes, products, methods and decision-making found in organizations.

Required courses: QSIS 385, 481, 482, 483, 487. In addition, two QSIS elective courses must be taken. Students must also take either COSC 101 Basic Programming or COSC 150 Computer Programming C++ or an approved programming course prior to registering for 483.

COURSE PREREQUISITES - see p. 176

384. Decision Support Systems. 3 cr.
The role of information systems in supporting management decision-making is analyzed. Students will have an opportunity to develop decision models to support the various levels of management. Types of decision support systems tools ranging from spreadsheet through expert systems will be analyzed. Groupware applications are also discussed. Prerequisites: QSIS 283, COSC 101 or 150.

385. Systems Architecture. 3 cr.
A detailed survey of current issues and technologies in business organizations. Covers technical aspects of operating systems, multi-media, Internet interface development, telecommunications and other emergent technologies. Prerequisites: QSIS 283, COSC 101 or 150.

387. Object Oriented Programming. 3 cr.
This course provides an introduction to object-oriented programming and Web-based applications using Visual Basic.NET object-oriented language. VB.NET provides a forum for exploring how object-oriented analysis and design concepts are actually implemented in real-world business applications. On the technical side, the course covers the syntax of the VB language, focusing on the logical development of VB applications, program control, methods, classes, objects, arrays, strings, characters, and, importantly, the graphical user interface. On the managerial side, the course explores the potential benefits and costs associated with adopting an object-oriented application within an organization. Prerequisites: QSIS 283, COSC 101 or 150.

481W. Systems Analysis and Design. 3 cr.
A detailed study of all phases of the system life cycle with emphasis on structured analysis and design and object-oriented techniques. Case studies are used to generate detailed data flow diagrams. The issues involving conversion, testing, training, documenting, maintaining and managing a system are addressed. Prerequisites: QSIS 283 and COSC 101 or 150.

482. Database Analysis and Design. 3 cr.
Focuses on the theory, derivation and development of the relational database model using entity relationship modeling and a commercial database management system. Emphasis is on the principles of data modeling, data organization and resource issues in database design. Prerequisites: QSIS 283, COSC 101 or 150 may be taken concurrently.

483W. Systems Integration and Project Management. 3 cr.
Students are expected to use tools, concepts and techniques learned in prior MIS courses, along with new skills in project management and administration, to develop a prototype information system for business decision making. Students will learn and apply both management and technical skills within the context of a team-based, semester-long development project, which will involve the analysis, design and implementation of an information system. Prerequisites: QSIS 385, 387, 481, 482 and 487.

484. Networks and Telecommunications. 3 cr.
Develops an understanding of the importance of an open systems approach, such as OSI, and contrasts it with several proprietary ones, like IBM’s SNA and TCP/IP. Using the OSI model as a base, students learn fundamentals of physical components, error detection and correction, line disciplines and
network addressing. Special emphasis is placed on local area networks and connecting them to organizational networks. Prerequisites: QSIS 385, 387, 481 and 482.

485. Systems Quality Assurance and Control. 3 cr. Presents EDP auditing standards with a blend of systems concepts and applications. Techniques for testing computer programs, files, and processing systems are presented. Special attention is devoted to the particulars of auditing online, real-time systems. Case studies and generalized audit software are used to create a simulated audit environment. Prerequisite: QSIS 283.

486. eBusiness Technologies. 3 cr. This course provides an introduction to the topic of electronic commerce through the search for successful e-business models, reflection and application of basic economic concepts underlying e-commerce, and practice at rigorously analyzing e-business strategies and their implementations. Prerequisite: QSIS 283, COSC 101 or 150.

487. Advanced Application Development. 3 cr. The course provides a practical familiarity with higher level technologies used for accomplishing the tasks found in systems analysis, design and development, specifically those centered on database technologies. This includes advanced database management systems (DBMS) creation and manipulation, particularly the integration of procedural languages and SQL. Prerequisites: QSIS 385, 387, 481 and 482.

INTERNATIONAL BUSINESS CURRICULUM

The International Business program prepares students for careers in the international operations of organizations. Students learn about the global environment of business, international business, economics, finance, law, marketing, and export trade, and business and society in major economic regions of the world. In addition, students develop strong multi-cultural awareness and competency in a second language. The IB program offers students the opportunity to study abroad in one of the colleges with whom Duquesne University is affiliated. Students majoring in IB may elect to include a functional area of business as part of their program of study.

For a concentration in International Business, students will take (1) IBUS 341, FINC 437, MKTG 443, and BLAW 454; (2) either a continuation of IB courses by taking 12 hours among the IBUS 342, 369, 444, 446, 448, 491, ECON 442, MGMT 445; or a functional area of business such as marketing, finance, or logistics; (3) proficiency through the 202 level of a second language. Students are encouraged to include courses of international studies offered by the College of Liberal Arts as electives. For study abroad opportunities, students are encouraged to consult with their academic advisors, IB professors, or the University’s Office of International Affairs. Students can request a waiver of the language requirement if: (1) they pass the level proficiency test administered by the Department of Modern Languages or a specialized language testing institute, or (2) they are natives of a non-English speaking nation.

COURSE PREREQUISITES - see p. 176.

341. International Business. 3 cr. An introductory study of the environment and management of cross-national business activities. Topics include sociocultural, legal and political environment; international monetary and financial systems; international trade; foreign direct and portfolio investments; and the management of international marketing, financial, production and personnel functions. Prerequisite: MGMT 361.

342. International Business Study Abroad. var. cr. Study abroad opportunities with a number of universities are available. Students should check with their advisors in the School of Business Administration regarding both opportunities and the possibility of transfer of credits.

369. Export Management. 3 cr. This course offers a comprehensive study of international export procedures and operations. Topics covered include export documentation, managing export transactions, planning export operations, export communications, shipping and packaging, export payment and collection methods, export insurance, governmental and foreign export regulations, export support programs and services, exports within NAFTA, and designing export management systems. Prerequisite: IBUS 341.

437. International Financial Management. 3 cr. See Finance Curriculum

442. International Economics. 3 cr. See Economics Curriculum.
443. International Marketing. 3 cr.
See Marketing Curriculum.

444. Business and Society in Europe. 3 cr.
Survey of the major cultural, social and political factors influencing the conduct of business in Europe. This course includes an overview of the major European economies, a description of the institutions and politics of the European Community, and a detailed examination of business and society in Germany and at least two other European countries. Prerequisite: MGMT 361.

445. International Management. 3 cr.
A study of multinational companies’ structures, strategies and management processes. The course includes a thorough understanding of international management, competent awareness of cultural diversity and development of decision making skills in multinational settings. Prerequisite: MGMT 361.

446. Japanese Business and Management. 3 cr.
Focuses on the history of Japanese business, the essential elements of Japanese management practices, and the strategies used by successful Japanese global corporations including their approaches to marketing, operations management, human resource management, and financial strategy. Prerequisite: MGMT 361.

448. Business and Society in Latin America. 3 cr.
Survey of the major cultural, social, political and economic factors influencing the conduct of business and the prospects for continued economic development in Latin America. The impact of contemporary changes in economic and political conditions on the prospects for long term economic development are discussed. The course includes a more detailed examination of economic, social and political conditions in Mexico, Brazil and at least one other Latin American country. Prerequisite: MGMT 361.

454. The Law of International Commercial Transactions 3 cr.
See Legal Studies Curriculum.

491. Practicum in International Business. 3 cr.
This course integrates international business skills and methods into a professional practicum. Student teams work with an international business firm as consultants to help the company deal with international business projects and issues. Prerequisite: Senior standing.

INVESTMENT MANAGEMENT CURRICULUM
The BSBA in Investment Management prepares students for successful careers as investment professionals through a curriculum based on the Chartered Financial Analyst (CFA®) Body of Knowledge that culminates in a capstone experience in hands-on Fund Management. In the Fund Management experience, students take control of a common stock portfolio as they strive to outperform a benchmark index in a competitive investment environment. Research in security analysis and portfolio management is conducted under the guidance of an advisory board of investment professionals and faculty utilizing the assets of the Investment Center, a state-of-the-art trading, research and teaching facility in the A.J. Palumbo School of Business.

Courses required for the concentration include: FINC 330, 336, 338, ACCT 311, 312, Investment Management 310, 451 and 452 for a total of 24 credits.

To concentrate in Investment Management, students must have a minimum QPA of 2.7 in the following courses: Math 100, 110, Econ 201, 202, Accounting 214, 215 and QSIS 281 and 284. In addition, students must pass Business Finance 331 with a grade of C or better.

COURSE PREREQUISITES - see p. 176.

301. The Investment Environment. 3 cr.
The Investment Environment provides important strategies for investing in a broad array of financial assets with a focus on common stocks, bonds and mutual funds. Topics include the structure and functioning of financial markets, trading mechanics, the measurement and presentation of performance, features of common stocks, bonds and mutual funds, financial market regulation and standards of professional conduct. Attention is given to legal, regulatory and accounting issues. This course is not counted toward the Finance or Investment Management concentration.

310. Fixed Income Securities. 3 cr.
Fixed income (or credit) markets are highly competitive and constantly evolving, and the field of fixed income securities is complex and quantitatively demanding. It is rich with opportunity for
those skilled in the conceptual framework used for pricing and hedging fixed income securities.

The course is based on the CFA Candidate Body of Knowledge®. It provides an overview of the financial system, the concept of market efficiency and characteristics common to all financial assets. It presents the basic features of debt securities, embedded option provisions, relationships among bond prices, spot rates, forward rates and yields, and it introduces the fundamental notion of arbitrage pricing in the context of securities with fixed cash flows. It describes various ways to measure the risks of investing in fixed income securities and factors determining yield spreads. Additional coverage includes demand and supply analysis of bond yields, theories of the term structure of interest rates, asset securitization, and active and passive bond investment strategies. Prerequisite: FINC 330

451 Fund Management I 3 cr.
452 Fund Management II 3 cr.

Fund Management I and II comprise the capstone experience in the BSBA in Investment Management. Students take control of the Red & Blue Partners common stock portfolio as they strive to outperform the benchmark Russell 2000 stock index. Stocks selected for the portfolio are the result of in-depth analysis of small- and mid-cap companies. Students working individually and in sector teams produce in-depth research reports and investment recommendations on companies for inclusion in The Red & Blue Partners portfolio. Because Fund Management engages students in real investment decision-making with accountability to real investors, students are expected to demonstrate a high level of commitment to all Fund-related activities both in and out of class. Prerequisites: FINC 330, 336 and ACCT 311.

As organizations worldwide are confronted with volatile markets, vigilant shareholders, and rising customer expectations, leadership and change management capabilities have become paramount to organizational success. The LCM concentration provides students with a competency-based, well-rounded education and offers a unique combination of experiences and perspectives to help students develop into creative, adaptable and authentic leaders who can work across diverse business disciplines, environments, and cultures in the new economy. Students are encouraged to also specialize in a functional area of business as part of their program of study. Career path options include a wide range of management, consulting, and entrepreneurial positions in organizations ranging in size from sole proprietorships to multinational firms. Required LCM courses: MGMT 366, 451, 452, 453 and 454.

COURSE PREREQUISITES - see p. 176.

361. Introduction to Management. 3 cr.
This course is an introduction to the basic tasks, functions and responsibilities of managers and the overall environment in which managers and organizations must operate. Areas covered include the planning, organization, and leadership of activities and the context (internal and external) in which managers work to discharge their responsibilities effectively.

366. Behavior in Organizations. 3 cr.
This course is an applied treatment of organizational behavior. Students learn a number of theories, concepts, and applications regarding authentic leadership and managerial skills. Topics covered include motivation, personality, perception, group dynamics, team-building, managing diversity, performance appraisals, leadership, communication, decision-making, conflict, organizational politics, power, change, organizational development, and the international aspects of behavioral management.

368W. Business Ethics/Communications. 3 cr.
Discusses the relevance of social needs in developing a sense of ethics, the need for personal ethics in making business decisions, and the importance of a shared sense of values in developing productive work communities. The emphasis throughout is on practical issues facing people in business. The discussions of ethical issues are used as a forum for developing basic communication skills.
445. International Management. 3 cr.
See International Business Curriculum.

451. Foundations of Leadership. 3 cr.
Provides an overview of topics and experiences relevant to the development of individual leadership potential. A primary goal of this course is to show how effective leadership can be nurtured and developed in individuals. Students will have an opportunity to practice leadership skills and receive feedback on their leadership styles in one-to-one, as well as group settings. This course is directed towards making students think, act, and become effective leaders in today’s corporate society. Prerequisite: MGMT 361 and 366.

452. Leadership in Teams. 3 cr.
This course, second in a series of courses focusing on leadership development, emphasizes team or shared leadership development. Team leadership is viewed as leadership “in” and “of” teams, primarily in work organizations. Leadership roles in teams may be fulfilled by one or more individuals or shared leadership may occur. Beginning with an emphasis on an individual leading a team of individuals, participants over time learn how to distribute leadership within their teams. Focuses on various types of teams in a variety of organizations and examines the influence of context, culture, individual values, and technology on the emergence and effectiveness of team leadership. Prerequisite: MGMT 361 and 366.

453. Leading Change. 3 cr.
Leading Change in Organizations provides the capstone experience in the Leadership and Change Management program. The course is a theoretical and applied treatment of the most challenging task for organizations in the 21st century. The intent is to develop the capacity in students to consult with organizations on strategic leadership and purposive-change management practices. Students develop a “systems perspective” to bring about change in organizations and understand the roles played by leadership at all levels to champion the change that leads to positive outcomes. Students learn a number of theories, concepts, and techniques related to applying the leadership and change management process to organizations, both large and small. Prerequisite: MGMT 451.

454. Leadership and Ethics. 3 cr.
This course builds upon students’ skills developed in the earlier Leadership and Change Management courses and seeks to translate these skills into leadership in action. Primarily through a service learning opportunity, students are expected to demonstrate their leadership, team, and change management skills in a community-based field project. In addition, through case studies, biographies and field exploration, students are able to recognize the importance of ethical leadership and ethical leaders for the success of any organization and seek to develop sensitivity toward the interdependence that exists between business organizations and the community and residents they affect. This course emphasizes an introspective approach to understanding each student’s leadership style. Prerequisite: MGMT 451. Students should be concurrently enrolled in MGMT 453.

460. Strategic Human Resource Management. 3 cr.
Explores the strategic role, technical functions and services provided by an organization’s personnel/human resources department. Among the topics covered are: human resource planning, recruiting, selection, performance appraisal, training, compensation, occupational health and safety, employee rights, labor unions, and equal employment opportunity issues. Prerequisite: MGMT 361.

466. Compensation and Benefits. 3 cr.
This is an advanced course focusing on pay and benefits issues. Coverage includes: relating compensation to strategy, internal equity, performance evaluation, market pay surveys, developing a pay structure, variable pay, incentive systems, gain sharing, executive compensation, paying expatriates; employee benefits including social security, workers’ and unemployment compensation, medical, retirement, costing out benefits, flexible benefits, managed care, and cost containment. Prerequisites: MGMT 361 and 364.

468. Training and Development. 3 cr.
Explores the training and development function in human resource management. Covers the assessment of training needs, designing and conducting training programs, and evaluations of training effectiveness. Student teams design and conduct a mini-training program. Prerequisite: MGMT 364.
493. Independent Scholarly Study. 3 cr.
Students must initiate an original research project in a field of business of their choice. The research proposal must be submitted (in written form) for approval first, to a faculty sponsor, then the department Chairperson, and finally, the Associate Dean. The project must be completed within an academic semester. This course is open to students in all concentrations in the School of Business. Once all necessary signatures have been obtained, the form must be submitted to your Academic Advisor to register. Prerequisite: Student must qualify as a University Scholar.

499. Strategic Management. 3 cr.
Strategic Management, the “capstone” course of the undergraduate business curriculum, utilizes top-level, comprehensive organizational case studies as the primary tool to provide an interactive educational experience. Strategic Management provides students with the opportunity to: (1) Improve the systems skills needed to integrate knowledge from all the functional areas of business; (2) Build the cognitive skills needed to diagnose strategic organizational problems competently; (3) Develop the imaginative skills needed to brainstorm possibilities and find creative solutions; (4) Sharpen the interpersonal skills needed to communicate effectively and successfully defend their decisions in both oral and written forms. Prerequisites: Senior standing (90 credit hours) ECON 342, FINC 331, MKTG 371 and MGMT 361, and SCMG 367.

LEGAL STUDIES CURRICULUM
This program has two distinct career objectives:

1. To provide solid preparation and an “edge” for those who plan to attend law school. See three year Bachelor’s/JD, p. 171.

2. To provide the legal background needed for managerial positions in law administration.

For a concentration in Legal Studies, the students will take BLAW 353, 354, and 355 as well as electives offered in this concentration. Students should consult an academic advisor in order to plan their specific course of study.

COURSE PREREQUISITES - see p. 176.

251W. Business Law. 3 cr.
An introductory course exploring the nature of law, its sources, and its relation to society, government and business. The course focuses on the traditional business law topics - property, contracts, torts, agency, business organizations and government regulation.

353. Contracts. 3 cr.
The fundamental concepts of the law of contracts are examined to provide the student with an understanding of the common law system regarding formation, performance, third party rights, ethics, discharge and remedies. Prerequisite: BLAW 251.

354. Commercial Transactions. 3 cr.
Study of the provisions of the Uniform Commercial Code (UCC) with reference to the nature and legality of the sale of goods, warranties, nature and kinds of commercial paper, negotiability, methods of transfer and secured transactions. Prerequisite: BLAW 251.

355. Law of Business Organizations. 3 cr.
A course which focuses on various laws pertaining to the creation and termination of corporations, franchises, partnerships, agency and other business entities. Prerequisite: BLAW 251.

357. Real Estate Law. 3 cr.
The principles of real property law and their application to the transfer of property rights. Topics include real estate applications of contract and agency law, and the legal relationships among buyers and sellers, landlords and tenants and borrowers and lenders. Prerequisite: BLAW 251.

454. The Law of International Commercial Transactions. 3 cr.
Provides the student with an overall perspective of the basic legal problems involved in doing business with and in other countries. Topics covered include an introduction to foreign legal systems; study of various forms of business organization; legal problems involved in letters of credit, insurance, risk of loss, antitrust aspects of the sale of goods; forms of dispute settlement; and the problems of enforcing judgments in and against foreign countries. Prerequisite: BLAW 251.
456. Legal Aspects of Human Resource Management. 3 cr.
A survey course of state and federal laws that influence the legal environment of personnel and human resource management. Prerequisite: BLAW 251.

MARKETING CURRICULUM
The Marketing program is designed for students seeking careers in marketing or sales with industrial or consumer goods companies, service organizations, retailers, health-care institutions and not-for-profit organizations. The program provides an understanding of the role of marketing in organizations, develops skills in applying fundamental marketing concepts, explores buyer behavior and product development, and introduces basic marketing research techniques. An emphasis on case studies utilizing oral presentations and written reports helps develop the necessary communication skills to succeed in the marketing field.

For a concentration in Marketing, students will take the following courses: MKTG 373, 374, 476, 477, and three of the following: MKTG 443, 471, 475, and 478 or 479.

COURSE PREREQUISITES - see p. 176.

371. Introduction to Marketing. 3 cr.
Provides an understanding of the dynamic role marketing plays in the economy and in organizations. Students build a knowledge base with regard to: strategic marketing, market segmentation, marketing research, consumer behavior, the product mix, the promotion mix, the distribution mix, the pricing mix, technology integration, global marketing, and non-profit marketing.

373. Sales Administration. 3 cr.
Introduces the fundamentals of salesmanship and the problems confronted by the sales manager. Emphasis will be placed on developing an understanding of the sales model, production planning, pricing, market analysis and specific areas of sales management. Attention will be given to management of the sales force, recruitment, selection and ethical considerations. Prerequisite: MKTG 371.

374W. Research Applications in Marketing. 3 cr.
Examines the methods used by business management to obtain the information needed to support marketing decisions: selection of target market, design of product, distribution, promotion, and pricing policy. These methods include exploratory (qualitative) research, conclusive (quantitative) research, sampling theory and application, and various statistical techniques used to support marketing research. Prerequisites: QSIS 284 and MKTG 371.

443. International Marketing. 3 cr.
Helps students develop skills in analyzing economic and non-economic factors for identifying and evaluating foreign market opportunities; allows students to become familiar with different approaches for segmenting international markets; encourages students to develop skills in formulating product, price, distribution, and promotion strategies in the context of business outside the United States; and helps develop skills in undertaking international strategic marketing planning. Prerequisite: MKTG 371.

471. Services Marketing. 3 cr.
This course focuses on the marketing of services and the techniques necessary to improve customer service. It is taught from the perspectives of both marketing managers and customers. Students will develop a broad knowledge base regarding the following marketing concepts: customer expectations, complaint behavior, measures of customer satisfaction, relationship marketing, service encounters, collaborative service culture, discretionary collaborative behavior and service rules. Upon completion of the course, students will understand not only how to effectively market a service, but also how to get the best service. Prerequisite: MKTG 371.

475. Consumer Behavior. 3 cr.
Encourages the student to develop an understanding of the consumer from the perspective of the marketing manager. The course explores the factors that affect the consumer, which range from a macro level (the effect of the physical and social environment on the consumer) to a micro level (knowledge, attitudes, and actions of the individual consumer). Segmentation, positioning, and marketing mix strategies are discussed in relation to consumer behavior theories. Mini-projects are assigned to allow the student to apply theoretical concepts to real world experiences. Prerequisite: MKTG 371.

476. Product Management. 3 cr.
Examines methods and tools leading to successful product development and commercialization, as well as the maintenance of existing products.
and product lines, including product positioning, design, marketing mix, testing, forecasting and product launch, plus product strategy and product life cycle management, using case studies and computer simulations. Prerequisites: MKTG 371 and 374 recommended.

477W. Strategic Marketing Planning. 3 cr.
The capstone marketing course is designed to enable the student to apply acquired marketing knowledge and expertise to real world opportunities. The case method is employed using marketing situations that illustrate opportunity analysis, marketing environments, product management, communication planning, pricing and distribution strategies, and global planning. Students demonstrate decision making skills through learning to identify and define a marketing problem, analyze and evaluate it, and prepare recommendations concerning implementation for the organization and its environment. Prerequisite: MKTG 371, 373, 374, 476, 478 or 479.

478. Business to Business Marketing. 3 cr.
Focuses on business-to-business marketing. The course will demonstrate the differences between industrial and consumer marketing; how industrial marketers evaluate their marketing environments, including an understanding of customers and competitors, supply chain management, market research, and new product development. Prerequisite: MKTG 371.

479. Retail Management. 3 cr.
Focuses on retail management from a strategic perspective while emphasizing the similarities and differences between the retail and industrial sector. Emphasis will be placed on consumer behavior, market research, store location, services retailing, franchising and the changing retail environment. Prerequisites: MGMT 361; MKTG 371.

QUANTITATIVE METHODS CURRICULUM
Students in the undergraduate School of Business Administration complete a basic sequence in Quantitative Methods. This sequence is concerned with the application of mathematics, statistics, and information processing to the analysis of business and economic problems. Prior to entry into the sequence, MATH 101 and 111 in the College of Liberal Arts or the equivalent are required.

COURSE PREREQUISITES - see p. 176.

182. Decision Tools for Business Analytics 3 cr.
See General Business Courses

281. Business Analytics I 3 cr.
An introduction to probability and the more commonly used statistical techniques for analyzing data from one population, with an emphasis on their application to decision making and quality management. Coverage includes basic descriptive statistics, the concepts of probability and specific distributions, and elementary inferential statistics. Prerequisites: BUAD 182 and MATH 110.

283. Business Information Systems 3 cr.
Provides the student with an overview of the theory and implementation of today’s information systems. The student will develop an understanding of information system theory and study the flow of information through the organization to learn how managers at different levels use information as a strategic resource. Database applications as they relate to the organization are emphasized. Prerequisite: BUAD 182.

284. Business Analytics II 3 cr.
A continuation of statistical analysis, extending to the comparison of two or more populations and analyzing the association between variables through regression, correlation, analysis of variance and contingency analysis. Developing basic time series for forecasting and developing and analyzing simulation models are also covered. Prerequisite: QSIS 281.

SPORTS MARKETING CURRICULUM
The Sports Marketing Program provides a working understanding of the role of marketing in sports and sports-related organizations, develops skills in applying fundamental marketing concepts, explores strategic marketing concepts, sales management, product development and marketing research techniques, while creating a skill base for employment. For a concentration in Sports Marketing, students will take MKTG 373, 374, SPMK 376, 377, 473 and 477 plus two of the following: SPMK 378, 470; MKTG 471, 479 and BUAD 401. In addition, students will take Media and Sports and Media Sports Relations in the Department of Journalism/Multimedia Arts as non-business electives.

COURSE PREREQUISITES - see p. 176.
376. Sports Marketing and Promotion. 3 cr.
This course will provide an intensive evaluation of marketing techniques and promotional strategy. In addition, the topical coverage will include the marketing mix, new product strategy and services, interactive promotion, event marketing and value-added marketing. Prerequisite: MKTG 371.

377. Sports Management. 3 cr.
This course will provide a knowledge base in planning, organizing, motivating and controlling sports organizations. The content of this course will help in the development of skills necessary to manage organizations in the sports industry including: marketing firms, licensing agencies, major retailers, professional sports organizations and sporting venues. Prerequisite: MKTG 371.

378. Event Marketing and Planning 3 cr.
Event marketing is a fast growing field that requires professional knowledge and skills. Event Marketing and Planning will examine the foundation of sports, corporate and traditional event management including finance, operations, marketing, ticketing and sponsorship. The course will address major trends and successful business practices in event marketing today. Prerequisite: MKTG 371.

470. Legal Environment of Sports Management and Marketing. 3 cr.
This course will cover regulation in the sports industry including NCAA regulations, collective bargaining and codes of industry conduct. In addition, royalties, rights and licensing issues will be covered. Prerequisite: BLAW 251.

473. Sports Sales & Revenue Generation 3 cr.
This course will analyze and produce skills essential to renewing existing sport customers. With a focus on renewing existing sport product customers, this course will analyze and produce skills essential to the revenue production and sales process commonly found in the sport business. Prerequisite: MKTG 373.

477W. Strategic Sports Business. 3 cr.
This capstone course will enable students to apply marketing knowledge to real-world sports business problems, providing an in-depth analysis of marketing aspects related specifically to the business of sports. Students will develop critical thinking and analysis skills through analytical papers and strategic group projects associated with the industry.

Prerequisites: MKTG 371, 373, 374 and SPMK 376 and 377.

SUPPLY CHAIN MANAGEMENT CURRICULUM
The Supply Chain Management concentration prepares students to assume roles as supply chain professionals in both profit and not-for-profit organizations. The focus will be on providing students with the necessary theoretical, analytical, and practical skills required to manage the flow of materials and products from original source to the final consumer. The program emphasizes the successful application of SCM techniques and concepts through collaboration and integration both within and between organizations. For a concentration in Supply Chain Management, students will take: Supply Chain Management Techniques 375, Global Transportation and Logistics 472, Purchasing Management 474, and Strategic Supply Chain Management 469, plus four electives from courses such as: IBUS 341, BLAW 353 and 354, MKTG 443 and 476, QSIS 481, and Business Internship BUAD 401.

The Health Care Supply Chain Management track is a partnership with Duquesne University’s Palumbo School of Business, Mylan School of Pharmacy and Rangos School of Health Sciences. The program’s mission is to contribute to improving the effectiveness and efficiency of the health care supply chain. This enables the health care industry to employ the same significant cost-reducing and service-improving benefits as best-in-class supply chain management in the non-health care sectors of the U.S. economy.

For a track in Health Care Supply Chain Management, students will take: SCMG 367, 375, 469, 472, and 480; The Health Care System and Clinical Medicine/Therapeutics (Mylan School of Pharmacy); and Health Care Information Systems (Rangos School of Health Sciences).

COURSE PREREQUISITES - see p. 176.

367. Supply Chain Management 3 cr.
This course provides insight into the role of Supply Chain Management (SCM) in linking the functions and business entities responsible for the exchange of goods, services and information to complete the business transaction from supplier’s supplier to customer’s customer. The course focuses on managing the flow of materials, goods, services, information and cash via the processes, technologies, and facilities that link primary supplier through to ultimate customers. Attention is given to such managerial concepts as forecasting,
production planning, materials planning, purchasing, production, transportation, inventory management, warehousing, packaging, materials handling and customer service. Recognition is also given to important interrelationships between supply chain management, marketing, and financial management. Interdisciplinary managerial concepts are presented to show how integration of the supply chain processes offers great potential for improving corporate profitability and return on investment. Prerequisite: QSMIS 284

375. Supply Chain Management Techniques 3 cr.
This course will introduce the major SCM strategic, tactical, and operational information techniques, systems, technology, and processes being utilized by industry leaders to integrate SCM operations and enhance collaboration within and across enterprises. This course will build extensively on the functional knowledge acquired in the business core Supply Chain Management (SCMG 367) course by introducing best in class methods for evaluating and enhancing supply chain operations. Instruction and practice in techniques of process and project management in such concepts as lean and six sigma will provide solid SCM foundational analytical skills while enhancing the scope of SCM knowledge. In addition, this course will include development of skills to properly identify the correct application of the various SCM techniques discussed. While this course is required for the SCM program, it will also be very beneficial to other business majors especially Information Systems, International Business, and Marketing. Prerequisite: SCMG 367

472. Global Transportation and Logistics 3 Cr.
The physical distribution activities within the supply chain provide time and place utility for customers. This course will examine detailed strategies for managing transportation and warehousing operations in a global business environment. Special attention will be given to the interaction between these activities and other functions in the supply chain such as procurement and inventory control to maximize the performance of the entire network. A significant portion of the course will focus on the similarities and differences between logistics operations in domestic and international settings. The technology systems and decision models that facilitate distribution operations will be interwoven throughout the course where appropriate. Prerequisites: MKTG 371 and SCMG 375

474. Purchasing Management. 3 cr.
This course is an introduction to the concepts and principles of supply management and its role in supply chain management. The scope of the course ranges from understanding how effective supply management contributes to an organization’s successful performance and the relationship between corporate strategy and supply strategy to the specifics of sound supply management practices associated with that performance. The principles discussed in this course are applicable, with appropriate modification, to the supply operations of all organizations. Prerequisites: MKTG 371 and 375.

480. Forecasting, Production Planning, and Inventory Control 3 cr.
Forecasting, inventory control, and production planning and control are central to the success of any firm. The main focus of the course will be on understanding how tools and techniques in these areas apply in a supply chain and how they can aid a manager in supply chain decision making to achieve a competitive advantage. Students will apply time-series and regression methods to produce forecasts, and they will learn how to make inventory decisions in single- and multiple-period decision environments. Specific attention will be given to the precedence and dependence relations between hierarchical decisions in the manufacturing planning and control process. Prerequisites: SCMG 472 and 474.
HISTORY
The School of Education was founded in 1929. In that year, the newly organized School of Education granted its first degrees in programs of secondary education. The following programs have since been approved for certification by the Department of Education of the Commonwealth of Pennsylvania: Music Education, 1930; Graduate Education, 1936; Elementary Education, 1937; Guidance, 1952; School Administration, 1952; Special Education, 1964; Reading Specialist and Reading Supervisor, 1969; School Psychology, 1969; Early Childhood Education, 1975 and 1997; School Supervision, 1976; Superintendent’s Letter of Eligibility, 1993; English as a Second Language, 2003; Business, Computer and Information Technology, 2004.

The Education Unit received national accreditation by the National Council for Accreditation of Teacher Education in Spring 2006. The Early Childhood, Elementary Education, and Special Education programs have each received national recognition from their respective Specialty Professional Associations (SPAs): Early Childhood from the National Association for the Education of Young Children (NAEYC); Elementary Education from the Association for Childhood Education International (ACEI) and Special Education from the Council for Exceptional Children (CEC). Several additional programs received national recognition from their SPAs in 2008: English (NCTE), Instructional Technology from the Association for Educational Communications and Technology (AECT), and Reading Education from the International Reading Association (IRA).

SELECTION AND ADMISSION TO THE SCHOOL OF EDUCATION
Candidates who desire to become teachers are admitted to the School of Education through the University Office of Admissions. Apply to the Executive Director of Admissions, Duquesne University, Pittsburgh, PA 15282. During the first two years of study, the curriculum is devoted to broad learnings in general and professional education. Teacher candidates are expected to demonstrate personal and professional knowledge, skills and dispositions that will recommend them as worthy candidates for the teaching profession.

ADMISSION TO THE PROFESSIONAL EDUCATOR CERTIFICATION TRACK
Candidates are formally admitted to a Professional Educator Certification Track after completion of four semesters of full-time or full-time equivalent (60 credits) of college level study. There are three Professional Educator Certification Tracks: Early Childhood, Elementary, and Secondary.

Candidates will be admitted to the Professional Educator Certification Track on the basis of their qualifications with a minimum overall grade point average of 3.00 and qualifying scores on the Praxis Preprofessional Skills Tests. Additionally, candidates are required to submit an application that includes a demonstration of their progress toward meeting the Themes and Domains of the School of Education. A limited number of candidates may be admitted for admission to the certification program who do not meet the minimum QPA but who have passed the required Praxis exams.

Checkpoints and Gateways.
The Leading Teacher Program (LTP) provides teacher candidates with Checkpoints and Gateways to insure their success in fulfilling the requirements of the program. Checkpoints are formative in nature and are provided to assist teacher candidates in assessing their progress toward completion of the program. Gateways are summative in nature, include checkpoint requirements, and must be achieved in order to progress to the next stage of the program. The Pennsylvania Department of Education periodically changes the qualifying scores and the Praxis Tests required for state certification.
Semester One:
Checkpoints: Complete Act 33/151 & 34 Clearances; Speech and Language referrals (if necessary); Register for and take Praxis Pre-Professional Skills Tests.

Semester Two:
Checkpoint: Demonstrate oral and written skills to faculty.

Semester Three:
Checkpoint: Assess progress toward Semester Four Gateway regarding Praxis exams and QPA requirements.

Semester Four:
Gateway: Formal application to the Professional Educator Certification Track. Satisfy all prior checkpoints, successfully complete required Praxis exams, and achieve a minimum overall 3.00 QPA.

Semester Five:
Checkpoint: None

Semester Six:
Gateway: Achieve and maintain a minimum overall 3.00 QPA for all teacher candidates, and a 3.00 QPA in certification academic area for secondary and K-12 subject area teachers. Submit formal application and recommendations for student teaching.

Semester Seven:
Checkpoint: Assess progress toward requirements for student teaching placement including Praxis exams and QPA requirements.

Semester Eight:
Checkpoint: Successfully complete Praxis Specialty Area Examinations for certification.
Gateway: Presentation of showcase portfolio to faculty through a Portfolio Exit Interview. Submit formal applications for recommendation for graduation and/or certification.

Programs
The School of Education offers undergraduate programs approved by the Pennsylvania Department of Education for the preparation of Early Childhood, Elementary and Secondary Education (English, Mathematics, and Social Studies) teachers, as well as the preparation of K-12 Foreign Language (Spanish and Latin) teachers. The Early Childhood, Elementary, Secondary and K-12 Education programs, in accord with the philosophy and objectives of the School of Education, offer teacher candidates the opportunity to qualify for:
1. The Instructional I (Provisional) Certificate in Pennsylvania.
2. Admission to graduate programs in education.

The last 30 credits for the degree must be earned at Duquesne University. The minimum number of credits for graduation is 120 and varies by program.

Teacher candidates in the School of Education must comply with all Pennsylvania Department of Education requirements for certification. State regulations change from time to time and have precedence over University catalogs and School of Education Handbooks for minimum requirements. Teacher candidates will be notified of any modification regarding programs of study. Significant changes to certification in PA are forthcoming and will apply to the incoming class of 2009. Modifications to programs will be published when approved.

The Undergraduate Advisors and Program Directors make the program requirements known to students.

Special Education: The Leading Teacher Program (LTP) is based on a curricular infusion model that provides all education majors with significant preparation in adapting instruction to meet the needs of students with learning and behavior challenges. This model reflects best practice in collaborative partnerships and the knowledge and competencies necessary for educating students with disabilities in the nation’s schools. This preparation is transcripted as special education course credits (EDLD) in each of the three certification programs. Teacher candidates interested in adding certification in special education may enroll in a one-year Master of Education LTP in Special Education if they are graduates of the Duquesne University baccalaureate LTP program in Early Childhood, Elementary, or Secondary Education and hold an Instructional I teaching certificate.

Degree
The School of Education offers the Bachelor of Science in Education degree.

The Leading Teacher Program
The Leading Teacher Program meets the standards of excellence for the practice of teaching in the 21st century. Teacher candidates are challenged through-
out the Leading Teacher Program to develop beginning expertise in the critical aspects of becoming a leading teacher and to pursue continuous improvement in the following domains:

**Domain I – Becoming a Learning Theorist.** This domain emphasizes an understanding of pedagogy and the cognitive and affective process that will address the learning needs of people of all ages.

**Domain II – Becoming a Curriculum Designer.** This domain emphasizes curricular decisions based on research theory, informed practice, and recommendations of the learned societies.

**Domain III – Becoming an Expert in School Context.** This domain explores the intellectual, ethical, cultural, economic, political, and government influences upon schools including traditional and emerging perspectives.

**Domain IV – Becoming a Master Practitioner.** This domain develops competence in instructional strategies, technology, reflective practice, school-community-professional linkages and academic training.

**Domain V – Becoming an Instructional Leader.** This domain emphasizes the leader and knowledge of self in relationship with the group and the relationship with the community and society.

Additionally, learning experiences that reflect the themes of Leadership, Diversity, and Technology are infused throughout the Leading Teacher Program.

**Leadership:**
A leading teacher is a life long learner inspiring a community of learners to pursue continuous improvement and growth.

**Diversity:**
A leading teacher is an advocate, creating learning experiences that demonstrate sensitivity, acknowledging students of all abilities and valuing human differences.

**Technology:**
A leading teacher is an architect building learning environments that acknowledge and incorporate the power of technology.

Four major curriculum components comprise the Leading Teacher Program: (1) General Education Core, (2) Academic Cognate (Early Childhood and Elementary)/Academic Content Area (K-12 and Secondary), (3) Foundations of the Leading Teacher Program, and (4) the Professional Educator Certification Track.

**General Education Core.**
The University and the School of Education require completion of general education courses in humanities, social sciences, natural and behavioral sciences and theology. Generally, the general education core courses are completed during the first four semesters of study for Early Childhood and Elementary majors. There are slight variations in Secondary Education depending on the specific academic major. Teacher candidates must consult their advisor for program specific requirements. The University determines the courses required in the General Education Core. Teacher candidates will be notified of any modification regarding courses in the Core. The Undergraduate Advisors and Program Directors make changes in the program requirements known to candidates.

**Academic Cognate/Certification Subject Area.** Teacher candidates enrolled in the Early Childhood and Elementary certification tracks are required to pursue a 15 credit academic cognate/minor to enhance their knowledge and competency in a specific academic area. An academic cognate is an articulated sequence of courses, from an academic program within an academic department. These courses become a cognate by linking to each other in terms of content, chronology, increased complexity, and other elements. Cognates are available in several academic disciplines. Teacher candidates begin coursework in their academic cognate during their second year. Cognate descriptions are available from the Academic Advisors.

Teacher candidates enrolled in a Secondary Education certification track build the academic content required for certification in the Commonwealth of Pennsylvania. The academic component includes at least 30 credit hours in the specific content area.

**Foundations of the Leading Teacher Program.** Teacher candidates are introduced to the Leading Teacher Program and the teaching profession through learning experiences built around the three themes and five domains. One-credit courses in Special Education and Technology are infused into the Foundations of the Leading Teacher Program. The course content for special education and technology is taught concurrently with the Foundations courses in an integrated fashion. At the conclusion of the Foundations portion of the Leading Teacher
Program, teacher candidates must demonstrate their readiness to be accepted into one of the three Professional Educator Certification Tracks (Early Childhood, Elementary or Secondary).

The following course of study is required of all education majors:

### Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLF 101</td>
<td>Orientation to the LTP</td>
<td>2</td>
</tr>
<tr>
<td>EDLT 101</td>
<td>Instructional Technology I</td>
<td>1</td>
</tr>
<tr>
<td>EDLF 181</td>
<td>Cohort Experience</td>
<td>0</td>
</tr>
</tbody>
</table>

### Semester 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLF 102</td>
<td>Context of the Teaching Profession</td>
<td>3</td>
</tr>
<tr>
<td>EDLT 102</td>
<td>Instructional Technology II</td>
<td>1</td>
</tr>
<tr>
<td>EDLD 102</td>
<td>Historical &amp; Legal Foundations of Special Education</td>
<td>1</td>
</tr>
<tr>
<td>EDLF 192</td>
<td>Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLF 182</td>
<td>Cohort Experience</td>
<td>0</td>
</tr>
</tbody>
</table>

### Semester 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLF 201W</td>
<td>Ed Psych. I: Learning, Development &amp; Motivation</td>
<td>3</td>
</tr>
<tr>
<td>EDLD 201</td>
<td>Characteristics of Persons with Disabilities</td>
<td>1</td>
</tr>
<tr>
<td>EDLF 291</td>
<td>Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLF 281</td>
<td>Cohort Experience</td>
<td>0</td>
</tr>
</tbody>
</table>

### Semester 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLF 202W</td>
<td>Ed Psych II: Classroom Leadership, Assessment &amp; Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>EDLD 202</td>
<td>Critical Issues in Special Education</td>
<td>1</td>
</tr>
<tr>
<td>EDLF 292</td>
<td>Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLF 282</td>
<td>Cohort Experience</td>
<td>0</td>
</tr>
</tbody>
</table>

The Leading Teacher Program includes broad and diversified professional field experiences designed to provide opportunities for observing and working with children and youth, beginning the second semester of full-time study. The settings for these experiences include public and private schools, and education agencies, institutions and organizations. Experiences are provided in urban, suburban, and rural settings. All of these experiences are completed under professional supervision from the University and from the off-campus educational organization. Teacher candidates will participate in a range of settings throughout the course of their program.

**Course Descriptions: Foundations of the Leading Teacher Program**

**EDLF 101. Orientation to the LTP.** 2 cr.
Orients aspiring teachers to the organizational structures, the professional challenges, and learning opportunities of the Leading Teacher Program. Introduces teacher candidates to the five domains and associated competencies as well as the themes that will frame their learning and continuous improvement.

**EDLT 101. Instructional Technology I.** 1 cr.
Introduces teacher candidates to the skills required for modeling and demonstrating technologies for the classroom. Competencies center on the use of technology to communicate and interact with peers and colleagues and include an orientation to personal computers and the campus network, electronic mail, word processing, graphics presentation, and the uses of the Internet for exploration and research.

**EDLF 181, 182, 281, 282. Cohort Experience.** 0 cr.
Teacher candidates will participate in regularly scheduled cohort meetings. The cohort experience provides opportunities for communication and mentoring with faculty and fellow students. Activities are designed to facilitate reflection on personal and interpersonal development and progress through the Leading Teacher Program.

**EDLF 102. Context of the Teaching Profession.** 3 cr.
Focuses learning on the history of schooling, as a function of society, the political interests of the state in the education of its citizens, and the legal dimension of education. The course is designed to provide teacher candidates with opportunities to understand the organizational culture of the teaching profession.

**EDLT 102. Instructional Technology II.** 1 cr.
Provides teacher candidates with a set of tools required to integrate technology into the curriculum. Advanced features of word processing, graphics presentation and the Internet are presented. In addition, online lesson plans, content-rich images, and related digitized resource materials are harvested from the World Wide Web and incorporated into classroom-ready instructional materials.
EDLD 102. Historical and Legal Foundations of Special Education. 1 cr.
Chronicles the historical and sociological development of the field of special education with a focus on the legal foundations for educating students with diverse learning and behavior needs. Inclusive educational practice as it relates to the principle of least restrictive environment will be introduced and teacher candidates will identify a variety of school/community resources and services available for individuals with disabilities.

EDLF 192. Field Experience. 1 cr.
This first experience in the field provides an opportunity for teacher candidates to reflect critically on their developing knowledge base and their practical experiences. Field experiences are designed to foster professional as well as personal growth. Emphasis of this first field experience is working with small groups of students in an urban context.

EDLF 201W. Educational Psychology I: Learning, Development and Motivation. 3 cr.
Provides opportunities to reveal and examine assumptions underlying the teaching-learning process. Key theoretical principles in human development, learning, and motivation are studied in an effort to evaluate theory for its relevance to, and operation in, classroom practice. Writing is used extensively to enhance learning and, therefore, quality of writing is assessed throughout the course.

EDLD 201. Characteristics of Persons with Disabilities. 1 cr.
Provides opportunities to examine the types and nature of disabilities from the perspective of normal growth and development and the impact on designing instruction and therapeutic support. Teacher candidates will be introduced to the process of selecting appropriate adaptive strategies for including students with diverse learning needs in general education programs.

EDLF 291, 292. Field Experience. 1 cr.
Provides additional opportunity for teacher candidates to reflect critically on their developing knowledge base through lenses of key principles as introduced in Ed. Psych.

EDLF 202W. Educational Psych. II: Classroom Leadership, Assessment and Evaluation. 3 cr.
This course is a continuation of the learning opportunities from EDLF 201W. The assumptions underlying the teaching-learning process remain a focus of study. Key theoretical principles in classroom leadership, assessment, and evaluation are examined to determine how relevant theory operates in effective practice. Writing is used extensively to enhance learning and, therefore, quality of writing is assessed throughout the course. (EDLF 201W is a prerequisite for EDLF 202W.)

EDLD 202. Critical Issues in Special Education. 1 cr.
Investigates the skills required for collaboration in the team decision-making process with parents, teachers, administrators, and community agencies. Focuses on building family partnerships, effective communication, and developing instructional and behavioral supports for students with diverse learning and behavior needs based on individualized assessments.

CERTIFICATION TRACKS IN THE LEADING TEACHER PROGRAM
Professional Educator Certification Track.
Teacher candidates must apply and be accepted to one of three Professional Educator Certification Tracks before scheduling coursework in the junior year. Specialized courses provide preparation in teaching techniques and methods required for specific fields of concentration—Early Childhood, Elementary, or Secondary education. To provide teacher candidates with the most current professional education, curriculum requirements and/or prerequisite requirements are subject to change by the Pennsylvania Department of Education or the faculty. Changes may affect the programs of study of teacher candidates. The Undergraduate Advisors and Program Directors make changes in program requirements known to candidates.

EARLY CHILDHOOD AND ELEMENTARY EDUCATION
The Leading Teacher Program (LTP) in Early Childhood and Elementary Education is designed to prepare leading teachers for pre-school and elementary classrooms. Teacher candidates who successfully complete the requirements for this degree will earn two certifications: Early Childhood and Elementary Education. Throughout the program, teacher candidates will have the opportunity to develop professional and personal competence by participating in experiences that are both theoretical and applied in our nation’s schools. All teacher candidates complete a set of core experiences in teaching methodology and participate in guided fieldwork. Teacher candidates have options to distinguish themselves through independent research and/or international study and teaching opportunities.
The Early Childhood and Elementary Education program is guided by Pennsylvania state standards and by standards of national professional organizations. The Early Childhood program earned national accreditation from the National Association for the Education of Young Children (NAEYC). The Elementary Education program earned national accreditation from the Association for Childhood Education International (ACEI). Teacher candidates address professional standards in each of the early childhood and elementary school curriculum areas through course projects and implement the standards in their fieldwork. All of the experiences in the dual certification Early Childhood and Elementary Education program reflect the themes of leadership, diversity, and technology and are based on the five domains of the Leading Teacher Program.

The Early Childhood and Elementary Education program is a 139 credit program that consists of courses and experiences organized into four major areas of study: General Education (42 credits); Academic Cognate (15 credits); Foundations of Education (19 credits); Professional Preparation (63 credits). Significant changes to certification requirements for Early Childhood teachers in PA are forthcoming and will apply to the incoming class of 2009. Modifications to programs will be published when approved.

Candidates in the Early Childhood and Elementary certification program concentrate studies in the General Education Core, Foundations of the LTP and Academic Cognate/Minor Studies during the first four semesters. Details are provided in the description of the Foundations of the Leading Teacher Program.

Semesters 2-7

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic Cognate</td>
<td>15</td>
</tr>
</tbody>
</table>

Semesters 5-7

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLC 201</td>
<td>Orientation to ECE</td>
<td>3</td>
</tr>
<tr>
<td>EDLC 202</td>
<td>Child Development (Birth–Age 8)</td>
<td>3</td>
</tr>
<tr>
<td>EDLC 203</td>
<td>Planning/Assessment in ECE</td>
<td>3</td>
</tr>
<tr>
<td>EDLC 302</td>
<td>Integrated Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDLC 305</td>
<td>Play, Movement, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>EDLE 311W</td>
<td>Literacy Content Knowledge</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 312W</td>
<td>Pedagogy for Literacy B-Grade 6</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 313</td>
<td>Literacy Dispositions</td>
<td>2</td>
</tr>
<tr>
<td>EDLE 314</td>
<td>Literacy Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLD 315</td>
<td>Literacy Acad. Adaptations</td>
<td>1</td>
</tr>
<tr>
<td>EDLE 321</td>
<td>Numeracy Content Knowledge</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 322</td>
<td>Pedagogy for Numeracy B-Gr. 6</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 323</td>
<td>Numeracy Dispositions</td>
<td>2</td>
</tr>
<tr>
<td>EDLE 324</td>
<td>Numeracy Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLD 325</td>
<td>Numeracy Acad. Adaptations</td>
<td>1</td>
</tr>
<tr>
<td>EDLE 331</td>
<td>Educated Citiz. Content Knowledge</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 332</td>
<td>Pedagogy for Educ. Citizenry</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 333</td>
<td>Educ. Citizenry Dispositions</td>
<td>2</td>
</tr>
<tr>
<td>EDLE 334</td>
<td>Educ. Citizenry Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLD 335</td>
<td>Educ. Citizenry Acad. Adaptations</td>
<td>1</td>
</tr>
</tbody>
</table>

Semester 8

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLC 493</td>
<td>Student Teaching Elementary</td>
<td>6</td>
</tr>
<tr>
<td>EDLE 493</td>
<td>Student Teaching Early Childhood</td>
<td>6</td>
</tr>
</tbody>
</table>

Course Descriptions: Early Childhood Education

EDLC 201. Orientation to Early Childhood Education. 3 cr.
This course provides an overview of early childhood education and explores the ways teachers can nurture and challenge the whole child (physically, socially, emotionally, and cognitively) by providing developmentally appropriate practices.

In-depth examination of the development of the child from birth through eight years of age in physical, social, emotional and cognitive areas of growth. Emphasis is given to application of theoretical principles, as well as techniques for observing and assessing growth and development.

EDLC 203. Planning and Assessment. 3 cr.
This course provides the candidate experience in the authentic assessment of children ages birth through eight years in early care settings and
Schools. These assessments focus on the cognitive, psychomotor, and affective development of the child, and form the basis for appropriate planning and implementation of early childhood curricula and environments.

EDLC 302. Integrated Curriculum. 3 cr.
This course is designed to examine issues, trends and techniques involved in the inclusion of children with special needs in early childhood settings. Candidates will explore educational implications of common disability areas. Candidates will explore specific adaptations of curriculum, materials, techniques, and environments that could be used to support inclusion. Candidates will observe and interact with children presenting a variety of developmental levels and needs in a supervised practicum experience.

EDLC 305. Play, Movement, and Nutrition. 3 cr.
Placing play at the center of the curriculum for young children has historically been a major focus of early childhood education. This course is designed to enable candidates to understand the value of play in a child’s overall development. This course is designed for candidates to plan, implement, and evaluate developmentally appropriate experiences in play, movement, and nutrition for children ages birth through eight.

FOCUSED SEMESTERS (Semesters 5-7)
Dual Early Childhood and Elementary majors will work with Elementary Education majors in the focused semesters. Each cohort will rotate through each of three focused semesters. For descriptions of each of the focused semesters, Literacy, Numeracy, and Educated Citizenry, see course descriptions in Elementary Education.

EDLC 493. Student Teaching Early Childhood. 6 cr.
EDLE 493. Student Teaching Elementary. 6 cr.
Student teaching for dual certification is a ten-week experience in Early Childhood and a ten-week experience in Elementary Education. These courses are for students who will complete the requirements for certification in Early Childhood and Elementary Education. Registration for each student teaching experience is concurrent. Student teaching is shared between a NAEYC accredited early childhood classroom or setting, and an elementary classroom under the direct supervision of a cooperating teacher and a University supervisor.

Opportunities for student teaching abroad are available. For more information, see the section titled, International Study in Education.

ELEMENTARY EDUCATION
The Leading Teacher Program (LTP) in Elementary Education is designed to prepare leading teachers for elementary classrooms in our nation’s schools. Teacher candidates who successfully complete the requirements for this degree will earn certification in Elementary Education. Throughout the program, teacher candidates have the opportunity to develop professional and personal competence by participating in experiences that are both theoretical and applied in local, national, and international settings. All teacher candidates complete a set of core experiences in teaching methodology and participate in guided fieldwork. Teacher candidates have options to distinguish themselves through independent research and/or international study and teaching opportunities.

The Elementary Education program is guided by Pennsylvania state standards and by standards of national professional organizations. The Elementary Education program earned national accreditation from the Association for Childhood Education International (ACEI). Teacher candidates address professional standards in each of the elementary school curriculum areas through course projects and implement the standards in their fieldwork. All of the experiences in the Elementary Education program reflect the themes of leadership, diversity, and technology and are based on the five domains of the Leading Teacher Program.

The Elementary Education program is a 130 credit program that consists of courses and experiences organized into four major areas of study: General Education (42 credits); Academic Cognate (15 credits); Foundations of Education (19 credits); Professional Preparation (48 credits); and Electives (6 credits). Significant changes to certification in PA are forthcoming and will apply to the incoming class of 2009. Modifications to programs will be published when approved.

Teacher candidates in the Elementary certification program concentrate studies in the General Education Core, Foundations of the LTP and Cognate Studies during the first four semesters. Details are provided in the description of the Foundations of the Leading Teacher Program.
Semesters 2-7

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Cognate</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Semesters 5-7

Professional Preparation: Focused Semesters

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLE 311W</td>
<td>Literacy Content Knowledge</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 312W</td>
<td>Pedagogy for Literacy K-Gr. 6</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 313</td>
<td>Literacy Dispositions</td>
<td>2</td>
</tr>
<tr>
<td>EDLE 314</td>
<td>Literacy Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLD 315</td>
<td>Literacy Acad. Adaptations</td>
<td>1</td>
</tr>
<tr>
<td>EDLE 321</td>
<td>Numeracy Content Knowledge</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 322</td>
<td>Pedagogy for Numeracy K-Gr. 6</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 323</td>
<td>Numeracy Dispositions</td>
<td>2</td>
</tr>
<tr>
<td>EDLE 324</td>
<td>Numeracy Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLD 325</td>
<td>Numeracy Acad. Adaptations</td>
<td>1</td>
</tr>
<tr>
<td>EDLE 331</td>
<td>Educ. CitizenryContent Knowledge</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 332</td>
<td>Pedagogy for Educ. Citizenry K-6</td>
<td>4</td>
</tr>
<tr>
<td>EDLE 333</td>
<td>Educ. Citizenry Dispositions</td>
<td>2</td>
</tr>
<tr>
<td>EDLE 334</td>
<td>Educ. Citizenry Field Experience</td>
<td>1</td>
</tr>
<tr>
<td>EDLD 335</td>
<td>Educ. Citizenry Acad. Adaptations</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Teacher candidates may register for 6 credits from the following areas: International Studies, Instructional Technology, Leadership Studies, Independent Research or additional Cognate Studies. Teacher candidates can complete electives during semesters 5-7 or summer sessions.

Semester 8

Professional Preparation

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLE 492</td>
<td>Student Teaching Elementary</td>
<td>12</td>
</tr>
<tr>
<td>EDLE 493</td>
<td>Student Teaching Elementary</td>
<td>6</td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS:

ELEMENTARY EDUCATION

Elementary Education majors will be divided into three cohorts. Each cohort will rotate through three focused semesters.

Course descriptions apply to the focused semesters for Early Childhood Education.

EDLE 311W. Literacy Content Knowledge. 4 cr.

EDLE 312W. Pedagogy for Literacy. 4 cr.

EDLE 313. Literacy Dispositions. 2 cr.

The Literacy semester merges the areas of reading instruction, language arts education, and children’s literature. Teacher candidates participate in three instructional modules and are assigned to a local school to do field work focusing on literacy. Writing is used extensively to enhance learning and, therefore, quality of writing is assessed throughout the course.

Module 1 focuses on student learning outcomes and the knowledge base that leading teachers must have in order to facilitate student learning. Module 2 is delivered in school settings, or in similar organizations, such as local literacy support agencies, the School of Education Reading Clinic, and the Saturday tutorial services offered through the University Learning Skills Center for urban students. In this module, teacher candidates compare local instructional practices in literacy with regional and national initiatives, and teach individuals, small groups, or whole classes. The focus is on instructional planning and practice, and formative evaluation.

Module 3 addresses the service of reading, language arts and related literature to all aspects of pre-school, elementary, and middle years education including the relationship of literacy to other areas of the school curriculum. Thematic instruction, projects, and interdisciplinary activities are referenced to scholarly research. Teacher candidates will be linked through technology to regional, national and international schools and to expert practitioners found in local school districts.

EDLE 314. Literacy Field Experiences. 1 cr.

Teacher candidates compare local instructional practices in literacy with regional and national initiatives, and teach individuals, small groups, or whole classes. The focus is on instructional planning, instructional practice, and formative evaluation.
EDLD 315. Literacy Academic Adaptations. 1 cr.
Teacher candidates focus on adaptations for students with learning differences in literacy assessment, curriculum, and instructional strategies.

EDLE 321. Numeracy Content Knowledge. 4 cr.
EDLE 322. Pedagogy for Numeracy. 4 cr.
EDLE 323. Numeracy Dispositions. 2 cr.
The Numeracy semester consists of three major components that are integrated and focus on the teaching and learning of mathematics in elementary grades and on the development of mathematical thinking.

Knowing Mathematics and School Mathematics
Teacher candidates develop knowledge of the content and discourse of N-6 mathematics, including:
• mathematical concepts and procedures and the connections among them;
• multiple representations of mathematical concepts and procedures;
• ways to reason mathematically, solve problems, and communicate mathematics effectively at different levels of formality;

Knowing Students as Learners of Mathematics
Teacher candidates develop knowledge of
• research on how children learn mathematics;
• the effects of children’s age, abilities, interests, and experience on learning mathematics;
• the influences of linguistic, ethnic, racial, and socioeconomic backgrounds and gender on learning mathematics;
• ways to affirm and support full participation and continued study of mathematics by all children.

Knowing Mathematical Pedagogy
Teacher candidates develop knowledge of and ability to use
• instructional materials and resources;
• ways to represent mathematics concepts and procedures;
• instructional strategies and classroom organizational models;
• ways to promote discourse and foster a sense of mathematical community;
• means for assessing student understanding of mathematics.

EDLE 324. Numeracy Field Experience. 1 cr.
Teacher candidates apply knowledge of mathematics, school mathematics, children’s learning in mathematics, and mathematical pedagogy in an elementary school setting.

EDLD 325. Numeracy Academic Adaptations. 1 cr.
Teacher candidates focus on adaptations in numeracy assessment, curriculum, and instructional strategies for students with learning differences.

EDLE 331. Educated Citizenry Content Knowl. 4 cr.
EDLE 332 Pedagogy for Educated Citizenry. 4 cr.
EDLE 333 Educated Citizenry Dispositions 2 cr.
The Educated Citizenry semester focuses on educational studies and experiences integrating science, social studies, and the creative arts in elementary school settings and their impact on individuals and communities. The integration of the content areas occurs through the understanding, development, and application of skills necessary for inquiry. Teacher candidates engage in an investigation with emphasis on integrated content.

EDLE 334. Educated Citizenry Field Exp. 1 cr.
Teacher candidates demonstrate the application of inquiry skills, planning and implementation of integrated investigations, and classroom teaching skills in schools, museums, and other educational facilities.

EDLD 335. Educated Citizenry Academic Adaptations. 1 cr.
Teacher candidates focus on adaptations in science, social studies, and the creative arts, specifically in assessment, curriculum, and instructional strategies for students with learning differences.

EDLE 492. Student Teaching-Elementary. 12 cr.
Student teaching is a fifteen week experience in an approved elementary school or middle school under the direct supervision of a cooperating teacher and a University supervisor.
EDLE 493. Student Teaching Elementary. 6 cr.
If a candidate is pursuing dual certification, student teaching is a ten-week experience in Elementary and a ten-week experience in Early Childhood or Secondary Education. This course is for students who will complete the requirements for certification in two areas. Registration for each student teaching experience is concurrent.

Opportunities for student teaching abroad are available. For more information, see the section titled, International Study in Education.

SECONDARY EDUCATION
The Secondary Education program prepares teacher candidates to teach in Grades 7-12 in Pennsylvania. The program combines professional education with an academic major in English, Mathematics, or Social Studies. Candidates pursuing certification in K-12 content areas, such as Foreign Language, follow the program for secondary certification.

Teacher candidates interested in teaching science in middle or high schools participate in an integrated program that results in a bachelor’s degree in one of the sciences and a Master’s of Science Degree in Education. This program will typically take five academic years and a summer to complete.

The Secondary Education program is guided by Pennsylvania state standards and by standards of national professional organizations. Teacher candidates will address professional standards in their respective content areas through course projects and will implement the standards in their fieldwork. All of the experiences in the secondary education program reflect the themes of leadership, diversity, and technology and are based on the five domains of the Leading Teacher Program.

Teacher candidates in Secondary Education complete a minimum of 126 credit hours. The General Education Core and the Foundations of the Leading Teacher Program are typically completed in semesters 1-4. Remaining credits are used to build the academic major required for certification in Pennsylvania. Details are provided in the description of the Foundations of the Leading Teacher Program.

In semesters 5, 6 and 7, secondary education teacher candidates complete a minimum of 24 credits of professional preparation. Coursework includes appropriate content area methods, electronic literacy for instruction, content area reading, and academic adaptations for secondary students. Academic coursework continues through semesters 5, 6, and 7. Field experiences are required and are integrated with the coursework. Semester 8 is a 12 credit student teaching experience.

The following course of study is required for K-12 and secondary education majors during semesters 5-8.

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semesters 5-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic discipline and related coursework</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDLS 301</td>
<td>Content Area Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDLS 398</td>
<td>Field Exp. Content Area Rdg</td>
<td>0</td>
</tr>
<tr>
<td>EDLT 302</td>
<td>Electronic Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDLD 345</td>
<td>Adaptive Strategies for Secondary Inclusive Programs</td>
<td>3</td>
</tr>
<tr>
<td>Teacher candidates register for the appropriate methods course(s) listed below.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDLS 336</td>
<td>Teaching Math Grades 5-8*</td>
<td>3</td>
</tr>
<tr>
<td>EDLS 341</td>
<td>Teaching Secondary Math*</td>
<td>3</td>
</tr>
<tr>
<td>*both courses are required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDLS 343</td>
<td>Teaching English and Comm.</td>
<td>3</td>
</tr>
<tr>
<td>EDLS 345</td>
<td>Teaching Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>EDLS 346</td>
<td>Teaching Secondary Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>EDLS 399</td>
<td>Teaching Methods Field Exp.</td>
<td>0*</td>
</tr>
<tr>
<td>* All candidates register for a section of field experience concurrent with the content methods course.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Semester 8

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDLS 492</td>
<td>Student Teaching**</td>
<td>12</td>
</tr>
<tr>
<td>EDLS 493</td>
<td>Student Teaching**</td>
<td>6</td>
</tr>
</tbody>
</table>

**No candidate may register for additional course work during the student teaching semester without permission from the Committee on Student Standing.

Course Descriptions: Secondary Education

EDLS 301. Content Area Reading. 3 cr.
Encompasses teaching and learning strategies, classroom diversity, instructional scaffolding and assessment, learning with printed and electronic texts, and the development of skill sets related to
writing, talking, and listening in classroom learning environments. Prepares candidates to integrate knowledge of reading as it relates to content areas.

**EDLT 302. Electronic Literacy.** 3 cr.
Increases the level of technology competencies with an examination of visual-based instructional materials including age-appropriate classroom presentations, interactive instructional media, forms-based text documents and professional development portfolios. Teacher candidates complete a visual-based unit of instruction and present their results in a typical classroom environment; create a computer-based portfolio depicting notable educational achievements, suitable for presentation during formal interviews; and continue their research to determine the effectiveness of their presentations.

**EDLD 345. Adaptive Strategies for Secondary Inclusive Programs.** 3 cr.
Explores the range of services needed for students with learning and behavior challenges in secondary education programs. Teacher candidates develop skills in the process of selecting adaptations in content area instruction, and in teaching effective study skills and learning strategies across the curriculum. The process of planning for transition to adult life is investigated, as are strategies for facilitating effective social skill development. Applications of computer and assistive technology for students with challenges will be addressed.

**EDLS 299. Content Area Reading Field Experience.** 0 cr.

**EDLS 399. Content Method Field Experience.** 0 cr.
Each field experience provides the opportunity for teacher candidates to reflect critically on their developing knowledge base and practical experiences in relation to the content of the course and subject area. These experiences are designed to foster personal and professional growth in preparation for student teaching and entry into the teaching profession.

**EDLS 336. Teaching Mathematics Gr. 5-8.** 3 cr.
Examines mathematical concepts and skills taught in grades 5-8; teaching strategies and methods that foster reasoning and mathematical thinking.

**EDLS 341. Teaching Secondary Mathematics.** 3 cr.
Explores methods, strategies, and content of secondary mathematics with emphasis on problem solving and technology.

**EDLS 343. Teaching English and Communication.** 3 cr.
Examines various ways to teach literature, grammar, language, and composition; provides opportunity for teacher candidates to review the basics of grammar and composition and to develop lessons for teaching at the secondary level.

**EDLS 345. Teaching Foreign Language.** 3 cr.
Explores a variety of approaches for teaching foreign languages (K-12); grammar, structure, verbal exercises, and literature germane to the specific language to be taught will be discussed.

**EDLS 346. Teaching Secondary Social Studies.** 3 cr.
This is a competency-based experience for social studies/history majors that develops evaluation skills, knowledge of curricula, media and technological experiences, and methods; expands planning and questioning skills.

**EDLS 492. Student Teaching-Secondary.** 12 cr.
Student teaching is a 15-week experience in an approved secondary school under the direct supervision of a cooperating teacher and a University supervisor.

**EDLS 493. Student Teaching Secondary.** 6 cr.
If a candidate is pursuing dual certification, student teaching is a ten-week experience in Secondary Education and a ten-week experience in the second certification area. This course is for students who will complete the requirements for certification in two areas. Registration for each student teaching experience is concurrent.

Opportunities for student teaching abroad are available. For more information, see the section titled, International Study in Education.

**INSTRUCTIONAL TECHNOLOGY**

The following sequence of courses is available for candidates who desire increased experience with application of instructional technology to educational settings. NOTE: EDLT 302 is a required course for teacher candidates in Secondary Education, but may be taken as an elective by teacher candidates in Early Childhood or Elementary Education.
EDLT 301. Instructional Technology III: Text-Based Instruction (Elective)  3 cr.
Examines the design, integration and evaluation of text-based printed and graphics materials including content-specific handouts, student workbooks, and lesson study guides. In addition, teacher candidates prepare comprehensive curriculum-based lessons using a variety of commonly accepted instructional technologies, including digitized resources found on educational Internet sites grounded in accepted academic standards. Candidates develop the competencies necessary to determine the effectiveness of their presentations via research for the classroom.

EDLT 302. Electronic Literacy  3 cr.  
See course description in Secondary Education.

EDLT 401 Instructional Technology V: Web-Based Instruction (Elective)  3 cr.
Examines the design and implementation of Web-based instruction. Teacher candidates compose a personal home page and several prototype course web pages supporting different academic disciplines. Internal (student-made) and external (Internet-ready) links to the Web are incorporated into the pages after considerable research of content material. Candidates continue to investigate the effectiveness of their presentations via research assessment procedures.

DUAL DEGREE PROGRAMS
The School of Education and the College of Arts offer approved programs of studies leading to a B.S. in Education and a B.A. or B.S. in an academic content area. Each of these programs provides an option for teacher candidates seeking to be certified on the secondary level. Each of the dual degree options are rigorous programs that require the teacher candidate to maintain a minimum overall QPA of 3.00 in their education coursework and a 3.00 in their academic area. The programs can typically be completed in 4 academic years and one summer session. Teacher candidates wanting to graduate with two Bachelor’s degrees (for example, B.S. in Education and B.A. or B.S. in Mathematics) register simultaneously in the School of Education and the College of Arts and are assigned an advisor from each school. Requirements for teacher certification in Pennsylvania must be met to receive a School of Education recommendation for state certification.

Programs with dual Bachelor degrees include:
B.S. English Education and B.A. English
B.S. Mathematics Education and B.A. Mathematics
B.S. Social Studies Education and B.A. History
B.S. Spanish Education and B.A. Spanish
B.S. Latin Education and B.A. Latin

Opportunities to earn dual degrees with a Bachelor and Master’s degree are also available. Students are enrolled in the respective school at Duquesne for the bachelor’s degree and must be admitted to graduate studies in the School of Education. Students apply to the School of Education at the end of their junior year. Dual degree programs include:

B.S. Science and M.S. Education
B.S. Athletic Training and M.S. Education
B.S. Physical Therapy and M.S. Education

MUSIC EDUCATION
The School of Music determines general professional education courses required for this program. Students are accepted and enrolled through the Pappert School of Music.

STUDENT TEACHING
The undergraduate experience in the Leading Teacher Program culminates in student teaching. Student teaching is the most significant professional experience as it represents a bridge between professional preparation and professional practice. The teacher candidate applies principles and techniques of teaching and learning in an actual classroom or other instructional setting for a full semester in the senior year. Teacher candidates must make application and satisfy the specific requirements for student teaching as outlined in the Handbook of the Leading Teacher Program.

INTERNATIONAL STUDY IN EDUCATION
The School of Education offers opportunities for teacher candidates to earn credits toward a degree through study in international settings. Early Childhood, Elementary, and Secondary teacher candidates in the LTP may elect to participate in an international experience. The content of the international field placement is connected to coursework for the Leading Teacher Program. School of Education faculty accompany teacher candidates to the International Placements. Student teaching experiences in international sites are available.

FIELD EXPERIENCES
A significant feature of the Leading Teacher Program is early participation in field experiences.
Teacher candidates participate in field based experiences starting semester two extending through the student teaching experience. Field experiences are articulated with and integrated into coursework throughout the Leading Teacher Program. Field experiences are a critical component in preparing professional educators for leadership and distinction in teaching, scholarship and service in the world’s communities. Many of the pre-student teaching field experiences take place in Professional Development Schools (see below) and partner schools. Field experiences occur in off-campus settings. It is in these field experiences that the teacher candidate participates in the integration of theory and practice. Teacher candidates are expected to participate in a variety of settings, with students of different ages, and with culturally diverse and exceptional populations.

PROFESSIONAL DEVELOPMENT SCHOOLS
A Professional Development School (PDS) is a collaboration between a university and a PK-12 school that has the interrelated goals of improved pre-service teacher education, ongoing faculty development, enhanced student learning, and continuous inquiry directed at the improvement of practice. Duquesne University is engaged in such partnerships with schools in local districts. In each PDS, the reality of complex educational systems is constantly addressed and examined, and attempts at organizational improvement and enhanced learning are supported. Teacher candidates in the Leading Teacher Program have the opportunity to learn and grow within the schools that are part of the PDS Collaborative.

TEACHER CERTIFICATION
The School of Education has been approved by the Pennsylvania Department of Education to offer course-work leading to the Pennsylvania Instructional I Certificate. This certificate is valid for six years beginning the first year the individual is actually employed as a teacher in the State of Pennsylvania. In order for a student to be eligible for certification, the following requirements must be met:

1. Completion of all course work with a cumulative grade point average of a minimum of 3.00 and a minimum 3.00 in the major.
2. Successful completion of student teaching.
3. Completion of all requirements for the Bachelor of Science in Education degree.
4. Completion of the application for certification.
5. Recommendation of the Certification Officer of the School of Education.
6. Successful completion of Praxis examinations as required by the Pennsylvania Department of Education.

Note: Praxis scores are valid for a period of ten years; however, the Pennsylvania Department of Education may choose to increase the passing scores. Teacher candidates must meet the criterion score in effect on the date of application for certification.

The requirements for certification are established by the Pennsylvania Department of Education. Teacher candidates must meet the requirements established by the state at the time of application for certification. Significant changes to certification in PA are forthcoming and will apply to the incoming class of 2009. Modifications to programs will be published when approved.

DUAL CERTIFICATION
Through advisement, a student may complete requirements in two certification areas, such as Early Childhood/Elementary or Elementary/Secondary. Such programs require additional coursework to meet standards established by the Pennsylvania Department of Education. Ten weeks of student teaching in both areas are required after all coursework is completed.

STUDENT ORGANIZATIONS
The School of Education provides opportunities for participation in student organizations related to professional education preparation. A number of student organizations are available on campus for teacher candidates to enhance their professional skills and to demonstrate leadership qualities. Faculty are involved with the organizations in the role of advisor. This provides an excellent opportunity for teacher candidates to collaborate with faculty on a variety of professional development issues outside of the classroom. Teacher candidates are encouraged to take an active part in these professional organizations.

Current organizations include Duquesne University Chapters of:

• Kappa Delta Epsilon
• Phi Delta Kappa
• Phi Kappa Phi
• Pi Lambda Theta
• Student Council for Exceptional Children
• Duquesne University Student Education Association
HONORS
As an assurance of the quality of the most outstanding graduates from Duquesne University’s School of Education, truly outstanding teacher candidates are designated as the Dean’s Teaching Fellows. The Dean’s Teaching Fellows are selected after a rigorous application and screening process.

Other awards are available to undergraduates in the School of Education. Teacher candidates should consult the Leading Teacher Program Handbook for details.

PROGRAM REQUIREMENTS
The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual teacher candidates and the School. The School of Education reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled, teacher candidates should refer to the Leading Teacher Program Student Handbook for specific information regarding academic policies pertaining to their program.
Mary Pappert School Of Music

Administration:
Dean: Edward Kocher, Ph.D.
Director, Undergraduate Division: Kenneth Burky, M.M.
Director of Music Admissions: Troy Centofanto, M.M.
Assistant Dean: Amanda Ford, M.M.
Assistant to the Dean: Kathleen Ingold

HISTORY
Founded in 1926, the Mary Pappert School of Music recently celebrated its eightieth anniversary. The earliest course of study led to the Bachelor of Music degree; the Bachelor of Science in Music Education program was added four years later. On April 29, 1967 the present music building was dedicated; on this occasion Van Cliburn was awarded an Honorary Doctorate of Music degree. The School of Music has been fully accredited by the National Association of Schools of Music since 1966.

The Mary Pappert School of Music is a recognized national leader in performance, music education, music therapy, music technology, and sacred music. With collegiate enrollment numbering 350 students, 500 non-credit music students studying in the City Music Center, a Summer Session that enrolls over 500 students, and more than 200 public concerts each year, the Mary Pappert School of Music plays an important role in the intellectual and cultural life of the region.

The Mary Pappert School of Music offers the following baccalaureate degree programs:
- Bachelor of Music in Music Performance
- Bachelor of Science in Music Education
- Bachelor of Science in Music Therapy
- Bachelor of Music in Music Technology

MISSION
The Mary Pappert School of Music provides musical education that connects the broad spectrum of historical and current practices; and in promoting the relationship between theory and practice, prepares professionals who will be the leaders in the musical culture of the twenty-first century.

PHILOSOPHY AND OBJECTIVES
Overlooking the City of Pittsburgh with its unique blend of old and new, with its thriving cultural life, the campus itself symbolizes the goal: development of a well-rounded professional musician who is well-equipped to contribute to the contemporary musical world.

To meet that goal, the Mary Pappert School of Music aims to develop in each student the highest caliber of individual performance informed by current music scholarship. Music studies at Duquesne are enriched by the core curriculum, a sequence of courses which place music studies within a broader cultural context.

Duquesne maintains a commitment to the new and innovative — to the proposition that music is ever alive and always changing, that the musician of the future must be versatile and adaptable. This philosophy is evidenced in the various programs and offerings available to students, from traditional studies in music to a focus on contemporary music and the role of current technology in the life of a twenty-first century musician.

To that end, the Mary Pappert School of Music offers students an education for the 21st century, rooted in the traditions of historical thought.

ADMISSION
Students who wish to major in music should apply through the Office of Admissions. Following this an interview and audition should be scheduled through the Director of Music Admissions. Specific audition requirements are mailed to auditionees. The audition consists of solo performance before a committee, a written theory exam, an individual aural test and a piano placement exam. Students requesting scholarship assistance should apply through the Office of Financial Aid. Recorded performances can be evaluated, but the audition process is not completed entirely until the testing has been done. Students receive written confirmation of their status from the Office of Admissions.

It would be helpful for prospective music majors to have a background in theory, piano and certain aural skills prior to entrance. If deficiencies exist in any of these areas, prerequisite courses may be required at the discretion of the audition committee.

Visits to classes and personal interviews with the applied music staff are encouraged strongly and may be arranged by calling (412) 396-5064.
DEGREES
Undergraduate music students enroll in one of four degree programs: The Bachelor of Music degree, the Bachelor of Music in Music Technology degree, the Bachelor of Science in Music Education degree, or the Bachelor of Science in Music Therapy degree. Students planning performance careers, whether in concert, symphony orchestra, or opera enroll in the Bachelor of Music program. Students interested in teaching in a private studio situation or at the college level, as well as preparing for a career in music ministry, also enroll in this program. Students planning music technology careers, whether in sound recording, electronic composition, or electronic performance enroll in the Bachelor of Music in Music Technology program. Students anticipating a career in school music teaching enroll in the Bachelor of Science in Music Education program; prospective music therapists enroll in the Bachelor of Science in Music Therapy program. Students enrolled in other schools and colleges in the University also study in the School of Music. In recognition of the importance of arts education to the full development of each individual, music courses designed for general students are offered.

The curriculum is enhanced by the vital cultural life in the City of Pittsburgh, which is consistently ranked as one of America’s “most livable cities.” The proximity of the Mary Pappert School of Music to the city frequently brings these cultural events to the campus. Workshops, master classes, and special performances are often presented by visiting artists who have included Joshua Bell, Birgit Nilsson, Wynton Marsalis, Pat Metheny, John Mack, Rebecca Pennys, Barry Green, Eliot Fisk, Thomas Newman, Joseph Schwantner, Steve Vai, Herb Ellis, Rodion Schedrin, Alexander Tchaikovsky, Paul Chihara, Christopher Rouse, Pat Martino, Eric Whitacre, Hila Plittman, Marianne Cornetti and New York Voices.

Applied faculty in the Mary Pappert School of Music include members of the Pittsburgh Symphony Orchestra as well as distinguished concert, operatic, and jazz artists. Ensembles in-residence include the Faculty Guitar Ensemble Catch 22 and the Children’s Festival Chorus. Other faculty are recognized in the academic and cultural communities for their activities as performers, conductors, composers, music technologists, music therapists, church musicians, clinicians, and music scholars. Interaction with these outstanding professional musicians is invaluable in the education of the developing professional musician.

Duquesne students also take advantage of the many performance opportunities afforded them by local music organizations. Students perform in the Pittsburgh Youth Symphony, the Pittsburgh Civic Orchestra, the Westmoreland Symphony, the McKeesport Symphony, and others.

FACILITIES
The Mary Pappert School of Music is now counted among a highly select group of prestigious schools of music that are officially designated as “All Steinway Schools.” The 68 new Steinway pianos are part of the school’s performance hall and rehearsal rooms, as well as the teaching and practice studios. Piano majors practice in specially designated rooms that contain grand pianos; other practice rooms are supplied with studio upright pianos. A two-manual Harpsichord is available for practice and recitals. Duquesne is home to one of the nation’s finest programs in organ and sacred music. Organ students have access to two Moeller organs and a Fischer practice organ, an electronic organ, a three-manual Moeller organ, a Fuhrer tracker organ and a Aeolian-Skinner pipe organ. Two pipe organs on campus are also available for recitals and for practice. Organ and sacred music students regularly perform in the historic Duquesne Chapel for liturgies and recitals, and they also have access to a variety of superior organs throughout the Pittsburgh region. Many orchestral and band instruments are available for instrumental classes.

In addition, by virtue of the quality of guitar students and size of the guitar program, the Mary Pappert School of Music is counted among the nations leading universities offering guitar and electric bass performance degrees. Duquesne is grateful for a Fender Musical Instrument Grant that provides the latest Fender guitar amplifiers, bass amplifiers, guitars, basses, and sound systems throughout the music school for student and faculty use. This grant is renewed each year providing the latest gear for the students of the Mary Pappert School of Music and designates the school as an “All Fender Institution.”

Matty and Eddy Shiner Practice Rooms - a suite of acoustically enhanced practice rooms - has been constructed in the lower level of the school, providing individual as well as small group rehearsal space in comfortable and attractive surroundings. These rooms were made possible by the generous gifts of donors who wished to honor the work of Matty and Eddy Shiner, renowned performers and teachers in trumpet and trombone who taught many Duquesne students through the years.

MUSIC SCHOOL TECHNOLOGY FACILITIES
New technologies such as computers and synthesizers offer today’s performers and composers
myriad opportunities to develop their musical ideas and stretch them to the limits of the imagination. Effective competition in the music fields of today and tomorrow requires strong musical skills linked with ability and artistry in the use of electronic media and music technology.

Duquesne offers a unique program which blends a strong traditional musical education with practical artistic experiences in all phases of music technology. The program is designed for talented students who desire to increase their flexibility in order to take advantage of the new professional opportunities available to musicians possessing sophisticated music technology skills.

Fender Electronic Studio

The Duquesne University Recording Complex
Houses a MIDI/Hard disk recording PC Workstation, Samplitude 24-track digital studio, Roland VS 1680 Otari34C console, Otari Status 18R automated console, Tascam DM-8000 Digital Mixing Console Panasonic DAT decks, CEDAR noise reduction, CD mastering and manufacturing capabilities, 3 Console, Pro Tool ProMix 24 plus System, and Tanoy Studio Monitors. Yamaha NS-10M Studio Monitors, 2 Tannoy System 1200 Studio Monitors, 4 Tascam DA-38 Modular Digital Multitracks, Tascam RC-898 Remote Control Unit, Full Outboard DSP Capabilities, Yamaha Drum Set, Yamaha Disklavier MIDI Grand Piano, Full Mike Locker, and Fender array of Guitar, Bass and keyboard Amps. Also, Samplitude and Nuendo Pro Logic Digital Recording Software.

Keyboard Lab
A keyboard/computer lab housing 17 Macintosh iMac DVD-workstations, each equipped with 17 Yamaha Clavinova Digital Pianos, printers, Yamaha headphone communication system, Mark of the Unicorn’s Fast Lane MIDI interfaces, Free Style, Coda’s Finale 2008, Practica Musica, Music Lessons, Fiber-optic Internet connections and other music educational software.

The Music Technology Center
A multipurpose learning facility containing seventeen Apple G5 workstations with high speed internet connections, MOTU Digital Performer, Finale notation software, software synthesizers such as Aturia’s Mini Mogg V, Peak LE audio editing software; Adobe, Macromedia and Apple multimedia software, MS Office, seventeen Korg Triton workstations, Mark of the Unicorn’s MIDI express and E-media guitar software; one Multimedia workstation with scanner, digital audio and video editing; a teacher station with Korg GEC-16 stereo communication system, Tanoy near field monitors, Mackie 16 channel mixing console; 16 Digidesign M-Boxes with Waves Gold & Renaissance Maxx Bundles, Live and Reason.

STUDENT ORGANIZATIONS
A Chapter of the national music organization Mu Phi Epsilon contributes substantially to the students’ professional and social development. The Music Educators National Conference has an active
student chapter that sponsors professional programs and attends and participates in the state, regional, and national activities of the association. There are active chapters of the American Guild of Organists, the Audio Engineering Society, the American Music Therapy Association, the American Choral Directors Association, American String Teachers Association, and the Guitar Society for Fine Art. A chapter of Pi Kappa Lambda, the national music honor society, was installed in March, 1988.

**HONOR AWARDS**

*André Marchal Award* is presented to the graduating organ student with the highest academic standing in performance.

*Jean Langlais Award* is presented to the graduating organ student with the highest academic standing in Sacred Music.

*J. Cornetti Tucci Piano Performance Award* is presented annually to an outstanding piano student.

*Outstanding Music Education Award* is presented annually by the Music Education department to a graduating senior student.

*Mu Phi Epsilon Sterling Achievement Award* is presented by Mu Phi Epsilon to an outstanding senior music student.

*Robert Egan Award for Academic Excellence*, *Richard Gray Award for Outstanding Service* and *Outstanding Music Therapy Student Award* are presented by the Music Therapy department to graduating senior students.

*Outstanding Music Technology Award* is presented annually by the Music Technology department to a graduating senior student.

**MUSIC EDUCATION**

**Admissions and Retention in the Music Ed. Program**

Students are admitted to the school through the formal application and audition process, but are admitted provisionally to the certification program. After the second year, students who earn a 3.00 cumulative GPA (with minimum B grade in all music education classes), pass the three Pre-Professional Skills Tests of the standardized Praxis Exam, complete a favorable interview with department faculty, and pass the sophomore-level evaluation, may be admitted formally into the program. Additional proficiency exams are administered during the junior year. Those who are successful may apply for student teaching. The remaining Praxis exams must be completed prior to recommendation for certification.

**Certification**

Students who successfully complete the entire baccalaureate program and achieve satisfactory scores on all the state-mandated Praxis Exams may apply for Pennsylvania teachers certification, Instructional Level I, Music, K–12. The teacher training curriculum offered by Duquesne prepares students to teach both vocal and instrumental music at all age levels. Permanent certification is issued by the Pennsylvania Department of Education after completion of 24 post-graduate credits and a minimum of three successful years of teaching within a six year period.

**Curriculum**

Students complete 138 credits distributed in the areas of music, professional education and general education. These include 33 credits of core musicianship classes, plus eurhythmics, conducting, computers, applied music and ensembles, voice, piano, guitar and classes in all families of instruments. Students may request the applied music teacher of their choice. All students learn the use of the up-to-date technology in state-of-the-art computer and piano labs.

Professional education classes include major methods in elementary general music, choral, strings, and band instruction, technique courses in K–12 secondary instruments, and laboratory experiences. These courses provide an introduction to several specialized methodologies—including Kodály, Orff, Dalcroze, and Music Learning Theory—in the framework of the National Standards for Music Education. Additional courses, in preparation for teaching certification, may include the areas of Educational Psychology, Special Education, and the English Language Learner.

Clinical experiences begin during the first year and continue throughout the program, culminating in a full semester of student teaching spanning grades K–12 and encompassing both vocal and instrumental music. General education courses are designed to develop well-rounded teachers who are able to relate to their society and culture. These include the 33 credits of the university core curriculum.
MUSIC EDUCATION CERTIFICATION
Students completing the course work in music education receive the B.S. in M.Ed. and may be recommended for certification to the PA Department of Education. Upon successful completion of the Praxis Exams, graduates may receive the Instructional Level I - Music, K–12 certificate.

Selection of students for this program depends upon completion of admissions and audition procedures and an interview with a department member. Candidates are expected to demonstrate leadership qualities, excellent communication skills, critical thinking and analysis ability, and a genuine interest in a service-oriented profession.

Post-graduate certification course work in music education is available to those with B.M. degrees or B.S. in Education degrees. Audition and/or course requirements are available upon request.

MUSIC PERFORMANCE

Admission
Selection of students for the Performance department depends upon the completion of the admission and audition process.

Curriculum
Students complete 132 credits in the areas of music and university Core curriculum courses. Music courses for all Performance majors include 33 credits of core musicianship classes, eurhythmics, conducting, computer technology, pedagogy, career perspectives, ensembles, and applied music. Voice majors have specialized diction and repertoire courses in French, Italian, German and English languages; vocal coaching, and opera workshop. Instrumentalists take orchestral repertoire classes, chamber music, plus they have the opportunity to participate in performance internships. Piano majors enroll for two semester courses in piano pedagogy and piano literature, plus classes in chamber music, piano ensemble and collaborative piano. Organ majors have specialized courses in pedagogy, organ literature, sacred and choral literature, service playing, hymnody, church music practicum, plus improvisation. Classical guitar majors take courses in guitar pedagogy, performance development and guitar ensemble. All performance majors are required to present recitals on their major instrument in the junior and senior years. Students may request the applied music teacher of their choice. Jazz/Commercial guitar and Electric Bass Guitar performance majors take applied jazz lessons, jazz chamber music, jazz ensemble, plus courses in jazz history, jazz improvisation, jazz ear-training, transcription and analysis and jazz arranging.

MUSIC THERAPY

Admission
Students are admitted to the Music therapy program by completing the formal application and audition process accompanied by an interview with the department chair. After the completion of the first year in the program, a minimum of a B grade in all music therapy courses is required. If this standard is not met, an interview with the department chair must be completed in order to continue in the program. Candidates for this degree program must demonstrate a sincere interest in a career that is service oriented.

Curriculum
Students complete 134 credits in the areas of music, music therapy, health ethics, human and behavioral sciences and general education. Music courses include 33 credits of core musicianship classes, eurhythmics, conducting, computer technology for musicians, applied music, ensembles, voice, piano improvisation and guitar. Clinical field experiences are an integral part of the course sequences in music therapy.

Board Certification
Completion of the required academic studies of this program leads to board certification as a music therapist. The music therapy candidate completes a minimum of 1200 hours of clinical training consisting of two components, pre-internship clinical training and internship. Pre-internship training consists of a variety of field experiences with at least three different populations. These field experiences are taken by the student in conjunction with the music therapy course work as a pre-requisite for the internship placement. The internship consists of an in-depth supervised clinical training experience at an entry level. This internship is completed within the context of the degree program. Students may choose the internship site from the institution’s roster of affiliated internships or from the national roster of American Music Therapy Association (AMTA)-approved internship sites in collaboration with the music therapy advisor.

When these 1200 hour requirements are completed, the candidate is eligible to take the National Board Certification Examination for Music Therapists. This examination is designed and administered by the Certification Board for Music Therapists (CBMT). The credential earned is Music Therapist-Board Certified (MT-BC).
Completion of this degree prepares students for a career using music therapy within a variety of clinical settings, community health centers, general hospitals, rehabilitation centers, hospice care facilities, schools, traditional and private facilities serving persons with mental and/or physical disabilities, private practice, consultative work and/or further graduate study.

Post-graduate Certification
For those who already have a degree and who are interested in becoming a music therapist, certification is available. An interview with the advisor and an evaluation of transcripts with recommendations made according to AMTA requirements is required. Upon completion of the required academic studies and the pre-clinical field experiences, the student will be eligible to choose an internship site. These studies culminate in eligibility for the CBMT examination.

MUSIC TECHNOLOGY

Admissions and Retention in the Music Technology Program
Students are admitted to the school through the formal application and audition process. After the first year, students who earn a 2.75 cumulative GPA, with a minimum of a B grade in all music technology classes and complete a favorable interview with department staff may continue in the program. If a student does not maintain a B average in his or her major, then that student will be placed on probation for the next semester. If the grade does not improve by the end of that semester, then the student will be required to have a conference with the Music Technology Department faculty to discuss their continuance in the program. Additional interviews are administered over the next several semesters. Those students who have successfully completed four semesters in the Music Technology program may apply for student internships.

Curriculum
Students complete 132 credits distributed in the areas of music, audio, music technology and the business of music. These include 33 credits of core musicianship classes, plus eurhythmics, conducting, computers, applied music and ensembles, voice, piano, guitar and classes in all families of instruments. Students may request the applied music teacher of their choice. All students learn the use of the up-to-date technology in state of the art recording studios and computer and keyboard labs.

Internship experiences with local and national music technology corporations and/or businesses begin in either the junior or senior semester and are an important aspect of the Music Technology degree. Music Technology courses are designed to develop well-rounded music technologists who are strong musicians and have effective people skills to enable them to secure employment in today’s competitive music technology and music industry marketplace.

Five-Year Multimedia Program
Undergraduate Music Technology students have a unique opportunity to take graduate courses in Multimedia to gain a head start on receiving a Masters Degree in Multimedia at Duquesne University. In the second semester of their sophomore year the student will apply for acceptance to the program at the multimedia department’s admissions office. A 3.5 QPA is mandatory for admittance into this program. Upon graduation with a Music Technology Degree, selected students can complete their final 19 credits in the Multimedia degree program. Selection of students for this program depends upon completion of the admissions and audition process, review of transcripts, and interview with the department chair. For additional School of Music information visit our web site at: www.music.duq.edu

COURSE DESCRIPTIONS

PERFORMANCE

101-133. Applied Music. 1-3 cr.
Private study of voice, piano, harpsichord, organ, guitar or orchestral instruments.

107. Collaborative Piano. 1-2 cr.
This course is designed for the undergraduate with the purpose of affording the student instruction in the art of piano collaboration.

109. Vocal Coaching 1-2 cr.
Individual work with pianist as a supplement to Opera Workshop and/or Applied Music.

115. Alexander Technique. 2 cr.
This course is an introduction to the Alexander Technique in which students examine bodily movement patterns and identify those which are destructive or interfere with musical performance. The technique heightens kinesthetic sensitivity, offering performers a control that is fluid and lively, thus lessening chances of performance injury. The principles are based on an understanding of human anatomy which promotes ease and freedom of movement, balance, flexibility, and coordination.
118. Career Perspectives/Music. 2 cr.
This course focuses on the details of making a living in the music world. Topics include creating and maintaining a portfolio and resume, negotiating business matters and marketing.

119, 121, 123. French, German, Italian for Musicians. 2 cr. each
Rudiments of each foreign language offered on a rotating basis in the fall semester in preparation for the appropriate Diction and Repertory course offered in the following spring.

122, 124, 126, 127. Diction and Repertory. 2 cr. each
Italian, German, French, and English offered on a rotating basis each spring semester. All except English preceded by an introductory course in the fall, in the appropriate language.

140. Piano 1-3 cr.
Applied lessons for freshman piano majors which includes a 15 hour service learning component.

150, 151, 152. Orchestral Repertoire. 1 cr.
An intensive study of orchestral excerpts with emphasis on style, performance practice, and audition preparation.

155W. Beginning Piano for Performance Majors I. 2 cr.
Class piano instruction in basic techniques of piano performance including scales, keyboard harmonization, and introductory score reading. MIDI piano lab equipped with music workstations, synthesizer modules, and six track records are used.

156W. Beginning Piano for Performance Majors II. 2 cr.
Class piano instruction in intermediate techniques of piano performance including two octave scales, keyboard harmonization of secondary chords, transposition, and score reading. Upper elementary piano literature is studied.

208. Chamber Music Saxophone. 1 cr.
Weekly rehearsals and coachings of major saxophone quartet repertoire.

212, 214, 216. Chamber Music. 1 cr.
The course includes performance of selected chamber music literature from the standard repertoire for various combinations of instruments. Weekly coachings, with additional scheduled rehearsals required. Each ensemble must present a performance during the semester.

217. Piano Ensemble. 1-2 cr.
This course focuses on the study and performance of literature written for various piano ensemble combinations. Works for one or two pianos will be emphasized.

218. Performance Development for Guitar. 2 cr.
This course is designed for the performing musical artist, in which the emphasis is to gain control and composure of one’s self in a performance setting. Proper preparation of material and practice techniques for performance is studied. Through weekly in-class performances each student gains experience in proper recital procedure, mental focus for minimizing errors and successful artistic performances.

225W. Intermediate Piano for Performance Majors. 2 cr.
Intermediate Piano class: Class piano instruction in intermediate techniques of playing, harmonization, theory, score reading, jazz chording and transposition utilizing MIDI piano lab equipped with music workstations. Emphasis is placed on intermediate literature and harmonization patterns in all keys and styles.

227W. Advanced Piano for Performance Majors. 2 cr.
Class piano instruction in advanced techniques of playing, harmonization, score reading, theory and transposition utilizing MIDI piano lab equipped with music workstations. Emphasis on advanced use of harmonization patterns in all keys and mastery of literature.

230. Piano Literature I. 2 cr.
This course explores the major piano works from 1685-1828, with particular emphasis on the works of Bach, Haydn, Mozart, Beethoven and Schubert. Extensive reading and listening assignments and exams will familiarize the students with the important piano music of these composers. Prerequisite: Two years of university level piano major study, or by permission of instructor.

232. Piano Literature II. 2 cr.
A continuation of Piano Literature I from 1828 to the present, with emphasis on the great composers of the Romantic Period (Chopin, Schumann, Liszt, Brahms) and the 20th century. Extensive reading and listening assignments and exams will familiarize students with the piano music of the important composers of this period. Prerequisite: Two years of university level piano major study, or by permission of instructor.
313. Piano Pedagogy I. 2 cr.
Students will become acquainted with the techniques and materials for teaching piano at the elementary level. For piano majors; junior standing is recommended.

314. Piano Pedagogy II. 2 cr.
A continuation of 313 concentrating on the techniques and materials for teaching piano at the intermediate and advanced levels.

315. Pedagogy for Performance Majors. 1 cr.
The course is designed to provide an introduction to the elements of studio teaching. The course is divided into two segments, six weeks of class and eight weeks of labs. The Pedagogy class session includes topics such as learning theory, business considerations, developing a teaching philosophy.

316. Pedagogy Lab for Performance Majors. 1 cr.
Pedagogy lab sessions provide specialized instruction for voice, individual instruments and instrumental groups. Topics include pedagogical/technical approaches and teaching materials. Pre-requisite: Concurrent enrollment in 315.

321. Guitar Pedagogy. 2 cr.
To prepare the guitar performance student to teach individual and classroom guitar successfully. Primary focus is the classic and jazz styles of playing, more specifically finger style and plectrum style. Concepts of anatomy and how to properly utilize our bodies with the guitar are the foundation. Students will be exposed to available materials for teaching the guitar and proper curriculum techniques will be discussed for ensembles, development of graded musical items and the business of guitar instruction.

380. Directed Study/Performance. 1-4 cr.
Independent projects supervised by faculty members.

396. Student Recital. 0 cr.
This course is designed for students giving non-degree recitals.

398. Junior Recital. 0 cr.
The candidate for the Bachelor of Music degree must perform a recital during the junior year.

400. Recital. 1-2 cr.
The candidate for the Bachelor of Music degree must perform a recital during the senior year. The recital is presented to a faculty committee for approval at least one month prior to the date of the performance.

420. Careers in Art Internship. 1-6 cr.
A rigorous occupational and academic opportunity for highly-qualified students to combine career goals in an individually-designed work experience. Skills in performance, research, analysis, and communication are developed under the supervision of an on-site supervisor in cooperation with a faculty member who may require an academic project.

ENSEMBLE/CHAMBER MUSIC

Required for all students as laboratory work, during most semesters of full-time enrollment. Non-music majors are invited to register for ensemble with permission of instructor.

Large Ensembles. 0-1 cr. each
The Large Ensembles include Wind Symphony, Symphony Band, Symphony Orchestra, Contemporary Ensemble, Jazz Ensemble, Jazz Lab Band, Pappert Choral, Voices of Spirit, University Singers.

Small Ensembles. 0-1 cr. each
The Small Ensembles include Trombone Choir, Brass Ensemble, Guitar Ensemble, Percussion Ensemble, Jazz Ensemble, various woodwind ensembles, and Electronic Ensemble.

144. Opera Workshop. 0-1 cr.
A performing class in which students learn standard and other opera repertory in the original languages.

Chamber Music. 1 cr.
Study and performance of all types of chamber music for various instrumental combinations including electronic.

MUSICIANSHP

Musicianship I through VI comprises the core requirement for every music major. At each level (except Musicianship V and VI), two courses (2 credits each) are taken concurrently, and registration in the corresponding section is required as a co-requisite. Courses numbered 101, 102, 201, and 202 address the written component of music theory. Courses numbered 111, 112, 211, and 212 focus on...
solfege and aural comprehension. The two components (101/111, etc.) are integrated and coordinated with other courses in keyboard and eurhythmics.

101, 111. Musicianship I. 2 cr. each
The written component of the course (MUSC 101) focuses on the fundamentals of music theory, beginning with aspects of notation, pitch, scale, intervals, chords, beat, rhythm and meter, and proceeding with the first steps in the study of melody, counterpoint, harmony, and texture. The aural-oral component (MUSC 111) focuses on the development of the musical ear and inner hearing by means of various practices including singing, sight singing and rhythm reading. A special emphasis is placed on dictation of intervals, triads, seventh chords, diatonic melodies and rhythmic patterns.

102, 112. Musicianship II. 2 cr. each
The course continues work begun in MUSC 101 and MUSC 111. The written component of the course (MUSC 102) opens with a brief review of triads, seventh chords and the basic principles of part writing, and proceeds with the exploration of various scale degrees and different harmonic functions within a diatonic context. In addition to the study of harmony and voice-leading, this unit introduces concepts of musical structure and form. The aural-oral component (MUSC 112) expends the practices introduced in MUSC 111 to include aural comprehension of tonal relations on different levels of musical structure and harmonic progressions within a diatonic context. Prerequisite: successful completion of both MUSC 101 and MUSC 111.

121, 122. Dalcroze Eurhythmics I & II. 2 cr. each
Experiencing, analyzing, and creatively manipulating the metric/structural and the expressive/interpretive components of music through rhythmic movement, ear-training, and improvisation.

201, 211. Musicianship III. 2 cr. each
This course continues the Musicianship sequence begun in the first year of study. The written component of the course (MUSC 201) opens with a brief review of diatonic harmony and then follows with a study of chromatic harmony, including secondary dominants, tonicizations, modulations, modal mixture, and other chromatic chords. Form, rhythm, and additional compositional parameters will also be considered through an in-depth look at music literature demonstrating the various concepts. The aural-oral component (MUSC 211) expands the ear training skills of the first year of Musicianship to include chromaticism and more complex rhythmic units. Prerequisite: successful completion of both MUSC 102 and MUSC 112.

202, 212. Musicianship IV. 2 cr. each
Both the written (MUSC 202) AND AURAL-ORAL (MUSC 212) sections of Musicianship IV focus on Jazz and music of the 20th and 21st centuries. The unit of jazz covers improvisation techniques, extended tertian harmonies, modes and scales, jazz bass line construction, and typical jazz voicings. The course will then explore various 20th-century techniques, including set theory, dodecaphony, polytonality, integral serialism, aleatoricism and minimalism, considering formal rhythmic, melodic, harmonic, textural and philosophical aspects. Prerequisite: successful completion of both MUSC 201 and MUSC 211.

301W. Musicianship V. 4 cr.
While the development of musicianship skills, aural comprehension, and theoretical techniques forms the focus for the first two years of musicianship studies, the investigation of ideas (historic developments and aesthetics, evolution of genres, and forms, characteristics of style) as well as the learning of music literature through the application of skills acquired in the first two years constitutes the focus for the third year of study. Musicianship V traces the ideas and music literature in the Western canon from the Ancient Greeks through the Baroque era. Issues of performance practice will be explored along with comparative analysis of music outside the Western canon. (Prerequisite: successful completion of MUSC 202 and MUSC 212).

302W. Musicianship VI. 4 cr.
A continuation of Musicianship V, Musicianship VI traces the ideas and music literature in the Western canon from the Classic era to the present day. Music outside the Western canon will also receive attention, particularly with regard to multicultural influences in the music of contemporary composers. Much more than a lecture class, Musicianship VI continues to require the application of skills learned in previous Musicianship courses toward the study and understanding of music literature and ideas. (Prerequisite: successful completion of MUSC 301).

335. 16th Century Counterpoint. 2 cr.
This course is devoted to a study of the polyphonic technique of the 16th century. Contents include lectures, analysis, written assignments and listening.
336. 18th Century Counterpoint.  2 cr.
A study of contrapuntal technique of the period of J.S. Bach. Contents include lectures, written assignments, listening and analysis.

340. Orchestration.  2 cr.
A study of the basic problems of scoring for individual instruments, particularly orchestral choirs, the entire orchestra, and unique instrumental combinations. Analysis of the techniques of orchestration of selected composers of the 18th, 19th, and 20th centuries.

342. Topics in Contemporary Music.  2 cr.
A survey of the main currents in music since 1945. Concert attendance, several short papers and a longer, more in-depth paper will be required.

351. Composition.  2-3 cr.
A course in original creative writing.

355. Introduction to Composition I.  2 cr.
An introduction to composition that focuses on the fundamentals: melody, harmonic content, rhythm, and compositional forms. Students will begin development of individual composition portfolios, and are encouraged to have their works performed at a student composition recital held during the semester. (Class format)

356. Introduction to Composition II.  2 cr.
A continuation of basic concepts needed to write successful musical compositions. Students will continue development of individual composition portfolios, and are encouraged to have their works performed at a student composition recital held during the semester. Prerequisite: Introduction to Composition I. (Class format)

430. Elements of Composition.  2 cr.
Designed for non-composition majors who want to explore and participate in the creative process of music composition. Discussion and writing skills for this course involve listening and study of scores, and study of all the elements of music composition, melody, harmony, rhythm, the importance of form and orchestration. Students will develop a final portfolio throughout the course, comprising of weekly assignments, covering all instrument family/ensembles. Final project will be performed and recorded.

431. Form and Analysis.  2 cr.
A study of formal design in music and the phenomenon of style in the various historical periods.

331. Independent Study (Instrumental or Choral Conducting)  1-2 cr.
Available for undergraduate or graduate credit with permission of instructor. Directed Study in Conducting is available through rigorous audition to qualified students who have completed Conducting I and Conducting II and who meet the requirements set forth by the ensemble department faculty member with whom they wish to study. This course will explore advanced conducting techniques and may include an on-hands experience with a large ensemble.

370. Conducting I.  2 cr.
An introduction to basic instrumental and choral conducting techniques with emphasis on the proper conducting posture, the preparatory gesture, the release, basic beat patterns and styles, use of the baton, and development of the left hand. Course also will include instruction in score reading, analysis, and preparation, with emphasis on the standard literature. Class time will be divided equally between lecture-demonstrations and practical conducting experience in a laboratory setting.

371. Conducting II.  2 cr.
This course will be divided into two tracks: Choral and Instrumental. Instruction in each area will address the application of intermediate and advanced conducting techniques with emphasis on subdivision, accent and syncopation, subito dynamic change, tempo alteration, tenuto and fermata, asymmetrical meters, supermetrics, and specialized techniques for conducting recitative, contemporary music, and musical theater. Course will include score analysis and preparation, as well as techniques and methods while focusing on the standard literature. Class time will be divided equally between lecture-demonstrations and practical conducting experience in a laboratory setting.
MUSIC EDUCATION

091, 092 Fundamentals of Piano I, II. 2 cr.
This course introduces students to basic piano skills including scales, triads, cadences, sight-reading, and improvisation. This course is intended for students preparing for Piano for Music Education I but is also open to non-music majors.

101. Introduction to Music Education. 1 cr.
This course for music education majors is an overview of the primary facets of the profession: the National and State Standards for Arts Education, components of the music program, advocacy, inclusion, field observation skills, relation between music in the school and the community, cultural awareness, diversity of the profession, professional ethics and behavior, and home schooling.

105, 106. Voice for Music Education I, II. 1 cr. each
This course teaches fundamental techniques of singing, including, posture, breathing, tone, dictation, expression, and style. Repertoire includes folksongs, art songs and multicultural songs sung in solo, unison, duets, and small ensembles. Students learn standard voice classifications taught through opera, oratorio and art song.

111W, 113W. Piano for Music Education I, II. 2 cr. each
This course provides piano instruction in harmonization, improvisation, and transposition using a MIDI piano lab equipped with music workstations that consist of electronic keyboards, synthesizer modules, and six-track recorders.

173, 174. Woodwind Techniques I, II. 1 cr. each
This course focuses on playing skills and pedagogical applications of clarinet, flute, saxophone, oboe, and bassoon. Students learn to play each instrument and become knowledgeable of appropriate teaching materials for each.

251. Music Ed Methods I. 2 cr.
This course presents an introduction to a sequence in music teacher training based upon the National Standards for Education. Content emphasizes early childhood development in music from pre-K to grade 1. The structure of the course is based on the Kodály concept of music education, with singing and movement as the primary means of building a foundation for further musical learning. Students learn the basic components of effective lessons and begin the creation of an anthology of musical materials suitable for this age group. On-site field experiences are incorporated into this class. Students begin a professional portfolio which will continue throughout the Music Education Methods sequence.

252. Music Ed Methods II. 2 cr.
A continuation of MEM I, with emphasis on the general music class from grades 2–4. The song anthology is expanded. Fifteen hours of field experience in a school system emphasizes grades 2–4. Students continue to develop their portfolio.

254. Music Ed Methods III. 3 cr.
This course advances the sequence of the National Standards, developing tracks in general, choral, instrumental, and orchestral methods for grades 5–6. Study of inclusion and assessment techniques appropriate for these grades are included. The song anthology is expanded. Students continue advocacy work by becoming mentors for freshman projects. Portfolio development continues, including the incorporation of the second 15 hours of field experience emphasizing grades 5–6.

256. Music Ed Methods IV. 3 cr.
This course focuses on grades 7–8. Emphasis is on the development of performing ensembles as well as non-performance classes and appropriate means of assessment. Students complete a third field experience of 15 hours. The anthology and portfolios are expanded.

258. Music Ed Methods V. 3 cr.
This is the final course in the MEM sequence. Its structure parallels that of previous semesters, and completes the study of grades 9–12. It includes the fourth 15 hour clinical experience.

282, 283. Brass Techniques I, II. 1 cr. each
This course focuses on playing skills and pedagogical applications of trumpet, French horn, Baritone euphonium, trombone, and tuba. Students learn to play each instrument and become knowledgeable of appropriate teaching materials for each.

290. Guitar Class for Music Ed. 1 cr.
An introductory course in guitar techniques for the music educator. Content includes playing skills as well as pedagogical applications for elementary, middle and high school levels. Ensemble performances and the “National Standards for the Arts” applications with the guitar are important elements of this course.
295. Classroom Instruments. 1 cr.
An introductory course which develops skills in recorder playing, Orff instruments, standard and non-traditional classroom instruments.

325. Marching Band Methods. 1 cr.
This course will introduce students to the various styles of the contemporary marching band. Areas discussed will include philosophy, show design, drill charting, and integration into the total music curriculum.

330. Choral Materials Lab. 1 cr.
This lab emphasizes the selection, analysis, score preparation, and laboratory conducting of choral repertoire appropriate for various grade and proficiency levels of students.

331. Instrumental Materials Lab. 1 cr.
This lab emphasizes the selection, analysis, score preparation, and laboratory conducting of instrumental and orchestral materials appropriate for various grade and proficiency levels of students.

381, 382. String Techniques I, II. 1 cr. each
This course focuses on playing skills and pedagogical applications of violin, viola, cello, and bass. Students are expected to play each instrument and to be knowledgeable of appropriate teaching materials for each.

386W. Children’s Choir Lab. 1 cr.
This course provides field and clinical experiences in conjunction with three training levels of the Children’s Festival Chorus, in residence at Duquesne University. Students will study rehearsal techniques, group motivation, repertoire, and concert production.

481, 482. Percussion Techniques I, II. 1 cr. each
This course is designed to develop an introductory understanding of percussion pedagogy with special emphasis on the musical growth of elementary school age students. Secondary considerations will include percussion related information and ideas needed to conduct and train junior high and high school individuals in traditional instrumental ensembles.

486. Senior Field Experience. 1 cr.
Practicum for senior music education students when not enrolled in student teaching.

490. Student Teaching. 6 cr.
For the senior music education student who has completed all required music and professional education classes satisfactorily and has been recommended for student teaching. This student teaching experience is a full-time placement for students who have previous certification in a non-musical area. Daily, 14 weeks.

492. Student Teaching - Instrumental. 6 cr.
For the senior music education student who has completed all required music and professional education classes satisfactorily and has been recommended for student teaching. Placement is with the grade 4–12 instrumental music program in a selected school with a qualified cooperating teacher. Daily, 7 weeks.

493. Student Teaching - Vocal. 6 cr.
For the senior music education student who has completed all required music and professional education classes satisfactorily and has been recommended for student teaching. Placement is with the grade K–12 vocal or choral music program in a selected school with a qualified cooperating teacher. Daily, 7 weeks.

JAZZ STUDIES

110. Jazz Harmony, Form & Notation. 2 cr.
This course presents the foundations of harmony and form essential to the jazz musician. Topics to be covered include chord types and movement, chord voicing and substitutions, voice leading, scales, modes, the blues and other standard jazz song forms.

141. Chamber Music - Jazz. 1 cr.
The purpose of this course is to develop the skills and techniques necessary for small jazz ensemble performance. Emphasis is on rhythm section techniques, interaction among the members of the group, and development of repertoire.

131. History of Jazz. 2 cr.
A study of the origin, development, and styles of jazz music and its ramifications with an emphasis on recorded music as well as scores.

223. Jazz Improvisation I. 2 cr.
Study and practice of: melodic improvisation, conventional forms, chord progressions, employing idiomatic jazz, articulations, major-minor and modal scales, altered scales and chords, extended forms, and practical applications to standard and jazz literature.

225. Jazz Improvisation II. 2 cr.
Continuation of techniques learned in Jazz Improvisation I. Prerequisite: Jazz Improvisation I.
330. Jazz Ear Training, Transcription and Analysis. 2 cr.
The course is designed to train the student to recognize aurally the melodic, rhythmic, and harmonic elements of contemporary jazz. The devices used are sight-singing, keyboard work, and extensive dictation. Emphasis is placed on four, five, and six-note chords, chromatically-altered chords and polychords. Prerequisite: 110 Jazz Harmony

339. Jazz Arranging I. 2 cr.
A study of the basic techniques of scoring for individual instruments and small jazz ensembles of various sizes. Analysis of scores by contemporary big band arrangers. Prerequisite: 110 Jazz Harmony

340. Jazz Arranging II. 2 cr.
Continuation of techniques learned in Jazz Arranging I, with a concentration on large jazz ensembles. Prerequisite: Jazz Arranging I

MUSIC THERAPY

107W. Music Therapy Orientation. 3 cr.
An introduction to Music Therapy as practiced in a variety of rehabilitation settings. Observations followed by informal group discussions. Basic theory emphasizes the validity of music therapy theory and praxis. Intensive class participation and interaction.

109W. Music Therapy In Context. 3 cr.
Focus on Music Therapy methods utilized in a variety of music therapy settings. Includes assessment, planning, implementation and evaluation of sessions designed for a variety of populations.

124W. Practicum 1-7. 1-4 cr.
Field placement in a clinical setting for a minimum of 15 hours per semester. Certified Music Therapists and other specially trained clinicians assist in the educational training and professional developmental growth of the student.

300W. Psychology of Music Teaching and Learning. 3 cr.
A study of the physiological, psychological, and sociological aspects of music teaching and learning with emphasis placed on current research.

306W. Influence of Music on Wellness and Healing. 3 cr.
An examination of the impact of music and its effects on the mind, body, and spirit healing from a holistic point of view.

309W. Directed Study. 2 cr.
Capstone Seminar in Music Therapy research. Student selects Music Therapy topic.

315. Piano Improvisation I. 2 cr.
Piano Improvisation I is open to all Music Education and Music Therapy majors. In this course students will learn basic improvisation skills and how to utilize improvisation in today’s classroom and therapeutic settings. Course Prerequisite: Piano for Mus Ed. II or 2 years of Piano 119.

317. Guitar for Music Therapy I. 2 cr.
The scope of this course is designed to focus on developing an introduction to the skills needed for playing the guitar in a clinical setting. Special emphasis will be placed on performance and accompaniment, right and left hand techniques, fretboard visualization, sight reading, basic improvisational tools, introduction to chord voicing rhythmic studies, and an increased awareness of music interpretation.

318. Guitar for Music Therapy II. 2 cr.
This course continues to expand the Guitar competencies completed in Guitar 1 with the addition of bar chord voicings. Emphasis will also be placed on the building of clinical repertoire.

374W. Music and Movement for the Exceptional Person. 3 cr.
This course is experiential and didactic in its approach. The rationale of using music and movement as therapeutic teaching tools to meet the developmental needs of special persons will be explored.

SACRED MUSIC

The objective of this course is to develop the service playing skills necessary to play for church services of all denominations through a study of applied harmony, counterpoint, hymnody, anthem accompaniments, and conducting from the console. Students unable to enroll for this course will study this material in their applied music lesson.

112. Development of Christian Worship and Music. 1 cr.
An exploration of the relationship of liturgy and the music which supports, assists, and enhances Christian worship. A variety of topics relating to liturgy in the worship life of the Church are analyzed, set in historical perspective, and evaluated as to their effectiveness in parish life, including the demands of ritual, theology of the rites and their musical expression, and pastoral issues in their celebration.

113. Liturgics. 2 cr.
The study of the principles of ordered worship in the Christian churches, East West, including the understanding and the use of ritual, movement, and
symbol; the Church year; and the interaction of architecture and worship.

201. Sacred Choral and Solo Literature. 2 cr.
A survey of choral and vocal literature for the church with emphasis on practical materials for church choirs, soloists, and congregations.

317. Organ Pedagogy. 2 cr.
This course focuses on developing the theoretical and practical pedagogical skills needed for organ teaching and includes teaching methods using the other students in the class as subjects under the supervision of the professors; teaching of a private lesson of a beginning organ student outside of the class with supervision of the professor; and book reviews of one or more standard organ methods.

335. Gregorian Chant. 2 cr.
The history, notation, and modal system of Gregorian chant. Class participation in the singing of chant. Chant as prayer and current liturgical application.

441. Hymnody. 2 cr.
A study of the church’s heritage of song; the Psalms; the great hymns of the Medieval Church; the heritage of Luther, Calvin and their followers; English hymnody; American contributions; twentieth-Century hymnody with special emphasis on the theological framework for each major development in the history of hymns.

443. Organ Design and Maintenance. 2 cr.
A study of the basic concepts of organ construction with emphasis on the historical development of the organ and the mechanical operation of the pipes and console. Tuning, voicing, and esthetics of organ design will be discussed.

451, 452. Organ Literature. 2 cr. each
A survey of organ literature and organ buildings as it relates to organ registration. The first semester treats organ music from the Renaissance through J.S. Bach. The second semester deals with the literature from 1750 to the present. Outside listening and readings will be required.

461, 462. Organ Improvisation. 2 cr. each
A practical application of the basic tools of improvisation including harmonicization of melodies at the organ, two and three part counterpoint, short ABA forms, and chorale preludes with emphasis on their liturgical application.

470. Sacred Music Internship. 1 cr.
The internship in Sacred Music is an ongoing formational process in the student’s music ministry at the church of his/her employ. This course, a requirement for the sacred music masters students and an elective for undergraduate students, is designed around the needs of each particular student who will work under the professor’s guidance to strengthen his/her skills as ministers of music in their parishes. Two rehearsals and services will be evaluated on site by the professor. Readings and personal advisement sessions will be designed to aid each student in this formation.

MUSIC TECHNOLOGY
SOUND RECORDING TRACK

101. Introduction to Audio I. 2 cr.
Introduction to basic concepts of audio propagation both acoustically and electrically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio.

102. Introduction to Audio II. 2 cr.
The focus of this course is a presentation of more basic audio concepts both acoustically and electrically. An introduction and overview of the hardware and software used in the recording process. Prerequisite: Introduction to Audio I.

145. Audio I. 2 cr.
Foundations of the digital recording process. Covered are all aspects of the recording chain and basic procedures for two track and multi-track production. Lab required. Prerequisite: Introduction to Audio II.

146. Audio II. 2 cr.
An intensive study of the commercial recording process. Intensive hands-on and production projects. Lab required. Prerequisite: Audio I.

149. Audio III. 2 cr.
Individual studio projects with instructor coaching. Prerequisite: Audio II.

153. Audio IV. 1 cr.
The focus of this course is reinforcement of recording techniques learned in Audio I, II, and III. Each student is required to be engaged in a current weekly recording session and to be working toward completion of assigned projects. Students meet with the instructor upon completion of recordings and are critiqued on their performance. Prerequisite: Audio III.

240. Advanced Audio Production. 2 cr.
Students gain experience in CEDAR (Computer Enhanced Digital Audio Restoration) techniques for the purpose of soundtrack restoration. Advanced digital techniques and digital signal processing are covered. Prerequisite: Post Production.
301. Post Production & Mastering. 2 cr.
This course is designed to give hands-on experience with various post production and mastering tools. Proper procedures in formatting and preparing projects for cassette or CD production are covered. Sony 1630 operation and mastering is covered. Prerequisite: Audio IV.

401. Audio-Directed Study. 1-2 cr.
A variable credit course where the student under faculty direction works independently on a subject of particular interest to the student in the field of Audio.

420. Sound Recording Technology Internship. 1-4 cr.
Students will be provided an opportunity to work as an assistant at a corporation related to the field of sound recording. This internship can only be taken in either the junior or senior semester.

PERFORMANCE AND ELECTRONIC COMPOSITION TRACKS

101. Computers for Musicians. 2 cr.
An introductory music technology course. Includes basic MIDI theory, computer notation, sequencing, Internet explorations, computer assisted instruction and computer software uses for musicians. Additional work in database searches and MS Excel, Word, and Power Point are an integrated part of this course.

105W. Music Technology I. 2 cr.
A continuation of computers for musicians coursework, with more advanced applications of MIDI theory, computer notation and sequencing, and the history of electronic music (1945 to the present). Prerequisite: Computers for Musicians.

118. Electronic Ensemble. 1 cr.
A performance based course that covers the basics of Electronic Performance Practice. Includes the preparation, rehearsal, and performance of electronic music through solo, ensemble, and sequencer-based pieces. Students are assigned to small groups; many ensemble pieces are prepared by the students for performance in a recital at the end of the semester. Prerequisite: Electronic Performance Techniques.

201W. Music Technology II. 2 cr.
Synthesis and sound design integrated with advanced sequencing. Prerequisite: Music Technology I.

205W. Music Technology III. 2 cr.
Multimedia web page design and production with an emphasis on musical elements; incorporates some digital imaging, digital audio, and digital video. Prerequisite: Music Technology II.

301. Music Technology IV. 2 cr.
Sampling, digital sound design and editing is covered using ProTools software and Sample Cell, SMPTE synchronization and advanced score notation. Desktop video production and surround sound mixing. Student projects will explore music concrete and creation of scores for video. Prerequisite: Music Technology II.

310. Business in Music Technology 2 cr.
This course teaches important basic business skills and how to apply them within all aspects of Music Technology such as how to: run a recording studio, understand music royalties and copyright, become active electronic composers and performers, cope with business politics, use psychology in the music business, develop expense tax planning, create promotional materials, develop and implement successful career strategies. Students will receive in-depth, specific information on all aspects of putting together and managing the business side of their Music Technology career.

311W. Electronic Performance Techniques 2 cr.
The study and application of unique performance techniques used with electronic instruments. Through analysis of acoustic and electronic performances and study of technical exercises, students will learn to control the nuance of performance on electronic instruments. This is a University Writing Intensive Course and will include research into historical and future developments of electronic instruments and performance practice. Prerequisites: Computers for Musicians and Music Technology I.

314. Electronic Orchestration 2 cr.
A study of the basic problems of scoring for electronic instruments in a variety of musical contexts, including scoring for both electronic and electro-acoustic ensembles. Analysis of the techniques of electronic orchestration of selected contemporary composers in a variety of musical styles. Prerequisites: Music Synthesis II and Orchestration or Jazz Arranging.

315. Electronic Composition 1-2 cr.
Private studies in writing for electronic instruments and ensembles in addition to compositional skills needed to write successful musical compositions.
320. Composition/Performance Final Technology Project. 1 cr.
Students prepare and complete composition and performance projects to be presented at their senior recital. All projects will demonstrate the student’s competency level with music technology. A portfolio will also be completed that showcases the students’ work within the program. This portfolio will be electronic in nature; web page, CD-ROM, and DVD. Marketing approaches are also covered for the student such as resume development. Prerequisite: Music Synthesis IV.

405. Music Technology-Directed Study. 1-3 cr.
A variable credit course where the student under faculty direction works independently on a subject of particular interest to the student in the field of Music Technology.

410. Computers for Musicians II. 2 cr.
This course will examine the role of computers and music technology in various music applications, particularly focusing on computer-assisted instruction, multi-media development and presentation, and Internet applications. Students will acquire technological skills in the creation and application of digital media preparation, multimedia creation with branched logic, and interactive web page design. These skills will be closely integrated with advanced research techniques in electronic databases and the Internet, assessment and application of CAI software, and the design and creation of music based research, performance, and teaching presentations. Musical skills and knowledge acquired in prior Musicianship studies will serve as the basis for researching and preparing the midterm and final projects.

420. Music Technology Internship. 1-4 cr.
Students will be provided an opportunity to work as an assistant at a corporation or business related to the field of music technology.

430. Elements of Composition. 2 cr.
Designed for non-composition majors who want to explore and participate in the creative process of music composition. Discussion and writing skills for this course involve listening and study of scores, and study of all the elements of music composition, melody, harmony, rhythm, the importance of form and orchestration. Students will develop a final portfolio throughout the course, comprising of weekly assignments, covering all instrument family-ensembles. Final project will be performed and recorded.

GENERAL

090. Seminar. 0 cr.
Registration for Seminar is required of all undergraduate Music majors during most semesters of full-time enrollment. Course matriculation guarantees availability for master classes, recitals, student club meetings, and guest lectures held during the Tuesday and Thursday “common hour” periods.

160. Discovering Music Through the Guitar 3 cr.
To provide concentrated introductory studies in developing the skills needed for playing and performing with the guitar. This course will also train the student to analyze, compose, and experience various multi-cultural styles of music (e.g., flamenco, reggae, jazz, folk, rock, Brazilian, and more). Emphasis will be placed on discovering the basic elements of music (e.g., melody, harmony, and rhythm) through the guitar. There will also be an in-depth study of the history of the guitar from its ancient roots to its present electric manifestations.

170. Enjoyment of Music. 3 cr.
This course leads to an understanding of how music’s basic elements, melody, harmony, rhythm and form, are used to communicate the composer’s expressive intent. Designed for majors and non-music majors. No prerequisites.

175. Jazz: An American Art Form 3 cr.
Jazz: An American Art form is a course designed to demonstrate the various ways in which jazz is created as well as review the major jazz styles that have evolved in America during the 20th century. Students will also explore the social/economic demographics that influenced the creative processes in jazz that contributed in bridging the gap between many cultures in America.

Effective Catalog
The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual students and the School. The Mary Pappert School of Music reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled students should consult on a regular basis with their Faculty Mentor and/or Academic Advisor for specific information regarding academic policies pertaining to their respective programs.
School of Nursing
Telephone: 412-396-6550
Fax: 412-396-6346
Website: www.nursing.duq.edu

Administration:
Dean:
Eileen Zungolo, Ed.D., R.N., FAAN, CNE, ANEF
Associate Dean for Academic Affairs:
Joan Such Lockhart, Ph.D., R.N., CORLN, AOCN®, CNE, FAAN
Assistant Dean, Recruitment:
Cherith Simmer, M.S., R.N.
Assistant Dean, Student Services:
Leah Vota Cunningham, M.N.Ed., R.N.

HISTORY
The School of Nursing was founded in 1935 as a unit in the College of Liberal Arts and Sciences. In 1937, it was established as a separate school and approved by the State Board of Education of the Commonwealth of Pennsylvania to confer the degree of Bachelor of Science in Nursing and the degree of Bachelor of Science in Nursing Education by Duquesne University. The program leading to the degree of Bachelor of Science in Nursing Education was designed to meet the specific needs of the registered nurse while the basic program leading to the degree of Bachelor of Science in Nursing, the first in Pennsylvania, was designed for the high school graduate. The School of Nursing continued to offer two separate degrees until 1964. In September of that year, a single revised professional nursing program was implemented for admission of both basic and registered nurse students leading to the degree of Bachelor of Science in Nursing.

In the fall of 1982, a new baccalaureate nursing program, also leading to the degree of Bachelor of Science in Nursing, was instituted and was specifically designed to meet the educational and professional needs of the registered nurse.

A second degree option was initiated in August 1991. This program is designed for students who hold a baccalaureate degree in a discipline other than nursing.

In 1986, the Graduate Nursing Program was opened to offer the Master of Science in Nursing. Today, the areas of specialization offered are: Acute Care Clinical Nurse Specialist; Family Nurse Practitioner; Forensic Nursing; Nursing Administration; Nursing Education; and Psychiatric/Mental Health Clinical Nurse Specialist.

In fall 1994 the Graduate Nursing Program expanded to include study for the Doctor of Philosophy (Ph.D.) in Nursing.

To date, more than 4000 students have graduated from Duquesne’s School of Nursing.

SCHOOL OF NURSING
MISSION STATEMENT
The purpose of the School of Nursing is to prepare nurses to practice professional nursing to meet the dynamic health care needs of individuals, families, groups, and communities. Faculty facilitate the education of students in the art and science of nursing to provide ethical, holistic, culturally competent, and population-based care in collaboration with a variety of health care systems.

SCHOOL OF NURSING PHILOSOPHY
The faculty of the School of Nursing believe that nursing is a human science profession and an academic discipline that focuses on the diagnosis and treatment of human responses to actual or potential health problems. We believe the patient, conceptualized as an individual, client, family, group or community, is the focus of the professional nurse. We believe each individual is unique and holds values and beliefs reflective of his/her culture, spiritual, and life experiences.

The faculty believe that there are core competencies that enable a nurse to provide “safe passage” for patients. The core competencies are the basis of the nurse’s ability to provide, design, manage and coordinate caring practices. These core competencies are: clinical judgment, advocacy, caring practices, systems thinking, response to diversity, facilitation of learning in patients and staff, clinical inquiry, and collaboration.

The faculty believe that they serve students by being strong role models through their own commitment to excellence as teachers, scholars and clinicians. The faculty are dedicated to cultivating a sense of professional empowerment, a desire for life long learning, and a passion for social justice in our students. An innovative curriculum based on the changing health care needs of society and the health care delivery system is integral to the commitment of the faculty to student learning and development.

The faculty believe that students learn best when they actively engage in the learning process. The faculty desire to work with students as a community of learners in which all function at a high level of accountability, flexibility, and integrity.
In that way, a true learning environment can be created that fosters the exchange of diverse ideas and opinions, and advances collaboration. In such a learning community, progress can be anticipated and the efficient use of technology can be assessed and incorporated into the total health care environment. An appropriate balance between technology and aspects of human touch and caring is sought.

The learning environment embraces cultural diversity and welcomes all qualified students and faculty to join our community of learners. Opportunities for multicultural learning experiences will be offered locally and globally.

SCHOOL OF NURSING CONCEPTUAL FRAMEWORK

The curriculum flows logically from the conceptual framework originally developed by the American Association of Critical Care Nurses (www.aacn.org). The Synergy Model suggests that patient outcomes are enhanced when the nurses’ competencies are compatible with the characteristics or needs of the patient. When applied in the educational system, the center of attention for the model is the students and their learning. In the academic environment, developmental needs of the students are advanced when faculty competencies are aligned with the learning needs of nursing students. The competencies of the nurse identified in the model are those the faculty envisions as essential to the success of the nurses’ interventions. Underlying all of the nurses’ competencies is the unique contribution of nurses to provide “safe passage” for patients and their families through the health care environment. According to Curly (1998) these competencies are:

1. Clinical judgment – clinical reasoning that underpins decision-making in clinical practice, includes the assessment of given patient care situations, and nursing skill.
2. Advocacy and moral agency – representing the interests of the “other” and identifying and working to manage or explain ethical and clinical concerns. This dimension acknowledges the unique trust inherent in the nurse patient relationship.
3. Caring practices – constellation of nursing activities that are responsive to the uniqueness of the patient, family, group and community and create a therapeutic environment. Caring practices include: vigilance, engagement and responsiveness.
4. Facilitation of learning – ability to use self to maximize patients’ learning.
5. Collaboration – working with others to promote and encourage each person’s contribution to achieving optimal goals for the patient. This includes intra and interdisciplinary work.
7. Response to diversity – sensitive to recognize, appreciate, and incorporate differences between and among people along multiple dimensions in the provision of care.

PROGRAM OUTCOMES

At the completion of the nursing program, the student will:

1. Integrate clinical judgment skills when implementing care for individuals, families, groups, and community.
2. Justify one’s practice through the implementation of the role of being a moral agent.
3. Display a caring attitude in all aspects of one’s practice.
4. Institute collaborative efforts for the improvement of care to individuals and for improvement in health care delivery.
5. Demonstrate the ability to utilize integrated systems analysis for personal and professional navigation of the health care delivery systems.
6. Integrate cultural sensitivity in caring for individuals/families of diverse populations.
8. Incorporate teaching into all aspects of one’s practice.
9. Evaluate the interrelationship of nurse competencies and the patient characteristics to patient outcomes.

DEGREE

The School of Nursing undergraduate program leads to the degree of Bachelor of Science in Nursing.
BSN PROGRAM
The School of Nursing offers a program with a major in nursing leading to a baccalaureate degree in nursing to qualified high school graduates, non-nursing baccalaureate graduates, and qualified transfer students. The program includes four years of study, and is designed to provide the student with the knowledge and the skills needed to practice as a professional nurse generalist upon graduation. The general and professional education acquired in this program provides a basis for the graduate to progress to positions of increasing responsibility and to undertake graduate study.

The curriculum is designed to provide a strong liberal arts and science base. The course offerings in the natural, biological and behavioral sciences, and the University core courses support the philosophy that provides the basis for the organizing framework of the professional nursing program. Professional nursing courses, which constitute the nursing major, include theory and practice in the nursing care of individuals, families and aggregates. Learning opportunities are provided in hospitals, homes, schools, health agencies and numerous community settings. The Learning Resource Center in the School provides students with access to computerized learning, media review, and simulations used in learning nursing skills. The School’s Center for Nursing Research, Center for International Nursing, Center for Health Care Diversity and Nurse-Managed Wellness Centers offer students an environment of cultural exchange and inquiry and research in nursing.

The faculty of the School of Nursing conduct all professional nursing courses and also guide and direct the practicum (clinical) learning experiences. Nursing students are assigned faculty mentors for career and professional development.

Upon the successful completion of their program of studies, graduates are eligible to take the NCLEX-RN examination for licensure. Prior to graduation, students are required to successfully complete program requirements designed to prepare them for taking the NCLEX-RN exam.

The faculty reserve the right to make changes in the curriculum and program requirements which are believed to be in keeping with the changing health care needs of society and/or the best interest of the students and the School to maintain quality professional nursing education.

The undergraduate program of studies is fully approved by the Pennsylvania State Board of Nursing (P.O. Box 2649, Harrisburg, PA 17105-2649, Phone: 1-717-783-7142, www.dos.state.pa.us/bpoa/nurbd/mainpage.htm) and is fully accredited by the Commission on Collegiate Nursing Education (One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, Phone: 1-202-887-6791, www.aacn.nche.edu).

Admission Requirements for BSN Students:
Students who are interested in applying for admission to the School of Nursing should request an application from the Office of Admissions or the School of Nursing. The application is also available online at www.duq.edu. The specific entrance requirements for admission are:

1. The applicant’s high school curriculum must include a minimum of 16 units distributed as follows:

   (1 unit = 1 year)
   - English: 4 years required
   - Social Studies: 3–4 years recommended
   - Language: 2 years recommended
   - Math & Science: 4 years required:
     - Biology: 1 year
     - Chemistry: 1 year
     - Algebra: 1 year
   - One additional year is also required in science or math. (i.e., Physics, Algebra, Computers, etc.)

2. A candidate must have graduated from an approved secondary school in the upper two-fifths of the class, and demonstrated exemplary personal conduct while in school. Students whose class rank is below the upper two-fifths are evaluated individually by the University Admissions Committee according to their overall academic achievement (i.e. high school quality point average and testing results).

3. The primary consideration for admission is the secondary school academic record.

4. A candidate must present satisfactory scores on the required College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT) test in accordance with the standards to which the University adheres.

5. A personal interview with a representative of the School of Nursing is highly recommended prior to admission.

6. Two letters of reference from a high school guidance counselor, principal or teacher are required. Other additional School of Nursing requirements include evidence of physical and emotional health adequate to meet the demands of the program and compliance with the standards of personal conduct.
as outlined in the *School of Nursing Standards of Personal Conduct Policy*. Following notification of acceptance to the University by the Office of Admissions, the School of Nursing candidate must submit the following:

1. School of Nursing’s required health forms to the University Health Services Department.
2. A signed School of Nursing *Standards of Personal Conduct Statement*

**TRANSFER STUDENT**

All transfer students must meet the same admissions criteria as the basic BSN student (see Admissions Requirements for BSN Students). Transfer students must take all required nursing courses at Duquesne University.

**Additional Admission Requirements for Transfer Students:**

1. A minimum cumulative Q.P.A. of 2.5 from the transferring institution.
2. Personal interview with a representative of the School of Nursing.
3. Two professional (academic and/or employment) reference letters.
4. Compliance with the *School of Nursing Standards of Personal Conduct Policy*.
5. Evidence of physical and emotional health adequate to meet the demands of the program.

**Provisions Affecting Placement:**

1. Transfer students cannot be accepted into nursing clinical practicum courses during the first semester of attendance at Duquesne University.
2. Only courses taken within the past ten years will be evaluated for transfer credit. For courses in the natural sciences, the limit is five years. This time limit may be waived in specific instances.

**SECOND DEGREE BSN PROGRAM**

The Second Degree Bachelor of Science in Nursing (BSN) program enables a non-nurse with a baccalaureate degree to obtain a BSN degree in one year. After 12 months of intensive full-time study, during which time all requirements for a BSN degree are met, students are eligible to take the nursing licensure examination. The Second Degree BSN program, based on the AACN Synergy Model, includes three semesters of coursework with more than 850 hours of clinical experience in community and acute care settings, creative web-enhanced seminars for non-clinical courses and traditional classroom instruction.

Specific information about this option can be obtained by contacting the School of Nursing.

**Admission Requirements for Second Degree Students:**

Students who are interested in applying for admission to the Second Degree BSN program should request an undergraduate application from the Office of Admissions or School of Nursing.

- BS or BA degree from an accredited college or university
- Undergraduate GPA of 3.0 or higher on a 4.0 scale
- Prerequisite coursework must be completed prior to fall enrollment:
  - Biology or Chemistry 3 cr.
  - Anatomy and Physiology I* 4 cr.
  - Anatomy and Physiology II* 4 cr.
  - Microbiology* 3 cr.
  - Nutrition* 3 cr.
  - Pharmacology* 3 cr.
  - Statistics 3 cr.

*These courses must have been completed within the past 10 years.

**CLINICAL REQUIREMENTS**

- Completion of health requirements, including required examinations, lab tests, and immunizations – pre-admissions and as scheduled
- Professional student liability insurance – annually
- Evidence of CPR training for health care professionals – annually
- Criminal record check and child abuse clearance – annually
- Health Insurance Portability & Accountability Training (HIPAA) – pre-clinical
- School uniforms for both community and acute care settings
- Clinical lab packs
- PDA

Transportation costs and arrangements to and from all clinical practice sites are the responsibility of the student. All nursing students are required to carry personal health insurance.
ANTICIPATED EXPENSES*
Physical examinations, diagnostic procedures, and immunizations:
1st year ........................................... $200.
2nd - 4th year ..................................... $100.
Annual Student Liability Insurance (Professional).................. $20.
Annual CPR Certification ...................... $30.
Uniform, identification pin, shoes ...... $150.
Clinical lab packs................................ $70.
Criminal Record Check/Child Abuse Clearance ................. $200.
Parking/transportation to and from clinical agencies ............ varies
NCLEX Diagnostic Examination ..................$35. per testing
PDA..................................................... $500.
MEDS Publishing’s Total Curriculum Support (TCS™) ............ $400.
*All expenses are approximate

STUDENT ORGANIZATIONS
Each nursing student is a member of the general student body and may select and participate in any of the campus organizations. There are numerous social sororities, fraternities and organizations as well as professional organizations. The following organizations exist for the promotion of the scholarly and professional interests of members:

Alpha Tau Delta (meaning “through force of character”) is a national professional fraternity for nursing students. Theta Chapter was chartered on the Duquesne University campus in 1938. Eligibility is limited to full-time students who have completed a minimum of one semester in the School of Nursing with a cumulative quality point average of 2.5.

Kappa Alpha Beta, an undergraduate nursing sorority of Chi Eta Phi, Inc., was established in 1996. The purpose of this organization is to increase minority students in nursing and to foster continuing education. While membership is predominantly African-American, individuals from other ethnic/racial groups, male nursing students, and others are invited to join.

Male Association of Nursing (MAN) has been recently organized as a forum for male nursing students. MAN’s purpose is to enhance recruitment of men into nursing by increasing overall awareness of men in the nursing profession.

Sigma Theta Tau International, Inc. is the international honor society of nursing. The Duquesne University Nursing Chapter was officially chartered as Epsilon Phi Chapter in March 1982. Membership is open to upper level students and community leaders who meet the international criteria.

Duquesne University Student Nurses Association of Pennsylvania (DUSNA) is a constituent of the National Student Nurses Association, Inc. The purpose of DUSNA is to foster responsibility for contributing to the nursing profession; to provide programs representative of fundamental and current pre-professional interest and concern; and to aid in the development of the whole person. Active membership is open to undergraduate students enrolled in state approved programs leading to licensure as a registered nurse and registered nurses enrolled in undergraduate programs of nursing.

Class Organizations. Each class is an officially recognized organization in the School of Nursing. As such, each class elects its own representatives and conducts such programs and affairs as its members deem desirable toward achieving its goals.

Nursing Alumni Association. Upon graduation, each graduate is cordially invited to join this organization as a School of Nursing Alumnus.

HONOR AWARDS
In addition to graduation honors, a number of awards are available to eligible undergraduate students. Specific criteria for awards are available in the School of Nursing.
### Freshman Year

The following courses will be completed:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 100</td>
<td>Health &amp; Wellness (Fall or Spring)</td>
<td>2</td>
</tr>
<tr>
<td>UPNS 103</td>
<td>Nutrition for Wellness (Fall or Spring)</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 104</td>
<td>Essentials of Professional Nursing (Fall or Spring)</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 105 W</td>
<td>Ways of Knowing in Nursing (Fall or Spring)</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 106</td>
<td>Transcultural Responses in Health Care (Fall or Spring)</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 107</td>
<td>Service Learning Strategies (Spring only)</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 101/102</td>
<td>Introduction to Life Processes (Fall only)</td>
<td>3</td>
</tr>
<tr>
<td>UCOR 101</td>
<td>Thinking &amp; Writing Across the Curriculum (Fall or Spring)</td>
<td>3</td>
</tr>
<tr>
<td>COSC 030</td>
<td>Research and Information Skills Lab (Fall or Spring)</td>
<td>1</td>
</tr>
<tr>
<td>UCOR 102</td>
<td>Imaginative Literature and Critical Writing (Fall or Spring)</td>
<td>3</td>
</tr>
<tr>
<td>UCOR ***</td>
<td>Basic Philosophical Questions OR other University Core (Fall or Spring)</td>
<td>3</td>
</tr>
<tr>
<td>UCOR ***</td>
<td>Theology Core OR other University Core (Fall or Spring)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits: 31**

### Sophomore Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 201</td>
<td>Human Development in Health</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 202 W</td>
<td>Professional Nursing Communication</td>
<td>2</td>
</tr>
<tr>
<td>UPNS 203</td>
<td>Synergy in Nursing Practice: Healthy People I (CL)</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 207/208</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>UCOR ***</td>
<td>Creative Arts Core OR other University Core</td>
<td>3</td>
</tr>
</tbody>
</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 205</td>
<td>Health Assessment of Individuals and Community</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 211</td>
<td>Health Promotion</td>
<td>2</td>
</tr>
<tr>
<td>UPNS 212</td>
<td>Synergy in Nursing Practice: Healthy People II (CL)</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 209/210</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 203/204</td>
<td>Introductory Microbiology</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total credits: 17**

### Junior Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 305</td>
<td>Applied Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 306</td>
<td>Nursing Care of the Patient Experiencing Illness I</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 307</td>
<td>Synergy in Nursing Practice: Illness Across the Lifespan I (CL)</td>
<td>5</td>
</tr>
<tr>
<td>UPNS 308</td>
<td>Technologies in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 309</td>
<td>Pharmacology</td>
<td>3</td>
</tr>
</tbody>
</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 311</td>
<td>Applied Pathophysiology and Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 312</td>
<td>Nursing Care of the Patient Experiencing Illness II</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 314</td>
<td>Synergy in Nursing Practice: Illness Across the Lifespan II (CL)</td>
<td>5</td>
</tr>
<tr>
<td>UPNS 316 W</td>
<td>Community Health Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MATH 125</td>
<td>Fundamentals of Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits: 17**

### Senior Year

**FALL SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 407</td>
<td>Case Management</td>
<td>2</td>
</tr>
<tr>
<td>UPNS 408 W</td>
<td>Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 415</td>
<td>Collaborative Nursing Care and Systems Thinking</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 413</td>
<td>Synergy in Nursing Practice: Management of Chronic Illness Across the Lifespan (CL)</td>
<td>5</td>
</tr>
<tr>
<td>UCOR ***</td>
<td>Global Diversity Core OR other University Core</td>
<td>3</td>
</tr>
</tbody>
</table>

**SPRING SEMESTER**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 410</td>
<td>Professional Concepts and Issues</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 416</td>
<td>Synergy in Nursing Practice (CL)</td>
<td>7</td>
</tr>
<tr>
<td>UPNS 417</td>
<td>Role Preparation/NCLEX</td>
<td>1</td>
</tr>
<tr>
<td>UCOR ***</td>
<td>Social Justice Core OR other University Core</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total credits: 17**

**Total Credits: 130**

**Notes:**

- **BOLD** = Nursing course
- **ITALIC** = Science course
- **PLAIN** = University core course
- **(CL)** = Nursing clinical course
- **W** = Writing Intensive

A grade of “C” or better must be attained in all nursing and non-nursing courses, including electives and laboratory courses, in order to progress in the nursing curriculum.

A GPA of 2.5 is required by the end of the second semester of the freshman year in order to progress to the sophomore clinical courses and is the minimum acceptable GPA for the remainder of the program.

Revisions to courses and curricula are ongoing.

Revised 6/07
## NURSING COURSE DESCRIPTIONS

### UPNS 100 Health and Wellness  2 cr.
This course explores the models of health and wellness in both individual and community contexts. Students apply major health and wellness concepts to themselves and others. Students are introduced to health care systems from the consumer perspective.

### UPNS 103 Nutrition for Wellness  3 cr.
This course focuses on nutrition and the nursing role in health promotion for well individuals and groups throughout the lifespan. Emphasis is placed on nutrition assessment and intervention. Food needs for energy and the major nutrients are considered for the promotion of health.

### UPNS 104 Essentials of Professional Nursing  3 cr.
This course introduces the historical evolution of nursing as a profession. The frame of reference for the analysis develops from the characteristics of a profession. Included is an orientation to the legal and ethical basis of nursing practice in its present and emerging roles. Major elements of the nursing workforce and its challenges are examined.

### UPNS 105 Ways of Knowing in Nursing  3 cr.
This course introduces the ways nurses engage in critical thinking, promote the science of nursing, and emphasize the importance of caring. Inclusion of various ideas on how one comes to know helps students gain insight into their learning and prepares them to teach others. The art and science of nursing is presented through the Synergy Model that conceptualizes how nurse characteristics interact with patient needs. In this writing intensive course, emphasis is placed on evaluation of written and electronic resources. Writing intensive course.

### Pre-Session Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 140</td>
<td>Professional Development Seminar*</td>
<td>1</td>
</tr>
<tr>
<td>UPNS 141</td>
<td>Transcultural Responses &amp; Professional Communication in Health Care*</td>
<td>3</td>
</tr>
</tbody>
</table>

### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 242</td>
<td>Health Assessment in a Community Context</td>
<td>5</td>
</tr>
<tr>
<td>UPNS 243</td>
<td>Synergy in Nursing Practice: Healthy People</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 244</td>
<td>Nursing Skills and Technology</td>
<td>3</td>
</tr>
<tr>
<td>UPNS 240</td>
<td>Foundations of Evidence Based Practice</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 241</td>
<td>Human Development in Health Promotion</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Credits:** 24

### Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 340</td>
<td>Applied Patho and Nursing Care of the Patient Experiencing Illness I</td>
<td>5</td>
</tr>
<tr>
<td>UPNS 341</td>
<td>Synergy in Nursing Practice: Illness across the Lifespan I</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 342</td>
<td>Applied Patho and Nursing Care of Patient Experiencing Illness II</td>
<td>5</td>
</tr>
<tr>
<td>UPNS 343</td>
<td>Synergy in Nursing Practice: Illness across the Lifespan II</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Credits:** 18

### Summer Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 444</td>
<td>Preparation for Nursing Role</td>
<td>2</td>
</tr>
<tr>
<td>UPNS 440</td>
<td>Case Management and Systems Thinking in Collaborative Roles</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 442</td>
<td>Synergy in Nursing Practice: Chronic Illness across the Lifespan</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 441</td>
<td>Professional Concepts and Issues</td>
<td>4</td>
</tr>
<tr>
<td>UPNS 443</td>
<td>Synergy in Nursing Practice</td>
<td>4</td>
</tr>
</tbody>
</table>

**Curriculum Total: 60 credits**

* Pre-session seminars will require on-going work throughout the semester through online, Web-enhanced work and several additional scheduled class meeting times. Revised 2/08
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNS 106</td>
<td>Transcultural Responses in Health Care</td>
<td>3 cr.</td>
</tr>
<tr>
<td></td>
<td>This course introduces models of transcultural health care. Issues related</td>
<td></td>
</tr>
<tr>
<td></td>
<td>to the health care professional’s role in the delivery of culturally congruent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>health care are explored. Emphasis is placed on the assessment and analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of cultural diversity related to clinical practice. Interplay between models</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of transcultural care and other models of clinical practice are examined.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It provides the foundation for health assessment critical to nursing practice.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A systems approach is utilized to teach students to perform a physical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>assessment of the adult, child, pregnant woman and older adult. Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>learn to critically evaluate assessment findings and differentiate between</td>
<td></td>
</tr>
<tr>
<td></td>
<td>normal and alterations indicative of actual or potential health problems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community characteristics will be explored.</td>
<td></td>
</tr>
<tr>
<td>UPNS 107</td>
<td>Service Learning Strategies</td>
<td>1 cr.</td>
</tr>
<tr>
<td></td>
<td>This course prepares students for active and responsible community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>participation. Students will learn the skills, knowledge, and competencies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>necessary for this type of participation. Students learn the process of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reflection as a means of linking their service experience to course content</td>
<td></td>
</tr>
<tr>
<td></td>
<td>throughout the curriculum and recognizing the importance of service.</td>
<td></td>
</tr>
<tr>
<td>UPNS 201</td>
<td>Human Development in Health</td>
<td>3 cr.</td>
</tr>
<tr>
<td></td>
<td>Exploration of human development from conception through death. Emphasis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>is placed on an individual’s psychological, cognitive, psychosocial, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>spiritual development within the context of the family, community, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>culture. Health promotion and illness prevention practices are discussed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>relative to each age group throughout the lifespan.</td>
<td></td>
</tr>
<tr>
<td>UPNS 202</td>
<td>Professional Nursing Communication</td>
<td>2 cr.</td>
</tr>
<tr>
<td></td>
<td>Examination of communication as a complex dynamic foundation of all</td>
<td></td>
</tr>
<tr>
<td></td>
<td>interaction with special attention to the nurse-patient relationship.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students explore major communication theories and principles of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>therapeutic communication as used throughout the life cycle. Principles of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>group dynamics, concepts of collaboration, and conflict resolution are</td>
<td></td>
</tr>
<tr>
<td></td>
<td>included. Writing intensive course.</td>
<td></td>
</tr>
<tr>
<td>UPNS 203</td>
<td>Synergy in Nursing Practice: Healthy People I</td>
<td>2 cr.</td>
</tr>
<tr>
<td></td>
<td>This initial clinical course used the Synergy Model to identify the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>characteristics of individuals in a variety of community settings. These</td>
<td></td>
</tr>
<tr>
<td></td>
<td>clinical learning experiences provide the opportunity to apply concepts of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>communication, cultural diversity, growth and development and nutrition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaching of health promotion and wellness strategies will be included.</td>
<td></td>
</tr>
<tr>
<td>UPNS 205</td>
<td>Health Assessment of Individuals and Community</td>
<td>4 cr.</td>
</tr>
<tr>
<td></td>
<td>This course uses the Synergy Model to assess the characteristics of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>individuals across the life span.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pathological conditions that have a higher incidence in specific</td>
<td></td>
</tr>
<tr>
<td></td>
<td>developmental stages are the context.</td>
<td></td>
</tr>
<tr>
<td>UPNS 211</td>
<td>Health Promotion</td>
<td>2 cr.</td>
</tr>
<tr>
<td></td>
<td>This course introduces concepts specific to the promotion of health and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>prevention of illness. Within the context of the Synergy Model, threats to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the health of individuals and groups within the community will be</td>
<td></td>
</tr>
<tr>
<td></td>
<td>analyzed. Common developmental deviations from health will be used as a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>framework.</td>
<td></td>
</tr>
<tr>
<td>UPNS 212</td>
<td>Synergy in Nursing Practice: Healthy People II</td>
<td>2 cr.</td>
</tr>
<tr>
<td></td>
<td>This clinical course uses the Synergy Model to identify the characteristics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of individuals in a variety of community settings. These clinical learning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>experiences provide a context for the exploration of threats to the health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of the individual and the community. Appropriate nursing interventions are</td>
<td></td>
</tr>
<tr>
<td></td>
<td>implemented to promote health and prevent disease. Community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>characteristics are assessed.</td>
<td></td>
</tr>
<tr>
<td>UPNS 305</td>
<td>Applied Pathophysiology</td>
<td>3 cr.</td>
</tr>
<tr>
<td></td>
<td>This course explores the mechanisms involved in the pathogenesis of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>various body systems throughout the lifespan. Mechanisms associated with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pathogenesis are contrasted with the similar mechanisms that support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>normal health. The relationship between pathogenesis and patient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>characteristics will be explored. The underlying molecular, cellular, and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>histological deviations from homeostasis and the mechanisms that disrupt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the optimal state will also be examined. Pathological conditions that</td>
<td></td>
</tr>
<tr>
<td></td>
<td>have a higher incidence in specific developmental stages are the context.</td>
<td></td>
</tr>
<tr>
<td>UPNS 306</td>
<td>Nursing Care of the Patient Experiencing Illness I</td>
<td>3 cr.</td>
</tr>
<tr>
<td></td>
<td>This course extends the use of the Synergy Model to patients who are ill.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Offered in conjunction with pathophysiology, this course emphasizes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nursing interventions to promote safe passage in the health care system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing knowledge of complex concepts relevant to the integrity of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>individuals confronting physical illness throughout the life span is</td>
<td></td>
</tr>
<tr>
<td></td>
<td>integrated. Pathological conditions that have a higher incidence in specific</td>
<td></td>
</tr>
<tr>
<td></td>
<td>developmental stages are the context.</td>
<td></td>
</tr>
</tbody>
</table>
UPNS 307 Synergy in Nursing Practice: Illness Across the Lifespan I 5 cr.
This clinical course focuses on the provision of care for patients experiencing illness. Attention is focused on the nursing characteristics inherent in the synergy model. Clinical settings will be selected across a broad spectrum of sites emphasizing in-patient environments. Students implement nursing interventions based on plans that reflect clinical judgment, caring practices, and a research base.

UPNS 308 Technologies in Nursing 3 cr.
This course uses the Synergy Model as the basis for the development of nurse competencies in specific patient care procedures. Emerging technology for use in patient care is included.

UPNS 309 Pharmacology 3 cr.
This course will cover the basic principles of pharmacology and drug therapy necessary for general nursing practice. Concepts of drug effectiveness, pharmacokinetics, mechanism of action, and drug interaction will be examined. In most cases, the emphasis will be on the pharmacological action of drugs on specific organ systems. Periodically, drugs will be discussed in relation to their clinical use in the treatment of specific disease conditions.

UPNS 311 Applied Pathophysiology and Psychopathology 3 cr.
This course completes the exploration of the mechanisms involved in the pathogenesis of various body systems as well as psychopathology throughout the lifespan. The relationship between psychopathology and patient characteristics is explored. Psychopathological conditions that have a higher incidence in specific developmental stages provide the context.

UPNS 313 Nursing Care of the Patient Experiencing Illness II 3 cr.
This course extends the concepts from UPNS 306 Nursing Care of the Patient Experiencing Illness I to the management of nursing care issues with patients experiencing multiple systems failure in critical situations. Nursing knowledge is explored to foster safe passage for these critically ill patients to recovery or to a comforting closure. Severe psychopathological clinical situations are also examined. The developmental approach is continued.

UPNS 314 Synergy in Nursing Practice: Illness Across the Lifespan II 5 cr.
This clinical course focuses on the provision of care for patients experiencing critical illness with multiple complications or systems failure. Attention is focused on the nursing characteristics inherent in the Synergy Model as these relate to highly complex situations. Experiences are also provided in clinical situations where patients are experiencing profound psychopathology which calls for nursing interventions. Clinical settings will reflect the critical care emphasis. Students implement nursing interventions based on plans that reflect clinical judgment, caring practices, and a research base.

UPNS 316 Community Health Concepts 3 cr.
This course extends the Synergy Model to view the community as the recipient of care. Building upon previous community based experiences the emphasis progresses to viewing the characteristics of the community. Strategies are developed to promote the health of the community. Writing intensive course.

UPNS 407 Case Management 2 cr.
Students explore models of case management within the context of population based health care. The collaborative role of the case manager is examined within the framework of health care delivery systems, quality, cost/finances, legal and ethical issues.

UPNS 408 Nursing Research 3 cr.
This course emphasizes the importance of evidence-based research to support clinical nursing practice. The steps of the research process are explored as they are applied to clinical practice. Quantitative and qualitative methodologies are included. Writing intensive course.

UPNS 410 Professional Concepts and Issues 4 cr.
Students synthesize previous learning and develop knowledge and skills relevant to leadership, management, and the professional role of the nurse. Concepts of power, change, decision-making, and delegation form the foundation for exploring leadership styles and functions. Current issues in nursing and health care, including political, legal and ethical accountability are analyzed. Trends and issues and their interrelationship are explored in order to assist the student to assume professional responsibility and involvement in issues affecting nursing and the delivery of health care.
UPNS 413 Synergy in Nursing Practice: Management of Chronic Illness Across the Lifespan 5 cr.
This course provides for the clinical application of population based health care parameters. The multidimensional needs of patients with chronic illness further enables the design of interventions that require assessment of the system of services available to patients, and the role of the nurse in coordinating and tracking interdisciplinary and collaborative strategies. The use of the Synergy Model is continued with emphasis moving to the development of nursing characteristics as these relate to the nurse’s role within the broader health care community to meet patients’ needs.

UPNS 415 Collaborative Nursing Care and Systems Thinking 4 cr.
This course incorporates multiple aspects of the Synergy Model as the nursing competencies are more aligned with patient characteristics. The multidimensional problems associated with chronic conditions provide a context for the development of collaboration and systems thinking. Principles of rehabilitation and demands for long term care are explored.

UPNS 416 Synergy in Nursing Practice 7 cr.
This course provides a capstone clinical learning opportunity designed with attention to individual student learning needs and interests. Experiences are provided across a broad spectrum of clinical arenas to assure the acquisition of knowledge essential for entry to professional nursing practice. The Synergy Model is used to highlight the various dimensions of nurse characteristics in interaction with an array of patient characteristics.

UPNS 417 Role Preparation/NCLEX 1 cr.
This course serves as an NCLEX-RN/CAT examination preparation course. Students work individually as well as in cooperative learning groups. Content focuses on test-taking strategies, self-talk, cognitive restructuring, and test anxiety as it relates to NCLEX-RN preparation. During the course students will take a comprehensive NCLEX readiness examination. Based on results of the comprehensive assessment, faculty and students will develop an individualized prescriptive study plan for NCLEX.

Second Degree BSN Program
Course Descriptions:

UPNS 140 Professional Development Seminar 1 cr.
This course establishes a foundation for future study in the nursing curriculum for the adult learner with a baccalaureate degree and life experiences. The course strives to assist the student to begin the socialization process necessary to enter and practice nursing as a profession. The student is introduced to nursing as an academic discipline and human science profession according to the philosophy and conceptual framework of the School of Nursing. The concepts of health promotion and illness prevention will be examined. Professional nursing is explored from a historical perspective as it relates to present and emerging roles. The role of the nurse is examined as a vehicle for health and healing for individuals, families, and communities. Nursing practice, nursing roles, nursing image, nursing education, and nursing research will serve as the basis for dialogue of current and future nursing and health care issues.

UPNS 141 Transcultural Responses and Professional Communication in Health Care 3 cr.
The course investigates the significance of transcultural health care and examines communication as the foundation of all human interaction. Models, theories and approaches of transcultural nursing will be presented to articulate the applicability to nursing practice. Principles of therapeutic communication and major communication theories will be utilized as a means of promoting therapeutic relationships in nursing. This course will emphasize the importance of using communication in the promotion of culturally congruent care.

UPNS 240 Foundations of Evidence-Based Practice 4 cr.
This course orients the student to the ways nurses engage in critical thinking, promotes the science of nursing, and emphasizes the importance of caring. Inclusion of various ideas on how one comes to know, helps students to gain insight into their learning and prepares them to teach others. The art and science of nursing is presented through the Synergy Model which conceptualizes how nurse characteristics interact with patient needs. The course also emphasizes the importance of evidence-based research to support clinical nursing practice. The steps of the research process are explored as they are applied to clinical practice. Quantitative and qualitative methodologies are included.
UPNS 241 Human Development in Health Promotion 5 cr.
The student explores human development from conception through death. Emphasis is placed on an individual’s psychological, cognitive, psychosocial, and spiritual development within the context of the family, community, and culture. Health promotion concepts and illness prevention practices are discussed within the context of the Synergy Model of Patient Care and with specific reference to health care disparities.

UPNS 242 Health Assessment in a Community Context 5 cr.
This course uses the Synergy Model to assess the characteristics of individuals across the life span. It provides the foundation for health assessment critical to nursing practice. A systems approach is utilized to teach students to perform a physical assessment of the adult, child, pregnant woman, and older adult. Students learn to critically evaluate assessment findings and differentiate between normal and alterations indicative of actual or potential health problems. Community characteristics will be explored and strategies developed to promote the health of the community.

UPNS 243 Synergy in Nursing Practice: Healthy People 3 cr.
This initial clinical course uses the Synergy Model of Patient Care to identify the characteristics of individuals in a variety of community settings. These clinical learning experiences provide the opportunity to apply concepts of communication, cultural diversity, growth and development, and nutrition through teaching of health promotion, disease prevention and wellness strategies. These clinical learning experiences provide a context for the exploration of threats to the health of the individual and the community. Appropriate nursing interventions are implemented to promote health and prevent disease. Community characteristics are assessed.

UPNS 244 Nursing Skills and Technology 3 cr.
This course uses the AACN Synergy Model of Patient Care as the basis for the development of nurse competencies in specific patient care procedures. Emerging technology for use in patient care is included.

UPNS 340 Applied Pathophysiology and Nursing Care of the Patient Experiencing Illness I 5 cr.
This course explores the mechanisms involved in the pathogenesis of various body systems throughout the lifespan, contrasting them with similar mechanisms that support normal health. The underlying molecular, cellular, and histological deviations from homeostasis and the mechanisms that disrupt this optimal state will also be examined. Pathological conditions that have a higher incidence in specific developmental stages are the context. The relationship between pathogenesis and patient characteristics will be explored as the Synergy Model of Patient Care is extended to patients who are ill. Emphasis is on nursing interventions to promote safe passage through the health care system.

UPNS 341 Synergy in Nursing Practice: Illness Across the Lifespan I 4 cr.
This clinical course focuses on the provision of care for patients experiencing illness. Attention is focused on the nursing characteristics inherent in the Synergy Model. Clinical settings will be selected across a broad spectrum of sites emphasizing in-patient environments. Students implement nursing interventions based on plans that reflect clinical judgment, caring practices, and a research base.

UPNS 342 Applied Pathophysiology and Nursing Care of the Patient Experiencing Illness II 5 cr.
This course completes the exploration of the mechanisms involved in the pathogenesis of various body systems as well as psychopathology throughout the lifespan. The relationship between psychopathology and patient characteristics are analyzed. Severe psychopathological clinical situations are also examined. The management of nursing care issues with patients experiencing multiple systems failure in critical situations is explored. Nursing knowledge is utilized to foster safe passage for these critically ill patients to recovery or to a comforting closure.

UPNS 343 Synergy in Nursing Practice: Illness Across the Lifespan II 4 cr.
This clinical course focuses on the provision of care for patients experiencing critical illness with multiple complications or systems failure. Attention is focused on the nursing characteristics inherent in the Synergy Model as these relate to highly complex situations. Experiences are also provided in clinical situations where patients are experiencing profound psychopathology that calls for nursing
interventions. Clinical settings will reflect the critical care emphasis. Students implement nursing interventions based on plans that reflect clinical judgment, caring practices, and a research base.

UPNS 440 Case Management and Systems Thinking in Collaborative Roles 4 cr.
This course incorporates multiple aspects of the Synergy Model of Patient Care as the nursing competencies are more aligned with patient characteristics. The multidimensional problems associated with chronic conditions provide a context for the development of collaboration and systems thinking and the expanding role of the nurse. Principles of rehabilitation and demands for long term care are explored. Models of case management and the role of the case manager is examined within the framework of the health care delivery systems, quality, cost/finances, legal and ethical issues.

UPNS 441 Professional Concepts and Issues 4 cr.
Students synthesize previous learning and develop knowledge and skills relevant to leadership, management, and the professional role of the nurse. Concepts of power, change, decision-making, and delegation form the foundation for exploring leadership styles and functions. Current issues in nursing and health care, including political, legal and ethical accountability are analyzed. Trends and issues and their interrelationship are explored in order to assist the student to assume professional responsibility and involvement in issues affecting nursing and the delivery of health care.

UPNS 442 Synergy in Nursing Practice: Chronic Illness Across the Lifespan 4 cr.
This course provides for the clinical application of population based health care parameters. The multidimensional needs of patients with chronic illness further enables the design of interventions that require assessment of the system of services available to patients, and the role of the nurse in coordinating and tracking interdisciplinary and collaborative strategies. The use of the Synergy Model of Patient Care is continued with emphasis moving to the development of nursing characteristics as these relate to the nurse’s role within the broader health care community to meet patients’ needs.

UPNS 443 Synergy in Nursing Practice 4 cr.
This course provides a capstone clinical learning opportunity designed with attention to individual student learning needs and interests. Experiences are provided across a broad spectrum of clinical arenas to assure the acquisition of knowledge essential for entry to professional nursing practice. The Synergy Model of Patient Care is used to highlight the various dimensions of nurse characteristics in interaction with an array of patient characteristics.

UPNS 444 Preparation for Nursing Role 2 cr.
This course serves as an NCLEX-RN/CAT examination preparation course. Students work individually as well as in cooperative learning groups. Content focuses on test-taking strategies, self-talk, cognitive restructuring, and test anxiety as it relates to NCLEX-RN preparation. During the course students will take a comprehensive NCLEX readiness examination. Based on the results of the comprehensive assessment, faculty and students will develop an individualized prescriptive study plan for NCLEX.

Effective Catalog
The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or a contract between individual students and the School. The School of Nursing reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled, students should consult on a regular basis with their Faculty Mentor and/or Academic Advisor for specific information regarding academic policies pertaining to their respective program.
Mylan School of Pharmacy

Administration:

Dean of the Mylan School of Pharmacy and the Graduate School of Pharmaceutical Sciences:
J. Douglas Bricker, Ph.D.

Associate Dean for Professional Programs:
Thomas J. Mattei, Pharm.D.

Associate Dean for Research and Graduate Programs:
James K. Drennen, III, Ph.D.

Assistant Dean for Student Services:
Stephen C. Morrison, M.A.

Division Head, Pharmaceutical Sciences:
Christopher K. Surratt, Ph.D.

Division Head, Clinical, Social, and Administrative Sciences:
David J. Tipton, Ph.D.

MYLAN SCHOOL OF PHARMACY
PROFESSIONAL DEGREE PROGRAM

The School of Pharmacy is in its fourth quarter-century of providing quality pharmacy education. The first Pharmacy class matriculated in September 1925 under the leadership of the founding dean Dr. Hugh C. Muldoon. In May 2000, the Mylan School of Pharmacy graduated the first entry-level Doctor of Pharmacy class. The School of Pharmacy continues to educate pharmacists who are making important contributions as health care practitioners.

The Mylan School of Pharmacy offers a six-year on-campus Doctor of Pharmacy program of study and a post-baccalaureate weekend pathway leading to the Doctor of Pharmacy. The full-time on-campus Pharm.D. is configured in a two-year preprofessional and four-year professional curricular format. The Faculty of the School has developed a competency-based, outcomes-oriented curriculum that prepares future generalist pharmacy practitioners to provide quality pharmaceutical care to patients. The new professional curriculum emphasizes critical thinking, ethical and spiritual values, and an understanding of personal, social, and professional responsibilities. Integrated studies in the biological, chemical, pharmaceutical, administrative, behavioral, and clinical sciences are taught, using traditional and innovative instructional techniques.

It includes a multi-year, introductory-to-advanced level experiential education component. Opportunities are provided for additional preparation in community pharmacy practice, health-system practice, geriatrics, management, industrial pharmacy, and for graduate study and research.

Pharmacists are one of the most visible, accessible, and trusted health care professionals. The demand for pharmacy professionals has increased substantially in recent years due to the rapid growth of health care services, the pharmaceutical industry, and the geriatric population in the United States. With the increase in the number of prescription medications and the use of OTC and other health care products, the pharmacist’s role in drug therapy decision-making and patient counseling is critical. Pharmacists, as an essential component of the current health care environment, collaborate with other health care practitioners to ensure optimal patient therapy.

Pharmacy is characterized by a diversity of career options and almost limitless opportunities for licensed practitioners. In the United States, the vast majority of pharmacists practice in community and hospital/institutional settings. Pharmacists work in home health, long-term and managed care facilities; in nuclear pharmacy and drug information/poison control centers; in the military and public health services; with government agencies, professional pharmacy associations, and health insurance companies; with mail order and Internet pharmacy services. Pharmacy practitioners are employed in the pharmaceutical industry in pharmacy sales and marketing, as medical liaisons, and in manufacturing, research and development. With advanced degrees and other professional degrees, pharmacists may obtain research and teaching positions in academia and exciting careers in other professional fields. Duquesne Pharmacy graduates are pursuing rewarding careers in all of the aforementioned areas.

Pharmacy offers a flexible work environment and a variety of geographical locations from large urban regions to small rural communities. Success as a pharmacy practitioner is dependent on a combination of education and personal abilities and talents, work ethic, and imagination.

SUMMARY STATEMENT OF SCHOOL OF PHARMACY VISION, MISSION AND GOALS

The School of Pharmacy is committed to providing excellence in pharmaceutical education.

The mission of the School of Pharmacy and the Graduate School of Pharmaceutical Sciences is to prepare students for careers in the profession of pharmacy. Consistent with the University Mission,
the values that guide the School are an appreciation for ethical and spiritual values, and a sense of personal, professional, and social responsibility. The goals of the School of Pharmacy are:

- To prepare graduates of the professional program to apply the pharmaceutical, social, administrative, and clinical sciences to develop pharmaceutical care in a manner which promotes positive health outcomes.
- To provide programs, services and resources that foster an environment for the personal and professional growth of students, alumni, practitioners and faculty.

The goals of the Graduate School of Pharmaceutical Sciences are:

- To prepare graduates of the Graduate School of Pharmacy to serve as pharmaceutical scientists and educators, and making contributions to the body of scientific knowledge through research and scholarship.

Application and Admissions
Qualified high school students are accepted into the preprofessional phase of the Doctor of Pharmacy program. For admission directly from high school, prospective preprofessional Pharmacy students must apply through:

Duquesne University Office of Admissions
Administration Building
Pittsburgh, PA 15282

Progression from the preprofessional phase to the professional phase of the Pharm.D. program will be contingent upon the successful completion of all preprofessional course work and a competitive School of Pharmacy-based application process. The School of Pharmacy will conduct this selection process during the spring semester of the second preprofessional year of the program.

A limited number of qualified transfer students may be admitted to the first professional year of the Pharm.D. program. Consideration of the transfer students is contingent on the availability of a position in a particular first professional year class and on an evaluation of completed prior course work. For the Post-baccalaureate Weekend Pharm.D. pathway applicants, an earned baccalaureate degree from an accredited college or university is required.

The School of Pharmacy admissions committee will review the application credentials required of all applicants, all pathways, for the first professional year for the Doctor of Pharmacy program. The required application credentials include:

1. Official academic transcripts of preprofessional course work (minimum of C grade in each of the courses in the preprofessional curriculum);
2. PCAT exam scores (minimum of 375 to apply);
3. Personal interview evaluations;
4. Written evidence of community and professional involvement.

The application deadline for applicants for the professional phase is October 1.

For further information, contact:

Admissions and Recruitment Coordinator
Duquesne University
Mylan School of Pharmacy
Bayer Learning Center – 3rd Floor
Pittsburgh, PA 15282

Prospective transfer students from other colleges and universities must apply to:

Office of Admissions
Duquesne University
Administration Building
Pittsburgh, PA 15282

PROGRAMS OF STUDY

ACCREDITATION
The Doctor of Pharmacy (Pharm.D.) degree program is accredited by the Accreditation Council for Pharmacy Education (ACPE), 20 North Clark Street, Suite 2500, Chicago, IL 60602-5109, 312-664-3575; FAX 312-664-4652.

ACPE (Accreditation Council for Pharmacy Education) has an obligation to assure itself that any institution which seeks or holds a preaccreditation or accreditation status for its professional program(s) conducts its affairs with honesty and frankness. Complaints from other institutions, students, faculty, or the public against a college or school of pharmacy, including tuition and fee policies, and as related to ACPE standards, policies or procedures, shall be placed in writing in detail by the complainant and submitted to the ACPE office. The complaint shall be submitted to the institution for response. Requests for confidentiality shall be respected to the extent any such information is not necessary for the resolution of the complaint. For further information, consult ACPE at www.acpe-accredit.org.
The Pharm.D. degree program is accredited by the Pennsylvania State Board of Pharmacy. The University is accredited by the Middle States Association of Colleges and Secondary Schools.

**DOCTOR OF PHARMACY**

**PREPROFESSIONAL PHARMACY CURRICULUM**

**Duquesne University**

**Course Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Professional Pharmacy</td>
<td></td>
</tr>
<tr>
<td>Development Seminar</td>
<td>2</td>
</tr>
<tr>
<td>Biology I and II (111, 111L, and 112, 112L)</td>
<td>8</td>
</tr>
<tr>
<td>General Chemistry I and II (121 and 122)</td>
<td>10</td>
</tr>
<tr>
<td>Organic Chemistry I and II (211 and 212)</td>
<td>8</td>
</tr>
<tr>
<td>Calculus I (115)</td>
<td>4</td>
</tr>
<tr>
<td>Essential Physics (200)</td>
<td>4</td>
</tr>
<tr>
<td>Thinking and Writing Across the Curriculum (101)</td>
<td>3</td>
</tr>
<tr>
<td>Critical Writing (102)</td>
<td>3</td>
</tr>
<tr>
<td>Theology (Core)</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy (Core)</td>
<td>3</td>
</tr>
<tr>
<td>Ethics (Core)</td>
<td>3</td>
</tr>
<tr>
<td>Creative Arts (Core)</td>
<td>3</td>
</tr>
<tr>
<td>Social Justice - Economics (121) (Core)</td>
<td>3</td>
</tr>
<tr>
<td>Global Diversity (Core)</td>
<td>3</td>
</tr>
<tr>
<td>Faith and Reason (Core)</td>
<td>3</td>
</tr>
<tr>
<td>Computer/Info Literacy (030) (Core)</td>
<td>1</td>
</tr>
<tr>
<td>Biostatistics (225)</td>
<td>3</td>
</tr>
<tr>
<td>Psychology (103)</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total                                           | 70        |

**Non-Duquesne University (Transfer) Course Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Biology with Laboratory</td>
<td>8</td>
</tr>
<tr>
<td>General Chemistry with Laboratory</td>
<td>8</td>
</tr>
<tr>
<td>Organic Chemistry with Laboratory</td>
<td>8</td>
</tr>
<tr>
<td>Calculus (for science or math majors)</td>
<td>4</td>
</tr>
<tr>
<td>General Physics with Laboratory</td>
<td>8</td>
</tr>
<tr>
<td>English Composition and Literature</td>
<td>3</td>
</tr>
<tr>
<td>English Literature</td>
<td>3</td>
</tr>
<tr>
<td>Theology</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>Global Diversity</td>
<td>3</td>
</tr>
<tr>
<td>Creative Arts</td>
<td>3</td>
</tr>
<tr>
<td>Faith and Reason</td>
<td>3</td>
</tr>
<tr>
<td>Economics (Social Justice)</td>
<td>3</td>
</tr>
<tr>
<td>Literacy (Computer Applications)</td>
<td>3</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Biostatistics</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total                                           | 72        |

**PROFESSIONAL PHARMACY CURRICULUM 2008-2010**

### First Professional Year

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry I and II and Lab</td>
<td>6</td>
</tr>
<tr>
<td>Human Physiology and Pathology I and II and Lab</td>
<td>9</td>
</tr>
<tr>
<td>Immunology and Clinical Microbiology and Lab</td>
<td>3</td>
</tr>
<tr>
<td>Pharmaceutical Principles and Drug Delivery Systems I and II</td>
<td>6</td>
</tr>
<tr>
<td>Pharmaceutical Principles Lab I</td>
<td>1</td>
</tr>
<tr>
<td>American Health Care System</td>
<td>2</td>
</tr>
<tr>
<td>Pharmaceutical Law and Ethics</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacy Practice I: Pharmaceutical Care</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacy Practice II: Communication and Counseling Skills</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacy Calculations</td>
<td>2</td>
</tr>
<tr>
<td>Introductory Experiential Education I</td>
<td>1</td>
</tr>
</tbody>
</table>

| Total                                           | 36        |

### Second Professional Year

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical Sciences and Therapeutics VIII (Pharmacology, Medicinal Chemistry, CNS Disorders I)</td>
<td>5</td>
</tr>
<tr>
<td>Biomedical Sciences and Therapeutics IX (CNS Disorders II)</td>
<td>5</td>
</tr>
<tr>
<td>Biopharmaceutics</td>
<td>3</td>
</tr>
<tr>
<td>Pharmacokinetics/Clinical Pharmacokinetics</td>
<td>4</td>
</tr>
<tr>
<td>Biomedical Sciences and Therapeutics V (Chemotherapy &amp; Infectious Diseases)</td>
<td>4</td>
</tr>
<tr>
<td>Pharmaceutical Principles Lab II</td>
<td>1</td>
</tr>
<tr>
<td>Pharmaceutical Principles Lab III</td>
<td>1</td>
</tr>
<tr>
<td>Pharmacy Practice III: Self Care/Home Diagnosis Testing</td>
<td>4</td>
</tr>
<tr>
<td>Pharmacy Practice IV: Physical/Clinical Assessment</td>
<td>4</td>
</tr>
<tr>
<td>Pharmacy Service Learning Experience</td>
<td>1</td>
</tr>
<tr>
<td>Introductory Experiential Education II</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total                                           | 36        |

### Third Professional Year

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Sem. Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical Sciences and Therapeutics II (Inflammation/Pain/Rheumatology/Gastroenterology)</td>
<td>4</td>
</tr>
<tr>
<td>Biomedical Sciences and Therapeutics III (Cardiovascular/Renal)</td>
<td>5</td>
</tr>
<tr>
<td>Biomedical Sciences and Therapeutics IV (Endocrinology/Nutrition)</td>
<td>4</td>
</tr>
<tr>
<td>Biomedical Sciences and Therapeutics VI (Hematology/Oncology/Transplant/Pulmonary)</td>
<td>3</td>
</tr>
<tr>
<td>Pharmacy Management Concepts</td>
<td>2</td>
</tr>
<tr>
<td>Managerial/Professional Behavior</td>
<td>2</td>
</tr>
<tr>
<td>Advanced Law and Ethics Applications</td>
<td>2</td>
</tr>
</tbody>
</table>

| Total                                           | 72        |
Pharmacy Practice V: Clinical Pharmacy
   Services/Pharmacoeconomics .........................3
Pharmacy Practice VI:
   Drug Literature Evaluation ........................2
Electives ......................................................9
   .................................................................36
Fourth Professional Year
   Sem. Hrs.
Advanced Experiential Education I-VII .............28
Immunization Theory and Practice ......................1
Dyslipidemia Management ................................1
Optional Electives ........................................(6)
   .................................................................36
Professional Electives
Herbal Remedies ...........................................3
Alternative/Complementary Therapies .................3
Dental Therapeutics and Pharmaceutical Care ..........3
Independent Study and Research .......................1-4
Pharmacy and Health Systems Informatics ..........3
Issues in Women’s Health ................................2
Drug-Induced Diseases ...................................2
Selected Topics in Drug Development .................2
Health Care and Religion ................................2
Drugs of Abuse ..............................................3
Palliative Care ..............................................2
Medication Errors: Recovery, Response, and Repair .................................2
Men’s Health Issues .......................................2
Personal Financial Planning .............................2
Human Gene Therapy .......................................3
General Pediatrics and Neonatology
   Pharmacotherapy .........................................3
Drug Abuse Prevention/Education .....................2
Clinical Preparation for Community Pharmacy
   Practice .....................................................2
Seminar in Current Practice Guidelines
   in Ambulatory Care .....................................2
Introduction to Epidemiology ..........................3
Critical Care Therapeutics ..............................3
Optional Experimental Education .....................4
Manufacturing Pharmacy and Lab ......................4
Regulatory Aspects of Industrial Practice ..........2
Pharmaceutical Formulation and
   Development and Lab ...................................4
Exploratory Data Analysis ..............................3
Errors and Assumptions in Pharmacokinetics/
   Pharmacodynamics ......................................3
Spectral Methods ..........................................3
Chemometrics ...............................................3
Clinical Toxicology ........................................3

For Geriatrics Concentration: 6 credits required
Selected Topics in Geriatrics-required ................3
Pharmacy in Long Term Care-required ...............3
Elective Experiential Education Rotations
   in Geriatrics (included in 28 credits Adv EE) (8)

For Pharmacy Management Concentration:
   8 credits required
Marketing and Customer Service-required ..........2
Health Care Financial Management-required .......2
Managed Care Principles and Policies ...............2
Social and Behavioral Aspects of Pharmacy .......2
Research Methods in Pharmacy Administration .3
Health Care Economics ....................................3
Patient-Reported Health Outcomes ....................3
Pharmaceoeconomical Evaluations-required ..........2/3

For Pharmaceutical Research Concentration:
   12 credits required
Pharmaceutical Sciences:
   Independent Study and Research ....................4
   Seminar .......................................................2
Elective courses (approved by mentor) .............6
Pharmaceutical Administration:
   Independent Study and Research ....................2
   Seminar .......................................................1
Elective courses (approved by mentor) .............9

Courses in the College of Liberal Arts and other
Schools of the University are approved as electives.

The School of Pharmacy offers combined degree
programs: Pharm.D. (with the B.S. in Pharmaceutical
Sciences)/M.S. and Ph.D. in Pharmaceutical
Sciences and Pharm.D./MBA in conjunction with
the Graduate School of Business Administration.
Consult the appropriate program guidelines for
detailed information.

The faculty of the School of Pharmacy may
require Pharmacy student attendance at other semi-
nars and special programs, in particular, a Chemical
Dependency workshop and CPR/Basic First Aid,
which are requirements for graduation.

The material contained herein is subject to
change from time to time and this publication can-
not be considered an agreement or contract between
individual students and the School/University.

The faculty of the Mylan School of Pharmacy and
the Graduate School of Pharmaceutical Sciences
reserves the right to alter or amend the terms, con-
ditions, and requirements herein, and to eliminate
programs as necessary.

Refer to the Mylan School of Pharmacy
Doctor of Pharmacy and the Graduate School of
Pharmaceutical Sciences catalogues online at
www.pharmacy.duq.edu for additional
specific information on the Doctor of Pharmacy
and graduate degree programs.
John G. Rangos, Sr. School of Health Sciences

Administration:

Dean:
Gregory H. Frazer, Ph.D.

Director of Student and Alumni Services:
Deborah L. Durica, B.S.P.S.

Director of Budget and Management:
Denise M. Dinwiddie, B.S.P.S.

HISTORY
On January 29, 1990, Dr. John E. Murray, Jr., then President of Duquesne University, announced that the John G. Rangos, Sr. School of Health Sciences was being created to “graduate professionals who will provide assistance to people in maintaining their physical well-being. It will make them more self-sufficient physically and provide great hope for their futures. It meets an overwhelming societal need, and it enlarges opportunities for students at Duquesne. In serving the citizens of Western Pennsylvania and our students, this initiative is precisely in accordance with the purposes of Duquesne University.” On March 18, 1991, Mr. John G. Rangos, Sr. (President and Chief Executive Officer of Chambers Development Company, Inc.; Pittsburgh-based Chambers Development Company, Inc.; The John G. Rangos Charitable Foundation; and the Chambers Development Charitable Foundation, made a major gift to Duquesne University in support of the School of Health Sciences. In recognition of that gift, Dr. Murray announced the School would be named John G. Rangos, Sr. School of Health Sciences (RSHS).

MISSION
The Rangos School of Health Sciences faculty will educate students to be excellent health science professionals and leaders in their field who respect the uniqueness of their patients/clients. In the spirit of Duquesne University, moral, ethical and spiritual values support the scientific and philosophic underpinnings of all Rangos School of Health Sciences curricula. Students will be provided with opportunities and experiences to foster the development of comprehensive knowledge for practice in health care, education, and other professional settings. This knowledge will support advanced graduate education and scholarship. Graduates from the Rangos School of Health Sciences will be culturally-competent health science professionals who demonstrate competence, leadership, expertise, and a profound moral/ethical respect for their patients/clients, professional colleagues, and the general public.

PHILOSOPHY
The Rangos School of Health Sciences was founded in concert with the educational philosophy and objectives of Duquesne University. Students are exposed to a broad liberal arts education with emphasis on understanding the scientific, theoretical and theological constructs of the world. Academic programs in the Rangos School of Health Sciences emphasize scientific theories that support the skilled ethical practice of the various professions, coupled with a strong appreciation and understanding of spiritual values. To prepare students to succeed in diverse employment settings, the Rangos School of Health Sciences instills in-depth practical and theoretical knowledge of health sciences, enhanced by a rich infusion of moral, ethical and spiritual values. Through this preparation, students will become cognizant of the needs of their patients/clients, their colleagues, and the settings in which they practice. Students will develop an understanding of the necessity for on-going research and are prepared to advance the bodies of knowledge in their respective professions through their research efforts. The ultimate goal of the educational programs within the Rangos School of Health Sciences is to educate outstanding health science professionals and citizens capable of explaining, investigating, and delivering the highest level of service with kindness, dignity, responsibility, and respect.

ACADEMIC PROGRAMS AND DEGREES

Bachelor’s Degree Programs
The RSHS offers four-year bachelor’s degree programs in athletic training (B.S. in Athletic Training) and health management systems (B.S. in Health Management Systems), which follow a traditional curricular design. The academic model for these programs is two years of liberal arts and science requirements followed by two years of professional education.

Entry-Level Master’s Degree Programs
The RSHS offers five-year entry-level master’s degree programs in occupational therapy (M.S.), physician assistant (M.P.A.) and speech-language pathology (M.S.). Health management systems students may opt to complete a five-year, entry-level master’s degree program. The academic
model for occupational therapy, physician assistant, and speech-language pathology is three years of liberal arts and science requirements followed by two years of professional education. The occupational therapy program also has an entry-level two-year post-baccalaureate program that begins in January each year. Students in the speech-language pathology program have the option of completing a master’s thesis. Typically, professional-level education occurs on a year-round basis during the fall, spring, and summer semesters. These models are unique for these professions and provide the RSHS faculty the opportunity to maximally utilize the excellent core curriculum and science offerings at Duquesne as the basis for creative, professional curricula. All of the five-year entry level master’s degree programs, with the exception of health management systems, award a Bachelor of Science in Health Sciences at the end of the fourth year and a professional master’s degree at the end of the fifth year. Students who opt to complete the master’s degree program in health management systems receive a Bachelor of Science in Health Management Systems at the end of four years and a Master of Health Management Systems at the end of the fifth year. Students who have already earned a bachelor’s degree will not be awarded a B.S. in Health Sciences, but will work directly toward the appropriate master’s degree.

**Master’s Degree Programs**

The Master of Health Management Systems program is a 36-credit, project-oriented, problem-based curriculum. A joint MHMS/MBA option is available to those who have been granted admission into the MBA program as well.

For further information, please contact the Department of Health Management Systems at 412.396.4772.

A Master of Science in Rehabilitation Science is also available. See Graduate Program in Rehabilitation Science.

Additionally, Master of Science degrees in occupational therapy and speech-language pathology are available. Master of Science degrees in occupational therapy (84 credits) and speech-language pathology (72 credits) are two-year graduate programs designed for students who have earned bachelor’s degrees in their disciplines or who have earned degrees in a different major, but have completed additional prerequisite courses. For further information visit www.healthsciences.duq.edu or call the Department of Occupational Therapy at 412.396.5945 or the Department of Speech-Language Pathology at 412.396.4225.

**Doctor of Physical Therapy Program**

The physical therapy program at Duquesne University prepares students to meet the American Physical Therapy Association (APTA) vision by offering the Doctor of Physical Therapy degree. Students may enter as freshman and participate in the six-year program that is comprised of three pre-professional years and three professional years of study. These students graduate with a Bachelor Degree in Biology and a Bachelor Degree in Health Sciences upon completion of four years, and the Doctor of Physical Therapy degree upon completion of the sixth year. Students may also enter the program at the start of the three year professional phase, after receiving an undergraduate degree. These students receive the Doctor of Physical Therapy degree after completion of the three year graduate course of study. All students who are granted the Doctor of Physical Therapy degree are eligible to take the national licensing exam that allows them to practice physical therapy.

**Graduate Program in Rehabilitation Science**

The Graduate Program in Rehabilitation Science offers a Ph.D. (59 credits) and M.S. (39 credits) degree. The graduate program prepares students to be successful faculty in professional education programs typically housed in schools of health science. Students receive a background in research methods, foundations of rehabilitation science and their professional discipline, and the pedagogy of professional education, including courses and research experiences that develop a specific area of content expertise. Each student is matched with a faculty mentor and focuses their work in the mentor’s area of expertise. Dissertation and thesis topics are diverse and consistent with faculty experience. For further information, please contact the Office of the Dean at 412.396.6652 or rshs@duq.edu.

**Joint and Second Degree Opportunities**

The RSHS offers several joint degree programs and two second degree opportunities in Physical Therapy and Speech-Language Pathology. Students must formally apply for these programs.

Three joint degree programs are available within the Rangos School of Health Sciences for already enrolled RSHS students. These programs are between the Bachelor of Science in Athletic Training and the Master of Science in occupational therapy (AT/OT); the Bachelor of Science in Athletic Training and Master of Physician Assistant (AT/PA), and the Bachelor of Science in Athletic Training and the Doctor of Physical Therapy (AT/PT). Physical Therapy students also may apply for the joint AT/PT joint degree. Enrollment is limited in some of
these joint degree programs; therefore, admission is competitive.

The Athletic Training/Occupational Therapy (AT/OT) program is available to both currently enrolled students in either AT or OT as well as those seeking initial admission into the RSHS. Majors in Athletic Training have the opportunity to complement their Bachelor of Science degree with a Master of Science in Education degree with eligibility for an Instructional I Certificate in Secondary Biology or Special Education.

The Occupational Therapy program has a joint degree program with psychology. Students will receive a Bachelor of Science in Health Sciences and a Bachelor of Arts in psychology on the way to completing their Master of Science degree in occupational therapy.

The Department of Health Management Systems also offers a joint degree opportunity with the Pre-Medical Professions degree program in the Bayer School of Natural and Environmental Sciences. To ensure effective and appropriate scheduling, interested enrolled students should contact their respective department Chairpersons as early as possible during their programs to learn more about these opportunities.

INTER-SCHOOL MAJORS AND MINORS

Should students decide to pursue an inter-school major or minor, they should carefully investigate the implications of an increased course and credit load, as well as ensure they will be able to complete all RSHS program requirements in time for entry into the professional phase of their respective program.

Inter-School Majors

The McAnulty College and Graduate School of Liberal Arts and the Rangos School of Health Sciences offer a five-year Bachelor of Arts in Psychology, a Bachelor of Science in Health Sciences, and a Master of Science in Occupational Therapy.

Inter-School Minors

The School of Business offers a minor especially designed for Rangos School of Health Sciences. Students interested in pursuing an inter-school minor within the McAnulty College and Graduate School of Liberal Arts, Bayer School of Natural and Environmental Sciences, or School of Education should work with their RSHS academic advisor to discuss minor requirements and the minor declaration process. While the academic advisor will assist in identifying the appropriate course work for the minor; it is the student’s responsibility to verify the courses with the appropriate Department within the McAnulty College and Graduate School of Liberal Arts, Bayer School of Natural and Environmental Sciences, or School of Education. The Department of Occupational Therapy offers a minor in Human Occupation and Disability, as well as a minor in Health Sciences; see Department information for details.

The Program in Special Education in the School of Education offers specific minors for Occupational Therapy and Speech-Language Pathology students.

ACADEMIC AND PROGRAM REQUIREMENTS FOR ENTRY INTO THE PROFESSIONAL PHASE

For academic and program requirements, please contact the Office of the Dean at 412.396.6652.

ADMISSIONS POLICIES

Please note that admissions policies are subject to change at the discretion of the RSHS and the Office of Admissions. Students will only be considered for admission into one specific program; students are not able to apply to the RSHS as undecided.

New Students

All new incoming freshmen, transfer and second degree candidates (includes any student who is not currently enrolled at Duquesne or who has already graduated from Duquesne University) must apply through the Office of Admissions.

Internal Transfer Students

All internal transfer students must apply through the RSHS. The RSHS considers an internal transfer student to be:

1. Any student seeking to transfer into the RSHS from another School at Duquesne University.

2. Any student within the RSHS who seeks to transfer to another program within the RSHS itself.

All prospective internal transfer students must schedule an appointment with a RSHS representative by stopping in the Office of the Dean, Room 302, Health Sciences Building, or by calling 412.396.6652.

Students with Disabilities

The University and the RSHS do not discriminate on the basis of nonperformance-related handicaps or disabilities. All students seeking admission to the
RSHS will be expected to perform certain physical, mental and emotional tasks, as defined by the RSHS Performance Indicators/Technical Standards in order to complete graduation and professional requirements as measured by state and national certification, licensure and registration processes.

Students with disabilities must notify the Office of Special Student Services if a physical or mental impairment will require accommodations to enable the student to complete academic and professional performance requirements or skills. Modification of requirements will be in compliance with ADA standards, RSHS Performance Indicators/Technical Standards, and discipline-specific accommodation standards.

Waitlist Process

Once spaces have been filled in a particular program, qualified students may be selected for placement on a waitlist in the event that spaces do become available at a later date. Should a student accept a waitlist position, he/she should complete any required course work, continue to update his/her file with any additional transcripts or other materials, and apply for financial assistance in the event he/she will later be offered a seat. Waitlisted students may be contacted as late as the start of the academic year. Waitlisted students who are not offered seats for the current academic year will be notified after the start of classes to provide them an opportunity to reactivate their applications for another year.

Changes in Admissions/Enrollment Status

An offer of acceptance into a particular RSHS program (e.g., athletic training); class level (e.g., as a third year student); or academic year (e.g., Fall 2009) is only valid for that respective program, class level or academic year.

Students who are granted approval to change programs, class levels or academic years must meet the academic and program requirements dictated by their new status. Any student who is granted a change in class level after matriculation will not be able to request any subsequent change in class level.

ADMISSION OF FRESHMEN

Admissions Deadlines for Freshmen

1. All Early Action applications to the physical therapy and physician assistant programs must be completed and postmarked by December 1. This is the only deadline for these programs.

2. Admission to the athletic training, health management systems, occupational therapy, and speech-language pathology programs is by either Early Decision or Regular Decision.
   a. Early Decision applications must be completed and postmarked by November 1.
   b. Regular Decision applications must be completed and postmarked by July 1. Note: Programs will stop reviewing applications when all seats in the program are filled.

3. All qualified students whose applications are submitted by January 10 of their senior year will be reviewed for scholarship consideration.

Admissions Criteria for Freshmen

Freshmen admissions will be on a selective basis. Prospective freshmen should have graduated from an approved secondary school and demonstrated exemplary personal conduct in that institution. Applicants who have not completed four years of high school must submit a High School Equivalency Diploma issued by their state department of education. Applications should be sent to the Office of Admissions. Candidates should have:

1. Seven units of math and science, including Algebra I, Algebra II, Geometry and Trigonometry (with Calculus recommended for physical therapy, but not required for other programs) and General Science, Biology and Chemistry (with Physics or advanced sciences strongly recommended). All RSHS programs have an intensive science component; students who feel they do not have a strong background in Algebra, Trigonometry, Physics, and Chemistry should seriously consider taking college preparatory courses, particularly in College Algebra I With Trigonometry.

2. A Q.P.A. of at least 2.75. For Physical Therapy and Physician Assistant candidates a Q.P.A. of at least 3.0.

3. A SAT score of at least 1100 (between the math and critical reading sections) or a composite ACT score of at least 24.

Volunteer experience in the field to which they are applying is not required for the admission of freshmen applicants, but it is highly recommended, excluding physical therapy, which requires 40 hours.

Please note that once enrolled, RSHS students may be required to participate in volunteer experiences prior to entering the professional phase of their respective program.
Credit by Examination/Challenge Examinations
Under no circumstances may any clinical education course be taken through credit by examination, and in general, the courses within the RSHS professional phase are not available through these examinations. Each department will determine any courses that can be challenged, and each department is responsible for administering its own examinations. It is the student’s responsibility to contact the department involved to determine the availability of these examinations.

University-Level Courses Taken While in High School
University-level courses taken while in high school will be evaluated for credit if the following criteria have been met:

1. The courses are recorded on an official transcript from an accredited institution of higher education.
2. The grades are “C” or better.

ADMISSION OF INTERNAL TRANSFER, TRANSFER AND SECOND DEGREE CANDIDATES

Admissions Deadlines for Internal Transfer, Transfer and Second Degree Candidates
1. All applications to the physician assistant program must be completed and postmarked by December 1.
2. All applications to the physical therapy program must be completed and postmarked by May 1.
3. All applications to the athletic training, health management systems, occupational therapy programs, and speech-language pathology programs must be completed and postmarked by July 1. Note: Programs will stop reviewing applications when all seats in the program are filled.

Students may transfer into any program at any level, based upon their credentials, courses completed at other institution(s), courses yet to be completed prior to entry into the professional phase, and space availability in the desired program.

Prospective internal transfer, transfer and second degree candidates should carefully investigate the financial implications of entering any RSHS program.

All candidates must be able to meet the RSHS Performance Indicators/Technical Standards upon admission into the program.

Admissions Criteria for Internal Transfer, Transfer and Second Degree Candidates
In order for applications to be considered complete, all applicants must submit/have the following by the application deadline:

1. The application form:
   a. Internal Transfers - Must contact a RSHS representative in the Office of the Dean for an Internal Transfer Application.
   b. Transfers and Second Degrees - Must contact the Office of Admissions for the appropriate application.
2. The addendum for undergraduate transfers.
3. A minimum cumulative Q.P.A. of at least a 2.75 for athletic training, health management systems, and occupational therapy programs, and a minimum cumulative Q.P.A. of at least a 3.0 for physical therapy, physician assistant, and speech-language pathology. A “C” or better in all courses. GRE’s are required for the Graduate Program in Rehabilitation Science and the two-year graduate program in Speech-Language Pathology as well as letters of recommendation.
4. All candidates must be able to meet the RSHS Performance Indicators/Technical Standards upon admission into the program.

Readmission
Students who are no longer enrolled, but had previously attended or graduated from Duquesne University, must fill out the “Application for Readmission” available through the Office of Admissions.

Students who have completed 12 credits or less at another institution(s) since leaving Duquesne are considered readmits; their applications for readmission will be forwarded to and handled by the RSHS.

Students who have completed more than 12 credits at another institution(s) since leaving Duquesne are handled by the Office of Admissions.

EDUCATIONAL EXPENSES AND FINANCIAL AID
ADDITIONAL EDUCATIONAL EXPENSES FOR RSHS STUDENTS

Pre-Professional Phase
Students in their final year within the pre-professional phase will also need to meet the program requirements for entry into the professional phase (e.g., C.P.R., physical examination and immunizations).
Professional Phase
Expenses for all programs may include the purchase of a lab coat; clothes; medical instruments for laboratory work or professional practice; clinical education costs (e.g., travel and living expenses, PPD Testing); and fees for Act 34 Background Clearance, Act 33/151 Child Abuse History Clearance, and in some programs, Act 114 – FBI Criminal Record Background Checks and in some instances fees for drug abuse clearances; and fees for certification, licensure and registration. Information on required supplies will be provided to all students by their respective departments during their professional orientation program.

Financial Implications of Student Classification and Academic Load
Students who are interested in financial and/or scholarship assistance, through the various sources offered at the University and elsewhere, should be aware that most financial aid and scholarship opportunities and athletic eligibility requirements require students to carry and earn specific credit loads and Q.P.A.’s. It is the student’s responsibility to investigate these requirements and work with his or her academic advisor to meet them. In particular, students should carefully investigate how their credit loads each semester, each academic year, and overall, will affect financial aid and athletic eligibility, not only for the current year but also subsequent years. Students should consult the Office of Financial Aid for further information regarding their personal financial situation and the appropriate credit level for their financial needs.

The University makes the following distinctions in regard to undergraduate student classification for financial aid - all based on credit level:

- Freshman: 0-29 credits completed.
- Sophomore: 30-59 credits completed.
- Junior: 60-89 credits completed.
- Senior: 90 or more credits completed.

The RSHS, however, classifies students by class level (e.g., as a second-year student), rather than credit level. In regard to financial eligibility, it is common for transfer and second degree students to financially be considered by the University under one classification (e.g., as a junior), but academically considered by the RSHS under another classification (e.g., as a second-year student within a RSHS program). For example, if a student has 64 credits completed upon matriculation to the RSHS, but has all his/her science courses left to complete, he/she may have been admitted into the second year of the program rather than the junior year his/her credit level might indicate. Students should carefully investigate any financial implications involved in such a situation.

Summer Course Work
Students should be aware that while aid may be available for summer course work, use of aid during the summer may simply reduce aid that would normally be available during the fall and spring semesters. Students should carefully investigate any financial implications resulting from required or elected summer course work.

Internal Transfer, Transfer and Second Degree Students
All transfer and second degree candidates should carefully investigate the financial implications involved with matriculating into the RSHS. If students have a degree, typically they do not qualify for standard undergraduate financial aid.

Graduate Students
Students enrolled in any of the five-year, entry-level master’s degree or the six year Doctor of Physical Therapy programs should be aware that, for financial reasons, the RSHS considers students to be graduate students upon completion of the spring semester of their fourth year. Students are strongly advised to consult with the Office of Financial Aid regarding their eligibility for aid as graduate students, particularly in light of the high credit loads and summer course work involved in the final one or two years of the professional phase.

PROGRAM AND CURRICULUM INFORMATION

IMPORTANT NOTE: The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual students and the School. The Rangos School of Health Sciences reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled, students should refer to the RSHS Academic Student Handbook pertaining to their respective program.

The following interdisciplinary courses may be required by some of the programs.

HLTS 200. Disparities in Health Care. 3 crs.
This course will provide a broad introduction to the cultural themes of health, illness, and healthcare
by critically reviewing existing social inequalities and cultural perceptions. Differences in the quality of healthcare delivered to racial/ethnic groups will be explored in an attempt to explain why health disparities exist in the United States.

**HLTS 290 & 590. Study Abroad — Health Sciences.** 3 crs.
This program gives students the opportunity to tour public and private hospitals, outpatient clinics, and public health facilities and interact with clinicians and health care personnel. During the trip, students will have opportunities to compare and contrast the European and African healthcare systems to the US system and discuss how patient care can be impacted. There are no pre-requisite courses. Information will be distributed to interested students during the Fall semester and a series of pre-departure class meetings will be held during the Spring semester.

**HLTS 315/315L & 515/515L. Anatomy.** 5 crs.
This course is designed to provide Athletic Training and Occupational Therapy students with a relatively broad picture of human anatomy with a special emphasis on the musculoskeletal, peripheral nervous, and peripheral circulatory systems. There is also an introduction to the structure and content of the thoracic, abdominal and pelvic cavities. The course consists of both a lecture and a laboratory component. The laboratory component is required. During laboratory sessions, students will be directed in the dissection and study of human cadavers. Prerequisites: BIOL 111/111L or permission of the instructor.

**HLTS 320/320L, 470/470L, & 570/570L. Anatomy I.** 5 crs.
This course is designed to focus on the anatomy of the human organism. In addition to gross human anatomy, the course covers fundamental concepts in: anatomical terminology, human cytology, histology, and embryology. The activities in this course employ a regional approach to the study of human gross anatomy. This course is designed to study the details of the anatomy in the regions of: the superficial aspect of the back; the shoulder; the upper extremity; the thorax and its contents; and the anterior and lateral regions of the neck. The course consists of both a lecture and a laboratory component. Lecture sessions present information pertaining to: basic human anatomy; embryology; gross anatomy; and the organization and relationships of the various structures found in the above listed regions of the body. A dissection laboratory is a required component to the course. In the dissection laboratory the student, under the supervision of faculty, will dissect and study human cadavers. Efforts are made to assist the course participants to utilize the information presented in both lecture and laboratory sessions to analyze and solve medically/clinically relevant questions. Prerequisites: HLTS 320/320L, 470/470L, or 570/570L or permission of the instructor.

**HLTS 330/480/580. Physiology I.** 4 crs.
This course presents the normal functions of the human body, with additional emphasis on histologic organization and histophysiology. Molecular and physical mechanisms are highlighted at all levels of structural organization, from cells to organ systems. Topics in this first part of a two-course sequence range from the structure and function of cells and tissues, to homeostatic regulation by the major control systems. Prerequisites: BIOL 111/111L and 112/112L; CHEM 121 and 122 or permission of the instructor.

**HLTS 331/481/581. Physiology II.** 4 crs.
This course continues the presentation of normal functions of the human body, with additional emphasis on histologic organization and histophysiology. Pertinent examples of pharmacologic and pathophysiologic mechanisms are used to reinforce concepts of normal physiologic design. Topics in this second part of a two-course sequence include all of the major systems that perform coordinated and integrated functions. The goal for
the student is to achieve a good understanding of total body function based upon the organization, functional mechanisms, and interactions of these systems. Prerequisites: HLTS 330, 480 or 580 and 320/320L, 470/470L or 570/570L.

HLTS 400/500. Independent Study. 1-6 crs. With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisites: Endorsement of the supervising faculty member and approval of the Department Chairperson.

HLTS 403/503. Neuroscience. 4 crs. This course introduces the major functional components of the adult central nervous system. Neuroscience begins with a functional overview of the nervous system from an embryological/anatomical perspective. This is followed by presentation of the major functional divisions of the nervous system. For each major division, normal function, cellular mechanisms relevant to normal function, and the functional consequences of damage to the system are presented. The course concludes with an introduction to the vasculature of the central nervous system.

HLTS 420/520. Topics in Pharmacology. 3 crs. This course is designed to provide students of the allied health professions with a basic understanding of specific pharmacological agents including over the counter & herbal medications used in rehabilitation settings and specialized activity settings such as athletics. Topics include pharmacological classifications, mechanisms, therapeutic indications, adverse reactions, drug interactions, precautions & drug testing procedures. Prerequisites for 520: CHEM 121 or 131, 470/470L, or 570/570L, 471/471L or 571/571L, 480 or 580, 481 or 581. Prerequisites for 420: CHEM 121 or 131, HLTS 315/315L or 515/515L.

HLTS 425/L, 525/L. Functional Kinesiology/Biomechanics with Lab. 3 crs. This lecture/laboratory course is designed to study the elements of normal human motion. Specifically, the course will focus on integrating the “Laws of Nature” which influence movement with anatomical concepts, and the concepts of osteokinematics and arthrokinematics of joints. There will also be an emphasis on how these “Laws” and concepts influence normal and pathological motion. The course will also examine the elements of typical locomotion and the gait deviations that result from the disruption of these elements. The course will consist of both lecture and laboratory components. During lecture sessions material pertaining to the specific osteology, myology, arthrology, arthrokinematics, and osteokinematics of specific joints will be presented to the participants for their consideration and discussion. Laboratory sessions will involve observations, palpations and discussions of both simple and complex human movements. With the guidance of the course faculty, the course participants will execute lab activities designed to integrate information and fundamental concepts pertinent to human movement. Prerequisites: HLTS 315/315L, 320/320L, 470/470L, 570/570L or permission of the instructors.

HLTS 441/551. Medical Sciences I. 3 crs. An overview of common medical diagnoses is conducted utilizing various disease images and incorporating discussion of current events in medicine. Prerequisite: Permission of the instructor.

HLTS 442/552. Medical Sciences II. 3 crs. This course is a continuation of Medical Sciences I. Prerequisite: Permission of the instructor.
HLTS 603. Neuroscience. 4 crs.
The goal of this course is to acquaint the student with the elements of the nervous system and how those elements interact to produce behavior. By the end of this course the student will be able to encounter a neurological evaluation of an impaired client and be able to predict what portions of the nervous system were damaged. To accomplish this goal, the nervous system will be examined first at a gross anatomical level, then at the level of the cell. However, much of our understanding about behavior is rooted in knowledge of the complex groups of neurons that function together to accomplish a singular goal. These groups of neurons, or systems, and their interaction will be discussed in detail with a focus on the clinical manifestations of nervous system damage. Wherever appropriate to understanding disease or treatment, the contribution of independent cellular events to the functioning of a system will be described. Prerequisites: HLTS 470/L, HLTS 471/L, HLTS 480, and HLTS 481.

DEPARTMENT OF ATHLETIC TRAINING (AT)

Chairperson:
Paula Sammarone Turocy, EdD, ATC

Sports Medicine is a popular general term that refers to all those individuals and services that are necessary to maintain the overall health of athletes and individuals who are physically active. Athletic Training is a health care discipline that includes the practice of sports medicine. In 1991, the profession of athletic training was recognized as an allied health profession by the American Medical Association (AMA); however, athletic trainers have provided health care for athletes and other physically active individuals for more than 60 years. The scope of practice of a Certified Athletic Trainer includes six areas of clinical practice: prevention, evaluation, assessment and diagnosis; immediate care; treatment, rehabilitation, and reconditioning; organization and administration; and professional development and responsibility.

Duquesne’s Athletic Training program is a four-year Bachelor of Science degree program that is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). Student professional preparation at Duquesne involves a solid liberal arts and basic science foundation, as well as the development of professional competency and clinical proficiency in the following twelve domains: risk management and injury prevention, pathology of injuries and illnesses, orthopedic clinical examination and diagnosis, medical conditions and disabilities, acute care of injuries and illnesses, therapeutic modalities, conditioning and rehabilitative exercise, pharmacology, psychosocial intervention and referral, nutritional aspects of injuries and illnesses, health care administration, and professional development and responsibility.

In addition to traditional classroom and laboratory education, athletic training students are required to participate in clinical education experiences, under the direct supervision of Board of Certification (BOC) Certified Athletic Trainers, providing care for athletes and patients in local high schools, colleges/universities, professional/amateur sport teams, sport performance and professional dance settings, as well as clinics, hospitals, and physician office affiliated sites.

Unlike many other athletic training education programs, qualified students are admitted directly into the athletic training major as freshmen; there are thirty seats in each freshman class with a rolling admissions process until all seats are filled. Admitted students must meet all RSHS admissions requirements, have evidence of extracurricular and/or work experiences during high school, and have the ability to meet all the programmatic, medical, and performance/technical standards of the program. Students must maintain a 2.75 QPA during the pre-professional phase and 3.0 QPA in the professional phase of the academic program. These and other requirements are explained in greater detail on the Athletic Training Department website. (www.healthsciences.duq.edu/at/athome.html). Successful completion of all degree requirements will allow students to become eligible to sit for the BOC examination.

Students who meet all programmatic requirements during the pre-professional program will be admitted into the professional program. Students may transfer into the program, before the sophomore year, based upon their academic standing, ability to meet the programmatic, medical and technical standards of the program, appropriate past course work, and seat availability. Transfer and second degree students also must meet all RSHS admissions requirements.

ATHLETIC TRAINING CURRICULUM
A sample course plan for the pre-professional and professional phases of the curriculum can be obtained from the RSHS by calling 412.396.6652 or through the Department of Athletic Training at 412.396.4766.
COURSE DESCRIPTIONS

ATHT 201/201L. Essential Concepts & Techniques in Athletic Training/Lab. 3/0 crs.
This course provides pre-professional students with an introduction to the basic and essential elements of athletic training including risk management/injury prevention, pathology of injuries/illnesses, assessment/evaluation, acute care of injury/illness, pharmacology, therapeutic modalities, therapeutic exercise, general medical conditions/disabilities, psychosocial intervention/referral, health care administration, and professional development/responsibilities. Students must acquire 50 hours of guided observation/practical experience as part of the laboratory course requirements; failure to achieve the required hours will result in failure of the laboratory. Corequisites: BIOL 207/208.

ATHT 202/202L. Pre-Professional Practicum in Athletic Training/Lab. 2/0 crs.
This course provides students with guided discovery activities to reinforce the learning and psychomotor skills learned in ATHT 201 to develop clinical proficiency in the entry level skills of basic taping and wrapping, management of spinal cord injuries, development of medical notation techniques, and evaluation skills including history, observation, palpation, range of motion and manual muscle testing techniques. Students also are expected to begin to develop an understanding of the professional and ethical responsibilities of a certified athletic trainer. Students must acquire 50 hours of clinical experience as part of the laboratory course requirements; failure to achieve the required hours will result in failure of the laboratory. Prerequisites: ATHT 201/201L, Corequisites: BIOL 209/210.

ATHT 302/302L. Art & Science of Athletic Training I/Lab. 3/0 crs.
This course provides students with opportunities to learn examination techniques and recognize common pathologies found in the lower extremities: foot, ankle, leg, knee, hip, and pelvis. Students are instructed and evaluated on knowledge and psychomotor skills required to perform a comprehensive evaluation to include the acquisition of a comprehensive history, observation and palpation techniques, range of motion evaluation, manual muscle testing techniques, cardiovascular and neurological function assessment, special tests, functional and activity-specific testing, and appropriate referral. Prerequisites: ATHT 202/202L, BIOL 207/208 and 209/210.

ATHT 303/303L. Art & Science of Athletic Training II/Lab. 3/0 crs.
This is the second part of the two-part course designed to provide the students with knowledge and psychomotor skill as they relate to examination techniques, recognition of common pathologies, and initial management procedures associated with the upper extremity – shoulder, elbow, wrist, and hand, as well as spine. Learning and evaluative skills developed in ATHT 302 are reinforced and built upon during this course. Prerequisites: ATHT 302/302L, HLTS 315/315L.

ATHT 306/306L. Therapeutic Exercise & Reconditioning in Athletic Training. 4/0 crs.
This course provides students with a solid foundation of the theory and practice associated with the design, implementation, progression, and supervision of rehabilitation programs. Content of this course includes skillful rehabilitation examination, establishment of realistic goals, plan development of scientifically-supported rehabilitation & reconditioning plans for athletes and physically active individuals, and correction for substitution patterns during rehabilitation performance. Rehabilitation techniques include progression and sequencing, evaluation, and recording of soft tissue and joint mobilization; range of motion and flexibility exercises; strength and muscle endurance exercises; balance, coordination, and agility activities; plyometric exercises; and functional and sport-specific exercises for return to full participation. Prerequisites: HLTS 320 or 315, 425; ATHT 302/302L.

ATHT 315. Athletic Training Practicum I. 1 cr.
The content of this practicum course includes discussions of appropriate professional behaviors as they relate to becoming an athletic training professional, including the topics of sexual harassment, multi-cultural diversity, and working with minors. Another major component of this course includes the recognition, development and refinement of the evaluative skills, as well as emergency and clinical management of pathologies and conditions associated with the cervical spine, face, head, and internal organs. Prerequisites: ATHT 202/202L.

ATHT 315L. Athletic Training Practicum I Lab. 1 cr.
This clinical course provides students with opportunities, under the direct supervision of a BOC-certified athletic trainer, to apply the knowledge and clinical skills/clinical proficiencies developed and evaluated in the classroom to the athlete/patient populations at local high school and college/university clinical affiliated sites. Students are required to participate in a maximum of 15 hours/week of
clinical experiences under the direct supervision of a certified athletic trainer in accordance with the departmental guidelines. This course is graded on an Honor/Pass/Not Pass basis. Prerequisites: ATHT 202/202L.

ATHT 316. Athletic Training Practicum II. 1 cr.
The content of this practicum course includes discussions and application of appropriate professional behaviors in emergency situations as they relate to the patient, as well as emergency, allied health, and medical personnel. Students receive both didactic and psychomotor skill instruction and evaluation of emergency management and advanced first aid/emergency medicine skills. Emergency Medical Technician (EMT) course work is a component of the course; however, pursuit of EMT certification is voluntary. Prerequisites: ATHT 302/L, 315/315L.

ATHT 316L. Athletic Training Practicum II Lab. 2 crs.
This is a continuation of the clinical experiences encountered in Athletic Training Practicum I Lab; however, students now are encouraged to apply knowledge and clinical skills gained from the current and previous semesters’ coursework and clinical practica to further enhance and refine their skills and abilities as an athletic trainer under the direct supervision of a certified athletic trainer. This course is graded on Honor/Pass/Not Pass basis. Prerequisites: ATHT 302/302L, 315/315L.

ATHT 402W/402L. Nutrition and Weight Management in Sport/Lab. 3/0 crs.
This course requires students to develop a comprehensive understanding of the structure and function of the essential nutrients, their physiological effects on the body, and the methods by which those nutrients may influence the function and performance of a physically active individual. Current and scientific information on eating disorders, body composition and weight management, special dietary considerations, disordered eating, and ergogenic aids also is discussed. The development of a unique, patient-specific comprehensive dietary analysis and nutrition and exercise plan is required as part of the course requirements. Prerequisites: CHEM 131, ATHT 407W/407L.

ATHT 404W. Psychosocial Issues in Healthcare. 3 crs.
A discussion-based course designed to allow for the exploration, development and refinement of personal values and ethical foundations as they relate to the psychosocial aspects of healthcare and professional practice. Special emphasis will be placed on the psychology of injury and catastrophe, recognition of psychological conditions, counseling & intervention strategies, and the utilization of mental imagery and other psychological skills. Exploration of professionalism, leadership, communication, diversity, inter-relationships between patients, families and the medical community, stress management, burnout, and ethical questions associated with injury, sport and general healthcare will also be discussed. Prerequisites: PSYC 103; ATHT 202/202L.

ATHT 405. Health and Medicine. 3 crs.
This course is designed to provide students with a basic understanding of the health conditions and diseases that influence their lives, the lives of those around them, and their patients. Students are responsible to develop a comprehensive understanding of the physiology of normal organ and system function, pathophysiology of disease, disease processes, appropriate recognition and/or treatment, and referral. Students also are required to develop clinical competence in the performance of entry-level general medical clinical assessment skills and to participate in a general medical observation experience with local health care practitioners. Prerequisites: BIOL 111/111L, ATHT 316/316L; HLTS 315/315L.

ATHT 407W/407L. Physiology of Exercise/Lab. 3/0 crs.
This course prepares students to understand the physiological changes that occur in the body when it undergoes the stress of exercise and physical activity. Students are prepared to become actively involved in the measurement, management, and enhancement of the physiological effects including the creation and utilization of the different energy systems, muscular function and enhancement, and the function and enhancement of the cardiorespiratory system. Students also are expected to apply those advanced physiological concepts in the development of a comprehensive year-round physical conditioning program (according to the standards established by the National Strength and Conditioning Association) to maximally enhance function and performance. Prerequisites: BIOL 111/111L, 209/210; CHEM 131; HLTS 320 or 315.

ATHT 410. Athletic Training Practicum III. 1 cr.
This course involves discussion of professional behaviors and the application of those professional behaviors in a variety of health care settings. Course requirements also include preparation for
Advanced graduate education, preparation for the BOC examination, the development of professional interview skills, a professional resume, and cover letter. Further, students will learn to develop and assess the contents of a professional portfolio, as well as complete designated clinical proficiencies which will require the successful and professional application of clinical skills, decision making, and critical thinking. Prerequisites: ATHT 303/303L, 306/306L, 316/316L, HLTS 425.

ATHT 410L. Athletic Training Practicum III Lab. 2 crs.
This clinical course requires students to build upon past clinical experiences and learning to prepare them to assume more responsibility and autonomy while participating in assigned clinical experiences with athletes and patients at local high schools, universities, clinics, and professional sport teams. Under the direct supervision of certified athletic trainers, students assume even greater responsibility for the total care of the assigned athletes. This increased responsibility includes thorough and professional evaluations, as well as appropriate design and implementation of rehabilitation and reconditioning programs. This course is graded on an Honor/Pass/Not Pass basis. Prerequisites: ATHT 303/303L, 306/306L, 316/316L, HLTS 425.

ATHT 411. Athletic Training Practicum IV. 2 crs.
The content of this practicum course includes discussions of advanced professional behaviors and skills with the primary emphasis on the refinement and advancement of professional behaviors and skills. As part of this course, students are required to observe a surgery and give a case study presentation, participate in simulated interviews and mock national board examinations that utilize external professional evaluators, as well as a professional portfolio presentation that is open to all faculty and students of the Rangos School of Health Sciences. Advanced knowledge and psychomotor skill opportunities in content areas such as casting, special splinting, appropriate brace and equipment selection, and post-surgical wound management also are included in this course. Prerequisites: ATHT 410/410L.

ATHT 411L. Athletic Training Practicum IV Lab. 1 cr.
This is a continuation of the clinical experiences encountered in Athletic Training Practicum III Lab; however, students now are encouraged, while still working under the direct supervision of a Certified Athletic Trainer, to assume more responsibility and even greater autonomy in preparation for employment and/or advanced graduate education. Students also are encouraged to participate in field experience opportunities in practice arenas in which they may wish to practice in the future. This course is graded on a Pass/Not Pass basis. Prerequisites: ATHT 410/410L.

ATHT 412. Organization & Administration in Athletic Training. 3 crs.
This course provides students with information that is designed to enhance their abilities to function effectively as a professional Athletic Trainer and to enhance their awareness of current administrative, professional, organizational, and legal issues pertaining to Athletic Training. Topics include budget management, facility design, record keeping, medical billing procedures, professional organizations, and liability. Additional areas of discovery include educational requirements, personnel management, public relations, and preparation for the future of Athletic Training. Prerequisite: ATHT 316/316L.

ATHT 414W. Medical Perspectives in Athletic Training. 2 crs.
This course is designed to expose students to a wide variety of resources and professionals in medicine and allied health professions and to assist the students in the development of an appreciation for those professions with whom Certified Athletic Trainers work. Medical and allied health professionals provide students with advanced learning opportunities and information designed to enhance the knowledge, skills, and interdisciplinary approach to care provided by the sports medicine team. Prerequisites: ATHT 405, 410/410L, BIOL 209/210.

Expanding upon the knowledge and skills developed and evaluated in past coursework, students are required to utilize knowledge and skill to develop and teach, via peer teaching; at least one class session that includes the presentation and analysis of a sport or physical activity. The required components of the presentation include the biomechanical analysis of the skills required to participate in the sport/activity, biomechanical analysis of the common chronic and acute injuries associated with the activity, and the physiological requirements, as well as the rules and regulations and other special health considerations commonly associated with the activity. This class requires active participation in all physical activities. Prerequisites: ATHT 306/306L, 407W/407L.
ATHT 420/420L. (Elective) Integrated Training for Performance Enhancement. 2/0 crs.
This course, emphasizing performance enhancement, provides students with learning opportunities to develop the necessary knowledge and psychomotor skill to achieve national certification as a Performance Enhancement Specialist (PES), given by the National Academy of Sports Medicine (NASM). This course is designed specifically as an elective for Athletic Training majors. Prerequisite: ATHT 410.

ATHT 421/421L. Applied Therapeutic Exercise. 2/0 crs.
This course assists the students in the development of a deeper understanding of therapeutic exercise and reconditioning. The course encompasses case management and advanced rehabilitation skills. This course is also designed to encourage the student to think critically and solve patient problems more effectively to ultimately deliver an optimal, progressive rehabilitation program that guides the patient safely and succinctly throughout the rehabilitation process. Specific units include gait training; Swiss ball and foam roller rehabilitation; isokinetic assessment and exercise; PNF techniques; core stabilization; muscle energy techniques; orthotics evaluation and construction; neural mobilization; and progression of functional, and activity-specific activities. Prerequisites: ATHT 306/306L, 316/316L.

DEPARTMENT OF HEALTH MANAGEMENT SYSTEMS (HMS)

Health Management Systems is the utilization of healthcare knowledge, keen management skills, and information systems to effectuate the healthcare delivery system. The healthcare environment is challenged to provide cost-effective quality care. To meet this challenge, innovative business strategies, data analysis, and advanced information technologies are being utilized.

This health professional possesses a unique blend of skills in health sciences, business administration, and information technology. Health sciences aid communication with other medical professionals and in understanding the patient prospective. Business administration strategies are needed to manage and make decisions. Information technology is utilized to collect, manipulate, and transmit data to aid in the delivery of cost-effective healthcare services. The combination of health sciences, business management, information analysis, and computer technology will help professionals to meet the future healthcare challenges.

These integrated skills can be applied in a variety of healthcare and related settings that include acute care hospitals, clinics, software development companies, health insurers, and consulting firms.

The Bachelor of Science in Health Management Systems has the following tracks:

- **Health Management Systems** gives students the ability to interface in medical and technical settings.
- **Health Management Systems/Pre-Medical** gives future physicians technology and business acumen.

A Master’s degree option is available. Students must apply for admission during their fourth year of study. This degree can be completed in one additional year after receiving the Bachelor of Science in Health Management Systems.

**PROJECT EXPERIENCE**

Undergraduate students will be required to complete one internship. Students are able to obtain experience in a variety of health management systems settings in the Pittsburgh area or throughout the country. It is intended that these experiences be suitable for inclusion in the student’s portfolio or resume. Placement is on an individual basis given the student’s needs and career goals.

**HEALTH MANAGEMENT SYSTEMS CURRICULUM**

A complete course plan for the pre-professional and professional phase of the curriculum can be obtained from the RSHS at (412)396-6652.

**COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE**

HLTM 305W. Data Management. 3 crs.
This course covers data management functions and operations. This writing intensive course requires essay examinations, case studies, and a group project based on a real world situation.

This course examines disease processes and their related procedures, tests, pharmacology and how information technology effectuates clinical processes.
HLTM 316. Clinical Processes II. 3 crs.
This course builds on the material learned in Clinical Processes I. It will focus on further review of systems and various related components such as laboratory and pathology.

HLTM 320. Healthcare Delivery & Organization. 3 crs.
The purpose of this course is to introduce students to the various organizations and entities that comprise the healthcare delivery system.

HLTM 333. Reimbursement Systems. 3 crs.
This course emphasizes both ICD-9 and CPT coding methodologies in addition to various reimbursement strategies.

HLTM 340W. Health Information Management Policy. 3 crs.
As the healthcare industry continues to evolve, one must understand how research, information, and data impact the policy process. This course has extensive writing and data analysis assignments. Prerequisite: HLTM 320.

HLTM 350. Introduction to Health Information Management. 3 crs.
This course introduces the students to the health information management profession. Processes, roles, and the critical component that e-HIM and health information managers play across the continuum of care are discussed.

HLTM 351. Data Base Design & Management. 3 crs.
Being able to take raw data and create an organized data base to generate reports and manage an organization is a key skill on which the course focuses.

HLTM 380. Introduction to Healthcare Management. 3 crs.
This course will enable the students to learn concepts and theories in health care management; develop the basic management skills and the ability to work productively with others; develop skills in using materials and references, tools and/or technology central to health care management, and to integrate health care management theory with real world problems through the use of case studies.

HLTM 382. Introduction to Healthcare Finance. 2 crs.
The course will emphasize the development of practical financial analysis skills that will provide students with a foundation for immediate application within the health care industry and a better understanding of course materials as presented.

Training in use of these tools will include use of several of the most important financial tools and methodologies employed across the health care industry such as benefit/cost and cost effectiveness analysis, ratio analysis and others.

HLTM 383. Advanced Healthcare Finance. 2 crs.
The general objective of this course is to provide the health care decision maker with the financial and managerial accounting theory, concepts, and tools necessary to make better financial management decisions as well as enable the student to make sound judgments regarding financial analyses performed by others. Principles of financial and managerial accounting are developed and used to examine the difficult strategic and operational decisions existing for health care providers in a managed care environment.

HLTM 391. Long-Term Care Administration. 3 crs.
This course will consider long-term service delivery programs designed to meet the needs of seniors and special populations. It will review care and service systems from a historical, philosophical and managerial perspective. The course will analyze the underpinnings of the profession, including the demographics of aging, the role of financing and the evolving marketplace.

HLTM 395. Quality Performance in Healthcare. 3 crs.
This course will present an interdisciplinary perspective on quality management in healthcare taking into account a number of disciplines, including operations management, organizational behavior, and health services research. Students will become familiar with the underlying tools and approaches fundamental to continuous performance improvement.

HLTM 410. Process Analysis. 3 crs.
This course examines in-depth healthcare processes, modeling, and engineering those processes using diagramming techniques. This course requires on-site visits.

This course focuses on healthcare human resource topics such as the three legged stool, patients as customers, and the role of physicians within an e-HIM environment.

HLTM 453W. Managed Care & Integrated Delivery Networks. 3 crs.
This course examines the structures of managed care entities; the various perspectives, and managed
care operations (capitation, information technology, legalities, and marketing). Prerequisite HLTM 320.

HLTM 455W & 456W. Internship I/II. 3-6 crs.
This is a capstone experience of the program. Students obtain real world experience in clinical and technical settings. It is intended that this experience be suitable for inclusion in the student’s resume or portfolio. Requirements will be discussed on an individual basis with the Faculty Advisor.

HLTM 460. Decision Analysis. 3 crs.
This course focuses on the use and application of clinical information systems to support the clinical decision-making process. Knowledge-based systems, neural networks, expert systems, electronic meeting systems, group systems and web-based systems are discussed as a basis for designing and developing highly effective decision support systems.

HLTM 470. Healthcare Systems Analysis & Design. 3 crs.
The traditional systems development life cycle and the object-oriented approach to the analysis and design of healthcare information systems are taught within the e-HIM framework. Prerequisite: HLTM 330.

HLTM 475. Medical Informatics. 3 crs.
This course offers a broad overview to the organization of clinical information, the effective management of this information with computer technology, and the impact of this technology on patient care, clinical decision making and research.

HLTM 477. Legal Issues in Healthcare. 3 crs.
This course focuses on the laws and regulations of the health management systems industry and the technological impact of these on healthcare planning. This course requires in-depth reading.

HLTM 493. Risk Management. 3 crs.
This course will address basic considerations of risk management within the healthcare industry such as legal concepts, development of risk management programs and effective governance. Risk financing is considered a distinct program component as well as ethics, patient communication, credentialing of providers, contract review concepts, employment liability, and patient and occupational safety.

DEPARTMENT OF OCCUPATIONAL THERAPY (OT)

Chairperson:
Patricia A. Crist, Ph.D., OTR/L, FAOTA

Occupational therapists focus on the occupations used by people to live full, independent, quality lives. Occupations or activities of daily living include work or education, self-care, play/leisure and the effect that rest has on these activities. The goal of this profession is to maximize a person’s ability to perform culturally appropriate daily occupations, which is an important value in today's health care system.

Occupational therapists help persons promote an individualized, self-determined balance of occupations throughout the life-span. Occupational competence is developed by treating the “whole person” including physical, psychological, emotional, social and cultural competencies, as influenced by the occupational environment.

Occupational therapy service delivery contexts are exceedingly diverse. They include but are not limited to acute care, industrial rehabilitation, physical rehabilitation, mental health, long term care, home care, case management, consultation, school systems, early intervention, community services, education, disease prevention and health promotion. Important related concepts such as quality of life, productive function, independent living, full access, social-political integration, multiculturalism, spirituality, and balanced lifestyles are central to practice. As a result, graduates of this program are able to anticipate new practice opportunities, advocate for social justice, participate in research, use critical thinking, cooperate effectively with a variety of groups, and serve as professional leaders and community partners. These competencies underscore the principles that guide this program.

The occupational therapy program offers two entry-level 5-year undergraduate/graduate curriculums for freshman and transfer students: a BS/MS; and a double major option with psychology (BA/BS/MS). An entry-level 2 year, post-baccalaureate (MS) curriculum is offered, too. Students in the 5-year program are encouraged to pursue minors and double majors using their elective coursework to enhance their professional objectives. While all campus minors are available, the minors in Business for Health Sciences, Health Sciences and in Special Education for Occupational Therapy Students are specially designed for our students. We also sponsor a joint degree program with Athletic training (BS), leading to certifications in each profession. For the post baccalaureate program, the bachelor’s degree must be completed by the first day of class and a variety of degrees are acceptable. Both curriculums are accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. (301-652-2682).
The Department offers a minor in human occupation and disability for non-occupational therapy students.

Level II fieldwork education must be completed within 24 months of the last day a student is in a professional class. Usually, Level II fieldwork includes working a minimum of 40 hours per week for up to 6 months.

Graduates of this program will be eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). In addition, most states require licensure in order to practice; however, most states are usually based on the results of the NBCOT Certification Examination. A felony conviction may affect a graduate’s ability to sit for the NBCOT Certification Examination or attain state licensure.

**OCCUPATIONAL THERAPY CURRICULUM**

A sample course plan for the pre-professional and professional phase of the curriculum as well as the 2-year post baccalaureate program can be obtained from the RSHS at (412) 396-6652 or the website at [http://www.healthsciences.duq.edu/ot/index.html](http://www.healthsciences.duq.edu/ot/index.html).

**REQUIREMENTS FOR THE HUMAN OCCUPATION & DISABILITY MINOR**

A total of 15 credits for non-occupational therapy majors only:

**Required Core (6 Credits):**

OCCT 305. Foundations & Concepts in Occupational Therapy (3 cr.)

OCCT 324/PSYC 324. Perspectives on Disability and Illness (3 cr.)

**Electives – Choose 9 credits from the following:**

OCCT 310. Occupational Performance Throughout the Lifespan (3 cr.)

OCCT 545. Occupational Performance Perspectives / Lab (3 cr.)

OCCT 548. Medical Conditions in OT (4 cr.)

OCCT 550. Environmental Adaptation & Rehabilitation Technology / Lab (3 cr.)

OCCT 560. Sociocultural Systems & Networks (3 cr.)

OCCT 565. Community & World Health (3 cr.)

OCCT 400/500. Independent Study (3 cr.)*

*A student must have pre-approval of an occupational therapy faculty member to take this course. A student may count no more than 3 credits of independent study towards this minor. The activities in the independent study must relate to the purposes stated in the minor and include either an experiential component or scholarly work.

**COURSE DESCRIPTIONS FOR PROFESSIONAL COURSEWORK**

This curriculum also requires three of the School’s interdisciplinary courses (HLTS): Anatomy (315/315L); Neuroscience (403/503); Principles of Research (430/530 and OCCT 533W/533L).

**OCCT 150. Occupational Therapy Orientation.** 1 cr.

Introduction to the practice of occupational therapy as a Professional and service.

**OCCT 200. Independent Study.** 1-6 crs.

With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisites: Endorsement of the supervising faculty member and approval of the Department Chairperson.

**OCCT 305. Foundations and Concepts of Occupational Therapy.** 3 crs.

Overview of the profession’s history, philosophies, roles and functions, scholarship activities, current issues, and future directions. Prerequisite: Sophomore in the pre-professional occupational therapy program.

**OCCT 324 / PSYC 324. Perspectives on Disability and Illness.** 3 crs.

Overview of the unique biopsychosocial person-environment interaction and related social justice issues when a person of any age experiences disability or chronic illness is explored. Course is open to campus.

**OCCT 310. Occupational Performance Throughout the Lifespan.** 3 crs.


**OCCT 400/500. Independent Study.** 1-6 crs.

With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisites: Endorsement of the supervising faculty member and approval of the Department Chairperson prior to registration.
OCCT 416/416L. Fundamentals of Practice & Lab.  2 crs.
Introduction to practical aspects of occupational therapy fieldwork including documentation, observation, client interaction skills. Practicum experience included. Prerequisites: OCCT 305, 310.

OCCT 502. Occupational Therapy Overview. 1-3 crs.
Foundational concepts in occupational therapy. For professional transfer students only. Prerequisites: Special permission of the instructor.

OCCT 511/511L. Clinical Reasoning & Fieldwork IA. 3 crs.
Transformation of didactic learning into clinical reasoning with a focus on evaluation, treatment planning and implementation, and documentation. Includes 40 hours of practicum and service learning. Prerequisites: OCCT 545/545L, 416/416L, 535/535L.

OCCT 512/512L. Clinical Reasoning & Fieldwork IB. 3 crs.
Transformation of didactic learning into clinical reasoning with a focus on further establishing therapeutic interactions, clinical observation, and intervention strategies. Includes 40 hours of practicum and service learning. Prerequisites: OCCT 511/511L, 518/518L, 535/535L.

OCCT 518/518L. Humans, Groups and Occupations. 3 crs.
Analyzing and directing individual and group participation in occupations. Introduction to the teaching-learning process in occupational performance. Prerequisites: OCCT 305, 310.

OCCT 520/520L. Neuromotor & Sensory Function. 4 crs.
Application of sensory, motor, and development theories in practice. Prerequisites: OCCT 511/511L, 518/518L, HLTS 403/503.

OCCT 525/525L. Psychosocial Function. 4 crs.

OCCT 530/530L. Biomechanical Function. 4 crs.
Theories and intervention strategies related to strength, endurance, joint function, and voluntary control over movement. Orthotics, prosthetics, biofeedback, mobility equipment, ergonomics, and human factors are discussed. Prerequisites: OCCT 310, 537/537L, 535/535L.

OCCT 532W. Qualitative Research. 2 crs.
An introduction to the theoretical frameworks, research designs, and methods of data analysis that characterize qualitative research.

OCCT 533W/533L. Principles of Research Lab. 1 cr.
Introduces students to each phase of the research process. Discussions focus on the design, conduct, analysis, and interpretations of clinical research studies.

OCCT 535/535L. Occupational Performance Evaluation. 3 crs.
Introduction to measurement and interpretation of occupational performance areas and performance components. Prerequisites: OCCT 305 and 310 or 502.

OCCT 537/537L. Human Motion and Movement. 4 crs.
Analysis of movement using motor learning, motor control, motor development, kinesiological theories, and applied principles that contributes to functional human motion. Prerequisites: HLTS 315/315L, 515/515L, OCCT 305, 310.

OCCT 541. Evidence-Based Practice. 3 crs.
Analysis and synthesis of the research evidence that supports occupational therapy practice. Prerequisites: OCCT 532W, HLTS 430/530.

OCCT 545/545L. Occupational Performance Perspectives/Lab. 3 crs.
Study of theories, models, and frames of reference that guide and shape occupational therapy practice. Emphasis on case study integration.

OCCT 546/546L. Cognitive & Perceptual Function. 3 crs.
The influence of cognitive, perceptual rehabilitation and motor learning theories and approaches on evaluation and treatment. Prerequisites: OCCT 548, 535/535L, HLTS 403.

OCCT 548. Medical Conditions in OT. 4 crs.
Overview of medical conditions typically seen in occupational therapy practice. Prerequisites: HLTS 315/315L or 515/515L, 403/503, OCCT 537/537L.

OCCT 550/550L. Environmental Adaptations & Rehabilitation Technology / Lab. 3 crs.
Assessment and modification of the physical environment to enhance occupational performance including computer resources, assistive technology, home health, environmental controls, and
OCCT 552 & 553. Clinical Seminar A & B.  1 cr., 1 cr.
Guided discussions regarding Level II Fieldwork to integrate the relationship between the clinical experiences with essential curriculum concepts. Advanced learning in several specialty areas will be included. Prerequisites: OCCT 555, 556, 557, 558.

Exposure to a wide range of diagnoses and treatment in a variety of settings to gain entry-level practice competence. Prerequisites: OCCT 512/512L, 520/520L, 530/530L, 532W.

OCCT 560. Sociocultural Systems & Networks.  3 crs.
Therapeutic considerations in all aspects of multicultural diversity and implications for health care service delivery. Prerequisite: Permission of the instructor.

OCCT 561/561L. Occupational Therapy Administration.  3 crs.
Introduction to the basic principles of organization and management of occupational therapy programs. Prerequisites: OCCT 512/512L, 520/520L, 532W.

OCCT 562 & 563. Leadership A & B.  1 cr., 1 cr.
Analysis of leadership approaches in practice, management, and education. Prerequisites: OCCT 555, 556, 557, & 558.

OCCT 565/565L. Community & World Health Care Issues.  3 crs.
Focus will be on community resources, health promotion, disease prevention, and future directions in national and international health care. Prerequisites: OCCT 512/512L, 560.

OCCT 574W/574L. Fieldwork Proposal.  1 cr.
Students develop a proposal for a research project while on Level II Fieldwork. Prerequisites: HLTS 430/530, OCCT 532W, 541.

OCCT 610W. Research Project I: Prospectus.  1 cr.
This is the first course in the elective 3-course research project sequence. Working with a faculty research mentor, the student designs a research proposal using quantitative and/or qualitative research methods, and submits the proposal to the university’s Institutional Review Board. Instructor permission is required to enroll.

OCCT 611W. Research Project II: Engagement.  1 cr.
This is the second course in the elective 3-course research project sequence. Under the guidance of a faculty mentor, the student collects data for the research project approved by the university Institutional Review Board. The student also continues to review the research literature relevant to the research project. Prerequisite: OCCT 610W. Instructor permission is required to enroll.

OCCT 612W. Research Project III: Dissemination.  1 cr.
Third and final course in the elective research project sequence. Under the guidance of a faculty mentor, the student analyzes the data and completes a manuscript ready to be submitted for publication in a peer-reviewed research journal. Prior to graduation, the student presents the results of the research project in a public forum. Prerequisite: OCCT 611W. Instructor permission is required to enroll.

DEPARTMENT OF PHYSICAL THERAPY (PT)

Chairperson:
David L. Somers, Ph.D., P.T.

Physical therapists examine and treat people with a variety of impairments, functional limitations and disabilities. They work with patients during all phases of health care, from prevention and wellness to recovery from injury, illness and surgery. Physical therapists select and administer tests and measures, analyze their findings, and design and implement individualized treatment programs to enhance their patients’ health, physical and functional ability, and quality of life. In addition to providing direct patient care, physical therapists work as administrators, researchers, educators, and consultants.

The Physical Therapy program at Duquesne University includes pre-professional and professional coursework on campus, as well as clinical education in a variety of healthcare settings. Students in the preprofessional phase develop intellectual skills and a broad knowledge base in the liberal arts and in their major. Students in the professional phase of the program take a sequence of basic and clinical science courses designed
to prepare them for the profession of physical therapy. At two points in the program, students must take and pass matriculation examinations before progressing into their clinical education experiences. Students who successfully complete the didactic and clinical components of the program are awarded a Doctor of Physical Therapy (DPT) degree.

**PHYSICAL THERAPY CURRICULUM**

A sample course plan for the pre-professional and professional phase of the curriculum can be obtained from the RSHS at (412) 396-6652.

**COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE**

**PHYT 301. Introduction to Physical Therapy.** 1 cr.
This is the first course in a series of four inter-related courses that focus on professionalism, the patient-provider relationship, the patient interview and evaluation, and, providing care that is ethical, compassionate, culturally competent and professional. This first course introduces the student to the profession of physical therapy practice with a focus of the course to provide the student with information that will enhance their knowledge, skills and attitudes about the profession. Students will begin to learn principles of practice specific to the patient – provider relationship. Knowledge and skills learned in this course will be used as a framework for the following three courses in this series.

**PHYT 421W/531W. PT Seminar I.** 1 cr.
This is the third course in a series of four inter-related courses that focus on professionalism, the patient-provider relationship, the patient interview and evaluation, and, providing care that is ethical, compassionate, culturally competent and professional. This course will build on material from the previous courses *Introduction to Physical Therapy and Social and Cultural Issues in Physical Therapy*. This course introduces the student to the application of specific aspects of clinical physical therapy practice, with a focus on ethical issues in physical therapy, documentation, professional development, the patient-provider relationship, and the interdisciplinary health care team. Prerequisite: PHYT 460.

**PHYT 435/535. Psychology of Illness and Disability.** 3 crs.
This clinically oriented course will focus on the psychosocial issues of disease and injury. Discussion will cover various topics related to the delivery of physical therapy and will include but are not limited to: service delivery issues, patient-practitioner interaction, the grieving process and cultural differences in response to illness and disease.

**PHYT 447/547. Foundational Skills/Lab.** 3 crs.
This course is an introduction to the basic physical therapy procedures, patient management, and clinical decision-making skills that will serve as the foundation for future course work.

This is the second course in a series of four inter-related courses that focus on professionalism, the patient-provider relationship, the patient interview and evaluation, and, providing care that is ethical, compassionate, culturally competent and professional. This course will build on material from the previous course *Introduction to Physical Therapy*.

**PHYT 506. Exercise Physiology and Wellness/Lab.** 3 crs.
This course prepares students to understand the physiological changes that occur in the body when it undergoes the stress of exercise and physical activity. The content of this course will include an emphasis on the measurement of normal physiological functions, as well as the recognition and measurement of both normal and abnormal adaptations that occur in the cardiorespiratory and muscular systems of the body as a result of exercise. Students also will learn about the interrelationship between body composition and metabolism in the body’s response to exercise and discuss how nutrition, hydration, and altitude influence the body’s metabolic responses to exercise and temperature. Finally, students will be introduced to evolving complimentary and alternative medical practices, as well as an overview of the requirements of a periodization plan for regular exercise.

**PHYT 508. Examination Methods/Lab.** 3 crs.
This course is designed as an introduction to basic evaluation and documentation techniques, which can be used with any patient diagnosis. It will draw heavily on previous classes, especially anatomy and physiology. Topics to be included are the bony and soft tissue palpation, vital signs, reflex and sensation testing, basic balance and coordination.
testing, manual muscle testing, range of motion and goniometry, length and girth measurements, postural analysis. Prerequisites: HLTS 470/470L or 570/570L, 471/471L or 571/571L, 480 or 580, 481 or 581.

PHYT 510. Clinical Education I. 4 crs.
This is the first of five full-time clinical experiences. Each student will be assigned to a clinical instructor (CI) who will serve as their clinical supervisor during the clinical education experience. Each clinical site will have a Center Coordinator for Clinical Education (CCCE) who is responsible for overseeing the student’s clinical education experience. Students are expected to apply their current professional knowledge base to develop problem solving strategies for managing clinical problems; integrate academic knowledge and skills into the clinical setting; demonstrate professional behavior, and act as a member of the clinic physical therapy team. This includes but is not limited to participating in clinical examinations, evaluations, and implementation of physical therapy interventions; discharge planning; educating patients, family members and caregivers; participation in rehabilitation team meetings; on-site continuing education; patient rounds and formal patient reporting; and other learning experiences as determined by the CI or CCCE. Prior to beginning Clinical Education I, all coursework must be successfully completed and the student must pass Matriculation Examination I. The student must have updated Pre-Clinical Health Requirements and verification of any clearances and training certificates required by the University and the Clinical Education Facility.

PHYT 518. Orthopedic Science I. 3 crs.
This course will serve as the foundation from which the subsequent orthopedic courses will be built. This course will provide the student with the theoretical basis and framework for the examination, evaluation, diagnosis and intervention of musculoskeletal dysfunction. Information will be primarily conveyed in lecture format though students will gain laboratory experience with functional movement screening and isokinetic testing. Prerequisites: HLTS 437/437L or 537/537L; PHYT 508.

PHYT 519. Orthopedic Science II/Lab. 3 crs.
This lecture/laboratory course will serve to enhance, integrate and build upon the information and skills gleaned from Examination Methods and Orthopedic Sciences I & II. Special emphasis will be placed on the examination, evaluation, diagnosis, prognosis and intervention of upper extremity musculoskeletal dysfunction. Prerequisites: Concurrently enrolled in PHYT 518. Successfully completed: HLTS 437/437L or 537/537L; PHYT 508.

PHYT 520. Orthopedic Science III/Lab. 3 crs.
This lecture/laboratory course will serve to enhance, integrate and build upon the information and skills gleaned from Examination Methods and Orthopedic Sciences I & II. Special emphasis will be placed on the examination, evaluation, diagnosis, prognosis and intervention of lower extremity musculoskeletal dysfunction. Prerequisites: PHYT 508, 518, 519/L; HLTS 437/437L or 537/537L.

PHYT 521. Orthopedic Science IV/Lab. 3 crs.
This lecture/laboratory course will serve to enhance, integrate and build upon the information and skills gleaned from Examination Methods & Orthopedic Sciences I, II & III. Special emphasis will be placed on the examination, evaluation, diagnosis, prognosis and intervention of spinal dysfunction. Prerequisites: Concurrently enrolled in PHYT 520. Successfully completed: PHYT 508, 518; 519/L; HLTS 437/437L or 537/537L.

PHYT 530. Topics in Research. 2 crs.
This course presents three aspects of the research process. First, small research projects will be performed in class. These projects will cover a broad spectrum of potential research designs, exposing students to data acquisition in multiple research formats. Secondly, research projects performed in class will be presented in a poster format. In this way, students will learn the process of presenting acquired data. Thirdly, evaluation of eight separate published manuscripts that represent a broad spectrum of research designs will be critically evaluated to reveal the major principles of clinical research. Finally, the quality and clinical applicability of a published manuscript will be evaluated using the procedure of evidence-based practice. Prerequisite: HLTS 430.

PHYT 543. Clinical Neurologic Science I/Lab. 3 crs.
This course focuses on the examination, evaluation, diagnosis, prognosis, and plan of care specific to adult persons with disablement due to neurological conditions. The course will also introduce students to motor control theories and provide a problem-oriented framework for applying physical therapy practice to persons with neurological disorders.
Due to the nature of this course the material from many previous classes will be reexamined. Prerequisite: 508.

**PHYT 544. Clinical Neurologic Science II/Lab.** 3 crs.
The major emphasis of this course is on physical therapy interventions for persons with neurologic dysfunction. This is an extension of Clinical Neurological Science I. This course will also introduce students to motor learning concepts and research to promote their ability to provide feedback to patients, enhance skill acquisition, and to design practice schedules that will maximize their patients’ abilities to learn. Students will learn a problem solving approach to make clinical decisions based on the integration of previous course work in basic and applied sciences. Approaches to therapeutic exercise will be examined and critically reviewed. Prerequisite: 543.

**PHYT 564. Special Topics in Geriatrics.** 2 crs.
This course will focus on the normal changes that occur with aging and how the physical therapists should modify their approach to examination, assessment and program planning based on those changes. Physical therapy issues with patients exhibiting common pathological changes of aging such as osteoporosis, dementia and Type II diabetes will be addressed as well as current topics in geriatric care, including reimbursement and psychosocial concerns.

**PHYT 569. Patient Care and Education in Physical Therapy.** 2 crs.
This is the fourth course in a series of four inter-related courses that focus on professionalism, the patient-provider relationship, the patient interview and evaluation, and, providing care that is ethical, compassionate, culturally competent and professional. This course will build on material from the previous three courses Introduction to Physical Therapy, Social and Cultural Issues in Physical Therapy, and Physical Therapy Seminar. Prerequisites: PHYT 421, 460.

**PHYT 570. Ergonomics & Environmental Considerations/Lab.** 3 crs.
This course addresses components of ergonomic and environmental assessment and intervention as it relates to management of health conditions commonly encountered in physical therapy practice. Emphasis will be placed on the effect of workplace and environmental variables that can be a causal or influential factor in the disablment process. Prerequisite: HLTS 437/437L or 537/537L.

**PHYT 572. Pediatrics/Lab.** 3 crs.
This course will provide an overview of the maturation of the various body systems and how these processes influence movement over the first two decades of life with a particular emphasis for the first two years. Students will have an opportunity to screen a typically developing child using pediatric specific examination tools. The course will also introduce the student to examination and intervention considerations for the child with atypical development.

**PHYT 601. Differential Diagnoses in PT/Lab.** 2 crs.
This course is designed to introduce physical therapy students to the process of differential diagnosis. The students will be introduced to the tools and procedures (both medical and cognitive) needed to perform a differential diagnosis as primary care providers in physical therapy settings. As part of this process they will be expected to integrate information learned in previous courses such as medical sciences and evaluation and examination courses. Emphasis is placed on the professional decision-making process that leads to optimal patient management and/or referral to other practitioners.

**PHYT 605. Cardiovascular & Pulmonary Science/Lab.** 3 crs.
Cardiovascular and Pulmonary Science is a lecture and lab format course that includes an in-depth study of the body’s physiological function during rehabilitation programs for individuals with deficits in the oxygen transport system. The course is designed to provide an expanded exposure to mechanisms that may explain clinical manifestations occurring at rest and during exercise for patients/clients with cardiovascular and pulmonary disorders and/or related critical illnesses. Students will learn to select and perform examinations pertinent to each patient’s/client’s condition while implementing a contemporary clinical decision making process as outlined in the Guide to Physical Therapist Practice, Preferred Physical Therapist Practice Patterns: Cardiovascular and Pulmonary; Chapter 6. Through the clinical decision making process the student will learn to define a physical therapy diagnosis and prognosis supported by evidence in the literature. Students will learn to select appropriate interventions and demonstrate sound application of techniques to remediate or manage cardiovascular and pulmonary dysfunction in an effort to optimize patient/client performance. Prerequisites: HLTS 470/470L, 471/471L, 480, 481, 520, 551, 552; 570/570L, 571/571L, 581, PHYT 502, 504/L, 569.
PHYT 610. Clinical Education II. 4 crs.
This is the second of five full-time clinical experiences. Each student will be assigned to a clinical instructor (CI) who will serve as their clinical supervisor during the clinical education experience. Each clinical site will have a Center Coordinator for Clinical Education (CCCE) who is responsible for overseeing the student’s clinical education experience. Students are expected to apply their current professional knowledge base to develop problem solving strategies for managing clinical problems; integrate academic knowledge and skills into the clinical setting; demonstrate professional behavior, and act as a member of the clinic physical therapy team. This includes but is not limited to participating in clinical examinations, evaluations, and implementation of physical therapy interventions; discharge planning; educating patients, family members and caregivers; participation in rehabilitation team meetings; on-site continuing education; patient rounds and formal patient reporting; and other learning experiences as determined by the CI or CCCE. The student must have updated Pre-Clinical Health Requirements and verification of any clearances and training certificates required by the University and the Clinical Education Facility.

PHYT 611. Clinical Education III. 5 crs.
This is one of three final clinical experiences which will build on the skills attained in Clinical Education I and II. Students will continue to fulfill clinical education requirements for graduation as stated in PHYTH 610 and on the department WEB page. Students are expected to achieve department designated levels of competency in all performance dimensions indicated in the APTA Clinical Performance Instrument. Specific skill development and performance expectations in delivery of physical therapy services will vary according to assigned rotation and student expectations written by the clinical site. The student will demonstrate attainment of departmental goals related to lifelong teaching and learning, clinical education mentoring and professional development planning through completion of required activities during this affiliation. Prerequisites: Prior to beginning Clinical Education IV the student must successfully pass PHYT 611. The student must have updated Pre-Clinical Health Requirements and verification of any clearances and training certificates required by the University and the Clinical Education Facility where the student is assigned.

PHYT 612. Clinical Education IV. 5 crs.
This course is the second of three final clinical experiences culminating in attaining full professional competence in clinical setting. Students are expected to achieve department designated levels of competency in all performance dimensions indicated in the APTA Clinical Performance Instrument. Specific skill development and performance expectations in delivery of physical therapy services will vary according to assigned rotation and student expectations written by the clinical site. The student will demonstrate attainment of department goals related to consultation, health promotion, community leadership and service, professional duty for reflection/improving the effectiveness of care and professional development planning through completion of required activities during the affiliation. Students Prerequisite: Prior to beginning Clinical Education IV the student must successfully pass PHYT 611. The student must have updated Pre-Clinical Health Requirements and verification of any clearances and training certificates required by the University and the Clinical Education Facility where the student is assigned.

PHYT 613. Clinical Education V. 9 crs.
This course is the third of three final clinical experiences culminating in attaining full professional competence. Students are expected to achieve department designated levels of competency in all performance dimensions indicated in the APTA Clinical Performance Instrument. Specific skill development and performance expectations in delivery of physical therapy services will vary according to assigned rotation and student expectations written by the clinical site. The student will demonstrate attainment of departmental goals related to evidence based practice, professional duty for reflection/improving the effectiveness of care and professional development planning through completion of required activities during the affiliation. The student will demonstrate critical analysis of current and best practice, offering strategies for integration of optimal care into the clinical environment. The student will also demonstrate an ability to implement a professional development plan with written objectives that go beyond the performance dimensions defined in the APTA Clinical Performance Instrument. Professional career focused objectives will be pursued while demonstrating sensitivity toward the goals of the patient, respecting administrative concerns of the clinical site and fostering excellence in representing the profession of physical therapy. Students Prerequisite: Prior to beginning Clinical Education V the student must successfully pass PHYT 612. The student must have updated Pre-Clinical Health Requirements and verification of any clearances and training certificates required by the University and the Clinical Education Facility where the student is assigned.
PHYT 615. Prosthetics and Orthotics/Lab. 2 crs.
This course will provide an in-depth understanding of normal and pathologic gait, limb prostheses, and the preprosthetic and prosthetic training phases of rehabilitation for people with amputations. The course will also include an introduction to limb orthotics.

This is the third course in the didactic sequence of instruction in the neuromuscular curriculum and integrates previous coursework and skills into course programming. The major emphasis of this course is to apply the elements of patient/client management to adult persons demonstrating aspects of disability due to specific neurological conditions: brain tumors, multiple sclerosis, basal ganglia disorders, acquired brain injury, and vestibular system dysfunction. Emphasis will be placed on integration of examinations skills into evaluation, determination of functional prognosis, clinical problem solving as well as the planning and execution of therapeutic interventions. Prerequisite: PHYT 543.

This is the final course in the didactic sequence of instruction in the neuromuscular portion of the curriculum. Students will gain clinical knowledge and skills related to spinal cord injury, assistive technology, polyneuropathies, post-polio syndrome, amyotrophic lateral sclerosis, and HIV/AIDS. This course also includes a capstone practical examination that addresses physical therapy management of patients with neurological disorders, including all diagnoses and physical therapy management concepts and skills addressed in Clinical Neurologic Science I, II, III, and IV.

PHYT 625. PT Management. 3 crs.
This course presents information to the professional-phase physical therapy student on topics related to the administration and management of clinical practice. The topics will include structure and function of the U.S. health care system, legal issues, fiduciary responsibilities, ethical considerations, documentation and accreditation issues, corporate compliance programs, personnel management, leadership, and strategic business plan development. The purpose of this course is to introduce students to these concepts, so that they can better understand and contribute to the fundamental operations necessary to the function of a clinical facility and services it provides.

PHYT 630. Grand Rounds. 0 cr.
In this course, ten or eleven disparate cases will be presented. In each case, the elements of patient/client management will be discussed by a presenter who is an expert in the treatment of these kinds of cases. Students will be able to listen to a seasoned veteran talk about the elements of patient/client management as they apply to a particular type of patient/client. On the subsequent week, a group of students will be responsible for adding/altering an examination finding from the report they heard the previous week. They will then explain the impact of that change on the elements of patient/client management. In this way, the students will be able to mimic the thought processes used by the expert as they try to manage a novel examination finding of their own creation.

DEPARTMENT OF PHYSICIAN ASSISTANT (PA)

Chairperson:
Bridget C. Calhoun, MPH, PA-C

Medical Director:
Michael J. Essig, M.D.

Physician assistants (PA) are health professionals licensed to practice medicine in collaboration with physicians. Physician assistants are qualified by graduation from an accredited physician assistant educational program and certification by the National Commission on Certification of Physician Assistants.

Within the physician/PA relationship, physician assistants exercise autonomy in medical decision-making and provide a broad range of diagnostic and therapeutic services. The clinical role of physician assistants includes primary and specialty care in medical and surgical practice settings. Physician assistant practice is centered on patient care and may include educational, research and administrative activities.

Upon successful completion of the fifth year, students will be awarded a Master of Physician Assistant (MPA) and will be eligible to sit for the Physician Assistant National Certifying Exam.

PHYSICIAN ASSISTANT
CURRICULUM

A sample course plan for the pre-professional and professional phases of the curriculum can be obtained from the RSHS at 412.396.6652.

COURSE DESCRIPTIONS FOR PRE-PROFESSIONAL COURSE

PHYA 100. Preparing for Clinical Practice. 1 cr.
Students will learn basic skills necessary to excel in the physician assistant curriculum. The role of the physician assistant will be defined and students will develop a comprehensive understanding of medical terminology.

COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE

PHYA 400W/500W. Introduction to PA Profession. 1 cr.
The history, role, practice scope and professional policies of the physician assistant are explored in lectures, literature and group discussion.

PHYA 401/501, 402/502, 520.
Clinical Medicine I/II/II. 3 crs. (each)
Fundamental principles of disease, diagnosis, intervention and management are discussed (includes case-based laboratory).

PHYA 403/503, 412/512, 421W/521W. History & Physical Examination I/II/III. 3 crs. (each)
The skills of communicating with the patient and documenting medical data are explored in the context of the medical history. A study of physical examination techniques of adult, obstetric, geriatric and pediatric patient populations with focus on acquiring a knowledge base of normal physical exam findings to allow for recognition of abnormal physical examination findings. Patient assessment and documentation are emphasized (includes laboratory).

PHYA 404/504. Clinical Lab Methods. 3 crs.
Indications, technique and interpretation of a variety of common clinical lab tests are discussed.

PHYA 409/509. Clinical Pharmacology. 4 crs.
The mechanisms of actions of medications are discussed in correlation with specific disease processes.

PHYA 410/510, 411/511.
Applied Clinical Methods I/II. 3 crs. (each)
Cognitive understanding and technical performance of medical procedures are emphasized (includes laboratory).

PHYA 408/508, 505, 506. Clinical Seminar I/II/III. 3 crs. (each)
Students engage in active learning in the cooperative teaching format through analysis of clinical case scenarios in order to develop decision-making skills. During each class period, students are given portions of clinical situations which they will be responsible for analyzing in a methodical manner.

PHYA 414/514. Pathophysiology. 4 crs.
Principles of basic pathology and the mechanisms of the physiologic responses associated with selected human disease processes are discussed.

PHYA 416/516. Introduction to Patient Counseling & Education. 2 crs.
Emphasizes basic considerations and techniques needed for effective communication with patients regarding their health problems, with emphasis on enhancing patient compliance with medical therapy.

Childhood diseases are discussed in-depth, including diagnosis, treatment, and prognosis (includes case-based laboratory).

PHYA 425/525. Health Policy. 2 crs.
This course explores current trends, issues and public policies reflective of America’s evolving health care system.

PHYA 515. Fundamentals of Surgery. 3 crs.
Lecture series addresses preoperative, perioperative and postoperative patient care and management (includes case-based laboratory).

PHYA 545. Applied Pharmacology. 2 crs.
Provides instruction on selecting the most appropriate pharmacologic treatments. Students will learn indications, contraindications and therapeutic effects of medications commonly used in primary care settings. Material from undergraduate courses such as History and Physical Examination I,II,III and Clinical Medicine I,II,III will provide the clinical context for patient scenarios.
PHYA 529-536. Clinical Externships I-VIII. 24 crs. (total)
A coordinated series of supervised clinical externship assignments in a wide variety of clinical areas.

PHYA 540. Master’s Research. 3 crs.
An independent research project is completed with ongoing faculty support and recommendations.

DEPARTMENT OF SPEECH-LANGUAGE PATHOLOGY (SLP)

Chairperson:
Mikael D.Z. Kimelman, Ph.D., CCC-SLP

Speech and language disorders affect the way people produce and understand speech. These disorders may range from simple sound substitutions to not being able to use speech and language at all.

Speech-language pathologists are specialists in human communication, its development, and its disorders. They are professionally educated to evaluate and treat persons with communication problems.

To practice the profession of speech-language pathology, a master’s degree or a doctoral degree is required. Professionals must also hold a Certificate of Clinical Competence (CCC) from the American Speech-Language-Hearing Association, and in many states, must obtain a state license to practice.

Speech-language pathologists provide many specialized professional services which include: stimulating language and communication in children who have developmental disabilities; helping people with articulation disorders learn proper production of speech sounds; assisting people with voice disorders to develop proper control of their vocal mechanism; assisting people who stutter to increase their fluency, and to cope with this disorder; assisting people with aphasia to re-learn language and speech skills or compensate for their impairment; helping people with hearing impairments maximize their communication skills through signing, lip reading, or acoustic management; counseling people with speech and language disorders and their families to understand their disorder and to achieve optimal communication in education, social and vocational settings; and, helping prevent communication disorders.

SPEECH-LANGUAGE PATHOLOGY CURRICULUM

A sample course plan for the pre-professional and professional phase of the curriculum can be obtained from the RSHS at 412.396.6652.

The Department currently holds accreditation from the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association (ASHA).

COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE

SLP 101. Introduction to Communication Science & Disorders. 3 crs.
This course offers a survey of the field of human communication sciences and disorders. Students will learn about normal and disordered communication across the life span.

SLP 205W. Normal Speech & Language Development. 3 crs.
Students will learn about the stages of speech and language development in normal infants and children. Theories about semantic, syntactic, phonologic, and pragmatic development will be reviewed. Course content will prepare students to differentiate normal from disordered communication development. Prerequisite: SLP 101, or permission of the instructor.

SLP 250. Anatomy & Physiology of Speech & Hearing. 4 crs.
This course will examine the anatomy of those parts of the human body which are involved in speech and hearing. Students will learn about anatomical structures pertinent to communication and it’s disorders. Prerequisites: BIOL 207/208, SLP 101, or permission of the instructor.

SLP 310. Speech Science. 4 crs.
This course reviews the characteristics of sound as a physical phenomenon. Students will learn about the generation, transmission, and perception of speech. The acoustic characteristics and perceptual features of sounds and the feedback systems employed to monitor production of these sounds will be reviewed. Methods for studying speech, including instrumentation and research findings will be reviewed. Prerequisite: SLP 250 or permission of the instructor.
SLP 320. Phonetics. 3 crs.
In this course students will learn about the sound system of English. Students will learn to transcribe normal and disordered speech using the International Phonetic Alphabet (IPA), and will gain an appreciation for the role of transcription-based activities in the clinical management of clients.

SLP 350. Introduction to Observation & Clinical Procedures. 3 crs.
Preparation for clinical practicum through lecture and guided clinical observations. Introduction to clinical process and basic clinical procedures. Completion of 25 ASHA observation hours. Prerequisites: SLP 101, 205W, 250, 310, and 320; or permission of the instructor.

SLP 400. Independent Study. 1-6 crs.
Individually directed study in a special area of speech language pathology. Prerequisite: Permission of the instructor.

SLP 500. Independent Study. 1-6 crs.
Individually directed study in a specialized area of speech-language pathology. Prerequisite: Permission of the instructor.

SLP 505. Articulation & Phonology. 3 crs.
Students will gain a fundamental knowledge of: a) normal and disordered patterns of phonological development; b) methods of analyzing phonological data; and c) assessment and treatment of articulation and phonological disorders in children. Students will have practical experience in the organization and interpretation of complex speech data and the administration of articulation assessment instruments, will demonstrate competence in selecting and justifying treatment goals and procedures, and will perform case and staffing and clinical problem solving activities.

SLP 510. Diagnostics. 3 crs.
This class will introduce principles of assessment for a wide variety of communication disorders encountered in educational, medical, and other settings. Students will learn norms and standardized testing techniques, interviewing and chart review procedures, informal diagnostic tools and techniques, and methods for interpreting evaluation results.

SLP 513. Introduction to Audiology. 3 crs.
This course will introduce students to clinical audiology. Theories of hearing, hearing impairment, hearing conservation, hearing assessment and management will be presented. This course focuses on audiological issues related to the clinical practice of speech-language pathology.

SLP 515W. Research in Speech-Language Pathology. 3 crs.
The purpose of this course is to stimulate an appreciation for and an interest in basic and clinical research in speech-language pathology, and to develop skills that students will need to become wise consumers and potential producers of research. Students will have an opportunity to examine and critique research literature and to participate in a research activity.

SLP 517. Fluency Disorders. 3 crs.
Students will learn about the nature and treatment of stuttering in children, adolescents, and adults. In addition to obtaining practical experience in the analysis of stuttering symptoms, students will explore the complex assessment and treatment issues that impact clients who stutter across the lifespan.

SLP 520. Aural Rehabilitation. 3 crs.
This course will discuss the effects of hearing impairment on speech and language in children and adults. Theoretical and methodological issues in the habilitation, rehabilitation and counseling of hearing impaired individuals will be discussed. Prerequisite: SLP 513.

SLP 525. Motor Speech Disorders. 3 crs.
This course focuses on motor speech disorders in adulthood. Neuroanatomical and neurophysiological mechanisms underlying motor speech disorders will be addressed. Students will demonstrate knowledge of assessment, diagnosis, and treatment of motor speech disorders.

SLP 526. Language Disorders I. 3 crs.
Students will learn about language disorders affecting children, with an emphasis on differential diagnosis, assessment, treatment, and multicultural influences. Students will learn to collect and analyze language samples, will demonstrate competence in selecting and justifying treatment goals and procedures, and will engage in multiple clinical problem solving activities.

SLP 530. Aphasia. 3 crs.
This course will review the neurophysiology and management of communication disorders that result from damage to the language-dominant hemisphere of the brain. Students will learn about theoretical approaches to the study of aphasia and how to differentially diagnose and describe aspects of aphasia. A variety of approaches to the management of aphasia will be presented.
SLP 535. Neurocognitive Disorders. 3 crs.
In this course, students will learn about the neurophysiology, neuropathology and clinical management of the communication challenges associated with neurocognitive disorders including: right hemisphere syndrome; traumatic and non-traumatic brain injuries; and the dementias. Approaches specific to the acute and long-term management of these disorders will be addressed. Prerequisite: SLP 530; or permission of the instructor.

SLP 536. Language Disorders II. 3 crs.
This course expands the foundational information presented in Language Disorders I. Additional topics in this course may include the relationship between language and literacy, multicultural considerations in the assessment and treatment of language disorders, and language disorders in special populations. Prerequisite: SLP 526.

Clinic Series

SLP 540W. Clinic I. 2 crs. Prerequisite: Documentation of 25 hours of clinical observation.
SLP 541W. Clinic II. 2 crs. Prerequisite: SLP 540W
SLP 542. Clinic III. 2 crs. Prerequisite: SLP 541W
SLP 543. Clinic IV. 5 crs. Prerequisite: SLP 542
SLP 544. Clinic V. 4-5 crs. Prerequisite: SLP 543
SLP 545. Clinic VI. 3 crs. Prerequisite: SLP 544
This clinic series offers the student a broad scope of clinical practicum experiences. At least the first 25 hours of clinical practicum experience will be gained under the direct supervision of Duquesne University personnel. Students will participate in clinical education activities in the Duquesne Speech-Language Hearing Clinic and in external clinical settings. Students must arrange their own travel to clinic practicum sites.

SLP 550. Dysphasia. 3 crs.
Students will learn the anatomy and physiology of the normal swallowing mechanism as well as the characteristics and physiology of the abnormal swallow (dysphasia). Students will learn to identify symptoms of abnormal swallowing and nutritional intake. They will also learn a variety of treatment approaches for dysphasia.

SLP 554. Voice Disorders. 3 crs.
This course includes the study of the processes and systems of normal voice production. Incidence, etiologies, and symptoms of voice disorders across the life span including organic, behavioral and psychogenic disorders will be discussed. Instrumental and non-instrumental techniques for assessment and management of voice will be reviewed.

SLP 555. Augmentative & Alternative Communication With Lab. 3 crs.
Students will learn about the history of Augmentative and Alternative Communication (AAC); models of AAC intervention; assessment principles and procedures; components of augmentative communication strategies and technologies; language, symbolization, cognitive, and literacy issues; team approaches to assessment and intervention; and interventions across the age and disability spectrum. Students will be required to participate in technology lab activities.

SLP 556. Cleft & Craniofacial Disorders. 3 crs.
The course reviews a number of related clinical problems including: cleft lip and palate; laryngectomy; tracheotomy and ventilator dependency medical speech pathology. Issues, methods, and philosophies related to teaching esophageal speech, TEP voice, and use of mechanical instruments, as means of providing voice to laryngectomized individuals will be reviewed. Principles and methods of assessment and treatment within an interdisciplinary rehabilitation framework will be reviewed. Prerequisite: SLP 554; or permission of the instructor.

Clinical Seminars.

SLP 570. Clinical Seminar I. 1 cr.
SLP 571. Clinical Seminar II. 1 cr.
Seminars present a range of topics specific to the practice of speech-language pathology. Topics focus on aspects of communication disorders.

SLP 573. Speech-Language Pathology Seminar. 2 crs.
This seminar will focus on a wide variety of professional content including the management of disorders not addressed in traditional courses.

SLP 575. Capstone in Evidence-Based Practice. 2-3 crs.
This seminar provides students with a capstone clinical and advance study experience. Students will learn how to apply principles of evidence-based practice to clinical cases. Issues pertaining to multiculturalism are integrated into the course project.

SLP 700/710/720. Thesis I/Thesis II/Thesis III. 1 cr. each
Students may choose to engage in thesis based research.
School of Leadership and Professional Advancement

Dean:
Dorothy Bassett, Ph.D.

The School of Leadership and Professional Advancement offers a number of academic programs for adult students. We combine the more than 125 years of academic quality for which Duquesne University is renowned with flexible scheduling, program choices, and student services for adults. Visit our website at www.leadership.duq.edu.

MISSION STATEMENT
Our mission is to enhance people’s lives and contribute to society through the delivery of quality educational programs that extend the resources, traditions and values of the University.

CREDIT PROGRAMS

Accelerated Bachelor of Science in Professional Studies (BSPS)
This innovative undergraduate degree program is designed for adults who want to earn their bachelor’s degree while fulfilling many of life’s other important obligations. Students can obtain a degree in four years (less with transfer credits) by attending classes only on Saturdays or entirely online. Those entering with an associate’s degree or equivalent can earn their degree in about two years. We have articulation agreements with a number of community colleges. Students have the flexibility of combining Saturday and online coursework in completing their degrees. Courses are offered in an accelerated, 8-week format. Concentration areas offered:

- Computer Technology
- Organizational Leadership
- Professional Communication
- Organizational Behavior
- Criminal Justice and Forensic Science
- Humane Leadership
- Security Administration
- Training and Development

Saturday Bachelor of Science in Professional Studies (BSPS) – Major in Computer Systems Technology
The Bachelor of Science in Professional Studies, Major in Computer Systems Technology (BSPS CST) degree was initiated by several key factors including feedback from current students, a dynamic and expanding technology marketplace and a continued growth of careers in computer systems technology. Individuals pursuing the BSPS CST will develop the leading edge computer skills required by contemporary organizations through courses in programming languages, databases, multimedia technology and other technology topics. Students can obtain a degree in four years (less with transfer credits) by attending classes only on Saturdays. Courses are offered in an accelerated, 8-week format.

NON-CREDIT PROGRAMS

Paralegal Institute
The Paralegal Institute prepares students for careers as professional paralegals by providing a well-balanced, fully integrated education including substantive knowledge, practical skills, and a perspective of themselves and the community that enables them to perform effectively in a variety of legal settings. The Paralegal program is a course of study at the graduate level; this certificate program is intended to respond to the ever changing needs of the legal profession. A bachelor’s degree is required for admission.

The paralegal profession is a challenging and rewarding career choice. Duquesne University’s Paralegal Institute offers:

- post-bachelor’s degree certificate options
- general practice and specialty certificate options
- an outstanding law library
- part-time evening or full-time summer program options
- an effective placement program and online job bank
- an American Bar Association approved program
- a solid reputation for academic excellence

Executive Certificate in Financial Planning
The Executive Certificate in Financial Planning program has been designed for professionals in the brokerage, insurance, accounting, banking, and related industries. Whether you are new to the financial services industry or a seasoned financial
services professional, this program is designed to be equally beneficial. An outstanding faculty presents the material in a manner that is clear, concise and understandable. The program will focus on the technical aspects, practical application, ethics and professionalism of financial planning. The topics covered by this program are:

- Fundamentals of Financial Planning and Insurance
- Investments
- Taxation of Persons, Property and other Entities
- Retirement and Employee Benefits
- Estate Tax Planning
- Capstone/Case Studies

Duquesne University offers this registered program in partnership with Kaplan, the leading provider of financial planning and education materials. Upon completion students are eligible to sit for the CFP® Certification Examination.

Center for Leadership Development
The Center for Leadership Development provides customized consulting and professional development training through innovative and accessible delivery systems with a fundamental commitment to client success.

Nonprofit Leadership Institute (NLI)
The NLI provides training, consulting and board-matching programs for the nonprofit community.

Effective Catalog
The material contained herein is subject to change from time to time and this publication cannot be considered an agreement or contract between individual students and the School. The School of Leadership and Professional Advancement reserves the right to alter or amend the terms, conditions and requirements herein, and to eliminate programs or courses as necessary. Once enrolled students should consult on a regular basis with their Academic Advisor for specific information regarding academic policies pertaining to their respective programs.
Department of Military Science & Leadership, Army ROTC

The Department of Military Science & Leadership, Army ROTC is a combined Department with classes taught at Duquesne University, The University of Pittsburgh and California University of Pennsylvania campuses. The department is staffed by Active Army, Army Reserve and University faculty and staff in cooperation between the U.S. Army and the university administration.

OUR PURPOSE
Our department’s courses and programs are founded on two main goals:

1. To provide a general introduction in Leadership, Ethics, Communication Skills, and the Army as an Organization to any college student through elective courses.
2. To develop and place successful collegiate students who display leadership and management potential into Junior Executive positions as Officers for the Army’s Active and Reserve components.

COURSE PROGRAMS

Normal Progression: Students normally begin the program during the Fall Semester of their freshmen year (ROTC-101 course). They then take 1 ROTC elective course each semester during their Freshmen and Sophomore years.

Those that wish to become Army Officers then continue during their Junior and Senior years, and attend a 5 week summer course (at the Army’s expense) in Washington State.

Compressed Progression: Students who need to enroll into the program after the fall semester of their freshmen year or students planning on entering Graduate programs can pursue a number of options to compress the Military Science schedule to fit their normal academic program. Prospective compression students should contact the Department for more information.

SCHOLARSHIP INCENTIVE
In order to attract successful students into the program, the Army and Duquesne University offer a limited number of scholarships on a competitive basis each year. Army scholarships currently cover full tuition and mandatory fees, $1200 annually toward books and a monthly spending stipend ranging from $300-$500 based on academic year group. The University also compliments Army ROTC Scholarships with a room and board scholarship incentive, so long as students live on campus and maintain a 3.0 GPA or higher.

COMMITMENT
There is no Army commitment for students enrolled in any of our 100 or 200-level electives. Students who receive an Army scholarship, or who wish to take part in our 300 and 400-level courses, will be required to contract with the Army to pursue commissions as Officers on Active Duty or part-time in the Reserves or National Guard.

NURSING
The Army is actively seeking nursing students, who upon completion of their program are guaranteed service as an Army Nurse. Nursing students are also eligible to receive summer Internships at Army hospitals worldwide (at the Army’s expense), and additional scholarships are available specifically for Nurses.

CONTACT INFORMATION
College applicants or current students should contact the department office listed below for more information, or simply enroll in the course during the normal semester enrollment period.

Department of Military Science & Leadership, Army ROTC
1308 Fifth Avenue, 3rd Floor
Phone: 412-396-1709
Email: armyrotc@duq.edu
www.armyrotc.com
Air Force Reserve Officer Training Corps (AFROTC)

The Air Force ROTC program is administered by the Department of Aerospace Studies at the University of Pittsburgh. This program is available to Duquesne University undergraduate and graduate students by cross-enrollment through agreement with the University of Pittsburgh. Completion of the four-year or two-year AFROTC program leads to a commission as a Second Lieutenant in the US Air Force. AFROTC courses are open to all students, regardless of whether they are enrolled in a commissioning program.

In the four-year commissioning program, a student takes the general military course (GMC) during the freshman and sophomore years, attends a four-week summer training program, and then takes the professional officer course (POC) in the junior and senior years. In the two-year commissioning program, a student begins by attending a six-week summer training program prior to his or her junior year and then enters the POC. A student is under no contractual agreement to the Air Force until entering the POC or accepting an Air Force Scholarship. In addition to the academic portion of the curriculum, each student attends a one-hour leadership lab each week. This lab utilizes a student organization designed for the practice of leadership and management techniques. Two to three and a half-year scholarships are available on a competitive basis to qualified students. Many AFROTC scholarships may cover all costs of tuition, incidentals and lab fees, books, plus pay each recipient $300-500 per month.

For details about the AFROTC program as well as information on the courses, scholarship and flying programs, interested students are encouraged to contact the Air Force ROTC Detachment at (412) 624-6396, or contact the Unit Admissions Officer, Air Force ROTC, University of Pittsburgh, 2925 Cathedral of Learning, Pittsburgh, PA 15260-0001. Alternatively, please see our website at www.Det730.com.
Naval Reserve Officers’ Training Corps (NROTC)

Department of Naval Science

Captain Gregory Billy
Office: 4615 Forbes Ave.
Phone: (412) 268-5109

The Department of Naval Science was established 16 December 1987.

Duquesne University students participate in Carnegie Mellon NROTC in a cross-town agreement. Carnegie Mellon’s Naval Reserve Officers Training Corps (NROTC) is designed for young men and women who are seeking a challenging academic experience and who desire to serve their country as officers in the Navy or Marine Corps after graduation.

NROTC midshipmen lead the same campus life as other Duquesne students. They make their own arrangements for room and board, chose a preferred area of study and participate in extracurricular activities. Midshipmen wear civilian clothes to classes but wear uniforms one day a week. NROTC students are active in all facets of university life; many are in positions of leadership in student government, on varsity and intramural sports teams, in campus clubs, and other student organizations. The NROTC program seeks students who are bright, ambitious, enthusiastic leaders whose lives are enriched by their education at Duquesne University and by their involvement in NROTC.

FOUR-YEAR SCHOLARSHIP PROGRAM

The four-year scholarship program provides full tuition, fees, textbooks, uniforms, and a $250 per month tax-free subsistence allowance to students selected through nationwide competition. Midshipmen must complete the university approved curriculum of their choice, including courses in calculus and calculus-based physics, and specified courses in naval science subjects. Paid summer training periods are also provided. Scholarships are awarded on the basis of a nationwide competition before the start of the freshman year. A limited number of full scholarships may be awarded by the NROTC unit on campus. Midshipmen commissioned through the scholarship programs become officers in the Navy or Marine Corps and incur a four-year active duty obligation in selected warfare specialties.

THREE-YEAR SCHOLARSHIPS

Three-year scholarships are available on a competitive basis to those qualifying college program (non-scholarship) NROTC students who have demonstrated leadership and academic excellence during their freshman year and are nominated for the scholarship by the Professor of Naval Service. Active duty obligation is four years upon commissioning.

TWO-YEAR SCHOLARSHIP PROGRAM

The two-year scholarship program provides the same benefits as the four-year program for a period of 20 months. Students must apply for this program no later than February of their sophomore year. Students selected for this program attend the Naval Science Institute during the summer before their junior year to complete required naval science course material. A paid summer training period is provided between the junior and senior years. Commissionees incur a four-year active duty obligation upon graduation.

COLLEGE (NON-SCHOLARSHIP) PROGRAMS IN NROTC

Qualified students may participate in NROTC as college program (non-scholarship) midshipmen and earn commissions in the Navy or Marine Corps Reserve upon graduation. The active duty obligation for this program is 3 years. Students receive all naval science textbooks, uniforms, and during their junior and senior years a tax-free subsistence allowance of $350-$400 per month. A paid summer training period is provided between the junior and senior year. College program students may also compete for a limited number of merit scholarships.

CURRICULUM

The sequence of Naval Science courses is the same for all officer candidates for the first two years. Midshipmen accepted into the Marine Corps option program will have curriculum variations starting with their third year. Additionally, some candidates may be required to complete courses in American military affairs, national security policy, English, mathematics, and/or the physical sciences. Descriptions of the course requirements for each candidate classification (scholarship/college program) may be obtained from the Department of Naval Science office.

All scholarship and college program students are required to attend a weekly two-hour Naval Laboratory (32-100) where military drill, physical fitness, and leadership are emphasized.

Naval Science courses are open to all students. Since these are required for NROTC students, they will be given priority in enrollment. Remaining spaces will be filled through the normal university registration process.