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 — Director of University
Admissions
Administration Building, First Floor
Telephone (412) 396-6222
(800) 456-0590 (Outside of 412 Area Code)

ADVISORS
McAnulty College of Liberal Arts
College Hall, Room 212
Telephone (412) 396-6339/5905
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
Canevin Hall, Room 213
Telephone (412) 396-6118
Rangos School of Health Sciences
Health Sciences Bldg., Room 502
Telephone (412) 396-6652
Mary Pappert School of Music, Room 303
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 — Duquesne Union, Second Floor
Telephone (412) 434-6626

CAMPUS MINISTRY
Administration Building, First Floor
Telephone (412) 396-6020/3045

CAREER SERVICES CENTER
Rockwell Hall
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) 396-6585/587/588

COMPUTER AFFAIRS
117 Duquesne Union
Telephone (412) 396-6660

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

DU CARD CENTER
Duquesne Union, Room 203
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

GOVERNMENTAL AFFAIRS
Administration Building, Fifth Floor
Telephone (412) 396-5080

HEALTH SERVICE
Duquesne Towers, Second Floor
Telephone (412) 396-1650

INFORMATION CENTER — For University Events
Duquesne Union, Third Floor
Telephone (412) 396-6633

OFFICE OF INTERNATIONAL PROGRAMS
Duquesne Union, Sixth Floor
Telephone (412) 396-6613

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

OFFICE OF MULTICULTURAL AFFAIRS
Duquesne Union, Third Floor
Telephone (412) 396-1117

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

PUBLIC AFFAIRS
220 Fisher Hall
Telephone (412) 396-6050

PUBLIC SAFETY
Public Safety Building
Telephone (412) 396-6002

REGISTRAR — For Transcripts and Records
Administration Building, Ground Floor
Telephone (412) 396-6523 (Transcripts)
(412) 396-6212 (General Office)

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

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

STUDENT ACCOUNTS
Administration Building, Room 208
Telephone (412) 396-6585/587/588

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

UNIVERSITY COUNSELING CENTER
308 Administration Building
Telephone (412) 396-6204/6208

DUQUESNE UNIVERSITY
PITTSBURGH, PENNSYLVANIA

Undergraduate Catalog
2004-2005
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 of 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 Grages, 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 (PC 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.
Academic Calendars
Fall 2004 – Summer 2005

FALL SEMESTER – 2004

Classes Begin: August 23 (Monday)
Labor Day Holiday: September 6 (Monday)
All Saints Day: November 1 (Monday)
Holy Day: November 22-27 (Monday-Saturday)
Thanksgiving Holiday: December 9-15 (Thursday-Wednesday)
Commencement: December 16 (Thursday)

SPRING SEMESTER – 2005

Classes Begin: January 10 (Monday)
Martin Luther King Holiday (Observance): January 17 (Monday)
Spring Break: March 21-26 (Monday-Saturday)
Easter Holiday: March 24-28 (Thursday-Monday)
Monday Class Schedule Followed: April 26 (Tuesday)
Reading Day: April 27 (Wednesday)
Final Exams: April 28-May 4 (Thursday-Wednesday)
Ascension Holy Day: May 5 (Thursday)
Commencement: May 7 (Saturday)

SUMMER SEMESTER – 2005

Summer Term Begins: May 9 (Monday)
Memorial Day Holiday: May 30 (Monday)
Independence Day: July 4 (Monday)
End of 12 week term: July 29 (Friday)
Official Graduation Date: August 6 (Saturday)
Assumption Holy Day: August 15 (Monday)

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 2004.
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-contained 45-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 90 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), 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.

POLICY STATEMENT ON INTERNATIONAL EDUCATION
The mission of Duquesne University's founders, the Spiritans (Congregation of the Holy Spirit), has always included service to people outside of the United States. Duquesne University also is committed to providing an educational environment which recognizes cultural and national pluralism.

Duquesne welcomes qualified students throughout the world and encourages its students and faculty to take advantage of opportunities to study and teach abroad.
The University believes that the sharing of unusual traditions is an invaluable element in the educational process. In a world that is growing ever smaller, it is imperative that Duquesne reach out to people of different cultures to provide them with a multicultural experience not otherwise available to them. Interaction among international and American faculty and students will help everyone become better citizens of our shared world.

Duquesne University asserts its commitment to develop and maintain programs, services, and practices which promote and respect diverse cultures and backgrounds and which provide educational bridges for people throughout the world.

The University Setting
Located adjacent to downtown Pittsburgh, Duquesne University’s modern hilltop campus is easily accessible to the business, entertainment, and shopping centers of the city, while still offering students the privacy and peace of its own self-contained 45-acre site.

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

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, local college drama departments, and a wide variety of summer and after-dinner club theatres.

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 Museum of Art and History, Scifile Gallery, the National Aviary, Carnegie Science Center and Buhl Planetarium, Pittsburgh History and Landmarks Museum, Duquesne Incline and Phipps Conservatory.

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 houses a main arena, three regulation-size basketball courts, modern training room facilities, a 5,500-square-foot weight room, an indoor running track and locker room facilities. Not just an athletic facility, Palumbo Center houses athletic department staff and coaches offices. In the past 10 years, Palumbo Center has been the site of the three postseasong 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, Antonio J. Palumbo, the center 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 University.

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 mainframe.

The Bayer Learning Center is a modern classroom building with multimedia classrooms/laboratories, complete with satellite downlinks, electronic “white” boards and interactive student response pads.

The Brother Rice Hall is a newly acquired apartment complex adjacent to Rockwell Hall. It houses approximately 750 students in studio, 1-bedroom and 2-bedroom apartments.

The Duquesne Union is the center of campus life and student activities. Dedicated in 1967, it houses offices of the Student Life Division, International Affairs, Commuter Affairs, and various student organizations. Facilities include meeting rooms, an information center, four dining facilities, the bookstore, and a popular gathering place for lounging and recreation. Late night programs are offered in the Union NiteSpot Tuesday through Saturday.

Fisher Hall houses the RSHS Departments of Health Management Systems and Speech-Language Pathology, Speech-Language-Hearing Clinic, RSHS Exercise Physiology Lab, Occupational Performance Lab for Occupational Therapy, Department of Theology, Human Resource Management, Public Affairs, computer labs, classrooms, other administrative offices 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.

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The G & G Building houses the Physical Plant Office.

Health Sciences Building, dedicated in 1991, resulted from the renovation of the old Gymnasium. The four-story building is the home of the John R. Gansor, 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.

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, study student areas, and student organizations space.

Laval House houses the Spiritan Vocation Office.

The Gumberg Library, opened in 1978 and was re-dedicated 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 more than 150 research databases that index newspapers, research journals and other publications. It provides access to more than 6,000 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. 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 onsite 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 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.

Wireless access is available throughout the Library. Students can connect with their personal laptops or loaner laptops that are available for library use.

Within the Gumberg Library there are prestigious 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 Halperin Collection, and the Honorable Michael A. Musmanno Collection. The University Archives is also part of the Library and is the center for the documented history of Duquesne University.

In keeping with its mission and by supporting the traditions of academic excellence and the Spiritan identity of Duquesne University, the Gumberg Library is the primary focus for distinctive intellectual resources, information literacy instruction, and related library services for students. 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 and an outdoor basketball/deck hockey court.

The Public Safety Building is headquarters for the University’s Public Safety Office.

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 for the Mylan School of Pharmacy and 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 models. 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.

Rockwell Hall, dedicated in 1958, is a 10-story structure which houses the A. J. Palumbo School of Business Administration and the John F. Donahue Graduate School of Business and whose Skywalk connects downtown Pittsburgh with Duquesne’s campus. The building has been totally remodeled in recent years. Rockwell Hall also houses a student lounge/vending machine area, Rockwell Express (Burger King and Pizza Hut), the School of Business Technology Center, Computing and Technology Services, Chrysler Corp. Small Business Development Center, the School of Leadership and Professional Advancement, Career Services Center, Psychology Clinic, Printing and Graphics Department, Institute for Economic Transformation, the mailing center, the Mills Complex, University Press, and University Purchasing Department.

Arthur J. Rooney Athletic Field, a multi-purpose field named in honor of Arthur J. Rooney, Sr., founder of the Pittsburgh Steelers and Duquesne letterman. The facility provides a home for Duquesne University’s football, men’s and women’s soccer and women’s lacrosse teams as well as intramural activities. The indoor air-supported structure (a bubble) is erected over a majority of the field for spring practices and off-season conditioning. The field, which is equipped with lights and state-of-the-art AstroPlay 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 Campus Ministry Office, computer labs, and vending machines. Each student room has access to the campus computer mainframe.

St. Martin’s Living-Learning Center, is a 13-floor coed residence hall which houses approximately 540 freshmen 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 labs, and vending machines. Each student room has access to the campus computer mainframe.

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 functions. Each room has individual heating and air-conditioning units. Upper classman building. Coed by floor.

ACCREDITATION AND AFFILIATION

University
Accreditation
Middle States Association of Colleges and Schools
State Board of Education of the Pennsylvania Department of Education
Membership
American Association of Collegiate Registrars and Admissions Officers
American Council on Education
Catholic College Coordinating Council for Adult Learners
College Entrance Examination Board
Council for Advancement and Support of Education
Council of Independent Colleges and Universities
Middle States Association of Collegiate Registrars and Admissions Officers
National Association of College Admission Counsellors
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

American Association for Higher Education
American Association for State and Local History
American Conference of Academic Deans
American Historical Association
American Library Association
American Mathematical Association
American Psychological Association
American Sociological Association
Association for Communication Administration
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 Computing Machinery
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
College
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 Collegiate Honors Council
National Communication Association
Organization of American Historians
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
Pennsylvania Department of Education
Council for the Accreditation of Counseling and Related Educational Programs
National Association of School Psychologists
Membership
American Association of Colleges for Teacher Education

Association of Independent Liberal Arts Colleges for Teacher Education
International Council on Education for Teaching
The Pennsylvania Association of Colleges and Teacher Educators
Trainers of School Psychologists
CDSPP (Council of Directors of School Psychology Programs)

Ranges School of Health Sciences
Accreditation
The Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT)
The Bachelor of Science in Health Management Systems (BSHMS) degree program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the American Health Information Management Association (AHIMA) Council on Accreditation (COA) and the Council on Accreditation and Recognition (CAR) Select graduates will be eligible for the national certification examination to become a Registered Health Information Administrator (R.H.I.A.)
The Accreditation Council for Occupational Therapy Education (ACOTE)
The Commission on Accreditation in Physical Therapy Education (CAPTE)
American Academy of Physician Assistants (AAPA) in collaboration with the Accreditation Review Committee on Education for the Physician Assistant (ARC-PA)
The Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association
Membership
Association of Schools of Allied Health Professions

Mary Pappert School of Music
Accreditation
American Music Therapy Association
National Association of Schools of Music
Pennsylvania Department of Education
Membership
American Music Center
American Music Therapy Association
Association of Pennsylvania Orchestras
College Music Society

Music Educators National Conference
Music Industry Conference
National Association of Schools of Music
Pennsylvania Alliance for Arts Education
Pennsylvania Federation of Music Clubs
Pennsylvania Music Educators Association
Pennsylvania College of Technology
Percussive Arts Society

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

Mylan School of Pharmacy
Accreditation
American Council on Pharmaceutical 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
Alpha Sigma Lambda National Honor Society for Adult Learners
Alliance for Nonprofit Management
American Association for Paralegal 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
Association of Continuing Higher Education

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. Bachelor's, master's, 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 CAMPUS
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 most areas. They are open to qualified Duquesne students and students from other colleges and universities. The sessions, of varying length, begin in May and run through July. For additional information regarding Summer Sessions, or to request a Summer Schedule of Classes, please contact the School of Leadership and Professional Advancement, 216 Rockwell Hall, at (412) 396-5600 or 1-800-283-3853.

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. Below is some important information regarding CTS and technology at Duquesne University.

Help Desk
The CTS 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 one of three ways: by phone (412-396-4357 or 1-888-355-8226), by e-mail (help@duq.edu) or in person (Duquesne Union).

 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. To read Duquesne's computing policies, please see http://www.technology.duq.edu/net/policies.

START-IT
All students should look through the detailed information of CTS's START-IT. Student Advice Regarding Today's Information Technology. 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.

Your E-mail Account
Your e-mail account username and password are the two most important pieces of information that you will need for online account and technology access at Duquesne University. You will use your e-mail username to access online resources such as Webmail, WebAdvisor, Blackboard, and ResNet. For more information on your Duquesne e-mail account, please see http://www.technology.duq.edu/bd/email.

Webmail
Webmail is a web-based interface that can be used to access your Duquesne email. The advantage of Webmail is that you can access your email from any computer connected to the Internet anywhere in the world. To log in, go to http://www.webmail.duq.edu.

WebAdvisor
WebAdvisor is the online tool you will use to check your personal course schedule, end-of-term grades, and register for courses. For information on accessing and using WebAdvisor, please see http://www.technology.duq.edu/webadvisor.

Online Courses
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. Duquesne also offers some courses completely online. For information on Blackboard and resources available to students, please see http://www.technology.duq.edu/blackboard.

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 Duquese-related technology services from their home.

Computer Labs
There are dozens of computer labs with over 700 computers available for use by any student with a valid Duquesne ID. Two of the labs located in the Towers and St. Martin's LLGs 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, IBM, 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.

Regarding Today's Information Technology
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.

E-mail
Your e-mail account username and password are the two most important pieces of information that you will need for online account and technology access at Duquesne University. You will use your e-mail username to access online resources such as Webmail, WebAdvisor, Blackboard, and ResNet. For more information on your Duquesne e-mail account, please see http://www.technology.duq.edu/bd/email.

Webmail
Webmail is a web-based interface that can be used to access your Duquesne email. The advantage of Webmail is that you can access your email from any computer connected to the Internet anywhere in the world. To log in, go to http://www.webmail.duq.edu.

WebAdvisor
WebAdvisor is the online tool you will use to check your personal course schedule, end-of-term grades, and register for courses. For information on accessing and using WebAdvisor, please see http://www.technology.duq.edu/webadvisor.

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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 (Outside of 412 Area Code)
Fax: (412) 396-5644
Office Hours: Monday through Friday from 8:30 a.m. to 4:30 p.m. Group sessions available on select Saturdays.
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. In general, admission is based upon past academic performance, scholastic ability, 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 should have graduated from an approved secondary school in the upper two-fifths of the class and demonstrated exemplary personal conduct in that institution.
2. Applicants who have not completed four years of high school must submit a General Educational Development Certificate (GED) issued by their state department of education, in addition to a high school transcript.
3. 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. In specific instances, and at the discretion of the Committee on Admissions, the genuine equivalent of these requirements may be accepted in lieu of the precise requirements specified. (Note: Candidates planning to enroll in pharmacy or pre-health programs, or as science or mathematics majors, should have completed a minimum of seven units in mathematics and science.)
4. Scores in accordance with the standards adhered to by the University must be presented for the required College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).
(Note: An audition is also required for admission to the 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 are applying 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 the Application for Undergraduate Admission for specific major requirements.

APPLICATION—NEW FIRST-YEAR STUDENTS
Applications should be addressed to the Director of Admissions, Duquesne University, Pittsburgh, Pennsylvania 15282. An application may be submitted at any time during the candidate's high school senior year up to July 1, for the Fall semester.

The application procedure is as follows:
1. Obtain, complete, and submit the Application for Undergraduate Admission.
2. Include the $50 non-refundable application fee.
3. Request the secondary school principal or guidance counselor to submit a transcript of the candidate's academic record.
4. One letter of recommendation is required.
5. 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.
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. Notification will be by December 31. If accepted under the Early Decision, commuting students must submit a non-reimbursable tuition deposit of $200 within two weeks, resident students must submit a $500 non-reimbursable deposit within two weeks.
8. If notification of decisions for regular admission is on a rolling basis. If accepted, students must submit a non-reimbursable tuition deposit of $200 for commuters or $500 for resident students 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 26. 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.

Advanced Credit Honors Initiative (ACHI)
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 that shows a cumulative GPA of 3.0 or higher.
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.

Due to limited spaces in certain programs, students must meet with a Duquesne University student advisor upon acceptance into the Advanced Credit Honors Initiative. The advisor will assist students with academic planning.

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 advisor'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 Affairs 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 advanced placement at Duquesne University grants credit, as well as placement, for achievement that merits such consideration. Students included in the program are: English, 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 credit must request that scores be sent to the University. Credit will be given on a minimum advanced placement score 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, 381 Administration Building, phone (412) 396-6204. Students should check with the College of Liberal Arts Office or the phone (412) 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, 381 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 exam(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 and is determined by the University applicant’s academic record. Please turn to page 50 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:

1. Graduation from a secondary school recognized as an acceptable equivalent to a U.S. secondary school, and
2. 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 in either the applicant’s home country or in another country, including the USA. 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 otherwise notified. All international students are required to have health insurance prior to registration 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 orientation program.

Applicants to Undergraduate Degree Programs
Students whose first language is not English may complete Duquesne University’s minimum English requirement to begin full or partial coursework by meeting one of the following standards:

- Obtain a score of 525 on the paper-based (PBT) Test of English as a Foreign Language (TOEFL) and a score of at least 5 (out of 6) on the Duquesne University Writing Placement Test.

- Obtain a score of 197 or higher on the computer-based TOEFL (CBT) and a score of at least 5 on the Duquesne University Writing Placement Test.

- Obtain a Cambridge IELTS overall band score of 6.0 or higher and at least a 5 on the Duquesne University Writing Placement Test.

- Obtain a score of 75 or higher on the English Proficiency (Michigan) Test and a score of at least 5 on the Duquesne University Writing Placement Test.

- Students with a PBT score of between 500-524 or a CBET score of 173-193 (or IELTS score of 5.0-5.5 or Michigan score of 70) AND a Duquesne University Writing Placement test score of at least 4 may enroll in partial academic major classes and partial ESL classes as assigned by their advisor in the Duquesne University ESL Program.

- Complete all ESL course requirements at Duquesne University with passing grades.

Students with a TOEFL score of 525 or higher will be enrolled full-time in the ESL Program until their demonstrated language proficiency sufficiently improves to begin academic coursework.

Transfer students are also not required to submit TOEFL scores. However, they are required to sit for English Language Placement Tests upon arrival, regardless of studies completed at other institutions of higher education.

NOTE: Undergraduate applicants who have completed one year or more of successful post-secondary study in the United States or who submit acceptable scores (taken within the past year) on the Test of English as a Foreign Language (TOEFL) may qualify for conditional waiver directly into full-time academic coursework. Therefore, while TOEFL scores are not required in order to receive an undergraduate admissions decision, submission of TOEFL scores is strongly recommended.

The Duquesne University TOEFL Institution Code is 2196.

Applicants to Graduate Degree Programs
As part of their application, all international applicants to graduate degree programs are required to submit official TOEFL scores. Applicants for teaching assistantships should also submit official scores on the Test of Spoken English (TSE) taken within one year of arrival. The Duquesne University TOEFL Institution Code is 2196.

Applicants to English as a Second Language Program
The same application procedures detailed above may also be used by international students interested in applying only for English language study at the Duquesne University as a Second Language Program. The ESLP is open to qualified international students interested in studying only English on either a short-term or long-term, non-degree, certificate of completion basis. ESL students must comply with INS regulation for full-time student status. A full description of the English as a Second Language Program is found on page 52.

Additional Information on International Student Applications
Please direct all inquiries and requests for additional information and application materials to Director, Office of International Programs, Duquesne University, 601 Duquesne Union, Pittsburgh, Pennsylvania 15282-1660, USA. Telephone 412-396-6113, Fax 412-396-5178, e-mail oua@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-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. The school then will be responsible for notifying both the student and the Office of Admissions of any decision concerning acceptance or rejection.

TRANSFERS
A student who wishes to transfer from another college or university must have the complete transcripts of high school and college records forwarded to the Office of Admissions and must submit an application for admission. When accepted, the student must supply 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 awards 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.

PERSONS SEEKING ADMISSION TO THE UNIVERSITY AS TRANSFER STUDENTS FROM A STATE-APPROVED COLLEGE WHICH DOES NOT HAVE REGIONAL ACCREDITATION

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. Regulations 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, you may also send e-mail to 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 on whole or partial 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 with the FAFSA form—for Pennsylvania the deadline is May 1.

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 program provided (1) the student is full time, (2) maintains a minimum cumulative GPA 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 GPA indicated

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<th>Scholarship Name</th>
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<td>Chancellor’s Scholarship</td>
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<td>Founders Merit Scholarship</td>
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<td>Presidential Merit Scholarship</td>
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<td>Laval Merit Scholarship</td>
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<td>Libermann Scholarship for Intern</td>
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Available to renewal students only—with cumulative GPA indicated

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<tr>
<th>Scholarship Name</th>
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<tr>
<td>President’s Scholarship</td>
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*If funds are available, new applicants with minimum 30 credits earned at Duquesne, with 3.00 cumulative GPA and need will be considered.

Scholars/ROTC
Assistance toward room and board costs for ROTC Scholarship winners. Renewable with re-application, minimum 3.00 cumulative GPA, on-campus residence and ROTC award.

Duquesne Grant
Grants are available to students entering with the Fall 2000 semester and later. They are awarded to students with remaining need after utilizing all aid resources available. Renewable with minimum cumulative GPA of 2.00, and continued need for funds after utilizing other aid sources available.

Auxiliary Grant
This grant was initially awarded to students who began prior to the Fall 2000 semester. It is renewable provided the student demonstrates need. The minimum cumulative GPA for renewal is 2.00, effective Fall 2000.

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: those grant funds are available only to students who receive Federal Pell Grants.

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 ACOA Foundation, Kershgen Foundation, and Stanley K Power Trust of the Pittsburgh Foundation.

Auxiliary Grants: These grant funds are available to students entering with the Fall 2000 semester and later. They are awarded to students with remaining need after utilizing all aid resources available. Renewable with minimum cumulative GPA 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 ACOA Foundation, Kershgen Foundation, 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.
**Student Employment** Financial eligibility for the Federal Work-Study Program of part-time employment is determined by the Financial Aid Office based on Federal guidelines. Students who do not qualify for Federal Work-Study employment may be placed in part-time non-clearance positions. The Office of Human Resource Management bears the responsibility for actual placement of all student employees. Placement is contingent on positions available.

**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:

- $3000 for first academic year
- $3500 for second and third academic years
- $4000 for fourth and fifth academic years

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 is paid while in school, but all other conditions are the same as the Federal Stafford Loan.

**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:

- $4000 for first and second academic years
- $5000 for third and fourth academic years (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 rates 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 and Greensburg who enroll as full-time students in the fall immediately following graduation. Effective Fall 2004, graduates of Roman Catholic diocese of Altoona/Johnstown are also provided discount. 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 Religious, who have been ordained, or professed members of a Catholic Clergy/Religious Order may be eligible to receive a 50% discount. 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 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.

**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. 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. 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. Discount maximum would be 50% of basic tuition.

**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, or (4) other organizations utilizing the skills of the field for which the student is preparing.

**ROTC Scholarships** Available to incoming students and currently enrolled students. Some additional information and application procedures are required by the Military Science Department at the University of Pittsburgh, (412) 624-6197.

**Endowed and Restricted Gift Funds** The following awards are administered through the Financial Aid Office and require an aid application and FAFSA form.

**John E. Atkinson Scholarship** Based on need and academics.

**Allegheny Centennial Scholarship** Based on need and academics. Allegheny County residents.

**Charles E. Arizberger Scholarship** Need based. Enrollment in School of Business.

**Bette V. Bowman Scholarship** Need based. Upperclass students with minimum 3.0 GPA.

**Richard and Verna Barcik Scholarship** Based on need and academics.

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

**Joy and Walter Blenko Scholarship** Based on academics.

**Margaret Loughney Brossman Scholarship** Need based. Minimum GPA 3.0. Biochemistry major.

**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 student of any employee in Court System.

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

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

**Madeline A. Cauaotto Nursing Scholarship** Need and good academic standing. Enrollment in the School of Nursing.

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

**Chemistry Department Scholarship** Chemistry major.

**John A. Clau, Ph.D. Scholarship** Academic need. Awarded to seminarians.

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

**Robert J. Conedera Scholarship** Need based. Awarded to freshmen from Clairton High School.

**Lt Col Don Conn Scholarship** Need based. Member of parish in Diocese of Pittsburgh.
The Giattan Family Scholarship  Need based

William J Hart Scholarship  Need based

William Randolph Hearst University Scholarship  Minority students  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

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

Sybila Rose Lunardhi 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

Mannie Hyman Scholarship  Need based  Selection by member of Hyman Family Trust

IKON Scholarship  Based on need and academics

Frank J Ippolito Scholarship  Based on need and academics

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

Clarence B Johnson Merit Scholarship  Merit based  Minimum 3 5 QPA

Thomas J Joyce Scholarship  Need based  Minimum 3 6 QPA  Business Student

Kate M Kelley Scholarship  Need based

James Wallace and Maryann Agnew Kelly Memorial Scholarship  Business School student

William J Kerscheneski Scholarship  Need based

Residents of Allegheny County, PA

Frank H Kirk Scholarship  Need based

Rosemary Kerr and Richard Gibson Scholarship  Based on need and minimum 3 25 QPA

John Kocak, Jr Scholarship  Need based

Enrollment in A J Palumbo School of Business  Order of preference Senior or Junior Accounting Major from McKeen, Senior or Junior Accounting Major from Bethel Park, any deserving student in Business

Andrew Kossoa 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 Merit 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

William Lowry Scholarship  Based on need and academics

Marone Scholarship  Need based  Enrollment in McAnulty College of Liberal Arts  QPA between 2 6 and 2 9

Rev Henry J McAnulty Scholarships (2)  Both need based  One fund restricted to residents of Allegheny and Beaver Counties

Mary H and Peter Loftus Scholarship  Need based

William Lowry Scholarship  Based on need and academics

Marone Scholarship  Need based  Enrollment in McAnulty College of Liberal Arts  QPA between 2 6 and 2 9

Rev Henry J McAnulty Scholarships (2)  Both need based  One fund restricted to residents of Allegheny and Beaver Counties

Josephine McDonough Scholarship  Based on need and good standing  Awards alternate between seminarian and law student

Elizabeth Elise McDonough Scholarship  Based on need and academics

Ella A McGovern Scholarship  Need based

James L and Paul L McGrath Scholarship  Need based

Mary V McGuirk Scholarship  Based on need and academics

James P McQuade Family Scholarship in Honor of Aaron and Pearl Cantor of Cantor’s Market  Based on need and academics  Enrollment in A J Palumbo School of Business

James P McQuade Family Scholarship in Memory of James Hickey  Based on need and academics  Preference to accounting majors

James P McQuade Family Scholarship in Honor of Sam Lebowitz of Union Drug Store  Based on need and academics  Enrollment in Mylan School of Pharmacy

James P McQuade Family Scholarship in Honor of Thomas Frances McQuade for the School of Education  Based on need and academics, with a preference for students enrolled in the School of Education  Preference to accounting majors

Raymond F Merkel Scholarship  Based on need and academics

Theodore T Myers Scholarship  Need based  First preference to child of member of Graphic Arts International Union - Local 24 - Pittsburgh

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

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.

Feliceita and Giacinto Oddis Scholarship  Need based  Enrollment in Mylan School of Pharmacy

Florence M. Pacinta Memorial Scholarship  Need based  Order of preference (1) Marital Status - single parent, child of single parent, married, other (2) Sex - Female, Male (3) Race - African-American, other US Government minorities, other.

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.

Jane and George Pfifer Scholarship  Based on need and academics.

De 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

Alan Reynolds Scholarship  Need based

Marie B. Roche Scholarship  Need based

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

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

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

Charles Schwan 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.

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 Stirling 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. Stetler Scholarship  Need based

Patrick and Mary Sweeney Scholarship  Need based  Classics major.

Margaret 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 Tassavi Scholarship  Need based

Theology Scholarship  Based on need and academics.

Barbara Verbos Scholarship  Based on need and academics.

Donald L. Very Scholarship  Based on need and academics.

Donald W. Webo Scholarship  Based on need and minimum 3.0 QPA.

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 Ambrosina 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 Harri 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.

Mele 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.

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

Patrick and Mary Hogan Scholarship  Need based

Sean M. Hogan, C.S.Sp Scholarship  Need based

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

Harry McCluskey 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.

Vivian Heintz Travel Award  Female students selected on the basis of academic achievement and interest in intercultural or international relations.

Frank P. DeMarco Scholarship  Awarded based on need or emergency situation to those of Italian Heritage, Administered jointly by Executive Vice President of 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 Chiuev 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 academic Sociology majors.

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

Paul Krakowski Scholarship  Based on need and academics  Minority students majoring in journalism.
Msg Paul M Lackner Theology Scholarship
Theology students
Rev Joseph A Lauritis Scholarship Based on need and academics Incoming freshmen, non-renewable Journalism majors
C S McCarthy Scholarship Need based Juniors and Seniors majoring in journalism
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 juniors and seniors majoring in accounting Awards are based on need and academics Apply by October 1 Applications available from Accounting faculty

Alumni Association Scholarship Awarded annually to qualified Business student(s) Based on financial need and merit
Glen Beeson Scholarship Based on need and academics (3.0 GPA) Available to sophomore, junior or senior Business students
Clifford E Brown Scholarship Awarded annually to an undergraduate Business student, based on financial need and merit Administered by the Financial Aid Office

Anthony Cagatto Scholarship Awarded annually to an undergraduate or graduate Business student Based on financial need and merit Administered by the Financial Aid Office

Consolidation Coal Company Scholarship for Information Technology Awarded to a student majoring in Information Technology with 3.0 GPA and senior standing by fall of award year Final determination based on essay
Duquesne African-American Accounting Scholarship African-American accounting majors who maintain a 3.0 GPA Application and information available from the School of Business Advisement Office
Charles and Lucille Gebhardt Scholarship Awarded to Business students of documented merit

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 Milicic Memorial Scholarship Awarded to qualified Business students who are sophomores, juniors, or seniors Based on financial need and merit
Joseph Montevertede Scholarship For sophomores, juniors and seniors Based on academic achievement 3.5 GPA University and community service and a personal statement
James Louis Rudakovich Scholarship Awarded through Delta Sigma Pi to a qualified Business student Based on academic achievement with preference to Accounting/Information Technology majors
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 GPA Apply in February
James F and Mary Ellen Will Scholarship Awarded annually to an undergraduate Business student with financial need Administered by the Financial Aid Office

School of Education
Mary Bischoff Scholarship Need based
Katherine M Carney 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
Marguerite 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) These members are eligible for NATAREF PATS, NATA and EATA Scholarships Contact the Department of Athletic Training for more details

Health Management Systems Loans and scholarships for final year students Information available through American Occupational Therapy Foundation, 4720 Montgomery Lane, P.O. Box 31120, Bethesda, MD 20824-1220

Physical Therapy Financial aid and scholarships information may be obtained from the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314 Phone (703) 684-2782

Daniel V Urco Scholarship One final year Physical Therapy student is awarded this scholarship based on academic achievement, service and leadership 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

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 RSLS 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) Scholarship will be available Fall 2005

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

Purell Trombone Scholarship Based on talent and promise of Jazz trombone student

Paul B Reinhold Scholarship Based upon musical and scholarly excellence
Louis V Rocereto Scholarship  Woodwind major
Based on academics

Josephine Tucci Scholarship For the Schools of Pharmacy and Music
Based on academics

This award alternates between the two schools annually.

Henrietta Vosvodich 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 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. Award is based on merit and need. Candidates must have graduated in the top 20% of their graduating class. Renewable if student maintains a QPA of 3.5/4.0 in their major and QPA of 3.0/4.0 overall. Preference for graduates of Central Catholic or North Catholic High School.

School of Nursing Richard J. Behan Memorial Scholarship  For nursing students based on need and academics

Joseph William Hauser Scholarship  For male nursing students based on need

Ruth Maszkiewicz Memorial Scholarship  For nursing students, based on need and academics

James P. McQuade Family Scholarship  For female nursing students based on need

Conne Miller Scholarship  For RN-BSN / MSN nursing students

Adele Pietrata Scholarship  For nursing students based on need and merit

Herbert Schreiber Scholarship  For junior or senior nursing students based on need and academics

Barbara Ann Verrier Scholarship  For nursing students based on need

Leslie Hoover Memorial Scholarship  For nursing students based on need

Thomas Blaue Leskanic Scholarship  For nursing students based on need

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

Chilton 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.

NCPA Foundation  Provides loans to Pharmacy students in the last two and one-half years of professional study for tuition, fees and books. Apply through School of Pharmacy.

Fred Schiller Loan  Revolving loan fund for worthy and qualified Pharmacy students. Amounts vary based on need and general ability.

John Closter Simms Loan  Revolving loan fund for partial tuition loans. Amounts vary based on need and general ability.

Ovebeck/Ansberry Lambda Kappa Sigma Scholarship  Endowed fund created by Tau Chapter of LKS to recognize Hazel Overbeck, P'47, and Joan V. Ansberry, P'47. Assistance to student member of Tau Chapter in professional phase of Pharm D program demonstrating need and merit.

Dean's Endowment Fund for Excellence  Contributions by Pharmacy alumni provide scholarship assistance to Pharmacy students with demonstrated need and academic merit.

Pittsburgh Graduate Chapter of Kappa Psi Pharmaceutical Fraternity  Maintains a revolving loan fund for members of the under-graduate chapters. Information from School of Pharmacy.

Rite Aid Scholarship  Available to students entering the final years of the Pharmacy Program. Based on financial need, demonstration of normal progress, and good standing in the program.

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 alumnus 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.

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 (Musa) Furguelu Scholarship  In memory of Geraldine (Musa) Furguelu, P'50. Provides scholarships for needy and deserving female students in the School of Pharmacy.

Rosemarie Bevaqua Scholarship  In memory of Rosemarie Bevaqua, 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.

Powers-Schering Scholarship  Granted to a student entering the final years of the Pharmacy program. Must have minimum 2.50 QPA in the professional program and demonstrate financial need.

Alfred J. Pfanneschlag, Jr Memorial Scholarship  In memory of Alfred J. Pfanneschlag, P'82.
Annual award to a Pharmacy student in the final years of study. Based on need and service to the Duquesne campus community.

Phar-Mor, Inc. Scholarship - Awarded annually to deserving Pharmacy student entering the final years of the Pharmacy program. Based on scholarship, need and demonstrated interest in a career in retail pharmacy practice.

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 a Pharmacy student in good academic standing with need.

Patrice Lynn Tranor Scholarship - Endowed fund established by Charles J. Tranor, 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.

Sonia F. DeGraw, 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. Annual 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 a Pharmacy student.

Sylvia Malvihill, 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 Companies 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.

Mary McPatt and 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 are enrolled in the professional phase of the Doctor of Pharmacy curriculum and demonstrate need and merit.

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.

Hoffnagle, P'66, Scholarship - Annual award to a Pharmacy student who demonstrates need and interest in pursuing a career in industrial pharmacy.

Marc Goldberg, P'66, Scholarship - Annual award to a Pharmacy student.

Dr. Hugo J. Saraiva 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.

Dr. Robert and Patricia Gussin Minority 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.

School of Leadership and Professional Advancement

Isabella A. Mauro 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 Can Scholarship - Criteria determined by Department of Athletics.

John "Red" Manning Scholarship - Based on need and minimum 2.5 GPA. Student athlete.

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

Gumberg Library

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

University Advancement

Alumni Association Endowed Scholarship - Qualifed applicants must be children, stepchildren or grandchildren of a Duquesne University graduate and have an overall GPA of at least 2.0 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

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

REGISTRATION

Students who attend the Fall Semester, which begins in late August, receive academic advisement and register for classes during the Fall Semester in November. Orientation programs for new students are conducted by the schools in late spring and summer in conjunction with academic advisement and registration.

A comprehensive invoice that confirms the class schedule of courses for which the student is registered and lists fees, tuition, housing charges, deposits, financial aid awards, and balance due is mailed to the student at his or her permanent address a month before classes begin, thus enabling the student or parent to make payment by mail.

Final Registration for students who have neither preregistered for classes nor concluded financial arrangements is held just before the opening of classes.

The financial obligation for class places reserved by a registered student who does not subsequently attend cannot be canceled unless written notification of the decision not to attend is given to the Registrar before the first class day.

Notification received on or after the opening day of classes is subject to the official withdrawal and refund policies. Withdrawal from room and board reservation contracts is to be made in accordance with the provisions of the contract. See Room and Board — Withdrawal and Refund, page 38 of this catalog.

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 granted by an authorized officer of the University. The admitting authority for undergraduate students resides with the Director of Admissions.

2. Authorization to continue in the program selected has been given and registration for classes has been accepted 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, to change class times, or to add or to drop a class, are permitted to do so during the periods of Preregistration, Final Registration, and Late Registration. Change of class schedule is not permitted after the Latest Date for Change of Schedule as announced in the Academic Calendar (published in the Schedule of Classes Booklet).

All schedule changes must be approved by an academic advisor and processed with the Registrar. Schedule change requests processed with the Registrar during Late Registration must also have the signatures of the instructors whose classes are being added or dropped. Students who process change forms late are not entitled to a refund for the course credits dropped. Courses dropped after the deadline for making schedule changes are classified as course withdrawals. (See Withdrawal from a Course, and Withdrawal and Termination of Attendance — mentioned elsewhere in this catalog.)

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 College
- Carnegie Mellon University
- Chatham College
- 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.

Fall 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 including the Spring Term at the University of Pittsburgh. 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 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. Copies of the class schedules of all PCHE institutions are maintained in the Registrar's Office.

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 notifies 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 and payment of the penalty fee. However, no student may be registered and begin attending classes later than the Latest Date for Registration and Change of Schedule as announced in the Academic Calendar (published in the Schedule of Classes Booklet).

RECORDS AND REPORTS Semester Grade Reports

Soon after the close of each semester, a grade report is sent to the permanent address of every student and grades can be viewed on the web at the close of finals (http://www.registrar.duq.edu).

TRANSCRIPTS

Each student who is free of financial obligations to the University is sent a summary transcript of his or her complete academic record at the close of each academic year. 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. All official transcripts issued by the Office of the Registrar will 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 fee of $5.00 is charged for the issuance of each transcript and 24-hour processing 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 require-
ments relating to the release of academic informa-
tion 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 nor
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 eachsemester, as
indicated in the Academic Calendar (published in the
Schedule of Classes booklet). Records will show
"Audit" in the grade space on the transcript of
a regularly matriculated student. A "Certificate
of Attendance" for nondegree 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 ad-
vanced 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 School of Nursing and Pharmacy can be audited.
3. The Regional School of Health Sciences will not allow clinical courses or those courses in the profes-
sional 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 the 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 in the Schedule of
Classes booklet and the summer session timetable.
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 Incomplete.
If the temporary Incomplete status is to be replaced by a passing grade, the work must be completed by the time stated in the
Academic Calendar (published in the Schedule of
Classes Booklet). 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.

3. Post-graduate Student: A person who has
completed a baccalaureate degree and is
seeking additional undergraduate credits.

EXAMINATION

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 Univer-
sity, 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 examina-
tion procedure.

UNDERGRADUATE GRADING SYSTEM

The following is the officially recognized
method of grading course work and rating
academic performance of undergraduate students
at the University.

Grade Description
A - Superior
A - Excellent
B + Very Good
B - Above Average
C + Satisfactory
C Average (Minimum general average
for graduation)
D Lowest passing scale grade
F Failure (Course must be repeated for
credit)
H Honors (Used in some courses where
scaled grading is inappropriate)
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 conclusive
explanation of extenuating circumstances
acceptable to the instructor is presented and the
missed examination or required assignment is
made up by the date specified in the Academic
Calendar, the I becomes a permanent F grade)
LG Late Grade (Used to indicate that grade
was not reported by faculty in time for the
semester grade report to be sent to student)
N No Passing (Used to indicate failure in a
Pass/Not Pass graded course.) Is indepen-
dent of the Quality Point System. Course
must be repeated for credit.
P Pass (May be used in some courses where
scaled grading is inappropriate. Indicates
satisfactory completion of course work
with credits earned but without quality
points and is independent of the Quality
Point System)
W Official Withdrawal (Used on a Student's
permanent record to indicate termination of
attendance in courses under conditions of official
withdrawal. See catalog and Sched-
ule of Courses for Withdrawal from a course
and Withdrawal and Termination of Atten-
dance)

PLUS/MINUS GRADING OPTION

The Plus/Minus Grading System is the official
grading system of the University. Faculty
are to announce at the first class meeting
whether or not plus and minus grade values will be
used in grading course work and rating 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
(The grading system for graduate students is published in the catalog of the particular graduate school)

COMPUTATION OF THE QUALITY POINT AVERAGE
Quality Point Average is the ratio expressed to the decimal thousands 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 value 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 are 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 correct 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, provides 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 of pass 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 requirement 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 who are academically dismissed if they fail three courses in one semester. Students can be reenrolled 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 extracurricular 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 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 to graduate in 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 intercollegiate 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 athletes 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 3.25, 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. All 500 courses are described in graduate school catalogs.

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 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 sequentally 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 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.)
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 of lecture or recitation, or at least two hours 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.

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 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 and by processing the proper form up to the date.

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

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 the following standards:

Cum Laude-Quality Point
Average: 3.50 to 3.74
Magna Cum Laude-Quality Point
Average: 3.75 and above
Summa Cum Laude

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 of lecture or recitation, or at least two hours 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.

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 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 and by processing the proper form up to the date.

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

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 the following standards:

Cum Laude-Quality Point
Average: 3.50 to 3.74
Magna Cum Laude-Quality Point
Average: 3.75 and above
Summa Cum Laude

Tuition and Fees

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 2004-2005 academic year only, unless otherwise indicated.

Tuition

RATE 1 (Arts, Education, Health Sciences Special Status, Health Management Systems, Spiritan Division)
- Full-time Undergraduate Tuition: $18,693.00
- University Services Fee: -1,167.00
- Total: 20,360.00

Per-credit

Undergraduate Tuition: 608.00
University Services Fee: 65.00
Total: 673.00

RATE 2 (Natural and Environmental Sciences)
- Full-time Undergraduate Tuition: $19,566.00
- University Services Fee: -1,167.00
- Total: 21,333.00

Per-credit

Undergraduate Tuition: 651.00
University Services Fee: 65.00
Total: 716.00

RATE 3 (Health Sciences excluding Health Sciences Special Status and Health Management Systems)
- Full-time Undergraduate Tuition: $21,823.00
- University Services Fee: -1,167.00
- Total: 23,490.00

Per-credit

Undergraduate Tuition: 651.00
University Services Fee: 65.00
Total: 716.00

RATE 4 (Music)
- Full-time Undergraduate Tuition: $23,238.00
- University Services Fee: -1,167.00
- Total: 24,071.00

Per-credit

Undergraduate Tuition: 733.00
University Services Fee: 65.00
Total: 798.00
RATE 5 (Pharm D, Years 3, 4, 5 and 6)
Full-time Undergraduate Tuition $25,340.00
University Services Fee 1,667.00
Total 27,007.00

Per-credit
Undergraduate Tuition 752.00
University Services Fee 65.00
Total 817.00

RATE 6 (Business)
Full-time Undergraduate Tuition $18,955.00
University Services Fee 1,667.00
Total 20,622.00

Per-credit
Undergraduate Tuition 600.00
University Services Fee 65.00
Total 665.00

RATE 7 (Pre-Pharmacy)
Full-time Undergraduate Tuition $19,844.00
University Services Fee 1,667.00
Total 21,511.00

Per-credit
Undergraduate Tuition 660.00
University Services Fee 65.00
Total 725.00

RATE 8 (Nursing 2nd degree)
Full-time Undergraduate Tuition (Fall, Spring, Summer Cohort) $17,233.00
University Services Fee 1,667.00
Total 18,900.00

RATE 9 (Nursing)
Full-time Undergraduate Tuition $19,086.00
University Services Fee 1,667.00
Total 20,753.00

Per-credit
Undergraduate Tuition 621.00
University Services Fee 65.00
Total 686.00

FEES
Application (non-refundable) $50.00
Matriculation Deposit (non-refundable) 200.00
Residence Hall Pre-Payment (non-refundable) 300.00
Change of Schedule for processing each form 5.00
Credit by Examination for each semester hour for recognition of proficiency of course credit (See policy in Part III, page 31) 30.00
Orientation (New Students) 135.00
Late Registration 25.00
Removal of ‘I’ Grade 5.00

Registration Correction Fee 15.00
Commuting Registration Fee 100.00
*Undergraduate Pharmacy Student Activities (for Third, Fourth, Fifth and Sixth Year Students) 50.00
University Services Fee $65.00 per credit

*Charged on each semester registration

TESTING FEES
Testing fees apply to the 2004-2005 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 35 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.

Within the Semester Percent of Remission
First Week 80
Second Week 80
Third Week 40
Fourth Week 20
After Fourth Week None

Within the Summer Session — Based on a Six-Week Session Standard
First Week 60
Second Week 40
After Second Week None

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 residence 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 $135 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 $60.00 flexible spending and 10 Meals per week with $230.00 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: $4,942.00
- Double for each semester: $3,910.00
- Summer Sessions—Room and Board*:
  - Single per day: $33.00
  - Double per day: $28.00

*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. After occupancy, the deposit is applied toward the room and board expenses.

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 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 the $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.

FINANCIAL MATTERS
All charges for tuition, fees, room, and board, less financial assistance authorized by the Financial Aid Office, are payable at registration. For your convenience, MasterCard, Visa, and Discover can be utilized to pay tuition and fees.

BILLING PROBLEMS
Take the billing statement to the office indicated for an explanation or correction concerning these billing matters:

a) Balance Forward, Credits, Payments, Deposits—Student Accounts Office

c) Student Finance Program (Deferred Payment Plan)—Student Accounts Office

d) Housing Reservations and Housing Charges—Office of Residence Life

STUDENT FINANCING PROGRAM
(All prior balances must be paid in full before the student is eligible for this plan.) Duquesne University students desiring payment of their tuition and other charges for the semester by installment, contact in person the Student Finance Section at Final Registration. The Student Financing Program provides financing for up to 50% of the current semester charges less financial aid authorized and other payments, to be repaid to the University in two equal installments. Interest is charged at the rate of 2/3 of 1% per month. A delinquency charge on each monthly installment in default for a period of ten days or more will be charged an amount equal to 5% of such installment or $5.00, whichever is less, except that a minimum charge of $1.00 may be made.

For additional information, contact TMS at 1-800-722-4867 or go to http://www.afford.com

CASHING CHECKS
A student may cash a check up to a maximum of $50 at the Cashier’s Office on the Ground Floor of the Administration Building between 9:00 A.M. and 4:00 P.M., Monday through Friday, except during registration, with a validated ID card for the current semester.

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.

Ten-Month Payment Plan
The University is now offering a 10-month payment plan through Tuition Management Systems (TMS). The basics of the program are:

1) The parent pays TMS $125.00 to enroll in the plan. Enrollment must be completed prior to August 31st.

2) The parent makes 10 monthly payments to TMS making allowances for any financial aid. TMS then forwards payment to the University on a monthly basis.

For additional information, contact TMS at 1-800-722-4867 or go to http://www.afford.com.
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 Athletics, Career Services, Commuter Affairs, Financial Aid, Freshman Development and Special Student Services, Greek Life, Honor Societies & Professional Organizations, Health Services, Judicial Affairs, Multicultural Affairs, Residence Life, Special Projects, 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, with the exception of football.

In addition, the Department of Intramurals and Recreation offers all students the use of a weight room, cardiovascular room, racquetball courts, 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

Whether living with relatives or commuting from their own apartments, the Office of Commuter Affairs offers valuable services and programs for commuter students. Assistance is available in many areas, including:

Parking and Transportation: The Office of Commuter Affairs can assist students with University parking information and in forming carpools. PAT bus schedules are available. Bus passes are sold at the Information Center of the Union.

Off-Campus Housing Information: Up-to-date listings are maintained of rooms, apartments, houses, and “roommate needed” situations. Area maps and apartment directories are also available.

Commuter Message Center: If someone needs to give 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.

Adult Learner Services: Services are provided for adult learners including newsletters and family programming.

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

Other Services Include:

- Commuter Update: Distribution of Student Directory and Student Handbook to commuter students.
- The Office is located in the Duquesne Union, Room 117. The office is open Monday through Friday, 8:30 am – 4:30 pm. For further information call (412) 396-6660.

OFFICE OF STUDENT ACTIVITIES

The Office of Student Activities coordinates the programs, services and facilities of the Duquesne University. It provides programming and administrative support for all recognized student organizations, publications, and student groups. It promotes 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, and provides leadership training for student organizations and produces and presents a balanced series of 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 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 Office of Judicial Affairs protects the rights and freedoms of all students while ensuring that such rights and freedoms are exercised within the context of students’ responsibilities to the University community. Legal technicalities are minimized and attention is focused on the student development process.

OFFICE OF MULTICULTURAL AFFAIRS

The Office of Multicultural Affairs was created, within the Division of Student Life, in July 2002 to address the unique needs of students from different cultural backgrounds. The Office of Multicultural Affairs provides individual counseling and workshops on adjustment to college life, success habits, goal setting and financial aid. In addition, the office works collaboratively with other university departments and student organizations to provide social and cultural programming for the campus community. Guided by the mission of Duquesne University, the services of the Office of Multicultural Affairs are available to all members of the University community.

Programs sponsored by the Office of Multicultural Affairs include the Pre-Orientations Program, Welcome Back Tailgate Party, Community of Scholars Reception, Student Recognition Ceremony and D-Unity Ball.

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 freshmen students and sophomores with a GPA of 2.5, except those residing with their parents or relatives, 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 Brotherton Hall). Housing Agreement terms are effective for the entire academic year, with room and board rates being determined on an annual basis. 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 Mentoring Program, and collaborates with the Freshman Mentor and DU Brother, DU Sister Programs. Freshmen, with the guidance of the Freshman Newsletter, develop leadership through the Freshman Class Advisory Committee, and interacts with the Offices of Commuter Affairs, Intramurals, and the Freshman Development Program.

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, note-taking, 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 individualized 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 in the Student Life section of the Handbook.)

OFFICE OF GREEK LIFE, HONOR SOCIETIES & PROFESSIONAL ORGANIZATIONS

The Office of Greek Life, Honor Societies, & Professional Organizations promotes the growth and development of students who choose to affiliate with the General Honor, and/or Professional Greek-Lettered Organizations, and seeks to promote the Greek System as an integral and productive part of the institution. To accomplish this mission, the Office promotes the noble ideas of academic excellence, leadership, philanthropy, and service, and moral and ethical development of students within the framework of the Duquesne University Mission Statement. The office provides training and consulting in leadership development, group processes, and interpersonal skills. It sponsors educational and social programming, promotes a sense of community through life-long friendships, develops alumni involvement in undergraduate programming and activities, and fosters learning outside of the classroom.

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, interviewing, 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, and psychiatric consultation as 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, 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 Mercy Hospital of Pittsburgh. In emergency situations, students are transported and/or referred to the Emergency Room at Mercy Hospital. At that time, University physicians are consulted regarding the student’s treatment and disposition.

Location

The Health Service is located on the second floor, Towers Living, (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

It is strongly recommended that each student obtain some form of health insurance. The University provides a Student Health Insurance Plan designed to meet the needs of students. It is typically priced lower than individual health insurance policies. Inquiries about health insurance should be directed to Risk Management (412) 396-6677.

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

EMERGENCY

A Crisis Coordinator is available 24 hours a day to assist in any type of emergency resulting from psychological problems.

Call Campus Security (412) 396-4747. They will provide assistance and will contact Paramedics, Health Service and the Crisis Coordinator as needed.

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

The University Archives is the center for the documented history of Duquesne University. It provides a central location of information about University Schools, departments, people, buildings, and a variety of other activities. The Archives seeks to promote knowledge of the heritage and growth of the University through the years.

Members of the Duquesne community and the community at large are encouraged to utilize the many collections for research or special interest.

The University Archives is located on the 1st floor of the Cumber Library. Phone (412) 396-6323.
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 services include pre-arrival information to accepted students, facilitating the process of international students and scholars by providing services to international students and scholars on campus. The OIP coordinates Study Abroad activities 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 auxiliary academic service whose primary role 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 tutoring service provides 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.

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.

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 at 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 credit load requirement Phone (412) 396-6661.

THE PSYCHOLOGY CLINIC
The Psychology Clinic offers brief counseling and longer term psychotherapy to Duquesne’s students and staff as well as to the general public. Doctoral students in clinical psychology provide all services under the supervision of licensed clinical faculty. 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 an initial interview, call (412) 396-6661.

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 ASSOCIATION
The purpose of the Interfraternity Association is to develop, maintain, and support fraternity life and Interfraternity relations at a high level of accomplishment. The Interfraternity Association is led by the Interfraternity Council (IFC) which serves as the governing and regulatory body for its 10 member national and local general fraternities. The IFC works to promote superior scholarship, leadership development, community service, social and moral development, and lifelong friendships. It represents the men’s fraternities to the administration, faculty, alumni, and student body. The IFC works with the university administration to assist in regulating the Men’s Greek Activities, including Rush, 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 system.

PANHELLENIC ASSOCIATION
The purpose of the Panhellenic Association is to develop, maintain, and support sorority life and inter-sorority relations at a high level of accomplishment. The Panhellenic Association is governed by the Panhellenic Council (PHC), which serves as the governing and regulatory body for its 9 member national and local 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 lifelong friendships. It represents the women’s fraternities to the administration, faculty, alumni, and student body. The Panhellenic Council works with the university administration to assist in regulating the Women’s Greek Activities including Rush, New Associate Member Education, Philanthropic and service events, alumni relations, Carnival, Greek Week, and other positive social events. The council also serves as a forum for the airing of constructive proposals for the improvement of the sorority system.

STUDENT ORGANIZATIONS GENERAL
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 meet the 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.

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.

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 service events as concerts, dances, art exhibits, lectures, films, and coffeehouse entertainers. 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 oversees the service learning program of the University.
FRATERNITIES AND SORORITIES
Fraternities and Sororities 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.

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 heritages 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
DU-Q-TV
Students at Du-Q-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 approximately nineteen hours per day, seven days per week during the Fall and Spring Semesters.

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.duq.edu/frontpage/main/handbook.html.

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. Membership is open to all students.

Spirit: The Life and Letters of Duquesne is a literary publication which affords students the opportunity to submit writing, artwork, and photographs. It is published once a year. Membership 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. Membership is open to all students.

Part VI:
WDUQ Radio

WDUQ 90.5 FM, Duquesne University's public radio station, features 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:
Campus Ministry

Campus Ministry is committed to fostering the religious life and growth of all Duquesne students. Its policies and programs are oriented to furthering that 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.

The Campus Ministry provides a listing of services of nearby worship sites, and referrals can be made to introduce the students to the religious leaders of their various faith traditions in the area. The University Chapel is open each day for private prayer and quiet meditation.

All are invited to stop in to offer suggestions for programs or services, or just to get acquainted with the Staff at any of the following Campus Ministry locations: 102 Administration Building, the Brother Campus Ministry Center in Duquesne Towers, the Student Union and the Living/Learning Centers of St. Ann, Assumption and St. Martin.
Thinking and Writing Across the Curriculum is a college-level introduction to imaginative writing. The course integrates the 20th century experience of the United States with that of Europe, Asia, Latin America and Africa as it examines the forces which have produced the great changes of our century.

121 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.

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.

141 Social, Political and Economic Systems 3 cr
The disciplines of Economics, Political Science and Sociology collaborate to explore questions about equality and inequality in various societies. The course specifically addresses economic, political and legal issues as they relate to gender, age, race and ethnicity.

150 Shaping of the Ancient World 3 cr
Athens in the Golden Age (5th century B.C.) is viewed with special attention to the artistic and literary masterpieces inspired by the victories and defeats experienced by Athens in that century. Examples of Greek biography, comedy and tragedy will show ancient answers to questions about life, death, power and man's place in the universe.

151 Shaping of the Modern World 3 cr
An understanding of change through time is essential to the comprehension of the world in which we live. This course integrates the 20th Century experience of the United States with that of Europe, Asia, Latin America and Africa as it examines the forces which have produced the great changes of our century.

161 Arts and the Human Experience 3 cr
The visual and musical arts are explored in light of major styles, artists, themes and monuments in the arts and as components of a broader historical and cultural experience. The course draws upon the rich resources of the Pittsburgh community, such as the Carnegie, the Pittsburgh Symphony, the Pittsburgh Ballet, and the Pittsburgh Opera.

Core Science 3 cr
Students may choose one of the courses described below (171, 172, 173, 174 or 175). 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.

171 Biology
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 the role of effective citizenship in our changing world such as disease, reproduction, genetics, genetic engineering and ecology.

172 Chemistry
The fundamental concepts of structure, bonding, properties and chemical reactivity are presented through lecture and classroom experimentation. The chemical dimensions of selected social issues of current importance in the areas of environmental chemistry, energy technology and food production are examined.

173 Physics
Through lectures 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 thermodynamics, 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.

174 Earth Science
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 these impacts humans and how humans have an influence on the processes of the Earth, its oceans, and its atmosphere.

175 Evolution of Modern Science
This course outlines the history of science from Aristotle to the present. The course will focus on the modern history of four scientific disciplines: physics, chemistry, geology, and biology, and will include computer-based virtual laboratories to demonstrate the classical experiments that have led to our modern understanding of science. In addition to the material on science, the development of mathematics, as it has influenced the development of science, will be presented in six areas: arithmetic, Euclidean geometry, formal logic, algebra, analytical geometry and calculus. The course will use World Wide Web resources. No prerequisites of science or mathematics are required.

Core Theology 3 cr
The Core Theology courses expose students to the major religious traditions of humankind. The courses examine the moral, intellectual, and cultural dimensions of these traditions. This requirement may be fulfilled by any one of the following courses: 182, 183, 184, 185, 186, 187.

182 Human Morality
An introduction to the central issues of moral theology (religious ethics), including metaphysical and practical concerns, with a focus on the Christian tradition but some attention to other approaches.

183 Judaism, Christianity, and Islam
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 differences among all three.

184 Introduction to the Bible
An examination of the historical, literary, and theological aspects of a select number of key biblical texts and a discussion of their contemporary relevance.
Religions East and West
A study of some of the world's great religions representative of humanity's religious experience, including archaic traditions, Hindu and Buddhist traditions, Chinese traditions, and the Islamic path.

Roman Catholic Heritage
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.

Christian Understanding of the Human Person
An investigation into the question of "What does it mean to be human?" according to Judaeo-Christian tradition, including the relationship of the human person to self, others, the world, and the Divine as the basis for humanness.

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. Calabria, 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. 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. They believe learning is a lifelong adventure.

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 schools 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.

Honors College Core
Honors College students take seven (7) Honors Core courses. Four (4) of these courses are enhanced sections of the University Core Curriculum. Special honors sections of Core courses feature some of the University's most distinguished faculty. 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. They believe learning is a lifelong adventure.

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

The core courses are as follows:

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-HEALTH PROFESSIONS PROGRAM
The Pre-Health 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-health advisor to evaluate the student's academic progress and receive professional guidance in gaining volunteer and community service, clinical, internship and research experience. The Pre-Health Professions Program also sponsors seminars and workshops which provide information about health professional schools, careers in the health professional field 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 their academic career and preferably upon first entering the university. At that time, each student will meet with a pre-health 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-Health Professions Core Curriculum described below 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-Health 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 score. Each qualified student is interviewed and evaluated by members of the Pre-Health Professions Committee. This evaluation along with evaluations submitted to the Pre-Health 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 Compact Program" association with LECOM must be completed prior to matriculation at Duquesne. Students interested in the management of health delivery, the Pre-Health Professions Program in combination with the Rangos School of Health Sciences offers a degree track for pre-health students in the department of Health Management Systems. If you would like information on these and other programs, please contact the Pre-Health Professions Programs office located in B101 Bayer Learning Center.
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 ESL Program offers intensive (20 hours per week) or semi-intensive (14 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 ESL Program 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 2002 through December 2007 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/Wk
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/Wk
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/Wk
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.

Special Purpose Courses Var Hrs/Wk
135 Special Topics – ITA Seminar 0-3 cr
A multi-skills course for international teaching assistants.

143 ESL Graduate Research Paper 4
A course in writing academic English for graduate students.

144 Advanced ESL Reading-B 4
Advanced English reading for non-native speakers preparing for CORE 101 Thinking and Writing.

145 ESL Computer Skills 4
Computer literacy for beginners.

146 TOEFL Preparation 4
Strategies and practice for the TOEFL.

147 ESL Term Paper 4
Advanced English research writing for non-native speakers preparing for CORE 101 Thinking and Writing.

148 ESL Academic Discourse 4
A multi-skills course in discourse analysis for graduate students.

CORE 101 Thinking and Writing 4
The University-wide CORE 101 composition course in an ESL context.

CORE 102 Imaginative Literature and Critical Thinking 4
The University-wide CORE 102 literature course in an ESL context.

THE McANULTY COLLEGE OF LIBERAL ARTS
Administration
Dean
Francesco C. Cesareo, 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 educated 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 required 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 the major program in art history, classics, communication, economics, English, history, international relations, modern languages and literatures, multimedia, philosophy, political science, psychology, sociology, studio art 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 27 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 202 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 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 proficiency requirements in consultation with Duquesne University's English as a Second Language Program advisor.

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.

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

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. 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 (classics, communication, English, history and mathematics) and the A J Palumbo School of Business Administration. 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 students to preserve the benefits of a liberal 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, 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

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 department, where applicable. Several departments in the College offer specialized internships. Students interested in those internships should contact the department 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 that have approved 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 or appeal to 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 perimeters 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, and consulting.

Qualified students may take additional upper division art history courses offered at member schools of the Pittsburgh Council on Higher Education. Courses taught through the Art History program can be substituted for the University Core course Arts and the Humanities Experience. Art history courses can also fulfill the College's history/literature requirements.

REQUIREMENTS FOR THE MAJOR

A major consists of 30 credits. Required courses include Art History 111 and 112, History 113 and 114, and a Selected Readings course during the senior year. Art History majors are encouraged to take advantage of the University's programs for study abroad, in particular the semester in Italy at the campus in Rome.

REQUIREMENTS FOR THE MINOR

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

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.

210 American Art 3 cr

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

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 artists studied include Donatello, Botticelli, and the art of Michelangelo until his famous David statue. The focus is on Italian art, but the developments of Northern Europe are also included.

331 Art of the Nineteenth Century 3 cr.

The course covers Western art from around 1800 to the careers of Monet and Van Gogh. It includes an assessment of the major movements of the 19th century in Europe and America, with special emphasis on the cultural developments that gave rise to Modernism in Europe from 1879-1890.

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. Beginning with the work of Cezanne and his impact on the formation of cubism and futurism, the contradictions and parallels in the various avant-garde practices from 1905-1945 are assessed and evaluated.

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.

370,372,373,375 Special Studies in Art History 3 cr

An occasional course in this series is offered when special interest of students and faculty can be served. Courses offered include Picasso Impressionism, Egyptian Art, Post Impressionism, and a tract of courses in Asian art.
American Architecture 3 cr
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.

American Decorative Arts 3 cr
Decorative arts from the Pilgrims to the Bauhaus are examined in context: historical, formal, technological, and cultural. Field trips to Carnegie Institute and other area collections are scheduled.

Internship 3 cr
Practical experience in art-related areas introduces the student to many opportunities in the art field. Prerequisite: Permission of the Art History faculty and completion of 15 Art History credits.

DEPARTMENT OF CLASSICS
Chair
Lawrence E. Gaechas, 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.

Classical Latin Major: At least 18 credits in Latin, with at least 6 credits in ancient archaeology, ancient history, or ancient literature courses in English. The Survey of Sanskrit Literature (201-212) may be substituted for the credits of either Latin or Greek.

Classical Civilization Major: An individually designed program of twenty-four credits in ancient literature, history, art, and archaeology. Students majoring in Classical Civilization create programs with the close advice and 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 encouraged 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 in Latin, Greek, or Classical Civilization with concentrations in Greek Civilization, Roman Civilization, Roman Language and Literature, with approval of the Department and advisor.

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 repeated 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 Lucan.

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 3 cr
400 Independent Readings and Research Var cr
CLASSICS COURSES IN ENGLISH
(NO GREEK OR LATIN REQUIRED)

121 General Etymology 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, Lucilms, 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 The Classical Tradition 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

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—on 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 OBJECTIVES
Majors Our department is unique, a leader in a national trend toward comprehensive communication departments. All areas of communication are represented within one department. Communication ethics is the departmental keystone. The Department of Communication & Rhetorical Studies fosters an educational environment that invites innovation, diversity, resilience and moral values in a changing world

The Department of Communication & Rhetorical Studies consists of five different academic majors with areas of emphasis or concentration: (1) Major in Communication Studies with emphases in Corporate Communication/Interpersonal Public Relations, Information Management in Organizations, Integrated Marketing Communication, Management Communication, Media Organizations, Rhetoric and Argumentation, and a Self-Designed Program; (2) Major in Media Communication with concentrations in Corporate Media Design, Media Management, Media Marketing, Media Writing and Production, Rhetoric of Mass Media, and a Self-Designed Program; (3) Major in Journalism with emphases in Advertising, Broadcast Journalism, News Production and Management, Online Journalism, Print Journalism, and Public Relations. This comprehensive communication department provides students with a wide array of course options taught by dedicated teacher/scholars.

DEFINITION OF THE DISCIPLINE
Communication is both an ancient and extraordinarily contemporary discipline—from its origin in classical Greek culture to what has been called the Communication Century. It is a practical liberal art for leadership in professions and communities.

Communication in written and oral form helps us know, establish and clarify belief, and act upon the environment to bring about change or to reinforce stability in communication contexts ranging across interpersonal, organizational, intercultural, advanced technological and media environments. The comprehensive nature of our communication program introduces the student to corporate communication (profit and not-for-profit), media, journalism, public relations, advertising, marketing and management career options.

The MARC Center for Excellence, located on the third floor of the McAnulty College and Graduate School of Liberal Arts, serves as the focal point for departmental activities. The departmental resources include classroom space for courses dealing with relational and public communication issues, three writing/word processing computer laboratories and teleconferencing equipment. Additionally, the Des Places Language Center houses an instructional laboratory, a television production studio, the studios of public radio station WDUQ, and a Debate/Civic Argumentation Center.

In the Communication Studies major, students are introduced to the fundamentals of written and oral communication in an interdisciplinary framework. The program is designed to cater to the diverse interests of students in a wide range of careers, from corporate management to non-profit organizations. Students gain practical experience through hands-on projects and supervised internships.

The Media Communication major focuses on the theory and practice of mass communication, preparing students for careers in the media industries, public relations, advertising, and management. This major equips students with the skills and knowledge needed to succeed in a rapidly changing communication environment.

The Journalism major is designed for students who wish to pursue careers as journalists in print, broadcast, or online media. Students gain practical experience through assignments in news gathering, writing, and editing, as well as through reporting and writing internships.

The Rhetorical Studies major focuses on the study of language and communication in its various forms and contexts. Students develop critical thinking and writing skills, and learn how to analyze and evaluate arguments and discourse. This major is ideal for students interested in careers in public relations, advertising, and management.

In addition to the majors, students can pursue a Self-Designed Program in Communication, which allows them to tailor their studies to their specific interests and career goals.

The Communication Studies program also offers courses in related fields such as Business Communication, Public Relations, Advertising, and Media Management. These courses are designed to provide students with a broad understanding of the communication industry and its various roles and functions.

The Communication & Rhetorical Studies department is dedicated to providing students with a comprehensive education that prepares them for success in a diverse range of careers. Through a combination of theory and practice, students gain the skills and knowledge needed to succeed in the rapidly changing field of communication.
Practical Experience
An important characteristic of the Duquesne place students in internships from New York to experience We have more than internship opportunities Nearly all jobs require challenges
experience and introduction to professional director, reflecting our commitment to internship extensive internship program, we have significant production experiences for the University excellent opportunities for learning, including production experiences for the University television station and our public radio station (WDUQ)

REQUIREMENTS FOR THE MAJOR
A minimum of 30 credits in Communication is required (To encourage a broad liberal education, the maximum allowable credits in the department is 45) Students design, in consultation with their advisors, a Plan of Study that is coherent and balanced “Coherence” is provided by following the requirements of one of the degree programs listed below “Balance” is achieved by taking a range of courses representing different perspectives, levels, and types In order to facilitate this goal five core courses are required of all majors

COMM 201 Human Communication & Society
COMM 210 Mass Communication & Society
COMM 301 W History of Communication
COMM 407 Intercultural Communication
COMM 494W Communication Ethics

SPECIFIC REQUIREMENTS BY DEGREE
I Major in Communication Studies
A Five core courses 15 hours
B Communication Studies Requirements 6 hours
1) 103 Introduction to Interpersonal Communication OR 454W Interpersonal Communication
2) One of the following courses
   102 Public Speaking 304W Persuasion
   333 Advertising & PR Campaigns
C Specialization dependent on advisement 9 hours

II Major in Media Communication
A Five core courses 15 hours
B Media Communication Requirement 3 hours
111 Introduction to Media Arts
C Specialization dependent on advisement
   Corporate Media Design
   Media Management
   Media Marketing
   Media Writing & Production
   Rhetoric of Mass Media
   Self-Designed Program

III Major in Journalism
A Five core courses 15 hours
B Journalism Requirements 9 hours
   271W News Writing & Reporting I (with 177 Language for Journalists)
   371W News Writing & Reporting II
   375W Editing for Print
C Specialization dependent on advisement
   6 hours
   Advertising
   Broadcast Journalism
   News Production and Management
   Online Journalism
   Print Journalism
   Public Relations

Requirements for the Minor in Communication Studies, Media Communication or Journalism
Required 18 Hours minimum
   ■ COMM 494W Communication Ethics (3 hours)
   Two of the following courses (6 hours)
   ■ COMM 201 Human Communication & Society
   ■ COMM 210 Mass Communication & Society

II Major in Media Communication
A Five core courses 15 hours
B Media Communication Requirement 3 hours
111 Introduction to Media Arts
C Specialization dependent on advisement
   Corporate Media Design
   Media Management
   Media Marketing
   Media Writing & Production
   Rhetoric of Mass Media
   Self-Designed Program

III Major in Journalism
A Five core courses 15 hours
B Journalism Requirements 9 hours
   271W News Writing & Reporting I (with 177 Language for Journalists)
   371W News Writing & Reporting II
   375W Editing for Print
C Specialization dependent on advisement
   6 hours
   Advertising
   Broadcast Journalism
   News Production and Management
   Online Journalism
   Print Journalism
   Public Relations

UNDERGRADUATE CURRICULUM
101 Scientific Presentation & Writing 3 cr
This course will allow students to sharpen their presentational skills through instruction in the art of rhetoric as applied to science Writing, reading, and multimedia skills will be taught through several projects designed to cultivate greater eloquence for communicating scientific ideas

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 Introduction to Interpersonal Communication 3 cr
Develops communication skills in a variety of personal and professional relationships, including friendships, romantic relationships, work relationships, and family relationships

111 Introduction to Media Arts 3 cr
Familiarizes students with equipment applications and technology, and provides basic hands-on experience in media production

114. Introduction to Intercultural Communication 3 cr
This course provides a foundation for effective communication between and among persons of diverse cultural standpoints

151 Voice & Diction 3 cr
Trains students in the voice and diction skills required of professionals

177 Language for Journalists 0 cr.
Teaches students the basic rules of English grammar

182 Photjournalism Digital Imaging (majors only) 3 cr
Introduces students to the use of photography as a medium of communication Teaches the fundamentals of camera work, light, filters, film development and printing

201 Human Communication & Society (Core Requirement) 3 cr
Examines how people influence, and are influenced by, institutions, groups, and other individuals

202 Business & Professional Communication 3 cr
Focuses on one-to-one, group, and individual communication in business, government, industrial, and not-for-profit or service organizations

203W Communication & Professional Civility. 3 cr.
Develops communication skills in group and organizational relationships

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

210. Mass Communication & Society (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 institutions, groups, and other individuals

214 Introduction to Debate 3 cr
Outlines how to develop an argument supporting and opposing a given position
215W Media Design & Scriptwriting 3 cr
Introduces the theory, process and techniques of designing and writing for corporate media, employee communication, training, and marketing promotion.

240 Video Production Studio 3 cr
Introduces fundamentals of "live" television studio production techniques, coupling basic technical and aesthetic considerations.

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.

271W News Writing & Reporting I 3 cr
Teaches the fundamentals of news reporting and writing, including instruction on how to conduct interviews, discover and organize material, and meet deadlines.

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 Persuasion 3 cr
Examines theory and practice of the influence of beliefs, attitudes, and behaviors.

321 Technical & Integrated Marketing Communication 3 cr
This course examines the use of basic technology in integrated marketing communication.

332 Advertising & PR Campaigns (majors only) 3 cr
Uses case study method to develop an understanding of the principles and practices of contemporary advertising and public relations.

350 Video Production EFP/ENG 3 cr
Introduces electronic news gathering and electronic fields production as remote location video production techniques, covers pre-production planning and design, on-location production, and post-production editing.

351 News Announcing 3 cr
Applies principles of effective speaking to broadcasting.

353 Oral Interpretation of Literature 3 cr
Analyzes literature from all genres for purposes of reading aloud, a skill which is both an art in itself and a useful discipline for announcers and actors.

355 Acting for the Camera 3 cr
An introduction to the art of acting, beginning with characterizations and applying whatever performing techniques are required for the role.

367 Radio-TV Principles & Writing 3 cr
Studies and applies writing principles and practices for radio and television news in a lecture-laboratory course.

368 Media Management & Economics 3 cr
Introduces students to the basic management operations of a contemporary electronic media facility and the economic parameters of the US 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 News Writing & Reporting II 3 cr
Teaches advanced writing of news stories such as business, government, and court stories, and introduces students to in-depth, analytical coverage of public issues. Pre-requisites: COMM 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. Prerequisites: COMM 271W.

402 Argumentation & Debate 3 cr
Applies the principles and methods of critical deliberation to a significant contemporary social issue. Emphasizes advocating, defending, and refuting a proposition of policy.

404 Intercultural Communication Perspectives 3 cr
This course provides a foundation for the understanding and practice of intercultural communication.

405 Multicultural Advertising & Public Relations, 3 cr
Introduces students to the use of the World Wide Web in advertising and PR strategies and teaches the techniques for the development of commercial advertising sites and public relations vehicles.

407 Intercultural Communication (Core Requirement) 3 cr
Intercultural communication exposes the student to the importance of communication among and between politically, culturally, and ethnically diverse people as a bridge to understanding in a multicultural world.

409 International Communication 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. Instructor permission required.

412 Literary Journalism 3 cr
Focuses on American literary journalism and the many writers who traverse fiction and lyrical journalism. Also looks at writers from other countries.

413 Electronic Communication in Organizations, 3 cr
Provides an opportunity for research, discussion, and debate on the application of electronic communication technologies in business and industry.

416 World Wide Web Publishing 3 cr
Familiarizes students with digital on-line publication applications and technology and provides basic hands-on experience in HTML markup language, audio and video formats for the WWW digitalizing images from various sources and basic server production.

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.

419 Mass Communication & Everyday Life 3 cr
Examines theories and research in the field of mass media (notably television) and society.

421 Communication and Gender 3 cr
Examines research of differences in men's and women's communication styles in a variety of contexts, including personal, social, and work relationships.

422 Evidence 3 cr
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.

425 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 students to the theory and application of management communication. Examines how managers develop an organizational culture, navigate organizational change and support innovation through communication practices.

430 Rhetoric, Religion, & Society 3 cr
Introduces how the rhetoric of religious symbols influences and enriches our daily living.
428 Visual Communication 3 cr
Introduces students to the theories of visual perception and graphic communication and their practical application to the production of visual communication.

429 Advertising Production 3 cr
Focuses on applying theories of sales and marketing to print media and electronically delivered media.

430 Public Relations Practices 3 cr
Provides students with the opportunity to develop writing skills for various public relations audiences, including the media.

431 Computer Graphic Design 3 cr
Uses computer-based desktop-publishing software to create various forms of visual communication while weaving the theories of page design, color, and symbolism into comprehensive understanding.

432 Media Production & Graphic Design 3 cr
Examines the print communication of business, industry, professional, and non-profit organizations. Teaches the writing, designing, and editing of brochures, newsletters, annual reports, and other internal and external publications.

433 Advertising Practices 3 cr
Teaches copy writing and design of a marketing plan for consumer advertising.

434 Media and Sports 3 cr.
Studies and analyzes the relationship between sports and media entities and industries.

435 Media Sports Relations 3 cr
Prerequisite: 434 Media and Sports
Examines and applies public relations, publicity, media coordination, and event organization and management skills necessary for success in the sports industry.

436 Integrated Marketing Communication 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.

437 Media Sales 3 cr
Explains the multifaceted dimension of sales within contemporary business environments, with special emphasis on the tools for media sales.

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.

441W Interpersonal Communication 3 cr
Examines communication between individuals in the context of a variety of human relationships.

442 Small Group & Team Communication 3 cr
Examines communication processes in small groups. Includes discussion of group formation, structure, decision-making, conflict, and methods of doing research in and about small groups and teams.

443W Organizational Communication 3 cr
Investigates the scope and function of the communication process in organizations in order to provide students with an understanding of theory and practice.

445 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.

448 Communication & 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, Perelman, and the Hudson.

449 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.

450 Rhetorical Theory 3 cr
Provides a theoretical introduction to classical and modern rhetorical praxis. Student papers focus on theoretical summaries of rhetorical scholarship.

451 Advanced Writing for Radio & Television 3 cr
Teaches news writing for radio and television in a lecture-laboratory course.

452 Civic Journalism Reporting 3 cr
Teaches interpretive reporting of urban affairs in a lecture-laboratory course.

453 Writing Editorials, Critiques & Reviews 3 cr
Examines the basic principles of reviewing art forms and writing thoughtful, informative editorials on local, national, and world affairs.

454 Feature Writing 3 cr
Teaches feature article writing for the general and specialized print publication. Includes writing for internal and external corporate publications as well as query writing and marketing for the free lance writer and feature writing for the print news reporter.

455 International Mass Communication 3 cr
Studies world news systems and analyzes their roles as instruments of world understanding.

456 Communication Research Methods 3 cr
Provides training in gathering and analyzing data relevant to communication phenomena.

457 Media Law & Regulation 3 cr
Examines the legal rights, privileges, ethics, and responsibilities of the mass media-electronic and print.

458 Practicum in Journalism 1-3 cr
Conducts formal critiques of the Duquesne Duke and other college media. Designed for all persons working for a college newspaper.

459 Practicum in Debate/Civic Argumentation 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.

461 Practicum in College Radio 1-3 cr
Conducts formal critiques of WDSR and related college media. Designed for all persons working for a college radio station.

462 Practicum in College Television 1-3 cr
Conducts formal critiques of WDSR and related college media. Designed for all persons working for a college television station.

463 Practicum in College Newspaper 1-3 cr
Conducts formal critiques of WDSR and related college media. Designed for all persons working for a college newspaper.

464 Communication Ethics (Core requirement) 3 cr
Explores theoretical and practical issues in the explanation of ethical options and decisions in relational, organizational, and media contexts.

465 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.

466 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.

467 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.

468 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.
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, 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 of study, 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.

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 (3 credits) and an equivalent course. Students may take concurrently with 200-level courses by permission of the Department. 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

Students transferring to Duquesne from another College or University may receive a maximum of nine transfer credits applied to their major requirements.

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
Survey of American Literature
Survey of American Literature

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

Electives

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 creative writing to help students develop as mature writers in multiple genres. 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.

Students are required to take the following:

Three writing courses at the 300 or 400 level
One 400 level literature course
Six hours of electives, no more than one course may be below the 215 level.

Requirements for the Minor in English

Students transferring to Duquesne from another College or University may receive a maximum of six transfer credits applied to their minor requirements.

The English minor requires 18 credit hours in English, including:

- ENG 300—Critical Issues in Literary Study
- One of the following English core curriculum courses
  - Survey of British Literature
  - Survey of American Literature
  - Survey of American Literature
  - One 400 level literature course
  - Three elective English courses at the 200 level or above.
Theater Arts as a 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 three campus theater groups. The Red Masquers, The Medieval and Renaissance Players, and Spotlight musical groups. Advanced students also work for practicum credit through our arrangement with an off-campus professional company, The Pittsburgh Irish and Classical Theatre Company. Thus the Theater Arts major and minor prepare students for business, technical, and artistic career opportunities in theater and other arts.

ACADEMIC REQUIREMENTS

THEATER ARTS MAJOR (30 to 45 hours)

Required courses  9 credit hours

- THTR 151 Introduction to Theater Studies (3 cr)
- ENG 203 Drama (3 cr)
- THTR 481 Theater Criticism (3 cr)

Performance courses  6 credit hours
Choose two of the following three-credit courses
- THTR 201 Acting I (classic acting—period acting)
- THTR 301 Acting II (modern acting—contemporary styles)
- ENG 315 Playwriting Workshop
- THTR 401 Directing Workshop

Literature courses  9 credit hours
Select from 300- and 400-level courses that emphasize dramatic literature in their titles (e.g., Restoration Comedy, Nineteenth-Century Drama, Contemporary American Plays). One 3-credit-hour course must be in Shakespeare.

Practica  6 credit hours
- THTR 497, 498, 499 (2 credit hours each)

Two semesters at two credit hours per semester (2 credit hours = 10 hours per week) with The Pittsburgh Irish and Classical Theatre Company, and one semester of two credit hours with either PITC or another on-campus or professional theater company. All Practica must be approved for credit in advance by the Director of Theater Arts.

DOUBLE MAJOR (54-55 credit hours)
THEATER ARTS & ENGLISH
THEATER ARTS & COMMUNICATION/ RHETORICAL STUDIES

Students can double-major in Theater Arts and English or Theater Arts and Communication and Rhetorical Studies. The first selected major requires 30 credit hours (as described for Theater Arts above and in the undergraduate catalogue for English and for Communication and Rhetorical Studies). The second majors consist of 25 credit hours, if Theater Arts, and 24 if English or Communication and Rhetorical Studies. The requirements for each of the second majors in these joint programs are indicated below.

Theater Arts as a second major (25 hours)

Required courses (9 credit hours)
- THTR 151 Introduction to Theater Studies (3 cr)
- ENG 203 Drama (3 cr)
- THTR 481 Theater Criticism (3 cr)

Performance courses (3 credit hours)  Select one of the following:
- THTR 201 Acting I (3 cr)
- THTR 301 Acting II (3 cr)
- THTR 401 Directing Workshop (3 cr)

Literature courses (9 credit hours)
- 300 and 400 level English courses that emphasize dramatic literature in their titles, one of which must be a course in Shakespeare.

Practica (4 credit hours)
- One of these practica must be with the Pittsburgh Irish and Classical Theater. The other may be with PITC or another on-campus or professional company. These practica must represent two separate emphases of theater work (management, technical theater, or performance).

English as a Second Major (24 credit hours)

Required course  ENGL 300, Ethical and Critical Issues in Literary Study (3 cr)

Literature courses  9 credit hours selected from the following:
- ENG 217W Survey of British Literature I (3 cr)
- ENG 218W Survey of British Literature II (3 cr)
- ENG 219W Survey of American Literature I (3 cr)
- ENG 220W Survey of American Literature II (3 cr)

English Electives  12 credit hours, at least 6 of which are at the 400 level. No more than two of these may be writing courses.

Communication/Rhetorical Studies as Second Major (24 credit hours)

Required core courses (6 cr)
- COMM 407/Intercultural Communication (3 cr)
- COMM 494W Communication Ethics (3 cr)

Core elective (3 cr)
- COMM 201 Human Communication and Society (3 cr)
- COMM 210 Mass Communication and Society (3 cr)
- COMM 301W History of Communication (3 cr)

Electives from area of concentration (15 cr)

THEATER ARTS MINOR

(18 credit hours)

Required courses (9 hours)
- THTR 151 Introduction to Theater Studies
- ENG 203 Drama
- THTR 481 Theater Criticism

Performance courses (3 hours)
- THTR 201 Acting I
- THTR 301 Acting II
- THTR 401 Directing Workshop

Literature courses (6 hours)
- 300 and 400 level English courses that emphasize dramatic literature in their titles.

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 contextual 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

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, with attention to the history of the English language

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

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

303 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

304 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

305 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

306 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

307 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

400W Special Studies Creative Writing 3 cr
Prerequisite: Engl 301
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 3 cr
Prerequisite: Engl 302
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
- Arthu& 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 typically include, but are not limited to, such topics as
- British Realism
- Victorian Literature

413W Special Studies Author Studies 3 cr
Courses in this area typically include, but are not limited to, such topics as
- Medieval Literature
- Shakespeare

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 Romance Writers
- Sexual Identity and Victorian Literature

EIGHTEENTH CENTURY BRITISH LITERATURE
412W 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, 1700-1760
- Eighteenth-Century Literature, 1760-1800

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

421W Special Studies Author Studies 3 cr
Courses in this area typically include, but are not limited to, such topics as
- Jane Austen
- Romantic Poetry

422W Special Studies Author Studies 3 cr
Courses in this area typically include, but are not limited to, such topics as
- Robert Burns
- William Wordsworth

423W Special Studies Author Studies 3 cr
Courses in this area typically include, but are not limited to, such topics as
- Joyce and Woyly
- 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 Realism and Naturalism

426W Special Studies Genre Studies 3 cr
Courses in this area typically include, but are not limited to, such topics as
- American Realism and Naturalism

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

450 Senior Seminar Special Studies 3 cr
Required capstone course open to senior English majors only. Topics will vary by semester
THEATER ARTS CURRICULUM

151 Introduction to Theater Studies 3 cr
Involvement in the basic components of the discipline: experiencing and performing drama, playwriting, criticism of dramatic texts and performances. Includes attendance at plays on and off campus. A prerequisite for all upper-level Theater Arts courses.

201. Acting I 3 cr
A study of the basic principles, theories, and techniques of acting, with emphasis on classical and period styles.

301. Acting II 3 cr
Advanced study, with emphasis on modern and contemporary styles. Prerequisite THTR 201

351. The American Theater 3 cr
Survey of the major American theatrical movements and dramatic literature from the Colonial period to the present. Playwrights, designers, and theatrical companies are studied as reflections of American culture.

401 Directing Workshop 3 cr
An advanced course dealing with the principles and techniques of various acting styles with major concentration on the oral communication of a dramatic role. Pre-requisite THTR 201

451. PICT Master Class 1 cr
Participation in and observation of advanced techniques of performance, as demonstrated by a master performer. Arranged by the Pittsburgh Irish and Classical Theater. Admission by permission only. May be repeated for credit with approval of Director of Theater Arts.

481. Theater Criticism 3 cr
Advanced study and practice of theater criticism, including study of dramatic texts and critiques of professional and amateur productions on and off campus.

497. Theater Management Practicum 2 cr
Students learn the basic business of theater by working in the areas of marketing, house management, actor contracts, equity laws, public relations, ticket sales, etc. Admission by permission only.

498. Technical Theater Practicum 2 cr
Students learn about the technical side of mounting a play by working in the areas of costume, set, properties, lighting, sound, etc. Admission by permission only.

499. Performance Practicum 2 cr
Students work with a production either as a member of the cast (admission by audition) or as a member of the stage management team, as assigned by PICT in accordance with the particular needs of the production(s) that occur during the time of the practicum. Admission by permission only.

DEPARTMENT OF HISTORY
Chairperson
Jean E. Hunter, 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 and 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 credits must be taken. All majors are required to take Writing History (311) between their third and fifth semesters. The following requirements must also be met: a) six credits at the 100-level including either HISTY 103 or HISTY 113, b) six credits in Latin American, Asian, or Middle Eastern history, c) six credits at the 400-level. Majors must complete their 100-level requirements and have enrolled in Writing History before enrolling in 400-level courses. 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
A student minoring in history is required to take thirteen credits, including six at the 100 level and nine at the 200, 300 or 400 levels. They are required to take one course in Asian, Latin American, or Middle Eastern history. No more than six history credits transferred from another institution can count towards the history minor.

Fulfilling the University Core History Requirement
History majors should be aware that by enrolling in HISTY 104 (U.S. History since 1877) and HISTY 114 (Western Civilization II), they can be exempted from the required core course, Shaping of the Modern World.

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:
- A 3.0 overall GPA
- A 3.5 GPA in History courses
- 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)
- Letters of recommendation from two History professors

Honors in History
Students who are planning to pursue a graduate degree in History should apply for the department's Honors Seminar in the fall of their senior year. This course is offered every spring. Students receiving Honors in History must meet the following criteria:
- A 3.2 overall GPA
- A 3.5 GPA in History courses
- The completion of HISTY 311 with a grade of B+ or better
- Two letters of recommendation from History professors attesting to the students ability to do advanced research and writing
- 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 content demands for aspiring secondary teachers increase, 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 Colleges language requirement. Students should be able to complete the program within four years by taking an occasional overload or enrolling in summer classes.

103 History of the United States to 1877 3 cr
The historical development of American society, ideals, and institutions from colonial settlements to 1877.
104 History of the United States since 1877.  3 cr  
The historical development of American institutions, ideals, and society since 1877

113 Western Civilization I  3 cr  
An introductory survey of the origins and characteristics of European civilization Emphasizing the personalities, events, and institutions that have shaped the West through the 17th century

114. Western Civilization II  3 cr  
An introductory survey of the 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 of Ancient Medicine  3 cr  
Examination of the most significant medical theorems 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  
Greek history and culture from earliest times up to the death of Alexander of Macedon

246. Hellenistic History  3 cr  
Mediteraneanean 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

254 The History of the 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 Asia in the Age of Imperialism  3 cr  
From the 17th century through the early 20th century. Asian societies faced the challenge of European incursions into the region. This course will examine how the Asian peoples confronted the Western challenge and the impact that this early globalization had on their politics, economics, and societies

256 Asia in the 20th Century  3 cr  
The 20th century saw Asian societies move from colonial or semi-colonial dependence to independence. This course will trace this development and will examine the various paths that the emerging nations of Asia took as they sought to establish themselves. The impact of the world wars, the Cold War, and the emerging global economy will be central to the course

258 Russia in the Twentieth 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

261 Eastern Europe From Nationalism through Communism  3 cr  
This course covers the fascinating modern history of the lands 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 reassessment of national sovereignty after the end of the Cold War

270 Latin America from Conquest to Independence  3 cr  
A survey of Latin America, beginning with the pre-Columbian Maya, Inca, and Aztec civilizations and their conquest by Spain, and proceeding through the development of colonial Spanish and Portuguese society and the growing tensions that led to the struggle for independence

271 Modern Latin America  3 cr  
A survey of Latin America since the 1820s that emphasizes the social, economic, and political development of Argentina, Chile, Brazil, Mexico, Cuba, Puerto Rico, Central America and the Caribbean. Some of the themes emphasized will be Latin American economic underdevelopment, military rule, revolution, the struggle for democracy, and Liberation Theology

275 Central America & the Caribbean in the 20th Century  3 cr  
An examination of the history of Puerto Rico, Cuba, Haiti, the Dominican Republic, Grenada, Nicaragua, Panama, El Salvador, Guatemala, and Honduras since 1898. Emphasis will be on U.S. military and economic intervention, the growth of nationalism, peasant and guerilla movements, revolution, the threat and appeal of communism, and increasing political stability

277. History of Mexico  3 cr  
A survey of 1 100 years of Mexican history beginning with the ancient Toltec Mayans and Aztec civilizations and proceeding through colonial Mexican history under Spanish rule. Emphasis is on Mexico since independence and will cover the loss of Texas, the U.S.-Mexican War, the Porfiriato, the 1910 Mexican Revolution, the PRI's seventy years of one-party rule, the transition to democracy, corruption, migration to the United States, NAFTA, and Narco traffic

291 History of Japan  3 cr  
A survey of 2,000 years of Japanese history beginning with the ancient Yamato courts and the introduction of Buddhism. This course will cover the loss of Korea to the Chinese, the development of the Shinto religion, the rise of the Tokugawa shoguns, and the Meiji Restoration

292 Traditional China  3 cr  
This course surveys Chinese history from the antiquity to mid-19th century. It traces the evolution of the Chinese civilization, investigates major themes and aspects of this period, and examines traditional China in larger historical and cultural contexts to see how the Chinese experience, with all its merits and problems, relates to modern times and the outside world

293 History of Modern China  3 cr  
This is a survey of Chinese history from 1840 to the present. Among issues examined are the fate of traditional China in modern times, China's relationship with the West, war and revolution, Chinese Communism, and reforms in the post-Mao era

301 African American History  3 cr  
An examination of the experiences of Africans in the United States since their arrival in 1619 through the centuries of slavery, trials of the post Civil War era, 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

311W Writing History  3 cr  
A seminar course that focuses on 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

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, etc.
320 Colonial America 3 cr
This course focuses on the exploration and 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.

321 American Revolution 3 cr
An exploration of what caused American colonists to erupt in rebellion against Britain, escalate the rebellion into a revolution, and wage a war for independence. 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.

329 Pennsylvania and the 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.

335 Crime and Criminality in Early Modern Europe 3 cr
This course will look at the seamy underside of Western European society in the period running roughly from 1500 to 1750. Learn about behavior in early modern Europe and the methods and institutions used to suppress it.

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.

340 Historical 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 American Law Socio-Historical Perspective 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 affected western societies. It will look at the traditional components of military history but also examine the wider issues concerning the way warfare has influenced political, 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 international relations of the conflicts and their impact on political, social, and technological change.

352 US Foreign Policy since WW1 3 cr
The United States emerged as a major player on the world stage during and after World War I. 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 and 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 United States 3 cr
An analysis of the Supreme Court and constitutional development, stressing the major controversies in the field.

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
This course creates awareness among students to the significance of the Vietnam War. Helps to explain the legacy that has loomed over American foreign policy, American consciousness, and the American psyche since its happening.

376 Revolution in Modern Latin America 3 cr
The course begins with an analysis of different revolutionary theories, followed by an in-depth examination of the Mexican, Bolivian, Cuban, Chilean, and Nicaraguan revolutions of the 20th century. In this century, successful guerrilla movements in Guatemala and Colombia as well as successful, peaceful social movements pertaining to women's rights will also be examined.

381 East Asian History thru Film 3 cr
This course examines East Asian history with feature films. A combination of general survey and topical study, covering the developments of the Chinese and Japanese civilizations from ancient times to the present age.

386 The American South 3 cr
This course examines a distinctive region and its cultures. These, in turn, illuminate the construction of, and conflicts within, American civilization.

387 Native American History 3 cr
This course focuses on Native American societies and the nature of their contact and conflicts with European settler societies from the 1490s to the 1880s.

388 United States 1945 to Present 3 cr
A discussion of selected contemporary issues, foreign and domestic, which illustrate the identity crisis in the US.

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.

391 The U S , 1917 to 1945 3 cr
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
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.

398 U S Economic History 3 cr
Investigates the economic development of the United States, emphasizing its impact on social and political issues as background for current economic problems.

PLEASE NOTE.
Courses at the 400 level are open to upper-level undergraduate enrollment. They require, at the very least, that students have taken the appropriate 100 level courses.

401 Medieval Europe 3 cr
An exploration of the elements which, taken together, comprise the culture of the Middle Ages. Beginning with the crises that accompanied the fall of the Roman Empire in the west, the course will examine the attempts to reassert order, the role of the Church, and its conflicts with secular authority. The cultural and social achievements of the era will be discussed.
415 Early Modern Europe 3 cr
The transformative movements that molded western civilization—the Renaissance and the Reformation—will be the 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.

417 Reason and Revolution 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 catalysis of the French Revolution that ushered in the modern world.

419 19th Century Europe 3 cr
An examination of the European experience between 1815 to 1914, with emphasis on political, social, and cultural trends.

422 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.

433 American Women in History 3 cr
An investigation of the historical experiences of American women beginning with the European heritage and continuing with the special conditions in the country that led to the rise of the world’s first women’s movement. Concluding with the changes that women have faced in the industrial and post-industrial world of the twentieth century.

445 Imperial Russia 3 cr
An investigation of the political, social, and intellectual evolution of the Russian Empire in the 18th and 19th centuries.

446 Rise and Fall of Soviet Union 3 cr
An investigation of the political, social, and intellectual evolution of the Soviet Union since the Bolshevik Revolution of 1917.

450 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 the United States and the Soviet Union.

451 Christianity & Islam Clash of Empires 3 cr
For over a thousand years, these two great monotheistic religions have challenged each other throughout the globe. This course examines, in particular, the clash between Christianity and Islam in Europe and the Near East.

460 New American Immigration 3 cr
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.

465 Reform in America 3 cr
From its founding to the present day, the United States 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.

466 From Puritans to Pentacostals: American Religious History 3 cr
The United States is and has long been a remarkably religious nation. This course explores the American religious experience from the time of European settlement to the present day. We will consider issues like how the relationship between church and state has changed over time, the rise and decline of various denominations and religions, how race, class, and gender have shaped religious identities, and how religious groups have participated in social and political change.

469 American Labor and the Capital 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.

473 American Intellectual & Cultural History 3 cr
A survey of 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.

477 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.

478 American Family History 3 cr
An examination of American social history from the perspective of the American family. This course will begin with the patriarchal colonial family, examine the changes in family structure that accompanied democratization and commercialization, investigate the impact of industrialization, and conclude by seeking to understand today’s family structures.

479W Diplomatic History of the United States 3 cr
This course explores various topics in and interpretations of the history of American foreign policy and relations. It focuses on the nation’s rise to world power and the internal and external conflicts that resulted.

482 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.

484 U.S. and China in the 20th Century 3 cr
China and the United States are two of the world’s largest countries and the relationship between the two has been remarkably complex and eventful. In this course students examine the major events and themes in the history of Sino-American interaction, with special attention paid to the political, economic and cultural factors that have together defined China’s relationship with the United States of America.

485 China in Revolution 3 cr
This course investigates the revolutionary changes in China in the 20th century, with a focus on the Chinese Communist movement. Topics include the meaning of revolution in the Chinese context, the ideology, causes, stages and personalities of the Chinese revolution, and the consequences and impact of the revolutionary movement.

491 Senior Honors Seminar 3 cr
Students pursue primary-source research on a topic of their choice under close faculty direction in a seminar format.

499 Directed Reading Selected Historical 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.

DEPARTMENT OF INTERACTIVE MEDIA
MULTIMEDIA ARTS MAJOR

Chairperson
John C. Shepherd, Ph.D.

The Multimedia Arts major at Duquesne University educates students about responsibility and respect for themselves and their clients. Students will study the design, creation, and uses of interactive media and will be able to develop applications for distribution via any medium including, CD-ROM, DVD, and the World Wide Web.
Today's world is truly multimedia, daily we all encounter CD-ROM, the World Wide Web, WEB-TV, DVD and more. Development of titles for such diverse avenues of distribution requires graphic, audio, video, computer, and programming skills. The Multimedia Arts major at Duquesne University attempts to blend the technology with the creative, the skills with the theories, and attempts to foster appreciation and understanding of the roles and responsibilities of the technical and creative members of multimedia development teams through project proposals, development and implementation.

A 4-1 program is available to multimedia majors who qualify, which allows students to earn the B.A. degree in Multimedia Arts and an M.S. degree in Multimedia Technology in five years.

REQUIREMENTS FOR THE MAJOR
Required: 24 credits plus FINAR 245 and COSC 103

MM 210 Principles of Multimedia Design 3 cr
Design focuses on the ways in which we interact with a presentation of an idea, whether it is on paper, or on a computer screen. This involves a theoretical look at different disciplines such as typography, color psychology, physiology, and human-computer interaction, to name a few. We will examine these theories and look at ways to put them into a practical light, using interface design tools such as Adobe Illustrator/InDesign, Microsoft PowerPoint and Visio.

MM 212W Ethical and Legal Issues in Multimedia 3 cr
This course is designed to examine the enigmatic topic of the legal and ethical responsibilities that concur with Internet and Multimedia development. In this class we will look at some of these topics, through cases and other documentation, and will also look at the legal cases that made the rules that we follow today (Co-requisite MM 210).

MM 213 Introduction to Multimedia 3 cr
Introduction to Multimedia Technology is an introductory course that provides an overview of the multimedia field. It introduces students to software applications that can be used to create multimedia and hypermedia applications (Co-requisite MM 210).

MM 226 Designing for the World Wide Web 3 cr
The World Wide Web utilizes many different forms of media to provide information to the user. However, certain core technologies exist that have, for the most part, driven the Web from its inception. These technologies include the Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), JavaScript, and server-side scripting technologies such as Active Server Pages (ASP) and PHP. We will take a close look at all of these technologies in this course and learn how they interact with each other to result in interactive, informative, and entertaining web applications.

MM 324 Principles of Audio and Video 3 cr
This class provides an introduction to audio, lighting tools and to cameras and various types of lenses, and then investigates audio principles along with explaining how to work with interior and exterior lighting, characters, motion, and color. The course also includes definitions of filmmaking jargon (MM 213).

MM 340W Writing for Multimedia 3 cr
Writing for Multimedia covers the field of writing for all interactive media, including kiosks, computer and CD-ROM products, interactive movies, and online services. This course will serve as an introduction to writing for the interactive and multimedia markets. Emphasis includes media ranging from edutainment to interactive games and science-fiction thrillers to documentaries and instructional programs.

FINAR 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 and drawing to digitally composed pieces, fusion of graphics and text, industrial graphic design, and advertising.

COSC 103 JavaScript Programming 3 cr
Students use JavaScript as a basis for understanding object-based programming, including objects, properties, methods, and events. The language is used to create interactive web pages, animate objects and edit web-based forms (MM 226).

MULTIMEDIA ARTS TRACK COURSES
These are currently three tracks: Internet, digital media, and design. Some of the following courses fall into more than one track. To complete a track, students must take at least three courses (9 credits).

DESIGN TRACK

MM 224 Sound Design 3 cr
This course will give the student an understanding of the function of sound in multimedia by covering a number of important concepts and theories concerning sound. At the same time, the student will learn basic but essential audio production skills that will aid them in real-world applications. Class sessions will involve lectures, class discussions, and basic audio production projects. Students will work individually and in groups (Prerequisites MM 210, MM 213).

MM 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. Topics include theories of man-machine interfaces, the effective use of color and navigational techniques, and analyses of various modes of user interactivity (Prerequisites MM 210, MM 213, FINAR 245).

MM 416 Instructional Design 3 cr
Instructional design is an introductory course that provides an overview of learning theory, instructional design concepts and multimedia principles. Using Macromedia Authorware, students design, develop and evaluate computer-based applications that can be used for computer-based training, e-learning, and other educational and informational purposes.

INTERNET TRACK

MM 318 Advanced Web Design 3 cr
Advanced Web Design is a course that discusses new Web-related technologies in use today. Students will build upon base HTML skills to implement current technology into modern information systems. The course will discuss media distribution through streaming audio and video, web page application development through JavaScript, Dynamic HTML, information transfer through XML, and information presentation languages such as cascading style sheets, XHTML, and future document definition formats (Prerequisite MM 226, COSC 103).

MM 328W Web Server Scripting 3 cr
Web Server Scripting will introduce students to server-side web design using ASP.Net and relational database software. Students will learn the basics of client-server development, development of dynamic websites using ASP.Net, basic database manipulation, and storage, retrieval, and presentation of database information through ASP.Net to provide dynamic website functionality. By the end of the course, students will be able to build functional message boards, blogs, company intranets, and other similar applications websites (Prerequisite MM 226, COSC 103).

MM 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 (Prerequisites COSC 103, FINAR 245, MM 226).

MM 430 Web Animation 3 cr
This class takes a detailed look at ways to create 2-dimensional animations and interfaces for the web to create a more interactive experience for the user(s). The most efficient way to create interactive web-based animations is through the use of vector-based drawing and authoring tools such as Macromedia's Flash. In addition to learning concepts and practices in 2D animation, we will incorporate Flash into our knowledge base, specifically drawing, creating movement, and building in interactive responses into Flash pieces.

MM 435 Java Programming 3 cr
This course introduces students to the Java programming language. Emphasis is on creating multimedia Java applets that run within browsers (Prerequisite MM 226, COSC 103).

DIGITAL MEDIA TRACK

MM 224 Sound Design 3 cr
This course will explore the digital side audio, sound file management, and recording techniques for video and audio based presentations (Prerequisites MM 210, MM 213).
MM 250 3D Modeling Principles 3 cr
This beginning level, but fast paced, class will show you the basics of 3-D modeling. This goes way beyond the reference guide and user manual and explores the actual nuts and bolts of the various tools of a software package. This course introduces students to the artistic and technical elements associated with the creation of three-dimensional computer-generated imagery. Concepts include shape, composition, lighting, shading, and the development of the industry and processes involved in producing 3-D computer animation (Prerequisites: MM210, MM213)

MM 326 Multimedia Programming 3 cr
Students combine text, graphics, sound, animation, and video as they build interactive multimedia titles using packages such as Macromedia Director (Prerequisites: MM224, FINAR245)

MM 350 3-D Animation 3 cr
Building on concepts and theory covered in 3-D Modeling (MM250), 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 methods of computer animation are discussed. Students complete a series of assignments that reflect the digital production methods used in 3-D animation and use of software for animations (Prerequisites: MM250, FINAR345)

MM 428 Electronic Commerce 3 cr
Students focus on the development of web sites that connect customers to E-Commerce organizations. Included in the course are the organizational functions necessary for implementation of an E-Commerce web site, database concepts, methods used to connect web pages to databases, the technical components to make these connections possible, development of dynamic content using data derived from databases, the analysis of various on-line payment methods and the construction of shopping cart pages (Prerequisites: MM226, MM328)

MM 430, Web Animation 3 cr
This class takes a detailed look at ways to create 2-dimensional animations and interfaces for the web to create a more interactive experience for the user(s). The most efficient way to create interactive web-based animations is through the use of vector-based drawing and authoring tools such as Macromedia’s Flash. In addition to learning concepts and practices in 2D animation, we will incorporate Flash into our knowledge base, specifically drawing, creating movement, and building in interactive responses into Flash pieces (Pre-requisite: MM226)

MM 450 Character Animation 3 cr
Character Animation is about an artist bringing a character to life. The student practices with 2-D and 3-D animation software to draw or pose characters, but also 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 (Prerequisites: MM250, MM350)

COURSES REQUIRED FOR THE MINOR
Required 18 credits

MM 210 Principles of Multimedia Design 3 cr
Design focuses on the ways in which we interact with a presentation of an idea, whether it is on paper, or on a computer screen. This involves a theoretical look at different disciplines such as typographic, color, psychology, physiology, and human-computer interaction, to name a few. We will examine these theories and look at ways to put them into a practical light, using interface design tools such as Adobe Illustrator/InDesign, Microsoft PowerPoint, and Visio

MM 213. Introduction to Multimedia 3 cr
Introduction to Multimedia Technology is an introductory course that provides an overview of the multimedia field. It introduces students to software applications that can be used to create multimedia and hypermedia applications (Co-requisite: MM210)

MM 226 Designing for the World Wide Web 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, video and interactive content to web sites. After a sound foundation in HTML, students will add advanced features to their web sites. The framework for the course is a life-cycle model for web development (Prerequisite: MM 213 or instructor permission)

FINAR 245 Computer Graphic Design 3 cr
Using graphics software such as Adobe Illustrator and Photoshop, students will be exposed to current designed aesthetics and historical design criteria. Work ranges from creative typography and fine and drawing to digitally composed pieces, fusions of graphics and text, industrial graphic design, and advertising

Plus two multimedia electives (300 level or above)

INTERNATIONAL RELATIONS
Coordinator
Rev. John Sawicki, C.S.Sp., Ph.D.

The International Relations major educates students in the historical, political, and cultural forces that shape the interactions between states, international organizations, multi-national corporations, and other international entities. In recent decades, the forces of globalization have increased awareness of the inter-dependent and inter-related 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.

The College strongly encourages International Relations majors to spend a semester abroad in an accredited program approved by the International Relations Committee. This will assure the most effective and rewarding educational experience for the students.

Majors have the opportunity to choose elective course work from one of the five areas of concentration

- Europe
- Russia
- Latin America
- United States and the World
- Global Issues

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
Courses for the International Relations major are drawn principally from the departments of History, Modern Languages and Literatures, and Political Science. Thirty-three credits are required for the major. These must include POLSC 208 or 209 and POLSC 245, 9 credits in Modern Languages and Literatures numbered 300 and above, and 18 credits chosen from a list of approved courses in History, Political Science, and Modern Languages and Literatures. Six of the 18 credits must be in History.

Students who plan to double-major in International Relations and History or Modern Languages and Literatures or Political Science must complete their elective credits for the International Relations major outside of their second major.

A complete listing of qualifying major courses is available from the academic advisor or the coordinator of the International Relations Program.

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
Interim Chairperson
Frank J. Amico, 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 educated 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...
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 Computer Programming 150 or 160

Number Theory 3 cr
Divisibility, congruences, quadratic residues, Diophantine equations, and arithmetic functions. Prerequisites: 135 and 215

Linear Algebra and Differential Equations 4 cr
Systems of linear equations, vectors and matrices, determinants, vector spaces, linear transformations, eigenvalues, and eigenvectors. First order equations, linear equations, differential operators. Laplace transforms, power series techniques. Prerequisite: 116

Modeling with Differential Equations 1 cr
Applications of first and second order differential equations, numerical methods, Laplace transforms, power series solutions and Fourier series solutions. Prerequisite: 315 (may be taken concurrently)

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

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. Prerequisites: 225 or 301, or permission of instructor

Foundations of Geometry 3 cr
Euclidean and non-Euclidean geometry from both the synthetic and metric axiomatic approach. Prerequisites: 135 and 215

Biostatistics II 3 cr
This course is a continuation of Math 225 (Introduction to Biostatistics). Topics include statistical issues in diagnostic tests, contingency table analysis, multiple two-by-two table analyses, linear and multiple regression, logistic regression, survival analysis, and nonparametric statistical procedures

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

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

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 315

Topology 3 cr
Topological spaces, homeomorphisms, connectedness, compactness, regular and normal spaces, metric spaces, convergence and separation axioms. Prerequisites: 402W or 415W

Abstract Algebra II 3 cr
A deeper examination of the algebraic structures studied in 402W, including quotient groups and rings, extension fields, and other topics selected. Prerequisite: 402W

Advanced Calculus I 3 cr
Functions, sequences and series, limits, continuity, and uniform continuity. Derivatives. Prerequisites: 135 and 215

Advanced Calculus II 3 cr
A continuation of 415W including integration theory and advanced topics in analysis. Prerequisite: 415W

Introduction to Complex Variables 3 cr
The complex number plane, analytic functions, integration of complex functions, sequences and series, and conformal mappings. Prerequisite: 415W

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 Core (BA and BS) 115 (or 114), 116, 135, 215, 315, 402W, and 415W. A grade of C or better must be achieved in all mathematics core courses. Remaining courses must be taken at the 300 level or above.

The Extra-disciplinary Requirements (BA and BS) Scientific Programming C++ (COSC 160) and Trigonometry II 4 cr

Relevant 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 115/110, 115/111, 115/114, or 115/116

116 Calculus II 4 cr
Applications of the definite integral, parametric equations, polar coordinates, sequences, and series. Prerequisite: 114 or 115

Fundamentals of Statistics 3 cr
Exploratory data analysis and statistical inference including graphical summaries of data, sampling distributions, confidence intervals, and hypothesis testing. Credit is not allowed for both 125/225

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

Calculating III 4 cr
Calculating of functions of several variables and vector valued functions. Line and surface integrals. Prerequisite: 116

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

Introduction to Probability and Statistics 3 cr
Univariate and multivariate probability distributions of discrete and continuous random variables. Mathematical expectation, limit theorems. Prerequisite: 116

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

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 Computer Programming 150 or 160

Number Theory 3 cr
Divisibility, congruences, quadratic residues, Diophantine equations, and arithmetic functions. Prerequisites: 135 and 215

Linear Algebra and Differential Equations 4 cr
Systems of linear equations, vectors and matrices, determinants, vector spaces, linear transformations, eigenvalues, and eigenvectors. First order equations, linear equations, differential operators. Laplace transforms, power series techniques. Prerequisite: 116

Modeling with Differential Equations 1 cr
Applications of first and second order differential equations, numerical methods, Laplace transforms, power series solutions and Fourier series solutions. Prerequisite: 315 (may be taken concurrently)

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

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. Prerequisites: 225 or 301, or permission of instructor

Foundations of Geometry 3 cr
Euclidean and non-Euclidean geometry from both the synthetic and metric axiomatic approach. Prerequisites: 135 and 215

Biostatistics II 3 cr
This course is a continuation of Math 225 (Introduction to Biostatistics). Topics include statistical issues in diagnostic tests, contingency table analysis, multiple two-by-two table analysis, linear and multiple regression, logistic regression, survival analysis, and nonparametric statistical procedures

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

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

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 315

Topology 3 cr
Topological spaces, homeomorphisms, connectedness, compactness, regular and normal spaces, metric spaces, convergence and separation axioms. Prerequisites: 402W or 415W

Abstract Algebra II 3 cr
A deeper examination of the algebraic structures studied in 402W, including quotient groups and rings, extension fields, and other topics selected. Prerequisite: 402W

Advanced Calculus I 3 cr
Functions, sequences and series, limits, continuity, and uniform continuity. Derivatives. Prerequisites: 135 and 215

Advanced Calculus II 3 cr
A continuation of 415W including integration theory and advanced topics in analysis. Prerequisite: 415W

Introduction to Complex Variables 3 cr
The complex number plane, analytic functions, integration of complex functions, sequences and series, and conformal mappings. Prerequisite: 415W
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.

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 & 113-114, or CHEM 121-122, or PHYS 211-212

Requirements for a Minor
A minimum of 15 credits in computer science and 3 credits in discrete mathematics as 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
Microcomputer 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.

150 Computer Programming C++ 3 cr
Object oriented programming, objects and classes, data abstraction, functions, loop, selection, control structures, arrays, searching, and sorting.

160 Scientific Programming C++ 3 cr
Object oriented programming, objects and classes, data abstraction, functions, loop, selection, 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, trees, 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 and MATH 116.

311 System Programming and Design 3 cr
Interaction between software and hardware components in 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. 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 at the 300 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 database 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 300.

425 Computer Graphics 3 cr
Geometric generation of two- and three-dimensional graphics, scan conversion, geometric transformation, clipping, interaction, curves and surfaces, and animation. Prerequisite 300.
The Department of Modern Languages and Literatures offers courses in French, German, Italian, Japanese, and Spanish. The four languages' skills (reading, writing, speaking, and oral comprehension) are emphasized at all levels. Fluency in the active use of the language is emphasized. Courses beyond conversation and composition stress literary studies in which the student is systematically introduced to the literature and culture of the groups whose language he/she is studying. Courses are also offered in linguistics, language for business, language for medicine, and language for musicians. A certificate in International Business, as well as internships here and abroad, are available. For courses at the 300 and 400-levels are conducted in the target language. Prior to enrollment in their first language courses, all students are required to take the language placement test. It is recommended that students who must fulfill language requirements begin these courses in their freshman year.

Majors and minors are urged to spend a summer, a semester, or a year abroad. Further information may be obtained in the Department Office. It is also recommended that majors in the Department include a course in the culture of the country of the language in which they specialize as well as one course in another literature other than their major.

A maximum of 12 transfer credits will be accepted toward the major. The student possessing a knowledge of foreign languages will find career opportunities in a number of fields such as education, government employment, foreign service, social work, business and industry, tourism, and international law.

The Department cooperates with the Department of History and Political Science for a degree in International Relations.

The oldest study abroad program on campus is the DU/Villa Nazareth Program in Rome (founded in 1985). This is a university-wide program. Students may participate in this program for a year, a semester, or a summer. The program only accepts students based on academic record, recommendations, high moral standards, and the successful completion of an academic year at Duquesne. There is no need to know Italian, but students should be highly motivated to study and learn the Italian language and culture.

REQUIREMENTS FOR THE MAJOR
The Department offers several major programs: Spanish, Modern Languages (in the College of Liberal Arts and also with the School of Education), International Relations (with the Department of Political Science and History), and International Business (with the Business School). The Department also offers non-major courses in Japanese, Chinese, Medical Spanish, Business French/Italian/Spanish, and Music (for musicians in French/German/Italian).

Elementary and intermediate courses must be taken in sequence. Credit toward the major or minor will not be given for 101, 102, and 202 or their equivalents. Proficiency at the 202-level or its equivalent is the prerequisite to all courses numbered 301 and above.

The major programs consist of courses at the 300-level and above:

1. Spanish - 27 credits at the 300 and 400 levels
2. Modern Languages - 24 credits at the 300 and 400 levels in one language
   12 credits at the 300 and 400 levels in a second language, and 12 credits at any level in a third language

REQUIREMENTS FOR THE MINOR
The Department offers several minor programs: French, German, and Italian. Each program consists of a minimum of 12 semester hours at the 300-level and above. As for the certificates, inquire at the Department Office.

Dual Degrees
BA / M Ed - After a completion of this five-year program, the student will receive a Bachelor of Spanish and Master's in Education

BA / B S in Education - This four-year program offers students a Bachelor of Arts in Spanish and Bachelor of Science in Education.

BA / B S in International Business - After completion of this four-year program, students will receive a Bachelor of Arts in Spanish and Bachelor of Science in International Business. Students will obtain 144 credits (18 credits per semester) including internships in the United States and abroad.

The equivalent of 301W and 302W, it fulfills the prerequisite for all courses above this level. 

302W or 306W is the prerequisite for all courses above this level.

202 Intermediate French II 4 cr
Emphasis on the written and oral aspects of the language. Weekly lab attendance. Prerequisite 102.

301W French Conversation and Composition I 3 cr
Prerequisite 202.

302W French Conversation and Composition II 3 cr
Prerequisite 301W.

306W Intensive French Conversation and Composition 6 cr
The equivalent of 301W and 302W, it fulfills the prerequisite for all courses above this level. Prerequisite 202.

320W Stylistics (Abroad) 3 cr.
Comparative study of English/French style in spoken and written French.

321 Phonetics (French) 3 cr
Mechanics of phonation with comparative English-French application to phonetic analysis of French.
101 Elementary German I 4 cr
Fundamentals of oral and written German Weekly lab attendance

102 Elementary German II 4 cr
Fundamentals of oral and written German Weekly lab attendance Prerequisite 101

115 German for Musicians I 2 cr
Specially designed for majors in music to provide them with those skills in German to meet their professional requirements Registration limited to students in the School of Music

202 Intermediate German II 4 cr
An emphasis on the oral and written aspects of the language Prerequisite 202

302W German Conversation and Composition II 3 cr
Prerequisite 302W

468W Goethe’s Faust 3 cr
Emphasis on the spirit of the 18th Century as personified in Goethe’s Faust

480W Directed Readings 1-6 cr
Reading of literary texts under close faculty supervision, for majors only and only with written permission of the Department Variable credit

491W Individual Study Var cr.

322 Théâtre de l’Avant-Garde 3 cr
The “avant-garde” theatre since 1950 such as Ionesco Beckett, Genet, Schechade, Vian, Pinet

325 Realism and Naturalism 3 cr
Theories of the two movements in the latter part of the 19th Century

202 Intermediate Italian II 4 cr
Emphasis on the written and oral aspects of the language. Prerequisite 202

201 Elementary Italian I 4 cr
Fundamentals of oral and written Italian Weekly lab attendance

101 Elementary Italian I 4 cr
Fundamentals of oral and written Italian Weekly lab attendance

115 Italian for Musicians I 2 cr
Specially designed for majors in music to provide them with those skills in Italian to meet their professional requirements Registration limited to students in the School of Music

202 Intermediate Italian II 4 cr
An emphasis on the oral and written aspects of the language. Prerequisite 202

302W German Conversation and Composition II 3 cr
Prerequisite 302W

467W Advanced Italian Grammar 3 cr

468W Goethe’s Faust 3 cr
Emphasis on the spirit of the 18th Century as personified in Goethe’s Faust

480W Directed Readings 1-6 cr
Reading of literary texts under close faculty supervision, for majors only and only with written permission of the Department Variable credit

Italian

101 Elementary Italian I 4 cr
Fundamentals of oral and written Italian Weekly lab attendance

102 Elementary Italian II 4 cr
Fundamentals of oral and written Italian Weekly lab attendance Prerequisite 101

104 Italian Culture 3 cr

107 Introduction to Italian 3 cr

109 Italian for Lawyers 2 cr

115 Italian for Musicians I 2 cr
Specially designed for majors in music to provide them with those skills in Italian to meet their professional requirements Registration limited to students in the School of Music

202 Intermediate Italian II 4 cr
Emphasis on the written and oral aspects of the language. Prerequisite 202

300 Introduction to Advanced Conversation and Composition 3 cr

321W Introduction to Italian Literature 3 cr

324W Introduction to Italian Poetry 3 cr

326W Italian Culture and Civilization 3 cr

400W Italian Cinema 3 cr

401W Contemporary Italian Cinema 3 cr

402W Images of Women in Italy 3 cr

405W Italian Opera Text & Film 3 cr

467W Advanced Italian Grammar 3 cr

480 Independent Study Italian II 3 cr

490W Individual Field Study 3 cr
Special Permission See Department Office

491W Italian Internship 1-6 cr
Special Permission See Department Office

900 Villa Nazareth
Special Permission See Department Office

Japanese

101 Elementary Japanese 4 cr
Fundamentals of oral and written Japanese Weekly laboratory attendance

102 Elementary Japanese II 4 cr
Fundamentals of oral and written Japanese Weekly laboratory attendance Prerequisite 101

103 Modern Japanese Prose 3 cr
Individually designed for majors in Japanese to meet their professional requirements Registration limited to students in the School of Music

202 Intermediate Japanese 4 cr
An intensive continuation of oral and written Japanese. Prerequisite 102

204 Japanese Culture 2 cr

205 Japanese Culture II 2 cr

301W Japanese Conversation and Composition I 3 cr

302W Japanese Conversation and Composition II 3 cr

301W Japanese Conversation and Composition I 3 cr
Prerequisite 202

302W Japanese Conversation and Composition II 3 cr
Prerequisite 301W
401W Spanish Literature El Cid to el Siglo de Oro 3 cr
Major works from the Medieval Period through the 17th Century Required for major
402W Literature 18th Century Present 3 cr
Required for major
403W From Enlightenment to Generation of 98 3 cr
418W Women of the Americas 3 cr.
422W Contemporary Spanish/American Novel 3 cr
426W Contemporary Spanish/American Fiction 3 cr
428W Modern Spanish Theater 3 cr
An in-depth study of Cervantes' masterpiece and the symbolic meaning of the two main characters Required for major
462W Latin America Theatre- Avant Garde 3 cr
463W Lorca and Generation of '27 3 cr
464W Literature of Siglo de Oro 3 cr
465W Modernism Spain and Spanish American 3 cr
466W Latin America Novel of Protest 3 cr.
467W Advanced Spanish Grammar 3 cr
468W Women's Voices—Hispanic Literature 3 cr
470W Gabriel Garcia Márquez on Film 3 cr
471W Latin America—U S Literature 3 cr
472W Latin America Novel of Protest 3 cr.
480W Directed Readings in Spanish 1-6 cr
Readings of literary texts under close faculty supervision, for majors only and only with written permission of the Department Chairperson
490W Independent Field Study 1-6 cr
Special Permission See Department Office
491W Spanish Internship 1-6 cr
Special Permission See Department Office
Graduate Studies (for French, German, and Spanish)
French
051 French for Research I 1 cr
052 French for Research II 1 cr
German
051 German for Research I 1 cr
052 German for Research II 1 cr
Spanish
051 Spanish for Research I 1 cr
052 Spanish for Research II 1 cr
505 Advanced Spanish Composition and Stylistics 3 cr
660 Seminar 1-3 cr
The following course is cross-listed in all languages
475 East and West in Film and Print 3 cr
The following courses are cross-listed in all European language areas
331 History of the European Union 3 cr
406 Europe Through Cinema. 3 cr
476 East and Central Europe in Film and Print 3 cr
477 Classics of Modern European Cinema 3 cr

DEPARTMENT OF PHILOSOPHY
Chairperson
Wilhelm S. Wurzer, 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 Plato, through the medieval and modern periods of philosophy, up to the present, contemporary philosophical thought 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 medicine, politics, journalism, law, business, and education.

The department offers an Honors Program for outstanding undergraduate majors with an overall QPA of 3.5 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 200-400 level.

**INTRODUCTORY COURSES**

- Core 132 Basic Philosophical Questions 3 cr.
  Philosophy, "the love of wisdom," is a discipline for discussing basic questions about ourselves and our world. Students select 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.

- 105 Ethics 3 cr.
  The course provides an introduction to important ethical theories, past and present, and some of their applications to concrete issues.

- 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.

- 107 Medical Ethics 3 cr.
  Ethical questions that arise in medical care and research are examined. Possible topics include doctor/patient relations, informed consent, and euthanasia.

- 108 Business Ethics 3 cr.
  Ethical questions, which relate to business, are examined, in theory and in practice.

- 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.

**BASIC COURSES** are useful electives for general undergraduates. Prerequisite at least one 100-level course in philosophy.

- 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.

- 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.

- 206 Philosophy & Film 3 cr.
  This course examines the art of cinema from a philosophical perspective.

- 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.

- 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.

- 213 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/psychological analysis (Nietzsche and Freud). Treatment of 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.

- 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.

- 216 Introduction to Christian Thought 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.

- 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.

- 255 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.

- 260 Philosophy of Law 3 cr.
  This course includes a study of major legal traditions and considers topics such as justice, ethics, and legal reasoning, and philosophical issues in evidence and procedure.

- 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 community, 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.

270 American Philosophy 3 cr.
This course covers some main figures in American pragmatism, including both classical (e.g., Peirce, James, and Dewey) and recent (e.g., Quine, Putnam, and Rorty).

280 Oriental Philosophy 3 cr.
This course provides an introduction to Oriental thought through the study of traditions such as Confucianism, Taoism, Buddhism, and Hinduism.

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.

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.

- 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.

- 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.
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, Kant, and others.

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 19th century such as Hegel, Feuerbach, Kierkegaard, Marx, Mill, and Nietzsche.

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:

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’s memory, and time.

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 appointment, and will cover topics such as love will, affectivity, and emotion.

423 Aristotle Philosophy of Action 3 cr
This course emphasizes an analysis of Aristotle’s various discussions of Praxis in both his theoretical and practical writings.

424 Adorno’s Aesthetic Theory 3 cr
This course explores in great detail one of the most dynamic and influential texts in philosophy of art and art theory, Adorno’s Aesthetic Theory.

427 Descartes 3 cr
While this course involves a careful engagement with Descartes’ major philosophical treatises (such as Discourse on Method and Meditations on First Philosophy), it also engages his lesser-known work on the emotions, the theory of matter in motion, and the body.

434 Senior Honors Seminar – Hermeneutics 3 cr
This course focuses on one of the most outstanding exponents of hermeneutics and a master of hermeneutic praxis, Hans-Georg Gadamer and his text Truth and Method. We will study theories of interpretation with regard to ancient, medieval, and modern texts as well as the function of understanding and the role of language in communication.

451 Spinoza 3 cr
This course engages in a close reading of Spinoza’s Ethics, covering issues such as causation, materialism and idealism, bodies and minds, passions and emotions, and freedom and bondage.

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.

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.

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 Babylonia, Greek, and Judeo-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
Charles T. Rubin, 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.

This course explores the politics of trade, investment, debt and market developments, impact of the media on politics, and influence of the media in politics.

110 Current Problems in International Politics 3 cr
A survey of issues that states currently face in world politics.

115 Human Being and Citizen 3 cr
An introduction to problems of politics through study of literature and film.

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 U.S. system of government.

208 Comparative Political Systems: Advanced Industrial States 3 cr
An introduction to government, politics, culture, and economic policy in Europe and Japan.

209 Comparative Political Systems: Developing States 3 cr
An introduction to government, politics, culture, and economic policy in the developing world.

220 The Politics of Public Finance 3 cr
This course is an introduction to the politics and mechanics of the budgeting and appropriating processes. This 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
Studies the role the media play in politics and the impact of the media on politics.

REQUIREMENTS FOR THE MAJOR
Thirty credits are required, no more than six of which can be at the 100-level. A maximum of six transfer credits can be applied to the major.

REQUIREMENTS FOR THE MINOR
Fifteen credits are required, no more than six of which can be at the 100-level. A maximum of six transfer credits can be applied to the minor.
245 International Relations 3 cr
A study of politics between states including sovereignty, balance of power, war, and economics

255. American Foreign Policy 3 cr
A study of American foreign policy since World War II

276 Elections, Campaigns, and Voting Behavior 3 cr
Examines the characteristics of political beliefs and participation

290 American Political Thought 3 cr
Examines the historical development and present role played by international law and organizations

This course considers cases in criminal rights, and major aspects of criminal procedure

329 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

349 United Nations I 2 cr
Examines the processes and policies of the United Nations Participation in local and national model United Nations conferences required Permission of instructor required

350 United Nations II 2 cr
Examines the processes and policies of the United Nations Participation in local and national model United Nations conferences 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 required Permission of instructor required

360 Crisis Management in Complex Emergencies 3 cr
This course considers approaches to contemporary international crisis management Theories of crisis prevention, escalation, management de-escalation, termination, post-crisis management, the nature of crisis bargaining, negotiation and the role of third parties will be addressed

380 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, Korea, India, Malaysia, and Singapore

408 Theory of Comparative Government 3 cr
Examines current theories of power, the state, social movements, and democracy Focuses primarily on countries other than the United States

413 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

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

419 Ethnecity Politics and Policy 3 cr
Examines the role of third parties will be addressed

420 Contemporary Political Thought 3 cr
A study of the central controversies in political thought during the 20th century

422 American Defense Policy 3 cr
Studies the institutions, policies, and decision making of the American defense establishment Permission of instructor required

423 Comparative Intelligence Agencies and Policy 3 cr
An examination of the development, structure, and purpose 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 the study of the CIA, British MI6 and Russian KGB/FSB

424 Women and Politics 3 cr
Examines the political socialization and behavior of women in the U.S., and the public policies particularly affecting or affected by women Permission of instructor required

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 the instructor required

427 Quantitative Analysis 3 cr
Examines quantitative research methods for the analysis of political phenomena

428 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

430. Internship in Practical Politics, 4 cr
A work experience in government offices Permission of department required

436 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

450 Workshop-International Studies 3 cr
Democratization, cultural conflict, weapons proliferation, economic development, and international organizations in the third world 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
Russell Walsh, Ph D

The undergraduate program of the Department of Psychology is designed 1) to introduce students to the fundamental concepts, issues, and interest areas of psychology understood as a natural science, 2) to help students to critically evaluate this manner of understanding psychology and to show them how these concepts, issues, and interest areas may be reformulated when psychology is understood as a human science, 3) to prepare professionally oriented students for
advanced study and for careers in the human services. To these ends, the Department offers a wide variety of courses, some of which explore issues from a natural science perspective, some from a human science perspective, and all from a historical perspective. While the Department believes that psychology understood as a human science is the most viable means of doing psychology, it realizes its responsibility to expose students to other approaches.

**REQUIREMENTS FOR THE MAJOR**

The Psychology major involves 30 credits. There are 5 required courses: Introduction to Psychology (Psych 103S), Systematic Psychology (Psych 220), Introduction to Existential-Phenomenological Psychology (Psych 223W), Psychology of Personality (Psych 328W), and Philosophical Roots of Psychology (Phil 213). Psychology of Personality and Introduction to Existential-Phenomenological Psychology are designated as writing-intensive courses. Majors who wish to pursue graduate study in psychology are strongly advised to take six additional credits, e.g., learning theory, physiological psychology, and experimental research, through cross registration at other universities. Finally, it is recommended that majors enroll in a hospital or community practicum for credit, or do volunteer work in a neighborhood clinic. Three courses earn in practicum count toward the 27 required psychology credits, an additional three credits in practicum may be earned above and beyond the required minimum of 27. A minimum of 15 credits in psychology exclusive of practicum must be taken at Duquesne University for the major. Prospective majors should consult their advisors concerning the procedure for declaring a major.

**REQUIREMENTS FOR THE MINOR**

Requirements for a minor are Psych 103, 225, 328, and any two of the following: 226, 340, 352, 361 (other courses may be taken for the minor with permission of the department head). A minimum of nine credits in psychology must be taken at Duquesne University for the minor.

**INSTRUCTION**

**103 Introduction to Psychology 3 cr**

(Prerequisite to all courses)

Introduction to fundamental concepts and methods of psychology, examined from both traditional and phenomenological perspectives. Prerequisite for all other departmental courses.

**220 Systematic Psychology 3 cr**

For majors only. Traditional approaches (behavioristic, physiological, psychoanalytic) to sensation, perception, learning, and motivation. Required for majors.

**222 Introduction to Existental Phenomenological Psychology 3 cr**

Introduction to a human-science alternative to psychology as a natural science. Prerequisite for 410, required for majors. Writing-intensive course.

**224 Occupation and Disability 3 cr**

Life-span exploration of living with a disability or chronic illness from the perspectives of individuals and society with emphasis on the influence of occupation on health and well-being.

**225 Developmental Psychology I 3 cr**

(Infancy and Childhood) Growth and development of the child with emphasis on personality development.

**226 Developmental Psychology II (Adolescence and Maturity) 3 cr**

Development from adolescence, through adult stages, to coping with death.

**328 Psychology of Personality 3 cr**

Critical examination of theories of personality, required for majors and minors. Writing-intensive course.

**340 Social Psychology 3 cr**

Foundations of social processes, attitudes, values and roles, public opinion, propaganda and communication, personal participation in society.

**350 Psychology & Religion 3 cr**

The Judeo Christian Tradition

The study of human behavior & the kinds of knowledge each one produces. Particular emphasis will be placed on qualitative methods, including ethnography and interpretive approaches.

**351 Abnormal Psychology 3 cr**

Examination of theories and data on disordered human existence.

**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. Open to juniors and seniors only.

**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 opportunity for working directly with professionals. Settings have included psychiatric hospitals and community centers. Majors only. Permission of Department head. Repeatable once.

**393 Principles of Psychoanalytic Thought 3 cr**

Examination of the theories and contributions of Freud and selected others major psychoanalytic theories. Permission of department head for non-majors.

**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 for non-majors.

**410 Advanced Existential-Phenomenological Psychology 3 cr**

Detailed investigation of selected works in existential-phenomenological philosophy and psychology. Prerequisite: 223 Permission of department head for non-majors.

**420 Research Methods 3 cr**

An introduction to research methods used to study human behavior & the kinds of knowledge each one produces. Particular emphasis will be placed on qualitative methods, including ethnography and interpretive approaches.

**426 History of Psychology 3 cr**

Overview of figures and issues in the history of psychology, from precursors to present. Prerequisite: Philosophy 213.

**450 Contemporary Issues in Clinical Psychology 3 cr**

A human-science examination of the approach methods, data, and current issues of clinical psychology. Permission of department head for non-majors.

**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.

**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. Advance coursework completed. Permission of faculty member and department head required.

**490 Special Topic 3 cr**

A visiting professor presents his/her specialty, or a regular faculty member presents highly specialized studies or an experimental course. Repeatable. Prerequisites vary with instructor. Permission of department head for non-majors.

**DEPARTMENT OF SOCIOLOGY**

Chairperson

Douglas Harper, 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 in social service agencies. 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 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 (with the exception of 450 and 451—see below).

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.

Credits earned in 450/451 Fieldwork I and II will not count toward the 34 required credits, unless the student is pursuing the Human Services or Social Justice and Policy concentrations. If the student is pursuing the Social Policy concentration, then six credits of Fieldwork will count.

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 careers in law enforcement, investigation, corrections, and research.

Required courses:
- 101 Survey of Sociology

Three credits must be selected from the following:
- 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

None of the remaining fifteen credits must be selected from any of the following:
- 105 Introduction to Peace and Justice
- 211 Social Deviance
- 212 Drugs and Society
- 213 Sociology
- 216 Delinquency and Society
- 218 Treatment and Community Corrections
- 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
- 405/508 Correctional Policy and Practice
- 411/521 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 II 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:
- 203 Sociology of Aging
- 206 Social Problems and Social Policy
- 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
- 450 OR 451 Fieldwork

Nine credits from the following:
- 103 Introduction to Peace and Justice
- 203/205 Person and Society
- 208 Racial and Ethnic Groups
- 215 White Collar and Corporate Crime
- 217 Social Movements
- 225 Family Systems
- 315 Socialization and the Life Course
- 318 Sociology of the City
- 320W/320W Organizations
- 450 Fieldwork I
- 451 Fieldwork II

The remaining six credits may be selected from any of the following:
- 404/504 Social Ecology and Political Culture
- 405/505 Population
- 409/509 Correctional Policy and Practice
- 415/515 Social and Economic 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.

REQUIREMENTS FOR THE MINOR

To minor in Sociology you must enroll in a minimum of fifteen credit hours, which must include 101 Survey of Sociology. You should design your minor in consultation with a sociology mentor.

THE GERONTOLOGY CERTIFICATE

The Department offers an eighteen 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 and five of the following courses:

- 203 Sociology of Aging
- 206 Social Problems and Social Policy
- 207 Sociology of Health and Illness
- 208 Racial and Ethnic Groups
- 214 Helping Process
- 219 Intro to Human Services
- 225 Family Systems
- 315 Socialization and the Life Course
- 408 Sociology of Mental Health and Illness
- 415/515 Social and Economic Policy
- 6 credits of 450/451 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 GPA
- 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 GPA of 3.00, a 3.00 GPA 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.

103 Introduction to Criminal Justice 3 cr.
An introduction to the criminal justice system including police, courts, corrections 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.

105 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.

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: 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: 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 is A ONE CREDIT COURSE. 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.

204 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.

205 Person and Society 3 cr.
A study of the person's interaction with societal groups, organizations and institutions. Prerequisite: 101.

206 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.

207 Sociology of Health and Illness 3 cr.
What social and cultural factors affect the health of human populations? This course examines the social organizations and social processes related to well being and sickness in various societies. Prerequisite: 101.

208 Racial and Ethnic Groups 3 cr.
A comprehensive survey of roles performed and problems faced by racial and ethnic groups. Prerequisite: 101.

209 Social Stratification 3 cr.
The class system, with a primary focus on the US. Prerequisite: 101.

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: 101.

211 Social Deviance 3 cr.
A study of the forms and consequences of social deviance and law. Prerequisites: 101 or 103.

212 Drugs and Society 3 cr.
Drug use as a socially constructed deviant activity. The political, personal, and social effects of substance use on society and individuals.

213 Criminology 3 cr.
A study of sociological explanations of criminal behavior. Prerequisite: 101.

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.

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: 101.

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. Prerequisites: 101 or 103.

217 Social Movements 3 cr.
A study of sociological theories of social movements, an exploration of contemporary examples. Prerequisite: 101.

218 Treatment and Community Corrections 3 cr.
Community and institutional rehabilitative programs are considered in terms of treatment methods used and their effectiveness. Prerequisite: 103.

219 Intro 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.

225 Family Systems 3 cr.
A study of the family institution and its interaction with other community institutions.

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: 103.

300W History of Social Thought 3 cr.
An introduction to the 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: 101 or permission of the Department.

301W Contemporary Sociological Theory 3 cr.
A study of selected contemporary theories and schools of thought. Prerequisite: 101.

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 103

311 The Law and The Adult Offender  3 cr
The legal procedure from arrest through sentencing emphasizing applicable state statutes and US Supreme Court cases  Prerequisite 103

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 103

315. Socialization of 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 101

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 101

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 101 or 103

321 White Collar Crime  3 cr
The study of the character, causes, and consequences of white collar crime in the United States  Prerequisite 103

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 101

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 103

NOTE SEVERAL OF THE FOLLOWING COURSES ARE CROSS-LISTED WITH THE GRADUATE CENTER FOR SOCIAL AND PUBLIC POLICY

404/504 Social Ecology and Political Culture  5 cr
This is a socio-political analysis of urban culture including demographic diversity and trends, and socialization. Historical, and contemporary explanations of the urban and suburban environments provide an understanding of today’s metropolis as the fabric for human groups to live and survive  Prerequisite 101 and senior standing

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 101 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 101 and senior standing

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 103 and senior standing

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 sets analysis is possible  Prerequisite 101 and senior standing

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 101 and senior standing

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 103 and senior standing

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. 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 101 and senior standing

450/541 Fieldwork I, II
(six credits for 450, six credits for 451)
Internship in a number of different settings. Two hundred twenty-five hours in placement are required for six credits. Prerequisite: Majors must have completed twenty-one credits in the major. Required of students in the Human Services and Social Policy Concentrations. Please note: Our supervised internships do not count toward the thirty-four credits required for the major, except in the Human Services and Social Policy Concentrations

454 Selected Readings  1-3 cr
Independent supervised reading. Prerequisite: twenty-seven completed credits in the major

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

SENIORS AND MAJORS ONLY

455W Senior Seminar – Sociology Majors who graduate without a concentration, and for all students who choose our Human Services or Social Policy Concentrations

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 101

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

A B A in Studio Art is offered as a component of a liberal arts degree

REQUIREMENTS FOR THE MAJOR

Ten courses in Studio Art, including FINAR 101, 103, 120, and 130. In addition, four courses in Art History including ARTHY 111, 112, and 332

REQUIREMENTS FOR THE MINOR

Five courses in Studio Art, including FINAR 101 and 103

101 Design 1  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 form and design. 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

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. Prerequisite 101

130 Painting 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. Prerequisite 101 and 103

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

230 Advanced Painting 3 cr
A further development of the skills and theory introduced in FINAR 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. Prerequisite 101 or 103

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

315. Relief Printmaking 3 cr.
This course enables students to explore printmaking media such as woodcut and lino cut. Prerequisite 101 or 103

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. Prerequisite 101 or 103 and 130

335 Advanced Computer Art 3 cr
The focus of this course is on conceptual projects and refining and applying skills acquired in FINAR 235. Work includes high-resolution production and color painting 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 a series of projects that introduce them to a variety of visual problems and possibilities in illustration practices. Prerequisites 101, 103, 120 and 203 (recommended)

352 Narrative Illustration 3 cr
Through the exploration 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

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 FINAR 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 aids to solving problems in illustration. Prerequisites 101, 103, 203 and 350

425 Advanced Computer Imaging 3 cr
Prerequisites 101, 103, 235, and 350

435 Advanced Computer Graphics 3 cr
Prerequisites 101, 120, 235 and 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 projects 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

485 Independent Study 3 cr
Permission of Department required. Minimum of 18 credits of Studio Art must have been completed

490 Studio Art Internship 1-3 cr
Permission of Department required. Minimum of 18 credits of Studio Art must have been completed

DEPARTMENT OF THEOLOGY
Chatper von
Michael Slusser, D Phil

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, 1 elective course from any of the above areas and the seminar course (number 498). A minimum of 12 credits, including the Seminar, 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.

Those are courses introducing students to particular areas or questions in theology.

Those courses explore subject matter in greater depth and specificity than do courses at the 200-level.

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 prophecy, 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
114

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
A study of the Gospel according to John, the Letters and the Book of Revelation in the light of contemporary scholarship

329. Special Topics in Biblical Studies 3 cr
An opportunity to pursue a particular interest of professor and students

490. Field Experience in Biblical Archaeology. 3 cr
Six weeks of supervised participation in an archaeological excavation in the Ancient Near East. Offered every two or three years, approval of participants by core staff required.

493. Directed Readings in Biblical Studies 1-3 cr
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.

225 The Theology and Practice of Prayer 3 cr
An examination of the theological and spiritual foundations of Christian prayer within a modern context of secularism, multi-culturalism, and religious diversity.

230 The Church. 3 cr
The major influences that have shaped the Christian community in its faith and practice, with attention to contemporary issues in American society.

232 Faith and Atheism 3 cr
An examination of the claims that atheists make against faith and the response made by believers to these arguments.

235 Christian Worship 3 cr
A study of the fundamental characteristics of Christian worship as it has developed over the centuries. Particular attention will be paid to the role of ritual, spirituality and belief in the religious expressions of Christian prayer and celebrations.

242 Love in Theological Thought 3 cr
A study of family love, friendship, and romantic love and their relationship to God's love.

258 Catholicism 3 cr
The spirit, beliefs and practices of Roman Catholicism, and the issues confronting it today.

274 Beginnings of Christianity 3 cr
The followers of Jesus developed a faith centered upon him. These are their stories, trials, controversies and successes.

280 Religious Experience 3 cr
How the Divine is sensed and responded to in various geographical, cultural, and chronological contexts.

283 Judaism 3 cr
The faith, beliefs and practices of Jewish life over the centuries and today.

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
A study of women in the Bible and in Christianity and an exploration of how social diversity plays a role in contemporary women's spirituality, especially in their relationship to God, others, and the earth.

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 works of film and literature.

375 Special Topics in Theology 3 cr
An opportunity to pursue a particular interest of professor and students.

473/573 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 Topes 1-3 cr
Independent Study. Department permission required.

498 Seminar in Theology. 3 cr
A critical analysis of selected topics in theology or of selected works by outstanding theologians, restricted to theology majors in their final year. Department permission required.

ECONOMICS

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, 381, 384 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.)
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 Chemistry, 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 Professionals Program. Science majors may also apply for a dual degree in the following programs:
- Biomedical Sciences/MS Environmental Science & Management
- BS Chemistry/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
- General Requirements as described below
- BSNES Core Requirements as described below
- Effective Catalog
- ACADEMIC POLICIES
- Sequential Courses
- BSNES Temporary Transfers (Summer Classes)
- Science classes
- Non-science classes
- CLEP and Advanced Placement
- University-Level Courses Taken While in High School

*Some requirements may vary depending on selected major

**Biology, Biochemistry, Environmental Chemistry, and Environmental Science majors are required to substitute Math 225 Biostatistics for Scientific Programming.

The course description should be approved by the department of the student’s major.

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.

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 a course. If the student has not yet reached 60 credits, (s)he may take the class at a two-year college.

(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 curriculum 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 Curriculum requirements 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 Environmental 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 BS/ESM and the School of Education offer a unique five-year Bachelor of Science in biology, chemistry, or physics and a Master of Science in Education joint degree program.

Students enrolled in the BS/ESM in the Departments of Biological Sciences, Chemistry, and Biochemistry, 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 Education degree in the fifth year of study after completion 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 be eligible for a second bachelor's degree by earning an additional 30 semester hours in residence in the BS/ESM 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 information 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

DEPARTMENT OF BIOLOGICAL SCIENCES

Chairperson:
Richard P. Elinson, Ph.D.

Professors:
Peter Castiglione, Ph.D.
Richard P. Elinson, Ph.D.
John F. Stolz, Ph.D.

Associate Professors:
Mary Alleman, Ph.D.
John Parfitt, Ph.D.
David J. Lampe, Ph.D.
Joseph McCormick, Ph.D.
John A. Pollock, Ph.D.
Kyle W. Selleck, Ph.D.

Assistant Professors:
Michael Jensen-Seaman, Ph.D.
Lisa Ludvicek, Ph.D.
Jana Patton-Vogt, Ph.D.
Brady Porter, Ph.D.
Nancy Trun, Ph.D.
Edward Weisberg, Ph.D.
Sarah Woodley, Ph.D.

Chair Emeritus:
H. Bernard Hartman, Ph.D.

Instructor:
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 biomedical research career opportunities in industry, government, or universities. For those interested in health professions, the Pre-Health 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 38 credit hours of biology, and 30 co-requisite science/math credits.

Course objectives are met through lectures, laboratory experiments and exercises, fieldwork, participation in professional organizations, weekly seminars, and research. Students are encouraged to become involved in undergraduate research projects with faculty.

REQUIREMENTS FOR THE BS IN BIOLOGICAL SCIENCES

<table>
<thead>
<tr>
<th>Biology Requirements</th>
<th>Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology I</td>
<td>4 cr</td>
</tr>
<tr>
<td>Biology I Lab</td>
<td>0 cr</td>
</tr>
<tr>
<td>Biology II</td>
<td>4 cr</td>
</tr>
<tr>
<td>Biology II Lab</td>
<td>0 cr</td>
</tr>
<tr>
<td>Cell and Molecular Biology</td>
<td>3 cr</td>
</tr>
<tr>
<td>Biology Seminar</td>
<td>1 cr</td>
</tr>
<tr>
<td>Genetics concentration</td>
<td>3 cr</td>
</tr>
<tr>
<td>Microbiology concentration</td>
<td>3 cr</td>
</tr>
<tr>
<td>Physiology concentration</td>
<td>3 cr</td>
</tr>
<tr>
<td>Organismal concentration</td>
<td>3 cr</td>
</tr>
<tr>
<td>Lab I Experimental</td>
<td>3 cr</td>
</tr>
<tr>
<td>Lab II, III or IV</td>
<td>3 cr</td>
</tr>
<tr>
<td>Biology Electives</td>
<td>8 cr</td>
</tr>
</tbody>
</table>

ELECTIVES

May be chosen from courses listed above, other departmental majors courses, Biochemistry (CHEM 401), approved courses in other departments/schools, undergraduate research, honors seminar, honors research/thesis. Biology Seminar (BIOL 490) may not be taken for elective credit.

Courses in CONCENTRATIONS

GENETICS pick one
- Genetics
- Microbial Genetics
- Human Genetics
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 101/102 or 111/113 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 the first semester is on body organization, movement and control mechanisms. Prerequisite C or better in 101/102 or 111/113 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 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 207/208 or permission of the Instructor Lecture

210 Anatomy and Physiology II Laboratory 1 cr
Continuation of 208. Prerequisite 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, Genes, 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 113. Lecture

112 Biology II Diversity, Ecology, Evolution 4 cr
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. 111 is not a prerequisite for 112. Must be taken with 114 Lecture

113 Biology I Laboratory 0 cr
Laboratory experiments and demonstrations illustrating cellular and molecular biological principles, energetics, inheritance, reproduction and development. Must be taken with 111 Lecture

114 Biology II Laboratory 0 cr
Laboratory experiments and demonstrations which illustrate animal and plant diversity, ecological principles, and evolutionary concepts. Must be taken with 112 Lecture

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. 115 is not a prerequisite for 117 or 118. This course is restricted to science majors. Prerequisite permission of instructor Lecture

116 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 Lecture

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 Lecture

118 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 Lecture

212 Cell and Molecular Biology 3 cr
An introduction to biological macromolecular 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 proteins, protein trafficking, the cytoskeleton, the cell cycle, cell-cell communication and extracellular matrices. Prerequisites Must have a C or better in BIOL 111/113 (or 115/117) and 112/114 (or 116/118) and a C or better in CHEM 121, 122 Lecture and Recitation

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
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 3 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

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 or seasonal migrations. 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, with special emphasis on chimpanzees. Prerequisite C or better in BIOL 111/113 and 112/114. Lecture

335 Vertebrate Anatomy, Development and Evolution 3 cr
This course emphasizes comparative developmental, 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 unifying 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

370W Lab I Experimental Biology 3 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, DNA, and mRNA. Prerequisites C or better in BIOL 212. Laboratory and recitation

371W Lab II Cell and Molecular Biology 3 cr
This course builds on BIOL 370W through investigative labs in cellular and molecular biology. Students will investigate selected physiological processes at different levels (whole organismal to molecular) using a range of techniques. Prerequisites BIOL 212, a genetics course is strongly recommended. Lecture and laboratory

372W Lab III Cell and Systems Physiology 3 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 organismal to molecular) using a range of techniques. Prerequisites BIOL 212, a genetics course is strongly recommended. Lecture and laboratory

373W Lab IV Microbiology 3 cr
This course builds on BIOL 370W through investigative labs in microbial physiology, ecology, and genetics. Prerequisites BIOL 212, a genetics course is strongly recommended. Lecture and laboratory

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. Lecture

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, gene structure and colinearity, mapping methods, mutation, DNA repair, plasmids, and their properties. Prerequisites C or better in BIOL 212. Lecture

414H Honors Seminar 1 cr
Discussion of current issues and research in the biological sciences. Format includes student presentations, faculty seminars, and invited speakers. Prerequisites 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 a faculty member in the Department of Biological Sciences. Also includes a public presentation of the thesis research. Prerequisite: 1-4 credits of 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. Prerequisites: BIOL 415H, Honors Thesis, and 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, immunology, antigen-antibody reactions, immunogenetics, immunopathology, and immunodeficiencies. Prerequisite C or better in BIOL 212. Lecture

426 Pathogene 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 genes 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 organism associated with motility. The role of the features examined in terms of bacterial pathogenesis will be emphasized. Energy metabolism including chemooxygenotrophy, chemolithotrophy, and phototrophy will also be covered. Prerequisites C or better in BIOL 212 and organic chemistry or permission of the instructor. Lecture.

430W 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 data analysis, 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 Anielogenin, the most commonly used gender identification locus, will also be experimentally explored. Prerequisites BIOL 468 Laboratory and 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, 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
This 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 bio-remediation. 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.

444 Plant Biology 3 cr
An in-depth examination of plant biochemistry, genetics, development, and physiology. Emphasis is placed upon the presentation of current research problems in plant biology. Typical subjects will include developmental genetics, applications of molecular biology to understand cellular structure and function, ecophysiology, and plant/pathogen relationships. Prerequisites C or Better in BIOL 212 or permission 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 current questions of reproductive physiology will be explored in more detail. Prerequisite BIOL 315 or 316 or comparable 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 Territorial Field Biology 2 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 work with 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 Molecular Biology and Genomics 3 cr
An advanced course in molecular genetics and genomics. Content will vary from year to year but will include topics in gene regulation, gene expression, and genome structure, function, and evolution. Prerequisites C or better in BIOL 212 and BIOL 250 (or 405 or 468), or CHEM 402 Lecture.

468 Human Genetics 3 cr
Human genetics. 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 are the same as for BIOL 468. Writing assignments include problem solving, data analysis, and evaluation of primary literature and issues in human genetics. Prerequisites BIOL 212 or CHEM 402. Instructor's approval is required for this course. Lecture.

475 Neurobiology 3 cr
This course will survey topics found in the scientific literature of neuroscience. 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.

492 Stream Field Biology 2 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.
DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

Chairperson
Jeffrey D. Madura, Ph.D.

Professors
H. M. Kingston, Ph.D.
Jeffrey D. Madura, Ph.D.
David W. Seybert, Ph.D.
Omar W. Steward, Ph.D.

Associate Professors
Partha Basu, Ph.D.
Bruce D. Beaver, Ph.D.
Charles T. Dameron, Ph.D.
Jeffrey D. Evanseck, Ph.D.
Mitchell E. Johnson, Ph.D.
Shahed U. M. Khan, Ph.D.
Julian Talbot, Ph.D.

Assistant Professors
Jennifer Atken, Ph.D.
Ellen Gawalt, Ph.D.
Paul G. Johnson, Ph.D.
Mihaiela Rita Mihailescu, Ph.D.
Stephanie J. Wetzl, Ph.D.

Professor Emeritus
Jack W. Hauser, Ph.D.
Kurt C. Schreiber, Ph.D.

Adjunct Professors
Heinz W. Machatzke, D.Sc.
Ted J. Weismann, Ph.D.

The Chemistry program is designed to 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.

REQUIREMENTS FOR THE CHEMISTRY AND BIOCHEMISTRY MAJORS

Chemistry Major
B.A. Chemistry 120 cr. All students must take 211, 212, 211L, 212L, 311, 322, Physics 201, 202.
B.S. Chemistry 127 cr. All students must take 211H, 212H, 211HL, 212HL, 311, 322, 401, one Chemistry elective of 3 or 4 credits, Physics 211, 212, and Math 215.

Environmental Chemistry Major
B.S. Environmental Chemistry 130 cr. All students must take Chem 211H, 212H, 211HL, 212HL, 322, 275, Math 215, 225, Physics 211, 212 and four environmental science electives.

Biochemistry Major
B.A. Biochemistry 120 cr. All students must take 211, 212, 211L, 212L, 401, 402 and Physics 201, 202 and Math 225.
B.S. Biochemistry 123 cr. All students must take 211H, 212H, 211HL, 212HL, 322, 401, 402, Physics 211, 212 Biology 467 and one 300-400 level Biology elective and Math 225.

Approved chemistry electives are the following:
401, 402, 503, 504, 534, 540, 548, 581, 582, 585, 586, 587.

To meet the American Chemical Society's requirements for Professional Certification, the B.S. students in chemistry must also take Math 308 or 315. B.S. students in Biochemistry must take Chem 311, Math 308 or 315 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 and 211L, 212 and 212L, 401 and 402 will constitute a minor in Biochemistry. Individual course prerequisites must be satisfied.

121, 122 General Chemistry 5 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 104 (Calculus with Algebra and Trigonometry) or a Math SAT greater than 500 and/or Math Placement Exam score greater than 17. To do Chemistry Placement Exam is required by all students. Prerequisite for 122 121. Lecture, three hours, laboratory, three hours, recitation, two hours.

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. To do Chemistry Placement Exam is required. Prerequisite for 122H 121 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 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 serves 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 132 131 Lecture, four hours, laboratory, three hours, recitation, two 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. Prerequisite for 211L for 212L. 211L must be taken prior to or concurrent with 211L. 212L must be taken prior to or concurrent with 212L. Laboratory, three hours.

211HL, 212HL Lab 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 studies.

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. Prerequisite for 211L for 212L. 211L must be taken prior to or concurrent with 211L. 212L must be taken prior to or concurrent with 212L. Laboratory, three hours.
332L Advanced Integrated Lab I 1-3 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 321, 423 Laboratory, four 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. Prerequisite 230L and 423 Laboratory, six hours.

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 more complex forensic analysis problems. Prerequisite 371W Laboratory, six hours.

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 biochemicals of ATP synthesis and utilization. Prerequisite 321 Laboratory, four 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 and the complex lipids. Amino acids and the 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 401 Laboratory, four hours.

428W Special Topics in Chemistry 1-3 cr
The program in the Department of Physics is primarily aimed at providing today's students with a fundamental background in traditional physics as well as an understanding of the interrelationships with other sciences and disciplines. The Department is also aware that in today's changing world, there must be a suitably flexible program that will best fit the graduate for the challenges faced by the many professions that are based on physics. Also, it is realized that there are many paths to professional growth. The Department program, therefore, is structured to provide the essential background for students who will enter graduate school, as well as equipping students to successfully compete for the available positions in research institutions, government agencies or private corporations. Department policy calls for individual attention to student needs.

429 Theoretical and Practical training in modern chemical analysis with emphasis on instrumental methods: Corequisite 321 Lecture, three hours.

425L Advanced Integrated Lab II 1-3 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 325L. Laboratory, eight hours.

475 Senior Seminar 1 cr
Students learn to prepare the presentation of a chemistry topic to a general audience having some knowledge of chemistry. They learn to use scientific references, journals and electronic scientific references, journals and electronic literature. Prerequisite 425L.

490 Undergraduate Research Maximum 2 cr/semester
Selected students work on a research problem under the direction of a staff member.

DEPARTMENT OF PHYSICS

Chairperson
K. Thomas R. Davies, Ph D

Professors
K. Thomas R. Davies, Ph D

Associate Professors
Sonneta Fratelli, Ph D
Barbara M. Manner, Ph D
Monica Sorace, Ph D

Assistant Professors
Scott Cohen, Ph D
Derrick Hilger, M S

Instructor
Darrell J. Ozimek, M S

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REQUIREMENTS FOR THE B S CAREER PHYSICS MAJOR, Track #1 (primarily for those students who are planning on attending graduate school)

At least 46 semester hours of physics courses are required for this track. These credits must include PHYS 211, 212, 230, 271, 301, 329, 330, 350, 361, 372, 402, 430, 431, 431 W, 471, and three of the following four courses: PHYS 474, 480, and 482 W, SPRG 103. Note that 480 also includes the one-credit computer lab 480 L.

Extradepartmental Science and Mathematics Requirements
Chemistry 211, 212, or Biology 111/113, 112/114, Mathematics 115, 116, 215, 301, and 315, Computer Science 160 (or an approved substitute) and 308.

REQUIREMENTS FOR THE B S PHYSICS MAJOR, Track #2 (primarily for those students who are pursuing the five year joint BS Physics/MS Education program)

At least 40 semester hours of physics courses are required for this track. These credits must include PHYS 211, 212, 230, 301, 329, 330, 350, 361, 372, 402, 430, 431 W, 471, and one of the following two courses: PHYS 480 and 482 W. Note that 480 also includes the one-credit computer lab 480 L.

Extradepartmental Science and Mathematics Requirements
Chemistry 211, Biology 111 and 113 OR Biology 112 and 114, Mathematics 115, 116, 215, 301, and 315, Computer Science 160 (or an approved substitute) and 308.
REQUIREMENTS FOR THE B A PHYSICS MAJOR, Track #3 (of special value to those students who wish to double major in Physics and another department at the University, particularly the Department of Mathematics and Computer Science and the Department of Chemistry and Biochemistry)

At least 32 semester hours of physics courses are required for this track. These credits must include PHYS 211, 212, 213, 471, 480, 480L, SPRG 103, and at least 10 credits from the following courses: PHYS 301, 329, 330, 350, 361, 372, 402, 474, and 482W.

The minor consists of 12 hours in the General Analytical Physics (211, 212, 213) and 8 credits of upper division physics at the 300 and above level. (For the 8 credits, SPRG 103 is also allowed.) The department will structure the minor program from the course offerings to fit, as nearly as possible, the needs and desires of the individual student.

REQUIREMENTS FOR THE MINOR

The minor consists of twelve hours in the General Analytical Physics (211, 212, 213) and 8 credits of upper division physics at the 300 and above level (For the 8 credits, SPRG 103 is also allowed.) The department will structure the minor program from the course offerings to fit, as nearly as possible, the needs and desires of the individual student.

REQUIREMENTS FOR BINARY ENGINEERING STUDENTS (B A in Physics, B S in an Engineering Specialty from Case - Western Reserve University or from the University of Pittsburgh)

In addition to those courses needed to fulfill the University and Bayer School of Natural and Environmental Sciences Core requirements, each Binary Engineering student is required to complete the following: Physics 211, 212, 213, 350, and 471, Chemistry 121 and 122, Mathematics 115, 116, 215, 301, and 315, and Computer Science 160 (or an approved substitute) and 308.

It is strongly suggested that each Binary Engineering student decide upon his or her engineering specialty by the end of the sophomore year. Then, it is also suggested that each student confer with the engineering department at the school of choice to determine certain special courses needed for the particular engineering specialty. We will allow the students to waive at least two of the required courses (mainly, the physics courses 250 and 471) in order to take these special courses either at the University of Pittsburgh or at Duquesne.

For more information, students should obtain from the Department of Physics, the document entitled "Binary Engineering Program with the University of Pittsburgh." This document also has relevance to students who are planning to attend Case-Western Reserve University.

PHYSICS COURSES

The purposes which are taught in the University CORE are as follows:

CORE 173 Core 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 concepts of action and reaction. Students will prepare a basic understanding of Physics. Topics covered may include the scale of the cosmos, the life cycle of stars, black holes and neutron stars, and the origin, evolution and properties of galaxies. The question of life and the meaning of the cosmos are included.

Then our basic courses (PHYS) are listed as follows:

167 Technology and Society 1 cr
The objectives of the course are to make the student aware of the dependence of society on technological advancements, the influence technology has on many fields of human endeavor, the advantages derived from technology, and the interaction between technology and society from various society perspectives.

170 Acoustics 3 cr
A course that presents the 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.

200 Essential Physics 4 cr
A one-semester physics course especially designed to provide the elements necessary for a basic understanding of Physics. Topics covered may include mechanics in one dimension, forces and Newton's Laws of Motion, work and energy, torques, impulse and momentum, fluid flow, electrical 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 concepts, the students 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. Lecture, four hours, Recitation, one hour (Note: Students preparing for a medical degree program must take PHYS 201, 202 or PHYS 211, 212.)

201, 202 Physics for the Life Sciences I and II 4 cr each
Designed to give the student a basic knowledge and understanding of mechanics, properties of matter, heat, wave motion, sound, magnetism, electricity, light, and modern physics through the use of modern day examples and applications. At the completion of this course, the student should have attained a working knowledge of physics, its techniques and reasoning such that the knowledge of physics gained may be applied to future work in the sciences or other fields of endeavor. The course is particularly structured for students in the life sciences. Prerequisite: 201. A good knowledge of high-school algebra and trigonometry is required. Prerequisite: 202. 201 Students who have completed Mathematics 116 should take 211, 212 Lecture, four hours, Laboratory, two hours.

203 Astronomy 3 cr
This course provides the student with a sampling of the principles and concepts of elementary astronomy and astronomical observation. Topics covered may include the scale of the cosmos, the celestial sphere, the solar system - past, present and beyond, astronomical tools, properties of stars and starlight, the life cycle of stars, black holes and neutron stars, and the origin, evolution and properties of galaxies. The question of life on other worlds may also be examined. This course presumes no scientific background, and is open to all students within the University.

211, 212 General Analytical Physics I and II 4 cr each
An introduction to the fundamental theories and applications of classical physics designed for students of science, math, computer science, and engineering. 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. Mechanics and electromagnetism are treated in detail in 211 and 212, respectively. Other topics such as wave motion, fluid mechanics, elasticity, and oscillations may also be included. Co-requisite for 211: Mathematics 115.
or with the permission of the instructor Co-

213 General Analytical Physics III 4 cr 
Topics to be covered may include (with 
subtopics in parentheses) 1) Thermodynamics 
(First and Second Laws of Thermodynamics, 
entropy, the Carnot cycle, and the kinetic theory 
of gases), 2) Optics, the electromagnetic 
spectrum, geometric optics, interference, and 
diffraction), 3) Modern Physics (the special 
theory of relativity, quantization, the wave-
particle duality, the deBroglie relation, and 
the uncertainty principle), 4) Wave Motion (the 
Doppler Effect, water waves, and acoustics), 
5) Fluids (Archimedes' principle and Bernoulli's 
equation) Co-requisite 212, Lecture, three 
hours, Laboratory, two hours 

301 Thermodynamics 3 cr 
This is an intermediate level course covering the 
fundamental principles of thermodynamics, 
kinetic theory and statistical mechanics. The 
following is a partial list of items generally 
covered: temperature, thermodynamic systems, 
work, heat, the ideal gas, the first and second 
laws of thermodynamics, Carnot cycles, entropy, 
Maxwell's equations, the kinetic theory of an 
ideal gas, P-V and P-T diagrams for a pure 
substance, first- and second-order phase 
transitions, the chemical potential, and the basic 
concepts of classical statistical mechanics. 
Quantum statistics may also be studied. Co-

306 Applied Electronics 3 cr 
This course seeks to combine a treatment of the 
principles of modern electronic instrumentation 
with practical laboratory experiences. Topics 
which will be included are: passive and active 
electronic components, electronic measuring 
instruments, power supplies, amplification, 
feedback and control, linear and digital devices. 
Emphasis will be on understanding instrumentation 
rather than on advanced principles of design. 
Prerequisites 202, or 212 or permission of 
instructor. Lecture 2 hours, Laboratory 3 hours 

329 Advanced Laboratory I 1 cr 
This course is a two-part course designed to 
prepare the student for later research, either in 
graduate school or in industry. In the first 
summer, the student will be introduced to 
laboratory electronics, performing experiments 
and analyzing data. Some of the experiments will 
include basic electrical circuits, gating and 
Boolean Algebra, binary and hexadecimal 
numbering systems, multiplexing and sequencing, 
flip-flops, counters and electronic measurement. 
These will be some discussion of experimental 
design and systems not studied in the lab. 
Prerequisite 213, or 202 and the consent of the 
instructor. Laboratory 3 hours 

330 Advanced Laboratory II 1 cr 
A continuation of Advanced Laboratory I that 
concludes the electronics section and delves into 
Modern Physics experiments. Some topics 
include operational amplifiers, filters, power 
supplies, practical application of digital circuits, 
lasers, the Franck-Hertz experiment, the Millikan 
oil drop experiment, the charge to mass ratio (q/ 
m) of the electron, and, if time permits, basic 
holography. Prerequisite 329 or consent of the 
instructor. Laboratory 3 hours 

350/550 Theoretical Methods in Science 3 cr 
This course will include a variety of theoretical 
methods that are useful for general problem 
solving in advanced science and engineering 
courses. For example, in atomic and molecular 
structure, mechanics, electricity and magnetism, 
thermodynamics, and hydrodynamics there are 
a variety of specialized differential equations (both 
ordinary and partial) that will be studied. We 
will also address certain elementary problems 
involving the Schrodinger wave equation, which 
occur in quantum mechanics. In addition, we 
will include other important theoretical topics, 
such as: tensor methods, complex variable 
theory, Fourier and Laplace transforms, and 
general expansions using orthogonal functions. 
Also, statistical methods and numerical algo-
rithms may be covered. For example, least squares fitting, 
Newton's method, and various 
Gaussian integration schemes. Prerequisite 
Mathematics 215, Co-requisite Mathematics 315 

361/561 Mechanics 4 cr 
An intermediate level theoretical classical 
mechanics course covering concepts and 
problems that require the mathematical tools of 
vectors, calculus, and matrices. A good calculus 
background is indispensable. The topics 
normally covered are: oscillations, the motion of 
a particle in 3-dimensions, vector calculus, 
central force systems, dynamics of many 
particles, transformation to the center-of-mass 
system, collisions, rigid-body motion 
non-molecular systems, and the Lagrangian and Hamiltonian 
formulations of mechanics. Prerequisites 212, 
Mathematics 315 

372/572 Electromagnetism 4 cr 
An intermediate course for the science and 
engineering students. The following topics may 
be discussed: electrostatics, energy relations in 
electrostatic fields, dielectrics, currents and their 
interaction, magnetic induction, magnetic 
properties of matter, AC circuits, Maxwell's 
Equations, and electromagnetic radiation from 
oscillating charges. Prerequisite 361 

402 Optics 4 cr 
This course introduces the student to the 
principles and applications of wave optics, 
geometric optics and quantum optics. Specific 
topics may include Maxwell's Equations as they 
apply to electromagnetic radiation, reflection and 
refraction with dielectric and conducting media, 
polarization properties of lenses and mirrors, 
photons and the laser. Lecture, three 
hours, Laboratory, two hours (once every two 
weeks) Prerequisite 213, Mathematics 116 

403 Applied Laser Optics 2 cr 
This course is primarily an experimental course 
with an emphasis on student work in a laboratory 
setting. It is open to all interested science 
and engineering students and it is mandatory for all physics 
majors. Some experiments to be performed are: 
Laser assembly, the characteristics, polarization, 
shapes, and the transverse nature of a laser beam, 
the reflection, diffraction, interference and 
spectra of lasers and holography. More advanced 
experiments could be assigned as special projects. 
Prerequisite 402, or consent of the instructor. 

430W and 431W Senior Research I and II 
1 cr (each) 
This is a two-semester sequence in which the 
student selects a research project, develops it, 
and prepares a series of reports on the results, 
culminating in a senior thesis. The student is also 
required to present results of the work at a 
seminar or a poster session at a scientific 
meeting, at the University, or in the Department. 
A research topic is selected by a faculty member 
of the Department of Physics or by other science 
faculty. Work is carried out in close coordination 
with the selected advisor, although all work must 
be the student's own. For a double major in 
Chemistry, Mathematics, or Computer Science, 
this course may be waived if the student is doing 
research for credit in the other department. 
Prerequisite for 430 COMM 101, Prerequisite for 
431 430 

471 Modern Physics 3 cr 
This course provides an introduction to quantum 
physics with applications drawn mainly from 
modern theories of atomic and nuclear structure. 
Topics include: the quantum (Bohr) Theory, the 
periodic table, the wave-particle duality, the 
uncertainty principle, the Schrodinger equation, 
and other aspects of elementary quantum 
mechanics. We may include Fermi-Dirac and 
Bose-Einstein statistics, the Pauli exclusion 
principle, and elementary angular momentum 
theory. We may also study developments in 
nuclear physics, condensed-matter physics, and 
elementary particle physics. Prerequisite 213, 
Mathematics 215 

474 Quantum Mechanics 3 cr 
This course provides an undergraduate introd-
uction to the formalism of modern quantum theory. 
The course usually begins with a review of 
Schrodinger 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. Prerequisite 471, Mathematics 315 

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 and 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. Prerequisite Mathematics 115
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 Henon Map, the Lorenz attractor, Julia sets, and the Mandelbrot set. Laboratory 2 hours Prerequisite Mathematics 115.

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-independence, 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 electromagnetic theory, the unification of the various forces, and GUTS, supersymmetry, and string theories. Connections between particle physics and cosmology may be discussed. Co-requisite 471, Prerequisite Mathematics 116, or with the consent of the instructor.

484, 485, 486 Special Topic Courses 1-3 cr each
These courses are designed to allow the physics major flexibility in designing his/her program. These courses are offered irregularly and at times when there is sufficient student demand to justify the offering of the course. The courses offered include 484 Introductory Solid State Physics, 485 Relativity, and 486 Shop Techniques. Descriptions of these courses follow.

484 Introductory Solid State Physics 3 cr
Bulk properties of materials are discussed with both the phenomenological and microscopic approaches. Typical topics are the geometric structure of solids, waves and diffractions, thermal properties, the free electron model, band theory, superconductivity, magnetic properties and magnetic resonance. Prerequisites 213 and 471, Mathematics 215.

485 Relativity 3 cr
This course is an introduction to the Special and General Theories of Relativity. Topics which may be discussed are space-time coordinates and four vectors, the Lorentz transformation, simultaneity, the Lorentz contraction, time dilation, relativistic dynamics, relativistic threshold problems, Einstein's Theory of Gravity, the Principle of Equivalence, space-time curvature, the gravitational red shift, the Einstein Equations, and applications to Astrophysics and Cosmology. Prerequisites 213, Mathematics 315.

486 Shop Techniques 1 cr
A basic introduction to machine shop practices necessary to experimentalists in all fields. Some of the areas covered are shop equipment and its use, materials, soldering and welding techniques, mechanical drawing and schematics, electronics construction techniques and practical application.

487/587 Problems in Physics 1-4 cr
Special topics and problems in physics and related subjects suitable for an independent study.

488 Advanced Problems in Physics 1-4 cr
Problems usually of a more sophisticated nature than those in 487.

495 Field Studies 1-4 cr

EARTH SCIENCE COURSES

(Note: These courses have Physics Department course numbers.)

PHYS 101 Physical Geology 3 cr
A comprehensive survey of minerals, rocks, structures and geologic processes of the solid earth. Topics covered may include earthquakes, plate tectonics, volcanism, surface and groundwater, glaciers, and mountain formation. This course presumes little or no geologic or scientific background, and is open to all students within the University. It is also suitable for completion of non-core science requirements for students in the College of Liberal Arts, and as an earth science course for School of Education students.

PHYS 232 Geology of the National Parks 3 cr
The national parks provide accessible and protected examples of important geologic processes. Volcanism, mountain building tectonic activity, glaciation, groundwater and geothermal activity, and river erosion are represented. Geologic history and features of each of the parks will be presented using slides, supplementary reading material and maps. This course presumes little or no geologic or scientific background, and is open to all students within the University. It is also suitable for completion of non-core science requirements for students in the College of Liberal Arts, and as an earth science course for School of Education students.

PHYS 304 Environmental Earth Science 3 cr
Analysis of geologic aspects of man's environment with emphasis on geologic hazards and environmental impact of society's demand for water, minerals, and energy. Topics covered may include coastal processes, earthquakes, volcanic eruptions, river alternative energy sources, and environmental law. This course presumes little or no geologic or scientific background, and is open to all students within the University. It is also suitable for completion of non-core science requirements for students in the College of Liberal Arts, and as an earth science course for School of Education students.

PHYS 491 Environmental Hydrogeology 2 cr
The course introduces students to the fundamental principles of geologic materials and soils and deals with ground and surface water and hazardous earth processes, such as flooding and earth movements. Geothermal issues of solid waste disposal, hazardous waste management, and land-use planning will be covered. The course will include case histories, field trips, and a research paper.
CENTER FOR ENVIRONMENTAL RESEARCH AND EDUCATION

Director
Daniel K. Donnelly, Ph.D.

Research Professor
Stanley J. Kabala, Ph.D.

Affiliated Faculty

Professors
H. M. Kingston, Ph.D., Department of Chemistry and Biochemistry

Associate Professors
Kyle W. Selzer, Ph.D., Department of Biological Sciences
John F. Stolz, Ph.D., Department of Biological Sciences

Assistant Professors
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. Career choices 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, geology, compliance, and environmental education.

Students that go on to receive the five-year Master in Environmental Science and Management at Duquesne would also gain background in environmental management systems, public policy, and law. The M.S. provides for such careers as environmental policymaking, pollution prevention, or risk assessment, in addition to the positions listed above.

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

Foundational Science Requirements

Total credits 55

CHEM 121 General Chemistry I/Lab 5 cr
CHEM 122 General Chemistry II/Lab 5 cr
CHEM 211 Organic Chemistry I 3 cr
CHEM 211L Organic Chemistry I Lab 1 cr
CHEM 212 Organic Chemistry II 3 cr
CHEM 212L Organic Chemistry II Lab 1 cr
CHEM 230L Research Lab Tech 1 cr
CHEM 421 Analytical Chemistry 3 cr
BIOL 111/113 Biology I/Lab 4 cr
BIOL 112/114 Biology II/Lab 4 cr
BIOL 212 Cell/Molecular Biology 3 cr
MATH 115 Calculus I 4 cr
MATH 116 Calculus II 4 cr
MATH 225 Intro to Biostatistics 3 cr
MATH 335 Biostatistics II 3 cr
PHYS 211 Gen Analytical Physics I 4 cr
PHYS 212 Gen Analytical Physics II 4 cr

Major Courses

Total credits 25

ESM 116 Foundations of Energy & Environment 3 cr
ESM 452 Environmental Chemistry 3 cr
ESM 472 Environmental Biology 3 cr
ESM 541 Environmental Policy and Law 4 cr
ESM 570 Fundamentals of Air Pollution Prevention and Control 3 cr
ESM 571 Fundamentals of Water Pollution Prevention and Control 3 cr

* This course is taught at CMU. Students will need to cross-register.

MAJOR COURSES

116 Foundations of Energy and the Environment 3 cr

The course provides students with an appreciation and understanding of the fundamental and theoretical background and concepts in environmental science. The impact of pollution growth on ecosystems, fossil and nuclear energy, resources and resource management, and population and risk assessment are among the topics to be discussed. The course will also deal with such issues as global warming, deforestation, biodiversity, and ozone depletion. This course provides a foundation for integrating other courses.

451 Environmental Policy and Law 4 cr

An introduction to the legal and political processes that generate environmental laws and regulations, seeking to answer the question, "What is good environmental policy?" Real world case studies, supplemented by guest speakers, will cover controversial national and international policy issues. The focus will be on the role science plays in the policy process, and on the sources of conflict among political and policy actors, including elected officials, bureaucrats, legislators, and interest groups.

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 and complex procedures and data derived from environmental testing. Prerequisites: Chemistry 121, 122, Mathematics 115.

491/591 Environmental Hydrogeology 2 cr

The course introduces students to the fundamentals of geologic materials and soils and deals with ground and surface waters and hazardous earth processes, such as flooding and earth movements. Prerequisites: Geology issues of solid waste disposal, hazardous waste management, and land use-planning will be covered. The course will include case histories and field trips. Prerequisites: Biology 111/113, 112/114.

492/592 Stream Field Biology 2 cr

Stream Field Biology is the study of the fundamental 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. Prerequisites: Biology 111/113, 112/114.

593 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. (Cross-listed with BIOL 466/566). Prerequisites: Biology 111/113, 112/114.

494/594 Environmental Sampling 2 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. Prerequisites: Biology 111/113, 112/114.

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 Prerequisites Biology 212, 319 Chemistry 222 or permission of 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. Prerequisites Biology 111/113, 112/114

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 Biology 212, 319 Chemistry 222 or permission of instructor

571 Fundamentals of Water Pollution Prevention and Control 3 cr
ESM 571 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, including 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.

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 Faculty 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 engages its students in an appreciation of the need to expand understanding 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 principles and techniques of the physical and natural sciences to the analysis of many types of evidence. Concurrent with this training, students will develop an essential understanding of how the sciences are being utilized within the legal framework.

REQUIREMENTS FOR THE MASTERS IN FORENSIC SCIENCE AND LAW
Total Required Credits 158

Forensic Science and Law Requirements
Total Credits 52
American Legal History 1 cr
Bomb and Arson Investigation 2 cr
Constitutional Law Seminar 1 cr
Criminal Law & Procedure 2 cr
Introduction to the Criminal Justice System 3 cr
Environmental Law 1 cr
Evidence 2 cr
Experts and Ethics 2 cr
Introduction to Forensic Science and Criminal Law 2 cr
Forensic Science and Criminal Law II 2 cr
Forensic Drug Analysis I and II 6 cr
Forensic Investigation I and II 6 cr
Forensic Problems 2 cr
Forensic Serology/DNA I and II 6 cr
Forensic Toxicology 3 cr
Law, Science, and Philosophy 2 cr
Trace Evidence I & II 6 cr
Torts 1 cr
Wrongful Convictions 2 cr

Biology Requirements
Total Credits 21
Biology I and II 8 cr
Cell and Molecular Biology 3 cr

Mammalian Physiology 3 cr
Human Genetics 3 cr
DNA Methods Population Genetics 4 cr

Chemistry Requirements
Total Credits 32
General Chemistry I and II 10 cr
Organic Chemistry I and II 6 cr
Organic Chemistry I and II Lab 2 cr
Research Lab Techniques 1 cr
Biochemistry I and II 6 cr
Analytical Chemistry 3 cr
Forensic Science Lab I and II 4 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 Core
Total Credits 23

Electives
Total Credits 9
May be chosen from courses listed in any department

REQUIREMENTS FOR THE MASTERS IN FORENSIC SCIENCE AND LAW, AND OPTIONAL BACHELOR DEGREES

In addition to the Master's degree a student can have the option of earning either a Bachelor's degree in Biochemistry or Biology by taking specific courses in place of nine credits of electives. The total credit requirements also increase by up to five additional credits.

For the Bachelor of Arts in Biochemistry, the total required credits are 163. The additional requirements are:

Physical Chemistry For Life Sciences 4 cr
Senior Seminar (Chemistry) 1 cr
Cultural Anthropology (replaces an elective) 3 cr
English Elective (300 level or higher, replaces an elective) 3 cr
Scientific Presentation and Writing (replaces an elective) 3 cr
For the Bachelor of Science in Biology, the total required credits are 162. The additional requirements are:

Pathogenic Microbiology Seminar (Biology) 3 cr
Cultural Anthropology (replaces an elective) 1 cr
English Elective (300 level or higher, replaces an elective) 3 cr
Scientific Presentation and Writing (replaces an elective) 3 cr

101 Introduction to Forensic Science and Criminal Law 2 cr
A survey course that introduces the student to the vast array of forensic science specialties and professional organizations including a number of case histories. The law component includes the nature of sources and limits of the criminal law, principles of punishment, and wrongful convictions. Case review and reconciliation with discussion is required as well as an assigned paper for student assessment. Throughout the course an emphasis is placed on the importance of combining legal principles with scientific enquiry.

201 Law, Science, and Philosophy 2 cr
This course will survey the interactions of four fundamental domains: science, law, philosophy, and religion. These interactions are examined in the four stages among primordial peoples, among the Greeks, the Copernican-Newtonian period, and the modern period. In each period the kind of thinking which underlies each of the four interactions in the four stages is developed. The thrust of the course is that none of these domains is an island unto itself, but each is dependent on the other three. Prerequisite 101

301W Wrongful Convictions 2 cr
This course examines the leading idea of wrongful convictions. In many cases forensic science applications have uncovered serious faults in our criminal system of justice. This course graphically illustrates the importance of the intersection of science and law in the pursuit of truth. The course involves case studies and interaction with exonerated individuals. Public policy is a consistent theme throughout the course. Prerequisite 101

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. Prerequisite 230L and 423 Laboratory, six hours

372W Forensic Chemistry Lab II 2 cr
Students will become very familiar with the main tools in a forensic laboratory, IR and GC-MS. They will develop the knowledge and ability to apply these techniques to solve complicated forensic analyses. Prerequisite Forensic Chemistry Lab I. Laboratory, six hours

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.

403 Forensic Science and Criminal Law II 2 cr
This course is a continuation of FOSCI 101. Introduction to Forensic Science and Criminal Law. The course continues with the emphasis on the importance of combining legal principles with scientific enquiry. Extensive case review with discussion is required. An upper level course that concentrates on complex cases. Prerequisite 101

A.J. PALUMBO SCHOOL OF BUSINESS ADMINISTRATION

Administration
Dean
James C. Stalder, B.S.

Associate Dean and Director of Undergraduate Studies
Thomas A. Pollack, Ph.D.

Associate Dean and Director of Graduate Studies
William D. Prescott, Jr., 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 for leadership roles in the evolving global marketplace and in their communities. We will accomplish our mission by creating 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 lifelong 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 must 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 10.

Acceptance of all international students will be contingent upon the successful completion of the Duquesne University English Placement test 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 (or 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 and a grade of C or better in all business courses and 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.

SATURDAY PROGRAMS

The School of Business Administration offers its accounting, information technology and marketing programs on a Saturday format. These accelerated programs provide adult learners the opportunity to earn a degree by attending classes only on Saturdays. For additional information on these programs, please contact the School of Business Administration Admissions Office — Phone (412) 396-6277 or the School of Leadership and Professional Advancement — Phone (412) 396-5990.

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/MASTER PROGRAMS

A student who has completed 90 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 the successful completion of the first year of academic work at 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 PROGRAMS

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 PROGRAMS

BS/MBA 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 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 School's Centers are the following.

Chrysler Corporation 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, and regional and state economic development, special training events and numerous other projects related to market research.

The Beard Center for Leadership in Ethics

The mission of the Beard Center for Leadership in Ethics is to accentuate issues of ethical concern by promoting public discussion in an attempt to develop an overall awareness of ethical conduct and an increase in leadership standards for the organization. Important initiatives in this mission are the Distinguished Speaker Series on Ethics and the Ethics Breakfast Forums. At these events, prominent executives from the local and national business community share their experiences and philosophy on ethical conduct with students and local business people.

The Institute for Economic Transformation

The mission of the Institute for Economic Transformation (IET) is to foster and accelerate the growth and development of the region's business community, while, at the same time, building and strengthening relationships between firms, their sustaining communities, and the broader social and business infrastructure. The institute is currently focusing its efforts on education and training, manufacturing improved technical systems, and center dedication.

The Center for Corporate Development, the Center for Executive Education and the newly formed Center for Entrepreneur Leadership, IET offers a full range of executive education, leadership, business performance improvement and management training services. The Community Manufacturing Initiative assists manufacturing firms located in distressed communities. Through its workforce development initiative, designed to address issues of regional manufacturing, workforce shortages, IET has created Manufacturing 2000, New Century Careers, Inc., a state-funded Customized Job Training Consortium and numerous networks of manufacturing firms' education and training organizations that focus on specific workforce skills shortages.

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, newly renovated 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) software applications, a networking 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 Psi 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 50 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 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 Duquesne University Business Women Association is a network of Duquesne alumnae, graduate and undergraduate students, as well as businesswomen from the region. This organization is committed to the development of women's roles in business and deals with issues and problems that all women share in education and their careers.

The Financial Management Association is a student organization for those interested in careers in finance.

The International Business Association is a student organization for those with interest in careers in the area of international business.

Phi Chi Theta, a national professional business fraternity, organized to promote the cause of higher business education and training for all individuals, is represented by the Gamma Upsilon Collegiate Chapter.

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

Ten 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.

SOPHOMORE YEAR

University Core

101 Thinking and Writing Across the Curriculum 3 cr
102 Imaginative Literature and Critical Writing 3 cr
100 Calculus with Algebra I 3 cr
110 Calculus with Algebra II 3 cr
132 Basic Philosophical Questions 3 cr

Business Core

182 Information Systems I 3 cr
183 Information Systems II 3 cr
102 Introduction to Business 1 cr
7 cr

TOTAL Credits 31

JUNIOR YEAR

Business Core

342 Global Economic Perspectives 3 cr
331 Business Finance 3 cr
361 Introduction to Management 3 cr
371 Introduction to Marketing 3 cr
367 Total Quality and Operations Management 3 cr
368 Business Ethics/Communications 2 cr
18 cr

FRESHMAN YEAR

University Core

101 Thinking and Writing Across the Curriculum 3 cr
102 Imaginative Literature and Critical Writing 3 cr
100 Calculus with Algebra I 3 cr
110 Calculus with Algebra II 3 cr
132 Basic Philosophical Questions 3 cr

141 Social, Political and Economic Systems 3 cr
151 The Shaping of the Modern World 3 cr
161 The Arts and the Human Experience 3 cr
24 cr

Business Core

182 Information Systems I 3 cr
183 Information Systems II 3 cr
102 Introduction to Business 1 cr
7 cr

TOTAL Credits 31

Major Area of Concentration

Major Area of Concentration 3 cr
Major Area of Concentration 3 cr
Major Area of Concentration 3 cr
12 cr

TOTAL Credits 30
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.

**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. This publication is not intended to 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 May 2004.

**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**

Two one-credit course offerings, 103 Introduction to Business and 300 Career Strategies, are required for all students enrolled in the School of Business Administration. The Business Administration Internship is strongly recommended for all who qualify.

**103 Introduction to Business 1 cr**

Introduction to Business provides an overview of the curriculum offerings and organization of the School of Business Administration. In addition to detailing the School’s areas of concentration, the course will introduce the student to the School’s advisement process, student organizations, study abroad opportunities, and career services. Current business concepts and trends will be discussed. The student will be expected to use technology as a communication medium throughout the course.

**300 Career Strategies 1 cr**

Career Strategies 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.

**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 broad 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: 216, 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 Technology or Finance, such as QSIMS, QSMIS and Finance 333.

Students should contact an academic advisor or a member of the accounting faculty for further information.
COURSE PREREQUISITES - see p 147

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: QSMIS 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: ACCTG 214.

216 Accounting Information Systems 3 cr Develops a sound understanding of the practices and procedures used to process accounting information. Emphasis is placed on modernized information systems. Prerequisite: ACCTG 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: ACCTG 214.

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: ACCTG 214 and 215.

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: ACCTG 215.

411 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: ACCTG 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: ACCTG 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: ACCTG 412.

419 Seminar in Accounting 3 cr Designed to develop a student's ability in technical expression, deep understanding of accounting theory, and acquaint the student with contemporary accounting problems and literature. Prerequisite: ACCTG 314.

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 take either COSC 101 Basic Programming or COSC 150 Computer Programming C++ in their freshman or sophomore year. The concentration also requires completion of three accounting courses (ACCTG 216, 311, and 315) and three Information Technology courses (QSMIS 481, 482, and 485). In addition, students must choose one of the following accounting electives (ACCTG 312, 314 or 411) and one of the Information Technology electives (QSMIS 385, 384 and 486 or BLAW 354 or SCMG 375).

COURSE PREREQUISITES - see p 147

216 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.

481 Systems Analysis and Design 3 cr
See IT Curriculum.

482 Database Management 3 cr
See IT Curriculum.

485 Systems Quality Assurance and Control 3 cr
See IT Curriculum.

ECONOMICS CURRICULUM Economics studies how people make choices when faced with scarcity and how societies distribute scarce resources such as land, labor, raw materials, and machinery to produce goods and services. Economics provides a logical way of looking at problems and is applicable to a wide variety of topics from making sound business decisions to understanding challenging issues facing societies.

As a discipline, economics prepares students for many professional careers since it can be applied to a wide range of real-world problems. The flexibility of this preparation can make the student more adaptable to changing opportunities after graduation and provides excellent preparation for graduate study in a variety of disciplines.

Economics concentration students in the economics concentration choose to follow either the Business Economics or Public Policy track. For all students, the program culminates in the Economics Senior Seminar 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, 332, 381, 384, 480, and one economics elective above the 300-level. In addition, for the Business Economics Track, students complete ECON 461 and 462. Students in the Public Policy track complete ECON 451 and 452. A grade of C or better must be achieved in all economics courses.

COURSE PREREQUISITES - see p 147

212 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. Prerequisites: 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 of market operations of monopoly, imperfect competition, externalities, asymmetric information, and public goods. Prerequisites: ECON 201 with a C or better, 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. Prerequisite: ECON 201 or 202

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 202 with a C or better, MATH 110 or 115

342 Global Economic Perspectives 3 cr
Uses economic principles and concepts to analyze business-related current issues in the global context. Emphasis is placed on the process of economic development in different parts of the world, research incorporating the World Wide Web, and overall geographic literacy. Prerequisites: ECON 201, 202 and QSMIS 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 and tools 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: QSMIS 284, or MATH 225 or 302

384 Forecasting Techniques 3 cr
This course introduces students to the analytical and managerial techniques used in the study of forecasting. Students will be taught to use regression analysis to forecast time series data and to evaluate the results in terminology common to non-mathematical practitioners. Emphasis is placed equally on the student's ability to interpret and communicate the forecasts. Prerequisites: ECON 201 with a C or better

401 Game Theory 3 cr
Game theory is a distinct and interdisciplinary approach to the study of human behavior, combining mathematics, economics and the social and behavioral sciences. Game theory has found applications in virtually every discipline. It has been used to describe the behavior of competing firms, labor unions and management, elected officials, nations, international organizations, parents and children, and even rats and pigeons. A mathematically rigorous way of modeling virtually any situation in which human interest is especially helpful in that it allows one to model information as a valuable resource. This course provides a concise, yet rigorous, introduction to game theory and its applications. Students examine the fundamental concepts and tools of game theory, while maintaining a focus on the application of the theory. The class combines lectures, discussions, tutorials, classroom experiments and student-led presentations. Prerequisites: 3 credits in Economics, MATH 110 or 115

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. Prerequisite: ECON 201 or 202

425 Current Economic Issues 3 cr
Focuses on specific current economic issues. The course and its content vary. For example, topics might include the federal budget deficit, economics and politics, or global economic changes. Prerequisites: ECON 121 or CORE 141.

426 Monetary Theory and Policy 3 cr
Deals with the chief theoretical contributions in monetary theory along with their policy implications. Specific topics include the modern quantity theory of money, monetarist versus Keynesian models, the stability of the demand for money, rules versus discretion, rational expectations, monetary policy in an open economy, foreign exchange markets and international capital flows. Prerequisites: ECON 201 and 202

442 International Economics 3 cr
Covers international trade theory and international monetary economics. Topics discussed include the classical and neoclassical theory of comparative advantage, balance of trade, balance of payments, customs union theory, commercial policy, theory of foreign exchange markets, history of the international monetary system and fixed versus flexible exchange rates. Prerequisites: ECON 201 and 202

451 Government Expenditure Policy 3 cr
This is the first of a two-course sequence dealing with the economic aspects of public policy. Its purpose is to help students learn how to apply economic principles to the analysis of the effects of government policies, concentrating on the analysis of public expenditures. The emphasis in this course is analytical, making sure that students first understand how the tools and techniques of economics are applied to the analysis of the public sector. Topics include public choice, program evaluation, and federal, state and local expenditures. Institutional knowledge and specific applications will be introduced to illustrate the important consequences of policies. Prerequisite: ECON 301 with a C or better

452 Government Tax Policy 3 cr
This is the second of a two-course sequence dealing with the economic aspects of public policy. Its purpose is to help students learn how to apply economic principles to the analysis of the effects of government policies, concentrating on the analysis of revenues and taxation. The emphasis in this course is analytical, making sure that students first understand how the tools and techniques of economics are applied to the analysis of the public sector. Topics include tax incidence, welfare economics, deficit finance, and federal, state and local taxation. Institutional knowledge and specific applications will be introduced to illustrate the important consequences of policies. Prerequisite: ECON 451 with a C or better

461 Business Economics 3 cr
Business Economics focuses on the formation and qualitative analyses 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 such sources 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 and 381 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, antitrust, economic deregulation, and selected topics. Prerequisites: ECON 461 with a C or better

480 Economics Senior Seminar 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: Instructor permission.

ENTREPRENEURSHIP CURRICULUM
The Leadership & Change Management (LCM) division offers courses leading to concentrations in Entrepreneurship and Leadership & Change Management. Students must complete five required courses in each of these areas to qualify for the concentration. In addition, students can take nine to twelve credits in another business discipline. 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 MGMT 375, 480, 481, 482, and 494.

**COURSE PREREQUISITES - see p 147**

**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 enrollment in other Entrepreneurship courses.

**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 MGMT 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 when 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 MGMT 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 MGMT 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 Finance curriculum prepares students with a foundation required for success in careers in financial management. The discipline of Finance is most simply defined as a set of conceptual tools that allow business decision-makers to identify alternatives leading to shareholder wealth maximization. Given the competitive environment in both product and financial markets, firms must stay focused on the goal of value creation to ensure long-run success. Required Courses: FINAN 330, 333 450 and ACCTG 311 and 312 or 315. In addition, students must complete at least two of the following FINAN 432, 433, 437, 439 plus one additional Finance or Investment Management elective for a total of 24 credits.

**COURSE PREREQUISITES - see p 147**

**330 Theory of Finance 3 cr**
The Theory of Finance presents fundamental principles of corporate finance and investments. It provides (along with Finance 333) the necessary conceptual foundation for upper-level courses in Finance and Investment Management and is required for all students concentrating in Finance. Topics include portfolio theory, the Efficient Market Hypothesis, the Capital Asset Pricing Model, valuation of bonds and equity valuation models. Prerequisite: FINAN 331. Theory of Finance 330 should be taken concurrently with Finance 333.

**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: ACCTG 214, 215, ECON 201, 202, QSMIS 281 and 284.

**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, and financial intermediation. Prerequisites: ECON 201 and 202.

**333 Financial Management 3 cr**
Financial Management provides the second part (with Finance 330) of the necessary conceptual foundation for upper-level courses in Finance and Investment Management and is required for all students concentrating in Finance. Topics include financial statement analysis and financial forecasting, risk and return, the cost of capital, capital budgeting, real options in capital budgeting, the corporate valuation model, and measures of financial performance. Prerequisites: FINAN 331. Financial Management 333 should be taken concurrently with Finance 330.

**336 Security Analysis 3 cr**
An intensive study of the analytic techniques applicable to the selection of the various securities of private as well as public entities. Consideration is given to the markets in which these securities are traded and the types of information necessary to the decision-making process of the investor. Prerequisite: FINAN 331.

**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: FINAN 333.

**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: FINAN 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, settlement and payment systems, which play an important part in the markets' performance. Prerequisites: FINAN 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: FINAN 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: FINAN 333.

**450 Cases in Finance 3 cr**
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. Prerequisites: FINAN 333.
INFORMATION SYSTEMS MANAGEMENT CURRICULUM

The Information Systems Management program prepares students for careers in 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. For a concentration in ISM, students must complete 18 credits of required ISM courses. In addition, two ISM elective courses must be taken. Students must also take either COSC 101 Basic Programming or COSC 150 Computer Programming, C++ in their freshman or sophomore year.

COURSE PREREQUISITES - see p 147

182 Information Systems I 3 cr
An introduction to the productivity potential of spreadsheet, graphics, database, multimedia and word processing applications. In recognition of the importance of information resources, students will develop proficiency using Internet tools.

183 Information Systems II 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: QSMIS 182.

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: QSMIS 183, 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, multimedia, Internet interface development, telecommunications and other emerging technologies. Prerequisites: QSMIS 183, COSC 101 or 150.

387 Object Oriented Programming 3 cr
This course provides an introduction to object-oriented programming and Web-based applications using the Java object-oriented language. Emphasis is given to the logical development of Java applications, Java Applets, program control, methods, arrays, strings and characters, graphics, base and advanced graphical user interface components, exception handling, multimedia, networking, data structures and Java utilities. Prerequisites: QSMIS 183, COSC 101 or COSC 150.

481 Systems Analysis for Process Definition 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: QSMIS 183 and COSC 101 or 150.

482 Systems Analysis for Data Definition 3 cr
Focuses on the theory, derivation and development of the relational database model using entity relationship modeling and a commercial desktop database management system. Emphasis is on the principles of data modeling, data organization and resource issues in database design. Prerequisites: QSMIS 183 and COSC 101 or 150 (may be taken concurrently).

483 Systems Integration 3 cr
Students are expected to use tools and techniques learned in prior MIS courses to develop an information system. Using Computer-Expressed Software Engineering products and fourth generation languages, students design and implement a project relevant to business practices and systems. Students work in teams toward a solution. Prerequisites: QSMIS 183, 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: QSMIS 385, 387, 481 and 482.

485 Systems Quality Assurance and Control 3 cr
Presents EDP auditing standards with a blend of system 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: QSMIS 183.

486 Business 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: QSMIS 183, 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: QSMIS 385, 387, 481 and 482.

INTERNATIONAL BUSINESS CURRICULUM

The International Business program prepares students for careers in the international operations 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, FINAN 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) 12 credit hours 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.

COURSE PREREQUISITES - see p 147

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 1-5 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. See Leadership and Change Management Curriculum

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 American 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

449 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 Investment Management Curriculum is a registered CFA® track that prepares students with the foundation required for success in careers in investments. Most investment professionals pursue the Chartered Financial Analyst (CFA®) designation in order to enhance their careers, and the Investment Management curriculum is based closely on the CFA® Level 1 candidate body of knowledge. Courses required for the concentration include FINAN 330, 333 and Accounting 311, 312 or 315. In addition, students must complete at least two of Investment Management 310, 410 and 440 plus additional Finance or Investment Management electives for a total of 24 credits.

COURSE PREREQUISITES - see p 147

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. Course 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. This course introduces students to fixed income securities, their characteristics, and their role in a well-functioning capital market. Course 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.

311 Fixed Income Transactions 3 cr. This course analyzes the fundamentals of bond and derivative securities, and it presents tools for analyzing the following major types of fixed income securities: repurchase agreements, forwards, futures and interest rate swaps. Prerequisite: Finance 330.

340 Business Administration Internship 3 cr. See General Business Curriculum

410 Equity Portfolio Management 3 cr. Extends modern portfolio principles (covered in FINAN 330) to a theory of active portfolio management. Within the context of portfolio optimization, the course provides a general framework for designing, evaluating and implementing a variety of active strategies for selecting common stock portfolios. The essence of active management lies in forecasting abnormal returns, and in this regard, the course reviews a number of empirical regularities in stock returns. Using the Investment Center, students apply these concepts in the development and evaluation of their own portfolio strategies. Prerequisites: FINAN 330 and 333.

440 Seminar in Investment Management 3 cr. Concentration upon selected contemporary topics presented by distinguished visiting professors or resident faculty. Prerequisite: INVMG 410.

LEADERSHIP AND CHANGE MANAGEMENT CURRICULUM
The Leadership & Change Management (LCM) division offers courses leading to concentrations in Leadership & Change Management and Entrepreneurship. Students will need to complete five required courses in each of these areas to qualify for the concentration. In addition, students can take nine to twelve credits in another business discipline and tailor these electives to suit individual career interests. Students should consult with an academic advisor in order to review the course offerings and select appropriate electives. The Leadership & Change Management (LCM) concentration prepares students to become authentic leaders with the capacity to overcome the unforeseen challenges in today's business and societal environments. As organizations worldwide are confronted with volatile markets, stringent shareholder 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, flexible leaders who can work across diverse business disciplines, environments, and cultures in the new economy. Students are encouraged to 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 147

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, organizing, and leadership of activities and the context (internal and external) in which managers work to discharge their responsibilities effectively.

365 Leadership 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. Prerequisite: MGMT 361.

367 Total Quality and Operations Management 3 cr. An introduction to the principles and topics in production and operations management with an emphasis on total quality management. Both manufacturing and service operations are addressed with consideration of how operations support overall strategy and contribute to productivity and competitiveness. Prerequisites: QMIS 284 and MGMT 361.
368 Business Ethics/Communications 3 cr
Discuss 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
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.

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.

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 overtime 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.

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 new millennium. The intent is to develop the capacity in students to consult with organizations on strategic leadership and purposeful-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 364.

454 Leadership and Ethics 3 cr
This course emphasizes for students the importance of ethical integrity, values and vision, and the need for leadership and change agents for their organizations and contributors to society. 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. Learning is achieved through self-assessment, writing exercises, and community projects. A capstone course, students have an opportunity to revisit questions raised in earlier leadership courses using a values perspective. Prerequisites: MGMT 368 and 451.

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 to the division Chairperson, and finally, to the Associate Dean. The project must be completed within a 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: MGMT 364.

499 Strategic Management 3 cr
Strategic Management is the capstone course of the undergraduate business curriculum, utilizing 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 work effectively in group settings, and (5) strengthen the persuasive skills needed to communicate effectively and successfully defend their decisions in both oral and written forms. Prerequisites: Senior standing (90 credit hours) and any MGMT course.

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 142
2. To provide the legal background needed for managerial positions in law administration.

For a concentration in Legal Studies, students will take BLAW 253, 354, and 355. All three courses are offered in the spring semester. Students must consult an academic advisor to design a program tailored to their specific interests.

COURSE PREREQUISITES - see p 147

251 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 principles of law and legal requirements in the business community.

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 and government regulation of contracts.

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 relating to the creation and termination of corporations, franchises, partnerships, 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 the legal and practical aspects of real estate transactions.
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. Prerequisites MGMT 364 and 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 consumer 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, 375, 476, 477, and three of the following: MKTG 443, 471, 472, 474, 475, 478, and 479

COURSE PREREQUISITES - see p 147

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, international 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 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

374 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 QSMIS 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 QSMIS 284 and 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, servicescapes, 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. Prerequisites 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 (suggested)

477 Strategic Marketing Planning 3 cr
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 development, communication planning, pricing strategy, 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. Prerequisites minimum of 12 credits in marketing (including 371). This course is recommended as a spring offering for graduating seniors.

478 Industrial 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 147

182 Information Systems I 3 cr
See Information Technology Curriculum

183 Information Systems II 3 cr
See Information Technology Curriculum

281 Quantitative Analysis 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 inferential statistics. Prerequisites QSMIS 182 and MATH 110

284 Quantitative Analysis 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, and contingency analysis. Developing basic time series for forecasting and developing and analyzing simulation models are also covered. Prerequisite QSMIS 281
367 Total Quality and Operations Management 3 cr
See Leadership and Change Management Curriculum

386 Computer Simulation 3 cr
See Information Technology Curriculum

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, and marketing research techniques, while creating a skill base for employment. For a concentration in Sports Marketing, students will take MKTG 373, 374, 376, 377, and 477 plus two of the following: MKTG 470, 471, 474, 475, and 479. In addition, students will take Media and Sports Media Sports Relations in the Department of Communication and Rhetorical Studies as non-business electives.

COURSE PREREQUISITES - see p 147

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 venue operators. 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

471 Strategic Sports Marketing 3 cr
The course will focus on specialized areas of interest in the form of a practicum designed by the instructor or the individual student. This course provides an opportunity for the student to pursue special areas of interest in sports marketing and management covering major issues in specific sport venues or the sports industry in general. Prerequisites: MKTG 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 origin to the final consumer. The program of study emphasizes the materials management, operations management, and physical distribution management dimensions of the field of logistics.

For a concentration in Supply Chain Management, students will take Strategic Supply Chain Management 469, Supply Chain Management 375, 472 and 474, plus four of the following: IBUS 341, 369, BLAW 353, 354 and 355, 454, QSMIS 481 and Business Internship, BUADM 401

COURSE PREREQUISITES - see p 147

375 Introduction to Supply Chain Management 3 cr
Analyzes the physical distribution concept in its various components including its interface with other functions in an organization. Costs, governmental regulations, and international aspects of physical distribution are also covered in detail. Prerequisites: MKTG 361 and MKTG 371

469 Strategic Supply Chain Management 3 cr
Strategic Supply Chain Management is the capstone course in the Supply Chain Management concentration. The course will require students to apply concepts learned in previous courses. The course is designed to deal with issues of inbound logistics including purchasing and materials management, internal logistics including inventory management, and outbound logistics including distribution resources planning.

Prerequisites: ACCTG 215, MGMT 367, and MKTG 375, 472, and 474

472 Transportation 3 cr
A detailed and comprehensive examination of the historical evolution, operation, and development of the various components that make up the transportation system of the United States. The overall effects of technology, regulation (federal, state, and local), deregulation, and world economic factors will also be examined in detail. Prerequisites: MKTG 371 and 375

474 Purchasing Management 3 cr
An introductory course on the principles of purchasing and materials management. Topics covered include the profit-generating potential of purchasing, the role of purchasing in total quality management, the price versus cost distinction, supplier selection and evaluation, inventory management, value analysis, and just-in-time purchasing. Prerequisites: MKTG 371 and 375

TECHNOLOGY MARKETING CURRICULUM
The Technology Marketing program offers a specially-designed curriculum that combines aspects of both marketing and information technology. Not only will students gain an understanding of analysis and design, computer hardware concepts, database applications and networks, but they will also become skilled in applying marketing concepts, sales and market research techniques and in new product development. This unique combination is designed to enhance students' career opportunities in the information technology field and is especially applicable for those interested in business consulting and/or the marketing of high tech products in established or start-up technology companies.

For a concentration in Technology Marketing, students must complete the following eight courses. Students must also take either COSC 101 Basic Programming or COSC 150 Computer Programming C++ in their freshman or sophomore year.

COURSE PREREQUISITES - see p 147

373 Sales Administration 3 cr
See Marketing Curriculum

374 Research Applications in Marketing 3 cr
See Marketing Curriculum

385 Computer Systems 3 cr
See IT Curriculum

387 Object Oriented Programming 3 cr
See IT Curriculum

471 Services Marketing 3 cr
See Marketing Curriculum

476 Product Management 3 cr
See Marketing Curriculum

481 Systems Analysis for Process Definition 3 cr
See ISM Curriculum

482 Systems Analysis for Data Definition 3 cr
See ISM Curriculum
SCHOOL OF EDUCATION

http://www.education.duq.edu

Administration

Interim Dean
Rick R. McCown, Ph.D.

Interim Associate Dean
Rick A. Myer, Ph.D.

Chair, Department of Instruction and Leadership in Education
William P. Barone, Ph.D.

Interim Chair, Department of Foundations and Leadership
Rodney K. Hopson, Ph.D.

Chair, Department of Counseling, Psychology, and Special Education
Susan M. Munson, Ph.D.

Director, Leading Teacher Program
Karen E. Levitt, Ed.D.

HISTORY

The School of Education was founded in 1929. In that year, the new 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.

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 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 Examinations. The Student Standing Committee may accept a limited number of candidates for admission to the certification program who do not meet the minimum GPA.

Checkpoints and Gateways: The Leading Teacher Program (LTP) provides teacher candidates with Checkpoints and Gateways to ensure 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 Preprofessional Skills Tests.

Semester Two

Checkpoint: Demonstrate oral and written skills to faculty in the School of Education.

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: None.

Semester Eight

Checkpoint: Successfully complete Praxis Specialty Area Examinations for certification.

Gateway: Formal application 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 Elementary, Early Childhood and Secondary Education (English, English and Communication, Spanish, Latin, Mathematics, Citizenship, Social Sciences) teachers. The Early Childhood, Elementary and Secondary Education programs, in accord with the philosophy and objectives of the School of Education, offer teacher candidates an 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.

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 (EDLTD) in Foundations and 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. Aspiring teachers are challenged throughout 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 lifelong 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 Area (Secondary), (3) Foundations of the Leading Teacher Program, and (4) the Professional Educator Certification Track.

Teacher candidates in the School of Education must comply with all Pennsylvania Department of Education requirements for certification. State regulations may 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. The Undergraduate Advisors and Program Coordinators make the program requirements known to students.

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, thirty-nine credits of general education 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.

General Education Core courses include: Thinking and Writing, Imaginative Literature and Critical Writing, English electives, Problem Solving, Society/Politics/Economic Systems, Shaping of the Modern World, Arts and the Human Experience, Historical Geography or Human Geography and Geography Education, Core Chemistry, Core Physics, Core Earth Science, Basic Philosophical Questions and Core Theology.

Academic Cognate/Academic Major  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 base 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. Teacher candidates can read the cognate descriptions available from the Academic Advisors.

Teacher candidates enrolled in a Secondary Education certification track utilize elective credits to build the academic major required for certification in the Commonwealth of Pennsylvania. The academic component includes at least 36 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.

The following course of study is required of all education majors:

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>EDLTF 101i</td>
<td>Orientation to the LTP</td>
<td>2</td>
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<tr>
<td>EDLTF 101</td>
<td>Instructional Technology I</td>
<td>1</td>
<td></td>
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<tr>
<td>EDLTF 181</td>
<td>Cohort Experience</td>
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<tbody>
<tr>
<td>EDLTF 102</td>
<td>Context of the Teaching Profession</td>
<td>3</td>
<td></td>
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<tr>
<td>EDLTT 102</td>
<td>Instructional Technology II</td>
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<th>Semester 3</th>
<th>Course</th>
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<tbody>
<tr>
<td>EDLTF 201W</td>
<td>Ed Psych I Learning, Development &amp; Motivation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EDLTF 201</td>
<td>Characteristics of Persons with Disabilities</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EDLTF 291</td>
<td>Field Experience</td>
<td>1</td>
<td></td>
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<tr>
<td>EDLTF 281</td>
<td>Cohort Experience</td>
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<th>Semester 4</th>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDLTF 202W</td>
<td>Ed Psych II Classroom Leadership, Assessment &amp; Evaluation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EDLTF 202</td>
<td>Critical Issues in Special Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EDLTF 292</td>
<td>Field Experience</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EDLTF 282</td>
<td>Cohort Experience</td>
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</table>

The Leading Teacher Program provides broad and diversified professional field experiences designed 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

EDLTF 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.

EDLTF 101 Historical & Legal Foundations of Special Education 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.

EDLTF 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.

EDLTF 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.

EDLTF 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.

EDLTD 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.

EDLTF 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 an urban context.

EDLTF 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.

EDLTD 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 for acceptance 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 relevant professional training, 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.

EARLY CHILDHOOD AND ELEMENTARY EDUCATION
The Leading Teacher Program (LTP) in Early Childhood and Elementary Education is designed to prepare leading teachers for pre-kindergarten through eighth grade 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 will complete a core of experiences in teaching methodology and will participate in guided fieldwork. Teacher candidates have options to distinguish themselves through independent research and/or international study and teaching opportunities.

The Leading Teacher Program provides an overview of early childhood and elementary education, emphasizing the connections between theory and practice. Teacher candidates will address professional standards in each of the early childhood and elementary curriculum areas through course work and experiences. 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 136 credit program that consists of courses and experiences organized into four major areas of study: General Education (39 credits), Academic Cognates (15 credits), Foundations of Education (19 credits), and Professional Preparation (63 credits).

Candidates in the Early Childhood and Elementary Certification program concentrate studies in the General Education Core, Foundations of the LTP and Academic Cognates/Minor Studies during the first four semesters. Details are provided in the description of the Foundations of the Leading Teacher Program.

Semesters 2-7
Course | Course Title | Credits
--- | --- | ---
EDLTC 202 | Child Development | 3
EDLTC 203 | Planning/Assessment in ECE | 3
EDLTD 302 | Integrated Curriculum | 3
EDLTD 305 | Play, Movement, and Nutrition | 3
EDLTC 311W | Literacy Content Knowledge | 4
EDLTC 312W | Pedagogy for Literacy B-Grade 6 | 4
EDLTC 313 | Literacy Dispositions | 2
EDLTC 314 | Literacy Field Experience | 1
EDLTD 315 | Literacy Acad Adaptations | 1
EDLTD 321 | Numeracy Content Knowledge | 4
EDLTD 322 | Pedagogy for Numeracy B-Gr 8 | 4
EDLTD 323 | Numeracy Dispositions | 1
EDLTD 324 | Numeracy Field Experience | 1
EDLTD 325 | Numeracy Acad Adaptations | 1
EDLTD 331 | Educated Citizen Content Know | 4
EDLTD 332 | Pedagogy for Educ Citizenry | 4
EDLTD 333 | Educ Citizenry Dispositions | 2
EDLTD 334 | Educ Citizenry Field Experience | 1
EDLTD 335 | Educ Citizenry Acad Adaptations | 1

Semesters 5-7
Professional Preparation
EDLTC 201 | Orientation to ECE | 3
EDLTC 202 | Child Development (Birth–Age 8) | 3
EDLTD 302 | Integrated Curriculum | 3
EDLTD 305 | Play, Movement, and Nutrition | 3
EDLTD 311W | Literacy Content Knowledge | 4
EDLTD 312W | Pedagogy for Literacy B-Grade 6 | 4
EDLTC 313 | Literacy Dispositions | 2
EDLTC 314 | Literacy Field Experience | 1
EDLTD 315 | Literacy Acad Adaptations | 1
EDLTD 321 | Numeracy Content Knowledge | 4
EDLTD 322 | Pedagogy for Numeracy B-Gr 8 | 4
EDLTD 323 | Numeracy Dispositions | 1
EDLTD 324 | Numeracy Field Experience | 1
EDLTD 325 | Numeracy Acad Adaptations | 1
EDLTD 331 | Educated Citizen Content Know | 4
EDLTD 332 | Pedagogy for Educ Citizenry | 4
EDLTD 333 | Educ Citizenry Dispositions | 2
EDLTD 334 | Educ Citizenry Field Experience | 1
EDLTD 335 | Educ Citizenry Acad Adaptations | 1

School of Education

Semester 8
Professional Preparation
EDLTC 493 | Student Teaching Early Child | 6
EDLTD 493 | Student Teaching Elementary | 6

Course Descriptions: Early Childhood Education

EDLTC 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.

EDLTC 202 Child Development Birth–8 3 cr
In-depth examination of the development of the child from birth through eight years of age in physical, social, emotional, and cognitive years of growth. Emphasis is given to application of theoretical principles, as well as techniques for observing and assessing growth and development.

EDLTC 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 curriculum and environments.

EDLTC 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 the 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.
EDLTE 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 aged three 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 a series of three focused semesters. For descriptions of each of the focused semesters, Literacy, Numeracy, and Educated Citizenry, see course descriptions in Elementary Education.

EDLTE 493 Student Teaching Early Childhood 6 cr.
EDLTE 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" or contact the Office of International Studies in the School of Education.

ELEMENTARY EDUCATION

The Leading Teacher Program (LTP) in Elementary Education is designed to prepare leading teachers for elementary school 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 will have the opportunity to develop professional and personal competence by participating in experiences that are both theoretical and applied.

EDLTE 334 Educ Citizenry Field Experience 1 cr
EDLTE 335 Educ Citizenry Acad Adaptations 1 cr
Electives 6 cr.

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 session.

Semester 8

Professional Preparation

EDLTE 492 Student Teaching Elementary 12 cr.
EDLTE 493 Student Teaching Elementary 6 cr.

Course Descriptions: Elementary Education

Elementary Education majors will be divided into three cohorts. Each cohort will rotate through a series of three focused semesters. Course descriptions apply to the focused semesters for Early Childhood Education.

EDLTE 311W Literacy Content Knowledge 4 cr.
EDLTE 312W Pedagogy for Literacy 4 cr.
EDLTE 313 Literacy Dispositions 2 cr.

The Literacy semester merges the areas of reading instruction, language arts education, and children's literature for grades K-6. Teacher candidates will participate in three instructional modules and will be 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 N-6 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 year 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.

EDLTE 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.

EDLTE 315 Literacy Academic Adaptations 1 cr.

Teacher candidates will focus on adaptations for students with learning differences in literacy assessment, curriculum, and instructional strategies.

EDLTE 321 Numeracy Content Knowledge 5 cr.
EDLTE 322 Pedagogy for Numeracy 4 cr.
EDLTE 323 Numeracy Dispositions 1 cr.

The Numeracy semester consists of three major components that will be integrated and focused on the teaching and learning of mathematics in grades N-6 and on the development of mathematical thinking.

Knowing Mathematics and School Mathematics

Teacher candidates will 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 will 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 will 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.

EDLTE 324 Numeracy Field Experience 1 cr
Teacher candidates will apply knowledge of mathematics, school mathematics, children's learning in mathematics, and mathematical pedagogy in N-6 school settings.

EDLD 325 Numeracy Academic Adaptations 1 cr
Teacher candidates will focus on adaptations in numeracy, assessment, curriculum, and instructional strategies for students with learning differences.

EDLTE 331 Educated Citizenry Content Knowledge 4 cr
EDLTE 332 Pedagogy for Educated Citizenry 4 cr
EDLTE 333 Educated Citizenry Dispositions 2 cr.

The Educated Citizenry semester will focus on educational studies and experiences integrating science, social studies, and the performing arts in grades N-6 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 will engage in an investigation with emphasis on integrated content.

EDLTE 334 Educated Citizenry Field Experience 1 cr
Teacher candidates will demonstrate the application of inquiry skills, planning and implementation of integrated investigations, and classroom teaching skills in schools, museums, and other educational facilities.

EDLTE 335 Educated Citizenry Academic Adaptations 1 cr
Teacher candidates will focus on adaptations in science, social studies, and the performing arts, specifically in assessment, curriculum, and instructional strategies for students with learning differences.

EDLTE 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.

EDLTE 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 or contact the Office of International Studies in the School of Education.

SECONDARY EDUCATION

The Secondary Education program prepares teacher candidates to teach in the middle schools, junior high schools and senior high schools of Pennsylvania. It combines professional education with an academic major in English, English/Communications, Foreign Language (Spanish or Latin), Mathematics, Citizenship (History and Political Science) or Social Sciences (Psychology and Sociology).

Teacher candidates interested in teaching science in middle or high schools will participate in an integrated program that will result in a Bachelor of Science in one of the sciences and a Master of Science 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 major 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 124 credit hours. The General Education Core (36 credits) and the Foundations of the Leading Teacher Program (19 credits) are completed in years 1 and 2 (semesters 1-4). Elective credits are used to build the academic major required by the Pennsylvania Department of Education. Details of course sequences are provided in the description of the Foundations of the Leading Teacher Program.

In semesters 5, 6, and 7, secondary education teacher candidates complete 24 credits of professional preparation. Coursework includes appropriate content area methods, electronic literacy for instruction, content area reading, and the course "Adaptive Strategies for Secondary Inclusive Programs. 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 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>Senior Preparation</td>
<td>Academic discipline and related coursework</td>
<td></td>
</tr>
<tr>
<td>EDLTS 301</td>
<td>Content Area Reading</td>
<td>3</td>
</tr>
<tr>
<td>EDLTS 302</td>
<td>Electronic Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDLTD 345</td>
<td>Adaptive Strategies for Secondary Inclusive Programs</td>
<td>3</td>
</tr>
</tbody>
</table>

Teacher candidates will register for the appropriate methods course(s) listed below.

EDLTS 336 Teaching Math Grades 5-8* | 3 |
EDLTS 341 Teaching Secondary Math* | 3 |
EDLTS 342 Teaching English and Comm | 3 |
EDLTS 343 Teaching Foreign Language | 3 |
EDLTS 346 Teaching Secondary Social Studies | 3 |

Semester 8
EDLTS 492 Student Teaching** | 12 |
EDLTS 493 Student Teaching** | 6 |

*No teacher candidate may register for additional course work during the student teaching semester without permission from the Committee on Student Standing.

Course Descriptions: Secondary Education
EDLTS 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.

EDLTS 302 Electronic Literacy 3 cr
Increases the level of technology competences 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. They also create a computer-based portfolio depicting notable educational achievements, suitable for presentation during formal interviews. Candidates will continue their research to determine the effectiveness of their presentations.
EDLT 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 will 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 will be investigated, with strategies for facilitating effective social skill development. Applications of computer and assistive technology for students with challenges will be addressed.

EDLT 391, 392, 491 Field Experiences 0 cr
Provides the opportunity for teacher candidates to reflect critically on their developing knowledge base and practical experiences. These experiences are designed to foster personal and professional growth in preparation for student teaching and entry into the teaching profession.

EDLT 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.

EDLT 341 Teaching Secondary Mathematics 3 cr
Explores methods, strategies, and content of secondary mathematics with emphasis on problem solving and technology.

EDLT 343 Teaching English and Communication 3 cr
Examines various ways to teach grammar, language, and composition, providing opportunity for teacher candidates to review the basics of grammar and composition and to develop lessons for teaching at the secondary level and in special education.

EDLT 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.

EDLT 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.

EDLT 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.

EDLT 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 Elementary 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 or contact the Office of International Studies in the School of 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 the most acknowledged educational sites on the Internet. These resources will be finely grounded in accepted academic standards and assessment. Candidates will 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 will 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 GPA 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 wishing to graduate with two Bachelor's degrees (for example, B.S in Education and B.A or B.S in Mathematics) would register simultaneously in the School of Education and the College of Arts and would be assigned an advisor from each school. Requirements for teacher certification in Pennsylvania as specified in the catalog must be met to receive a School recommendation for state certification.

Programs with dual Bachelor degrees include:
B.S. English Education and B.A. English
B.S. English Education and B.A. English/Communications
B.S. Mathematics Education and B.A. or B.S. Mathematics
B.S. Citizenship Education and B.A. History or Political Science
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 and professional coursework and 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 allows the teacher candidate to apply the principles and techniques 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 School of Education Handbook.

INTERNATIONAL STUDY IN EDUCATION
The School of Education offers opportunities for teacher candidates to earn credits toward a degree while traveling and studying in international settings. There are three categories of international study: 1-6 week summer courses, 10 week student teaching placements, and semesters abroad. Summer courses are held in England and Europe, China, Costa Rica, Israel, Belize and Italy. Ten-weeks of student teaching can be completed in Ireland, Italy, England, Puerto Rico, and Spain. For the most up-to-date information on opportunities to study abroad, contact the Office of International Studies in the School of Education.

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 K-12 or pre-K 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 Teachers 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 five 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.

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 is required after all coursework is completed.

STUDENT ORGANIZATIONS
The School of Education provides opportunities for participation in student organizations related to their professional preparation. A number of student organizations are available on campus for LTP teacher candidates to enhance their professional skills and to demonstrate leadership qualities. School of Education faculty are involved with the organizations in the role of advisor. This provides an excellent opportunity for teacher candidates to collaborate with faculty 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 Pi
- Phi Delta Kappa
- Phi Kappa Phi
- Phi 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 exceptional 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 and are presented at the annual Honors Day Convocation. Teacher candidates should consult the School of Education Handbook for specific information regarding academic policies pertaining to their program.

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 Teachers 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

Administrator of Music Enrollment
Nicholas Jordanoff, M Ed

Assistant to the Dean
Kathleen Ingold

HISTORY
Founded in 1926, the Mary Pappert School of Music recently celebrated its seventy-fifth 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.

Today the Mary Pappert School of Music is a recognized national leader in performance, music education, 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 that 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 Administrator of Music Enrollment. Specific audition requirements are mailed to auditionees. The audition consists of solo performance before a committee, a written theory exam, and an aural test and a piano placement exam. Students requesting scholarship assistance must 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 in this program.

The curriculum is enhanced by the 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 Birgit Nilsson, Yvonne delaying, Paul Merhey, John Hackett, Rebecca Penny, Barry Green, Eliot Fisk, Thomas Newman, Joseph Schwammert, Steven Vass, Rodung Schreith, Alexander Tchaikovsky, Paul Chihara, Christopher Rouse, Eric Whitacre, Hila Plettman and Marianne Cornellle.

Applied faculty in the Mary Pappert School of Music include twenty-five members of the Pittsburgh Symphony Orchestra as well as distinguished concert ensembles. Residencies include the Faculty Guitar Ensemble, Cacht 22 and the Children's Festival Chorus. Other faculty are recognized in the academic and cultural communities for their activities as performers, composers, music educators, 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 McKeen 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 halls 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, a three-manual Moeller organ and a Futrher tracker organ. A new addition in fall 2003, an Aeolian-Skinner pipe organ is ideal for practicing classical music. 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 graduate students and size of the guitar program, the Mary Pappert School of Music is counted among the leading universities offering guitar and electric bass performance degrees. Duquesne is grateful to the Fender Musical Instrument Grant that provides the latest Fender guitar amplifiers, bass amplifiers, guitars, basses, and sound systems for the school's musical education 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 Instrument.'

Matty and Eddie Shiner Practice Rooms - a suite of acoustically enhanced practice rooms are located 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 Eddie Shiner, renowned performers and teachers in trumpet and trombone that taught many Duquesne students through the years.
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.

Duquesne offers a unique program which blends a strong traditional musical education with practical artistic experience 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**

Dedicated in the fall of 1994, the Fender Electronic Studio is a state of the art electronic studio for MIDI/hard disk recording and electronic and guitar ensemble rehearsal. Featuring 32 channel board, Fender professional sound reinforcement speaker systems and power amps, full line of Fender tube guitar amps and guitars with Roland GK-2/yinch pickups, Fender basses, Tannoy Monitor I near-field monitors.

Digidesign’s ProTools high end digital audio workstations, SampleCell, Mark Of The Unicorn’s Digital Performer and several high definition MOTU Firewire Audio Interfaces, Unisynth, several MIDI Time Piece II, Opcode’s Max Coda’s Finale 2004, Lexicon, Yamaha, Art and Alexis digital signal processing units, Kurzweil K2000R sampler, Roland VP-70, Roland TD-10 compact digital vntual Drum Kit, Yamaha G-10 guitar controller, 5 Roland GR-30, GR-339 and VG-8 Guitar systems, Oberheim Matrix 6 analog synth, Zeta violins, Zeta viola, Zeta cello, Roland V-Bass, Mallet KAT controller with Kurzweil sound board, 3 Yamaha WX7 and EWI wind controllers, three Korg Triton advanced integrated workstations, 1 Korg Triton studio synthesizer Yamaha DX11/11 FD synthesizer, and EMU Proteus 1-2-3 sound modules. 2 G4 Macintosh Computers equipped with Digital Performer Finale Pro Tools 24 Track Hard Disk Recording System Mackie Control surface and full array of Waves and other digital plug-ins 1 Tascam DA-38 Modular Digital Multitrack 1 Tascam DA-98 Modular Digital Multitrack Glyph Trip Hard Drive and Tape Storage System multiple Glyph Firewire hard drives, Roland Hand Sonic Digital Percus-

**The Duquesne University Recording Complex**


**Keyboard Lab**

A keyboard/computer lab houses 17 Apple iMac DVD workstations each equipped with a Yamaha Clavinova Digital Piano, Yamaha headphone communication system, Mark of the Unicorn’s Fast Lane MIDI interface, Finale notation software, Auralia music theory software, Garage Band, Fiber-optic Internet connections, and networked laser printer.

**The Music Technology Center**

A multipurpose learning facility contains seventeen Apple G5 workstations with high speed internet connections, MOTU Digital Performer, Finale notation software, software synthesizers, Peak LE audio editing software, 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, Tannoy near field monitors, Mackie 16 channel mixing console, Fender guitars/amp basses and PA equipment.

**MUSIC SCHOOL TECHNOLOGY FACILITIES**

**STUDENT ORGANIZATIONS**

A Chapter of the national music organization Mu Phi Epsilon contributes substantially to the students’ professional and social development.

The Mu Phi Epsilon National Conference has an active student chapter, which 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 National Association for Music Therapy, American Choral Directors Association, and the Guitar Society For Fine Art.

**HONOR AWARDS**

Andre 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.

**MUSIC EDUCATION CERTIFICATION**

Students completing the course work in music education receive the B.S. in M Ed. and may be admitted provisionally to the certification program. Upon successful completion of the Praxis Exam, graduates may receive the Instructional Level 1 - 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 analytical abilities, 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. Admission and 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, music therapy, human sciences, and general education. Music courses include 24 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 piano accompanying. 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

Selection of students for the music therapy program depends upon completion of the admissions and audition process and an interview with the department chair. Candidates must demonstrate leadership qualities, excellent communication skills, critical thinking and analytical abilities, and a genuine interest in a service-oriented profession.

**Post-graduate Certification**

Post-graduate certification course work in music therapy is available to those who have a B.M. or B.S. in music education or performance. Selection of students for this program depends upon completion of the admissions and audition process, review of transcripts, and interview with the department chair.

**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 the student will be placed on probation for the next semester. If the grade does not improve by the end of that semester, the student will be required to have a conference with the Music Department faculty to discuss their continuation 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 in the areas of music, music therapy, human sciences, and general education. Music courses include 24 credits of core musicianship classes, eurhythmics, conducting, computer technology, applied music, ensembles, voice, piano, piano guitar, and piano improvisation. Clinical experience begins during the first year and culminates in the clinical internship.

**Board Certification**

Students who successfully complete the entire baccalaureate program may apply for a six-month internship that includes not less than 1040 hours of clinical work under the supervision of a board certified music therapist at a clinical site approved by the American Music Therapy Association, Inc. Upon completion of the internship, the Bachelor of Science in Music Therapy Degree is granted and the student is eligible to sit for the board certification exam, which is administered by the Certification Board for Music Therapy, Inc.

**Post-graduate Certification**

Post-graduate certification course work in music therapy is available to those who have a B.M. or B.S. in music education or performance. Selection of students for this program depends upon completion of the admissions and audition process, review of transcripts, and interview with the department chair.

**Five-Year Multimedia Program**

Undergraduate Music Technology students have a unique opportunity to take graduate courses in Multimedia to gain a head start on entering a Masters Degree in Multimedia at Duquesne University. Upon graduation with a Music Technology Degree, selected students can complete the 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 website at www.music.duq.edu.

**Course Descriptions**

**Performance**

**Applied Music**

1-3 cr

Private study of voice, piano, harpsichord, organ, or orchestral instruments.

**Piano Accompanying**

1-2 cr

This course is designed for the undergraduate students with the purpose of affording the student instruction in the art of piano accompanying.

**Post-graduate Certification**

IndiVidual work with pianist as a supplement to Opera Workshop and/or Applied Music.

**Alexander Technique**

1-2 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 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.

**Career Perspectives/Music**

1-2 cr each

Italian, German, French, and English offered on a rotating basis in each spring semester. All except English preceded by an introductory course in the fall in the appropriate language.

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chords, transposition, and score reading. Upper elementary piano literature is studied.

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.

225 Intermediate Piano for Performance Majors 2 cr
Intermediate Piano class. Class piano instruction in intermediate techniques of playing, harmonization theory, score reading, jazz chordology, and transposition utilizing MIDI piano lab equipped with music workstations. Emphasis is placed on intermediate literature and harmonization patterns in all keys and styles.

227 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 is placed on advanced use of harmonization patterns in all keys and mastery of literature.

230 Piano Literature 1 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. Emphasis on the major 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: Piano Literature I. 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, and 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. Prerequisite: 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 classical and jazz styles of playing more specifically finger style and spectrum 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.

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 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 Performance Internship 0-12 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

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, Orchestra, Concert Chou, Chamber Singers, and Jazz Band.

Small Ensembles 0-1 cr each
The Small Ensembles include Trombone Chou, 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 1-2 cr
Study and performance of all types of chamber music for various instrumental combinations including electronic.

MUSICANSHP
Musicanshp I through VI comprises the core requirement for every music major. At each level (except Musicanship 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 aural and keyboard comprehension. The two components (101/111 etc.) are integrated and coordinated with other courses in keyboard and ear training.

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 rhythmic 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) expands the practices introduced in MUSC 111 to include aural comprehension of tonal relations on different levels of musical structure and harmonic progression 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 Musicanship III 2 cr each
This course continues the Musicanship 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, ornamentations, 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.

235 20th Century Techniques 2 cr
A survey of the melodic, harmonic, and contrapuntal resources employed by composers in the twentieth century. Readings, analysis, and short creative projects will be assigned.

254 Music from 1950—Present 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 each
This course introduces students to basic 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 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, diction, expression and style. Repertoire includes folk songs, 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, 112W Piano for Music Education I, II 2 cr each
This course provides piano instruction in the development of performing ensembles as well as non-performance classes and appropriate means of assessment. Students complete a third division project. The anthology and portfolio are expanded.

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 performance classes and appropriate means of assessment. Students complete a third division project. The anthology and portfolio are expanded.

258 Music Ed Methods V 3 cr
This course is based on the Kodaly 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.

259 Guitar Class 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. Ensembles 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 that develops skills in recorder playing, Offf 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 is an appendix to the conducting class. It 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 is an appendix to the conducting class. It emphasizes the selection, analysis, score preparation and laboratory conducting of instrumental and orchestral materials appropriate for various grade and proficiency levels of students.

381 String Techniques 2 cr
This course focuses on playing skills and pedagogical applications of violin, viola, cello and bass. Students are expected to play each instrument and be knowledgeable of appropriate teaching materials for each.

386W Children's Chor Lab 1 cr
This course provides field and clinical experiences in conjunction with three training levels of the Children's Festival Choir in residence at Duquesne. Students will study rehearsal techniques, group motivation, repertoire and concert production.

481 Percussion Techniques 2 cr
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.

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 - Choral. 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 and 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, development of repertoire.

151 Jazz History 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.

226 Jazz Improvisation 2 cr
Study and practice of melodic improvisation, conventional forms, chord progressions employing idiomatic jazz, articulations, minor, major and modal scales, altered scales and chords, extended forms and practical applications to standards and jazz literature.

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.

340 Jazz Arranging 2 cr
A study of the basic techniques of scoring for individual instruments and jazz ensembles of various sizes, from small groups to studio orchestras. Analysis of scores by contemporary big band arrangers.

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 and the experience of intense 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 2 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 1 2 cr
Piano Improvisation 1 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 1 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

103 Service Playing 1-2 cr
The objective of this course is to develop the service playing skills necessary to perform for church services of all denominations through a study of applied harmony, counterpoint, hymnody, anthem accompaniment, and conducting from the console. Students unable to enroll for this course will study this material in their applied music lesson.

112 Church Music Practicum 1 cr
Seminar in practical aspects of church music, establishing the music program in a church, graded choir systems, children's choirs, instrumental ensembles, workshops, contracts, cantor systems and worship commissions, etc.

Mary Pappert
School of Music
421. 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.

431, 432 Organ Improvisation 2 cr each
A practical application of the basic tools of improvisation including harmonization of melodies at the organ, two and three part counterpoint, short ABA forms, and chorale preludes with emphasis on their liturgical application.

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.

470 Sacred Music Internship 2 cr
An exploration of the relationship of liturgy and the music that expresses the rituals of liturgy. Fifteen areas of liturgical celebration in the liturgy life of the church are analyzed set into historical perspective, and evaluated as to their effectiveness in parish life including the demands of ritual, theology of the rites and their liturgical expression and pastoral issues in their celebration.

476 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.

MUSIC TECHNOLOGY SOUND RECORDING TRACK

101 Introduction to Audio I 2 cr
Introduction to basic concepts of audio propagation both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio production environment.

102 Introduction to Audio II 2 cr
The focus of this course is a presentation of more advanced audio concepts both acoustically and electronically. An introduction and overview of the hardware and software used in the recording process. Prerequisite: Introduction to Audio I.

131 Applied Audio 1–2 cr
Directed individual study in Audio.

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 I.

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 a 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 sound track 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 postproduction and mastering tools. Proper procedures in formatting and preparing projects for cassette or CD.

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

105 Music Technology I 2 cr
A continuation of computers for musicians course-work with more advanced applications of MIDI theory, computer notation and sequencing, and the history of electronic music (1928 to the present). Prerequisite: Computers for Musicians.

115 Computers for Musicians 2 cr
An introductory music technology course includes basic MIDI theory, computer notation, sequencing, Internet explorations, and computer assisted instruction and computer software tools for musicians. Additional explanations of computer searches and Excel, Word, and Power Point are an integrated part of this course.

201 Music Technology II 2 cr
Synthesis and sound design, advanced sequencing and basic web page design. Prerequisite: Music Technology I.

205. Music Technology III 2 cr
Multimedia design and production with an emphasis on electronic elements. Incorporates digital imaging, digital audio, and digital video. Prerequisite: Music Technology II.

206 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 multimedia and video creation of scores for video. Prerequisite: Music Technology II.

311 MIDI Controller Techniques 1 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 nuances of performance on electronic instruments. Prerequisite: Computers for Musicians and Music Technology 105.

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 Traditional Orchestration.

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 student's work in 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.

335 Introduction to Composition 1 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 work performed at a student composition recital. The semester Prerequisite: MIDI Controller Techniques.

356 Introduction to Composition II 2 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 chamber groups, both solo and ensemble pieces are prepared by the students for performance in a recital at the end of the semester. Prerequisite: MIDI Controller Techniques.

358 Introduction to Composition III 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).
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. This internship can only be taken in the junior or senior semester.

GENERAL
060 Seminar 0 cr
Registration for Seminar is required of all undergraduate Music majors during most semesters of full-time enrollment. Course material includes guest lectures and availability for master classes, recitals, student club meetings, and guest lectures held during the Tuesday and Thursday “common hour” periods.

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.

SCHOOL OF NURSING
Telephone 412-396-6550
Fax 412-396-6346
Website www.nursing.duq.edu
Administration
Dean
Eileen Zangolo, Ed D., R.N., FAAN
Associate Dean for Academic Affairs
Joan Sach Lockhart, Ph D., R.N., CORLN, AOCN®-FAAN
Assistant Dean
Cherith Smimer, 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 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, with business options including the dual MSN/MBA degree. Nursing Education and Psychiatry/Mental Health Nursing.

In Fall 1994, the Graduate Nursing Program expanded to include study for the Doctor of Philosophy (Ph D) in Nursing.

To date, more than 3000 students have graduated from Duquesne's School of Nursing.

SCHOOL OF NURSING MISSION AND VISION STATEMENT
Mission Statement
The Duquesne University School of Nursing will educate students in the art and science of nursing for the provision of ethical, holistic, culturally competent, and population-based care through a full range of course offerings and learning opportunities in collaboration with a variety of health care systems.

Vision Statement
The faculty of the School of Nursing will serve as professional role models for students through their own pursuit of excellence as teachers, scholars, and clinicians. The faculty will instill in students a sense of professional empowerment, a desire for lifelong learning, and a commitment to social justice through community service. A commitment to providing innovative curricula based on the changing needs of the students, the community, and society is shared by the faculty. The faculty values human diversity and global health care which will enable students to develop a sense of openness and a desire to serve members of other cultures both locally and internationally.

Students who have demonstrated prior academic achievement, the ability to succeed in a rigorous curriculum, and a commitment to learning will join with faculty partners as a community of learners. Students will take an active part in the learning process demonstrating accountability, integrity, and a quest for learning. Cultural diversity in the student body will promote appreciation of differences in colleagues and clients.

Learning will be recognized and valued as a life-long process. The learning environment will be cultivated by a community of learners. It will provide students with the guidance they need to synthesize general concepts and nursing practice through collaboration with professional role models and within and between nursing and other programs in the university. Didactic and clinical education will be based on active learning principles.
Opportunities will be provided that support empathetic, sensitive, and compassionate care for individuals, groups, and communities. This environment will promote and reward integrity and accountability, encourage altruism, increase students' awareness of social and ethical issues and nurture students' awareness of their own value systems as well as those of others.

The learning environment will be designed to anticipate progress in the field of information technology and will provide the students with the ability to assess the need for, as well as, the efficacy and use of technology both locally and globally. Students will be encouraged to balance the use of technology with the use of human touch and caring.

This environment which embraces cultural diversity will welcome all qualified students and faculty to join our community of learners. Opportunities for multicultural learning experiences will be offered both locally and globally.

CONCEPTUAL MODEL
The person, as the central core of the conceptual framework, is the focus of the professional nurse and is viewed as a unique creation holding values and beliefs reflective of the person's culture and life experiences, values, and beliefs. The faculty of the School of Nursing believe that nursing is a human science profession and academic discipline focusing on the diagnosis and treatment of human responses of the person to actual or potential health problems and their outcomes within a caring environment. Underlying the nurse's ability to provide, design, manage, and coordinate care are certain core competencies which include critical thinking, assessment, communication, and technical and information technology skills. These skills are delicately balanced with intelligence, confidence, understanding, caring, and compassion.

Various interdisciplinary and nursing theories and research provide the basis for professional nursing practice. The nurse collaborates with the person, interdisciplinary health care team, and health care agencies focusing on the promotion of health and prevention of illness. This takes place in an external dynamic environment which encompasses diverse populations in both local and global communities. As advocates for high quality care and social justice, the professional nurse will assume responsibility for life-long learning, practice within an ethical framework, participate in political and regulatory processes, and ultimately, in the shaping of the health care delivery system.

PROGRAM PURPOSES AND OUTCOMES
The purpose of the School of Nursing is to provide professional education for students pursuing a bachelor of science degree in nursing, a master of science degree in nursing, and a doctor of philosophy degree in nursing. Within the philosophy and purposes of the School of Nursing and guided by the American Nurses Association Standards of Clinical Nursing Practice, the faculty has formulated a curriculum that provides learning experiences to assist students to acquire specific knowledge and skills based upon the mission, vision, and conceptual model of the School of Nursing, upon completion of the undergraduate program, the graduate will demonstrate the following:

1. Utilize the nursing process in the promotion of health and prevention of illness with individuals, groups, and aggregates.
2. Demonstrate critical thinking skills in the practice of professional nursing.
3. Demonstrate cultural caring in the practice of professional nursing.
4. Synthesize theoretical and empirical knowledge within the caring context of professional nursing.
5. Collaborate with health care consumers and providers to meet health care needs of individuals, groups, and aggregates.
6. Demonstrate responsibility and accountability for decisions, actions, and outcomes in the practice of professional nursing.
7. Practice within the legal and ethical framework of the nursing profession.
8. Assume a multidimensional professional role in the delivery of health care.
9. Responsibly manage human, fiscal, and material resources to achieve quality health outcomes.
10. Promote the rights, responsibilities, and dignity of the person in the delivery of health care.
11. Advocate positive change in professional practice and health care policies utilize organizational and political processes.

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, registered nurses, 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 a variety of community settings.

The Hevson Nursing 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 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 conducts all professional nursing courses and also guides and directs the practicum (clinical) learning experiences. Nursing students are assigned faculty mentors for career and professional development. A variety of hospitals and agencies collaborate with the School of Nursing to provide a wide selection of excellent practice settings.

Upon the successful completion of their program of study, 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 examination.

While completing their BSN, students have an opportunity to pursue a minor in select areas such as Spanish, business, psychology, sociology, and communications. A focus area in music therapy and a certificate in business are also available.

The faculty reserves the right to make changes in the curriculum and program requirements which are believed to be in keeping with the changing health needs of society and 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)
   - 4 years required
   - English
   - 2 years recommended
   - Mathematics
   - 4 years required
   - Social Studies
   - 3-4 years recommended
   - Language
   - 2 years recommended
   - 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-thirds of the class, and demonstrated exemplary personal conduct while in school (Students whose class rank is below the upper two-thirds 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
eclude 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 cumulative Q PA of 2.5 from the
transferring institution
2 1 unit of chemistry and 1 unit of algebra,
which can be from either a secondary school or
post-secondary institution
3 Personal interview with a representative of
the School of Nursing and
4 Two professional (academic and/or
employment) reference letters
5 Compliance with the School of Nursing
Standards of Personal Conduct Policy
6 Evidence of physical and emotional health
adequate to meet the demands of the
program

Provisions Affecting Placement
1 Transfer student cannot be accepted into
nursing clinical practice courses during the
first semester of attendance at Duquesne
University
2 Only courses taken within the past ten years
will be evaluated for transfer credits. For
courses in the natural sciences, the limit is
five years. This time limit may be waived in
specific instances

RN-BSN/MSN PROGRAM
The RN-BSN/MSN program offers online
nursing courses for registered nurses pursuing
bachelor of science in nursing (BSN) and master of
science in nursing (MSN) degrees. Through
the acceptance of transfer credits, CLEP testing,
and challenge examinations, the School of
Nursing applies the RN’s previous learning
experience towards the requirements of the BSN
degree. Part-time or full-time enrollment is
available to allow an RN to continue to be
employed while undertaking the course of study.

Following the completion of required university
core curriculum and nursing prerequisites, the
BSN program can be completed online and
part-time in 5 semesters. The BSN is awarded
after completion of 32 nursing credits, 17 of
which are at the MSN-level.

Upon completion of the BSN degree at
Duquesne University, the student can earn the
MSN degree at Duquesne part-time in an
additional 2 years. The Miller Analogies Test
(MAT), a required admission test for the MSN
program, is waived for students who have met all
graduate admissions criteria and have maintained
a 3.0 GPA.

Specific information concerning the acceptance
of transfer credits eligibility for CLEP testing
and challenge examinations can be obtained by
contacting the Inquiry Manager within the School
of Nursing.

Admission Requirements for BSN/MSN
Students
Students who are interested in applying for
admission to the Second Degree BSN program
should request an 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 full enrollment

Biology or Chemistry 3 cr
Pharmacology 3 cr
Anatomy and Physiology I 4 cr
Human Development 3 cr
Anatomy and Physiology II 4 cr
Psychology 3 cr
Microbiology 3 cr
Statistics 3 cr
Nutrition 3 cr

These courses must have been completed
within the past 10 years

Satisfactory personal/phone interview with
a School of Nursing program advisor

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 begins in
August and includes three semesters of intensive
coursework comprised of more than 1000 hours
of clinical practice in state-of-the-art health care
settings. Creative Web-enhanced seminars for
non-clinical courses and traditional classroom
instruction

Upon completion of the BSN, students are
eligible to apply for a master of science in
nursing degree in one of six areas of specialization:
acute care clinical nurse specialist, family
nurse practitioner, forensic nursing, nursing
administration, nursing education and psychiatric/mental health nursing.
Specific information about this option can be
obtained by contacting the Inquiry Manager
within 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 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 full enrollment

Biology or Chemistry 3 cr
Pharmacology 3 cr
Anatomy and Physiology I 4 cr
Human Development 3 cr
Anatomy and Physiology II 4 cr
Psychology 3 cr
Microbiology 3 cr
Statistics 3 cr
Nutrition 3 cr

These courses must have been completed
within the past 10 years

Satisfactory personal/phone interview with
a School of Nursing program advisor

ADDITIONAL REQUIREMENTS AND
EXPENSES
Physical examinations, diagnostic procedures,
and immunizations
1st year 2nd - 4th year Annual Student Liability Insurance (Professional)
$200.00 $200.00 $200.00 $200.00
$100.00 $100.00 $100.00 $100.00
$20.00 $20.00 $20.00 $20.00
$30.00 $30.00 $30.00 $30.00

Uniform identification pin, shoes $150.00
Clinical lab packs $60.00
Criminal Record Check/Child Abuse Clearance $40.00
Transportation to and from clinical agencies (weekly) $100.00
NCLEX Diagnostic Examination $10 00-60.00

All expenses are approximate

CLINICAL REQUIREMENTS
Pre-admission and periodic physical examinations,
immunizations, and laboratory tests are required for all students in the School of Nursing.
Students enrolled in clinical courses must
purchase liability insurance in the amount of
$1,000,000/$5,000,000 professional coverage.
Training in Cardiopulmonary Resuscitation
(CPR) for Health Care Professionals is required
prior to entering the clinical area and annually
thereafter. The School of Nursing provides
information on required school uniforms to
students prior to entrance into the clinical area.
Each student is responsible for transportation to
and from hospitals and other clinical agencies.
Each student will be expected to have access to an
automobile to permit home care experience
during the junior and senior year. A criminal
record check and child abuse clearance are
required of all students before beginning clinical
practice.

The PA State Board of Nursing may refuse,
suspend or revoke any license in any case where
the Board shall find that the applicant
- Has been convicted or has pleaded guilty or
entered a plea of nolo contendere or has
been found guilty by a judge or jury of a
felony or a crime of moral turpitude, or has
received probation without verdict,
- In a proceeding in lieu of trial or an
Accelerated Rehabilitation Disposition in the
disposition of felony charges in the courts of
this Commonwealth, the United States, or
any other state territory or country.
- Has committed fraud or deceit in securing
his or her admission to the practice of
nursing or to nursing school.
- Is unable to practice professional nursing
with reasonable skill and safety to patients
by reason of mental or physical illness or
condition or physiological or psychological
dependence upon alcohol, hallucinogenic or
narcotic drugs or other drugs which tend to
impair judgment or coordination, so long as
such dependence shall continue.
Contact the State Board of Nursing for more information.

**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.

*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.

*Student Nurses Association of Pennsylvania* (SNAP) is a constituent of the National Student Nurses Association, Inc. (NSNA). The purpose of SNAP 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.

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**BSN Curriculum**

**Freshman Year**

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>Credits</th>
<th>SPRING SEMESTER</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNSG 100</td>
<td>Health &amp; Wellness</td>
<td>3</td>
<td>UPNSG 104 Essentials of Professional Nursing</td>
</tr>
<tr>
<td>UPNSG 103</td>
<td>Nutrition for Wellness</td>
<td>3</td>
<td>UPNSG 107 Ways of Knowing in Nursing</td>
</tr>
<tr>
<td>BIOC 101/102</td>
<td>Introduction to Life Processes</td>
<td>3</td>
<td>UPNSG 106 Transcultural Responses at Health Care</td>
</tr>
<tr>
<td>CORE 107</td>
<td>Theology Course</td>
<td>3</td>
<td>UPNSG 107 Service Learning Strategies</td>
</tr>
<tr>
<td>CORE 101</td>
<td>Thinking and Writing Across the Curriculum</td>
<td>3</td>
<td>CORE 151 Shaping of the Modern World</td>
</tr>
<tr>
<td></td>
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<td>Total 15</td>
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</table>

**Sophomore Year**

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<thead>
<tr>
<th>FALL SEMESTER</th>
<th>Credits</th>
<th>SPRING SEMESTER</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNSG 201</td>
<td>Human Development in Health</td>
<td>3</td>
<td>UPNSG 205 Health Assessment of Individuals and Community</td>
</tr>
<tr>
<td>UPNSG 203</td>
<td>Professional Nursing Communication</td>
<td>2</td>
<td>UPNSG 210 Health Promotion</td>
</tr>
<tr>
<td>UPNSG 303</td>
<td>Synergy in Nursing Practice Healthy People I</td>
<td>2</td>
<td>UPNSG 212 Synergy in Nursing Practice Healthy People II</td>
</tr>
<tr>
<td>BIOC 202/203</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
<td>BIOC 202/203 Anatomy and Physiology II</td>
</tr>
<tr>
<td>CORE 132</td>
<td>Basic Philosophical Questions</td>
<td>3</td>
<td>BIOC 203/204 Introduction to Microbiology</td>
</tr>
<tr>
<td>CORE 140</td>
<td>Social Political, Economic Systems</td>
<td>3</td>
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**Junior Year**

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<thead>
<tr>
<th>FALL SEMESTER</th>
<th>Credits</th>
<th>SPRING SEMESTER</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>UPNSG 305</td>
<td>Applied Pathophysiology</td>
<td>3</td>
<td>UPNSG 311 Applied Pathophysiology and Psychopathology</td>
</tr>
<tr>
<td>UPNSG 306</td>
<td>Nursing Care of the Patient Experiencing Illness I</td>
<td>3</td>
<td>UPNSG 313 Nursing Care of the Patient Experiencing Illness II</td>
</tr>
<tr>
<td>UPNSG 307</td>
<td>Synergy in Nursing Practice Illness Across the Lifespan I</td>
<td>5</td>
<td>UPNSG 314 Synergy in Nursing Practice Illness Across the Lifespan II</td>
</tr>
<tr>
<td>UPNSG 308</td>
<td>Technologies in Nursing</td>
<td>3</td>
<td>UPNSG 316 Community Health Concepts</td>
</tr>
<tr>
<td>UPNSG 309</td>
<td>Pharmacology</td>
<td>3</td>
<td>MATH 125 Fundamentals of Statistics/ Math Core</td>
</tr>
<tr>
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<td>Total 17</td>
<td>Total 17</td>
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</table>

**Senior Year**

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<thead>
<tr>
<th>FALL SEMESTER</th>
<th>Credits</th>
<th>SPRING SEMESTER</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPNSG 407</td>
<td>Case Management</td>
<td>2</td>
<td>UPNSG 415 Collaborative Nursing Care and Systems Thinking in Chronicity</td>
</tr>
<tr>
<td>UPNSG 408</td>
<td>Nursing Research</td>
<td>3</td>
<td>UPNSG 416 Synergy in Nursing Practice</td>
</tr>
<tr>
<td>UPNSG 410</td>
<td>Professional Concepts and Issues</td>
<td>3</td>
<td>UPNSG 417 Risk Preparation/NCLEX</td>
</tr>
<tr>
<td>UPNSG 413</td>
<td>Synergy in Nursing Practice Management of Chronic Illness Across the Lifespan</td>
<td>5</td>
<td>Humanities or General Elective</td>
</tr>
<tr>
<td></td>
<td>Humanities or General Electives</td>
<td>3</td>
<td>Total 16</td>
</tr>
</tbody>
</table>

Total Credits 129
NURSING COURSE DESCRIPTIONS

UPNSG 100 Health and Wellness 3 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.

UPNSG 103 Nutrition for Wellness 3 cr
This course explores nutrition and the nursing role in primary prevention for individuals and communities throughout the lifespan. Food needs for energy, protein, fat, carbohydrate, vitamins, and minerals are considered in relation to the maintenance of wellness. Nutrition assessments and interventions will be considered, and activities related to the nursing role will be addressed.

UPNSG 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.

UPNSG 105 Ways of Knowing in Nursing 3 cr
This course introduces the ways in which 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 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 nurses interact with patient needs. In this writing intensive course, emphasis is placed on evaluation of written and electronic resources.

UPNSG 106 Transcultural Responses in Health Care 3 cr
This course introduces models of transcultural health care. Issues related to the health care professional's role in the delivery of culturally congruent health care are explored. Emphasis is placed on the assessment and analysis of cultural diversity as related to clinical practice. Interplay between models of transcultural care and other models of clinical practice are examined.

UPNSG 107 Service Learning Strategies 1 cr
This course prepares students for active and responsible community participation. Students are introduced to the skills, knowledge, and competencies necessary for service learning. Reflection on these learning experiences links service to professional development and the total curriculum.

UPNSG 201 Human Development in Health 3 cr
The student explores human development from conception through death. Emphasis is placed on an individual's psychological, cognitive, psychiatric, and spiritual development within the context of the family, community, and culture. Health promotion and illness prevention practices are discussed relative to each age group throughout the lifespan.

UPNSG 202 Professional Nursing Communication 2 cr
Examination of communication as a complex dynamic foundation of all interaction with special attention to the nurse-patient relationship. Students explore major communication theories and principles of therapeutic communication as used throughout the life cycle. Principles of group dynamics, concepts of collaboration, and conflict resolution are included.

UPNSG 203 Synergy in Nursing Practice Healthy People II 2 cr
This initial clinical course uses the Synergy Model 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. Teaching of health promotion and wellness strategies will be included.

UPNSG 205 Health Assessment of Individuals and Community 4 cr
This course uses the Synergy Model to assess the characteristics of individuals across the lifespan. 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.

UPNSG 211 Health Promotion 2 cr
This course introduces concepts specific to the promotion of health and prevention of illness. Within the context of the Synergy Model threats to health of individuals and groups within the community will be analyzed. Common developmental deviations from health will be used as a framework.

UPNSG 212 Synergy in Nursing Practice Healthy People II 2 cr
This clinical course uses the Synergy Model to identify the characteristics of individuals in a variety of community settings. 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.

UPNSG 212 Applied Pathophysiology 3 cr
This course explores the mechanisms involved in the pathogenesis of various body systems throughout the lifespan. Mechanisms associated with pathogenesis are contrasted with the similar mechanisms that support normal health. The relationship between pathogenesis and patient characteristics will be explored. 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.

UPNSG 213 Applied Pathophysiology and Psychopathology 3 cr
This course extends the use of the Synergy Model to patients who are ill. Offered in conjunction with pathophysiology, this course emphasizes nursing interventions to promote safe passage in the health care system. Nursing knowledge of complex concepts relevant to the integrity of individuals confronting physical illness throughout the lifespan is integrated. Pathological conditions that have a higher incidence in specific developmental stages are the context.

UPNSG 306 Nursing Care of the Patient Experiencing Illness I 3 cr
This course extends the concepts from Nursing Care of the Patient Experiencing Illness I to the management of nursing care issues with patients experiencing multiple systems failure in critical clinical situations. Nursing knowledge is explored to foster safe passage for critically ill patients to recovery or to a comforting closure. Severe psychopathological clinical situations are also examined. The developmental approach is continued.

UPNSG 307 Nursing Care of the Patient Experiencing Illness 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 call 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.

**UPNSG 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.

**UPNSG 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.

**UPNSG 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.

**UPNSG 410 Professional Concepts and Issues 3 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.

**UPNSG 413 Synergy in Nursing Practice Management of Chronic Illness Across the Lifespan 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 call 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.

**UPNSG 415 Collaborative Nursing Care and Systems Thinking in Chronicity 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.

**UPNSG 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.

**UPNSG 417 Role Preparation/NCLEX 1 cr**
This course serves as an NCLEX-RN/CAT examination preparation course. Students will work individually as well as in cooperative learning groups. Content will focus on test-taking strategies, test anxiety, and NCLEX-RN preparation. The course assignments will include NCLEX items and computer-assisted instruction. Students will be given a comprehensive assessment examination. Based on the results of the comprehensive assessment, students will be given an individualized prescriptive study plan.

**NURSING ELECTIVES**

**UPNSG 411 Emergency Nursing Role Practicum 1-3 cr**
This elective course provides an experience in Emergency Department (ED) Nursing, exploring the role of the RN in the ED, and providing person-centered holistic care across the life span depending on the number of credits, the student may investigate a particular area of ED nursing and complete additional research under the guidance of the faculty member. Opportunities in flight nursing may be available to interested students.

**UPNSG 499 Directed Study in Nursing 1-3 cr**
This elective course is either a clinical or non-clinical area designed to provide students with a unique opportunity to pursue an area of interest in nursing, or to achieve specific objectives that require individualized consideration. Students, in consultation with faculty, have the opportunity to generate objectives and behavioral outcomes, and to formulate and implement a plan of study to achieve these objectives. Prerequisites vary based on content area involved.

**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 programs.
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. Mail order and Internet pharmacy services and telepharmacy practice 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 research and teach or obtain 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 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:

1. 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.

2. To provide programs, services, and resources that foster an environment for the personal and professional growth of students, alumni, practitioners, and faculty.

3. To prepare graduates of the Graduate School of Pharmaceutical Sciences to serve as pharmaceutical scientists and educators, and making contributions to the body of scientific knowledge through research and scholarship.

Application and Admissions

Students are accepted into the Mylan School of Pharmacy at the preprofessional and professional levels. For admission directly from high school, prospective Pharmacy students must apply to the Duquesne University Office of Admissions.

Pittsburgh, PA 15282

Qualified high school students are admitted directly into the b-Pharm D. program of study.

The minimum academic requirements for continuation into the four-year professional phase are:

1. Completion of the preprofessional course requirements.
2. Minimum cumulative grade point average of 2.50 and no grade lower than "C" in each of the required courses in the preprofessional curriculum.

Qualified external transfer students may be admitted into either the preprofessional year or the first professional year of the Pharm D. program, with placement contingent on an evaluation of completed prior course work.

Advanced standing credit for professional course work must be evaluated by the appropriate School of Pharmacy faculty member. The evaluation must be completed before the start of the first professional year of the curriculum.

The minimum academic requirements for transfer admission into the professional phase of the Doctor of Pharmacy program are:

1. Completion of the preprofessional course requirements.
2. Minimum cumulative and science/math grade point average of 2.50 and no grade lower than "C" in each of the required courses in the preprofessional curriculum.

3. Completion of the Pharmacy College Admission Test (PCAT) with a minimum composite score of 180.

Non-academic requirements include a written essay, three letters of recommendation, and an interview with Pharmacy faculty. Evidence of participation in community service is strongly encouraged.

Any questions about transfer student applications or the transfer of credits from another college or university should be directed to:

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 Pharmaceutical Education (ACPE), 311 West Superior Street, Suite 512, Chicago, IL 60610, 312-664-3575 or 800-533-3606, FAX 312-664-4652. 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

PRE-FACULTY PHARMACY CURRICULUM

Diagnoze University | Course Requirements | Sem | Hrs
--- | --- | --- | ---
Introduction to Pharmacy Practice | | 0 | 4
Biochemistry I and II (111, 113, and 112, 114) | | 8 | 12
General Pharmacy I and II (121 and 122) | | 10 | 12
Organic Chemistry I and II (211 and 212) | | 8 | 12
Calculus I (115) | | 4 | 1
Essential Physics (200) | | 4 | 1
Pharmacy Calculations (PHCE 353) | | 2 | 1
Thinking and Writing Across the Curriculum (101) | | 3 | 1
Imaginative Literature & Critical Writing (102) | | 3 | 1
Basic Philosophical Questions (132) | | 3 | 1
Shaping the Modern World (151) | | 3 | 1
Arts and the Human Experience (161) | | 3 | 1
Elements of Economics (121) | | 3 | 1
Computer/Info Literacy (030) | | 1 | 1
Computer Literacy (COSC 100 or QSMIS 182) | | 2 | 1
Public Speaking (102) | | 3 | 1
Psychology (103) | | 3 | 1
Sociology (101) or Political Science | | 3 | 1
| 69 | 70 |
| Non-Diagnoze University (Transfer) Course Requirements | | Sem | Hrs
--- | --- | --- | ---
General Biology with Laboratory | | 8 | 1
General Chemistry with Laboratory | | 8 | 1
Organic Chemistry with Laboratory | | 8 | 1
Calculus for science or math majors | | 4 | 1
General Physics with Laboratory | | 8 | 1
English Composition and Literature | | 3 | 1
English Literature | | 3 | 1
Religious Studies | | 3 | 1
Philosophy | | 3 | 1
Modern U S , European or World History | | 3 | 1
Music or Art Appreciation | | 3 | 1
Economics | | 3 | 1
Computer Literacy (Applications) | | 3 | 1
Speech (Interpersonal Communication) | | 3 | 1
Psychology | | 3 | 1
Sociology | | 3 | 1
| 69 | 70 |

PROFESSIONAL PHARMACY CURRICULUM

First Professional Year | Sem | Hrs
--- | --- | ---
Biochemistry I and II and Lab | | 6 | 1
Human Physiology and Pathology I and II and Lab | | 6 | 1
Immunology and Clinical Microbiology and Lab | | 9 | 1
Pharmaceutical Principles and Drug Delivery Systems I and II | | 6 | 1
Pharmaceutical Principles Lab I and II | | 6 | 1
Pharmaceutical and Biomedical Statistics | | 3 | 1
Pharmaceutical Law and Ethics | | 2 | 1
Professional Communications | | 3 | 1
Clinical and Drug Information Skills | | 1 | 1
Experiential Education I | | 3 | 1

Second Professional Year | Sem | Hrs
--- | --- | ---
Autonomic and Neuropharmacology | | 4 | 1
Medicinal Chemistry | | 4 | 1
Biopharmaceutics | | 4 | 1
Pharmaceutical and Biomedical Analysis | | 4 | 1
Clinical Skills I and II | | 4 | 1
Drug Literature Evaluation | | 4 | 1
Pharmacokinetics | | 4 | 1
American Health Care System | | 4 | 1
Biomedical Sciences and Therapeutics I | | 4 | 1
| CNS/Psy|Neure | | 4 | 1
Biomedical Sciences and Therapeutics V | | 4 | 1
| Chemotherapy & Infectious Diseases | | 4 | 1
Experiential Education II | | 4 | 1
Pharmacy Service Learning Experience | | 3 | 1

Third Professional Year | Sem | Hrs
--- | --- | ---
Biomedical Sciences and Therapeutics II | | 5 | 1
| Inflammation/Pain/Rheumatology/Gastroenterology/Pediatrics/Geriatrics | | 5 | 1
Biomedical Sciences and Therapeutics III | | 5 | 1
| Cardiovascular/Renal | | 5 | 1
Biomedical Sciences and Therapeutics IV | | 5 | 1
| Endocrinology/Nutrition | | 5 | 1
Biomedical Sciences and Therapeutics V | | 5 | 1
| Hematology/Oncology/Transplant/Pulmonary | | 5 | 1
Physical Assessment | | 2 | 1
Self Care | | 2 | 1
Pharmacy Management Concepts | | 2 | 1
| Advanced Law and Ethics Applications | | 2 | 1
Clinical Pharmacokinetics / Advanced Parenteral Therapy (with Lab) | | 2 | 1
Therapeutics Case Studies | | 2 | 1
Management Theory and Applications | | 2 | 1

Fourth Professional Year | Sem | Hrs
--- | --- | ---
Experiential Education III, IV, V, VI, VII | | 10 | 1
Electives | | 10 | 1
Optional Electives | | 2 | 1
| (5) | | 32 | 1

Professional Electives | Crs | Hrs
--- | --- | ---
Herbal Remedies | | 3 | 1
Alternative/Complementary Therapies | | 3 | 1
Dental Therapeutics and Pharmaceutics | | 3 | 1
Dental Therapeutics and Pharmacological Care | | 3 | 1
Independent Study and Research | | 1 | 1
Pharmacy and Health Systems Informatics | | 3 | 1
Issues in Women's Health | | 3 | 1
Drug-Induced Diseases | | 3 | 1
Selected Topics in Drug Development | | 3 | 1
Health Care and Religion | | 3 | 1
Diseases of Abuse | | 3 | 1
Palliative Care | | 3 | 1
Medication Errors: Recovery, Response and Repair | | 3 | 1
Men's Health Issues | | 3 | 1
Personal Financial Planning | | 3 | 1
Human Gene Therapy | | 3 | 1
Optional Experimental Education | | 4 | 1
Manufacturing Pharmacy and Lab | | 4 | 1
Regulatory Aspects of Industrial Practice | | 4 | 1
Pharmaceutical Formulation and Development and Lab | | 4 | 1
Data Analysis and Modeling | | 4 | 1
Advanced Pharmacokinetics I | | 4 | 1
| Compartment Modeling | | 4 | 1
Advanced Pharmacokinetics II | | 4 | 1
Pharmaceutical Unit Operations — Solids | | 4 | 1
Pharmaceutical Unit Operations — Liquids | | 4 | 1
Analytical Separation Methods | | 4 | 1
Spectral Methods | | 4 | 1
Chemometrics | | 4 | 1
Clinical Toxicology | | 4 | 1
For Geriatrics Concentration | | 4 | 1
Selected Topics in Geriatrics | | 4 | 1
Pharmacy in Long Term Care | | 4 | 1
Advanced Therapeutic Cases in Geriatrics | | 4 | 1
Elective Experimental Education | | 4 | 1
| Rotation in Geriatrics | | 4 | 1

For Pharmaceutical Research Concentration | | 4 | 1
Pharmaceutical Sciences | | 4 | 1
Independent Study and Research | | 2 | 1
Seminar | | 2 | 1
Elective courses (approved by mentor) | | 2 | 1

Courses in the College of Liberal Arts and other Schools of the University may be 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 seminars 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 cannot 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, conditions, 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 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. Dworkin, B S P S

HISTORY
On January 29, 1990, Dr. John E. Murray Jr. 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 health needs of the citizens of Western Pennsylvania and the world, 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 the 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, the School will provide education with emphasis on understanding the scientific, ethical, and moral, values of health sciences and the needs of their patients/clients, their colleagues, and the setting in which they practice. Students will develop an understanding of the necessity for ongoing research and be prepared to advance the 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), health services administration (B.S. in Health Management Systems), and speech-language pathology (M.S.). Bachelor's degree programs in occupational therapy, physician assistant, and speech-language pathology are three years of liberal arts and science requirements followed by two years of professional education. The occupational therapy program also has a two-year post-baccalaureate academic model. 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 maximize the excellence of 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 in health management systems receive a Bachelor of Science in Health Management Systems at the end of the fourth year and a Master of Health Management Systems at the end of the fifth year. Students who already have 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. A joint MHMS/Pre-Med Post Baccalaureate option is available for those who are going on to medical school and have been granted admission into the Pre-Med Post Baccalaureate 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, a Master of Science in Speech-Language Pathology is available. This two-year graduate program is designed for students who have already earned a bachelor's degree in communication sciences and disorders or who have earned a bachelor's degree in a different major but who have also completed pre-requisite courses. For further information please see our web site http://www.slp.duq.edu or contact the Department of Speech-Language Pathology at 412 396 4285.

Doctor of Physical Therapy Program
The six-year Doctor of Physical Therapy (DPT) program is a clinical doctorate, akin to the Medical Doctor (MD), Doctor of Podiatric Medicine (DPM), or Optometry Doctor (OD), and is not a research-oriented degree like the Doctor of Philosophy (Ph D) or Doctor of Education (Ed D). In September 2000, the University gave its final approval to the program. The DPT curriculum was approved by the Pennsylvania Department of Education on March 6, 2001.

Graduate Program in Rehabilitation Science
The Graduate Program in Rehabilitation Science offers a Ph D (60 credits) and M S (40 credits) degree. The graduate program prepares students to be successful faculty in professional education. The graduate program prepares students to be successful faculty in professional education.

Joint Degree Programs
The RSHS offers several joint degree programs to currently enrolled RSHS students. Students must formally apply for these programs. These joint degree opportunities are not offered to students seeking admission into the RSHS.

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program, Master of Health Management Systems, or Doctor of Physical Therapy program. Athletic Training majors have one additional joint degree opportunity with the School of Nursing where students will receive a Bachelor of Science in Athletic Training and a Bachelor of Science in Nursing.

The Department of Health Management Systems also offers a joint degree opportunity with the Pre-Health 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 programs.

Inter-School Majors

At this time, there are no inter-school majors available to RSHS students.

Inter-School Minors

Students interested in pursuing an inter-school minor within the McAnulty College and Graduate School of Liberal Arts or the Bayer School of Natural and Environmental Sciences 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 or Bayer School of Natural and Environmental Sciences.

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 Offices of Admissions and International Affairs. 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 (including 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 delineated in the RSHS Performance Indicators, in order to complete graduation and professional requirements as measured by state and national certification, licensure, and registration process.

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 and the RSHS performance indicators/technical standards.

Waitlist Process

Once spaces have been filled in a particular program, qualified students will be selected for placement on a waitlist in the event that positions 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 positions 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 (i.e., athletic training, class level (i.e., as a third year student), or academic year (i.e., Fall 2006) 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. 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.
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:
   a. 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 and Chemistry should seriously consider taking college preparatory courses, particularly in College Algebra I/Trigonometry.
   b. A class rank in the top two-fifths of their graduating class.
   c. A QPA of at least 2.75 for Physical Therapy and Physician Assistant candidates.
   d. A total SAT score of at least 1100 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 physical 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, and speech-language pathology programs must be completed and postmarked by July 1.

Students may transfer into any program at any level, based upon their credentials, courses completed at other institutions, and must 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.

Admissions Criteria for Internal Transfer, Transfer and Second Degree Candidates

In order for applications to be considered complete, all applicants must submit the following by the application deadline:

1. The application form
   a. Internal Transfers - Must contact the Office of Admissions for an Internal Transfer Application
   b. Transfers and Second Degrees - Must contact the Office of Admissions for the appropriate application

2. Applicants must submit a typed, double-spaced, critical self-evaluation essay discussing why you became interested in the field and the program for which you are applying.

3. A minimum cumulative Q.P.A. of at least a 2.75 for the athletic training, health management systems, and occupational therapy programs, and a minimum cumulative Q.P.A. of at least a 3.0 for the physical therapy, physician assistant, and speech-language pathology programs, and 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.

**Readmission**

Students who are no longer enrolled, but who 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 straight readmits, their applications for readmission will be forwarded to and handled by the RSHS as internal transfer candidates.
- Students who have completed more than 12 credits at another institution since leaving Duquesne are handled by the Office of Admissions.

**ADDITIONAL EDUCATIONAL EXPENSES FOR RSHS STUDENTS AND FINANCIAL AID**

**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., CPR, 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 (i.e., travel and living expenses), 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 aid and scholarship assistance, through the various sources offered at the University and elsewhere, should be aware that various financial aid and scholarship opportunities and athletic eligibility requirements require students to earn specific credit loads and Q.P.A.'s. It is the student's responsibility to investigate these requirements and work with his/her academic advisor to meet them. In particular, students should carefully investigate how their credit loads affect their academic eligibility, not only for the current year but also subsequent years.

**Professional Phase**

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:

- **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 (i.e., 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 (i.e., as a junior), but academically considered by the RSHS under another classification (i.e., 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 would indicate.

**SUMMER COURSE WORK**

Students should be aware that 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 a situation where aid may vary.

**INTERNAL TRANSFER, TRANSFER AND SECOND DEGREE STUDENTS**

All transfer and second degree candidates should carefully investigate the financial implications involved in matriculating into the RSHS. If students have a degree, typically they do not qualify for standard undergraduate financial aid.

**GRADUATE STUDENTS**

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 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 consult on a regular basis with their Faculty Mentor and/or Academic Advisor for specific information regarding academic policies pertaining to their respective program.

The following interdisciplinary courses may be required by some of the programs:

**HLSH 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 111/113, 207/208, 209/210, or permission of the instructor.

**HLSH 320/320L & 470/470L & 570/570L**

**Anatomy 1 5 crs**

This course is designed to study the embryology and gross anatomy of the human organism. The activities in this course will present an account of the development and structure of the human body.
course consists of a lecture and required laboratory component. Lecture sessions will present, for the purpose of discussion, information pertaining to basic human embryology, the organization of various peripheral systems, and how the various components of the systems relate to each other in specific regions of the body. The laboratory provides the students the unique and indispensable opportunity to study human anatomy by dissecting human cadavers. The students, with the guidance of faculty, are responsible for dissecting the laboratory specimens.

This course is designed to build on basic information that the student has been exposed to in other science courses. It is necessary for the student to have a working knowledge of basic anatomical terminology, and the basic cytology and histology pertinent to the human organism from the start of this course. The activities in this course will present a relatively detailed description of peripheral systems, the musculoskeletal, peripheral nervous, and peripheral circulatory systems found in the lower extremities and deep back region of the human body. In addition to the peripheral systems, a detailed account of the heart and contents of the thoracic, abdominal, and pelvic cavities will be presented to the student. The course consists of both a lecture and a required laboratory component. Lecture sessions will present, for the purpose of discussion, information pertaining to the organization of various peripheral systems, how the components of the peripheral systems relate to each other in specific regions of the body, and information pertaining to various anatomical topics related to the contents of the major cavities of the human body. The laboratory provides the students the unique and indispensable opportunity to study human anatomy by dissecting human cadavers.

The students, with the guidance of faculty, are responsible for dissecting the laboratory specimens. An effort will be made to assist the participants in the course to use the information presented in both lecture and laboratory sessions to solve clinically relevant questions. Prerequisites: BIOL 111/113, 112/114 or their equivalent, or permission of the instructor.

HLTSC 321/321L, 471/471L & 571/571L
Anatomy II 5 crs
This course is designed to build on basic information that the student has been exposed to in other science courses. It is necessary for the student to have a working knowledge of basic anatomical terminology, and the basic cytology and histology pertinent to the human organism from the start of this course. The activities in this course will present a relatively detailed description of peripheral systems, the musculoskeletal, peripheral nervous, and peripheral circulatory systems found in the lower extremities and deep back region of the human body. In addition to the peripheral systems, a detailed account of the heart and contents of the thoracic, abdominal, and pelvic cavities will be presented to the student. The course consists of both a lecture and a required laboratory component. Lecture sessions will present, for the purpose of discussion, information pertaining to the organization of various peripheral systems, how the components of the peripheral systems relate to each other in specific regions of the body, and information pertaining to various anatomical topics related to the contents of the major cavities of the human body. The laboratory provides the students the unique and indispensable opportunity to study human anatomy by dissecting human cadavers. The students, with the guidance of faculty, are responsible for dissecting the laboratory specimens. An effort will be made to assist the participants in the course to use the information presented in both lecture and laboratory sessions to solve clinically relevant questions. Prerequisites: BIOL 111/113, 112/114 or their equivalent, or permission of the instructor.

HLTSC 330/480/580
Physiology I 4 crs
This course presents the normal functions of the human body, with additional emphasis on histologic organization and histophysiologic characteristics. 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 111/113, 112/114, CHEM 121, 122 or 131, 132, or permission of the instructor.

HLTSC 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 histophysiologic characteristics. 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: HLTSC 330 or 480, 320/320L or 470/470L or 570/570L, or permission of the instructor.

HLTSC 360/460/560
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.

HLTSC 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.

HLTSC 403/503
Neuroscience 4 crs
This course introduces the central nervous system in the context of clinical problem solving. The course begins with an overview of neuroanatomy, moves to functional systems within the nervous system, and finishes with a description of vascularization and the clinical ramifications of regional vasculature insufficiency. Throughout the course, case histories are presented with an emphasis on clinical problem solving. Prerequisites: HLTSC 315/315L or 515/515L or 320/320L, 470/470L or 570/570L, 321/321L, 471/471L or 571/571L, 330, 480 or 580, 331, 481 or 581, or permission of the instructor.

HLTSC 420/520
Topics in Pharmacology 3 crs
This course is designed to provide students with the allied health professions with a basic understanding of specific pharmacological agents, which may be used in rehabilitation settings, specialized activity settings such as athletics, and over the counter medications that may be used by the general public. Topics include pharmacological classifications, indications, adverse reactions, drug interactions and precautions. Prerequisites: CHEM 121 or 131, HLTSC 315/315L or 515/515L, or 320/320L or 470/470L or 570/570L, 321/321L or 471/471L or 571/571L.

HLTSC 425/425L & 525/525L
Therapeutic Modalities 3 crs
This course is designed to introduce the student to the theory and practical application of the various physical agents and electrotherapeutic modalities. They will encounter in a clinical setting. Prerequisite: PHYS 201.

HLTSC 430/530
Principles of Research 2 crs
Introduces students to each phase of the research process. Discussions focus on the design, conduct, analysis and interpretation of clinical research studies. Prerequisite: STAT 225.

HLTSC 431W
Research Seminar 1 cr
This course is designed to acquaint students with the current trends in professional research and to assist them in the development of a research proposal that emphasizes appropriate research design. Critical analysis of current published peer-reviewed scholarship is an essential component of this course. Prerequisites: MATH 225, ATHR 302/302L, 315/315L, Corequisite HLTSC 430.

HLTSC 437
Functional Kinesiology/Biomechanics 2 crs
This course examines the scientific, physiologic and anatomic elements required for normal human motion. After examination of the biological and mechanical basis of mobility, the basic concepts of biomechanics will be applied to the major articulations in the human body and used to analyze common movement patterns such as gait. Prerequisites: PHYS 201, HLTSC 315/315L or 515/515L, or 320/320L or 470/470L or 570/570L.

HLTSC 438
Functional Kinesiology/Biomechanics Lab 1 cr
This course is designed to reinforce the learning from the lecture component of the course to include the continued study of the skeletal, muscular, and nervous systems of the body in relation to their function in human movement and body mechanics. In addition to the normal activities of daily living, the students will also have use of cadavers to dissection and participate in the application of kinesiology and biomechanical concepts to athletic training techniques. Utilized in the lab are anatomical bones, muscles, and ligaments from the cadaver. Prerequisites: PHYS 201/201L, HLTSC 320, 470 or 570 or 315 or 515.

HLTSC 441/551
Medical Sciences 1 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.

HLTSC 442/552
Medical Sciences II 3 crs
This course is a continuation of Medical Sciences I Prerequisite: HLTSC 441/551, or permission of the instructor.

DEPARTMENT OF ATHLETIC TRAINING (AT)
Chairperson
Paula Sannarone Turcic, EdD, ATC

Athletic Training is an allied health profession that is recognized by the American Medical Association Certified Athletic Trainers, under the supervision of a licensed physician, provide care for athletes and those who are physically active within six areas of clinical practice: prevention, recognition, evaluation, and assessment, treatment, rehabilitation, and risk management, organization and administration, and professional development and responsibility. Athletic Trainers are specialists in the area of sports medicine, sports medicine is a general term that refers to a very broad scope of care and services that are necessary to maintain the overall health and performance of those who are physically active or who participate in sports.
Duquesne's Athletic Training program is a four-year, Bachelor of Science degree program that is accredited by the Commission on the Accreditation of Allied Health Education Programs (CAAHEP). Student professional preparation at Duquesne is directed toward the development of competency and clinical proficiency in the following twelve domains: risk management/prevention, pathology, assessment/evaluation, acute care, pharmacology, therapeutic modalities, therapeutic exercise, general medical conditions/disabilities, nutrition, health care administration, psychological intervention/referral, and professional development. 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 sport teams, and clinic/hospital affiliated sites.

Unlike many other athletic training education programs, 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 RHSH admissions requirements, have evidence of extracurricular activities during high school, and have the ability to meet all of the medical and performance/technical standards of the program. 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 credentials, ability to meet the medical and technical standards of the program, appropriate past coursework and experiences, and seat availability. Transfer and second degree programs must also meet all RHSH admissions requirements.

ATHLETIC TRAINING CURRICULUM
A sample course plan for the pre-professional and professional phases of the curriculum can be obtained from the RHSH by calling 412 396 6652 or through the Department of Athletic Training at 412 396 4766 or www.healthsciences.duq.edu/at/athome.html.

COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE
ATHTR 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 course requirements. Corequisites BIOL 207/208

ATHTR 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 ATHTR 201 to determine 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 guided observation/practical experience as part of the course requirements. Prerequisites ATHTR 201/201L, Corequisites 209/210

ATHTR 302/302L Art & Science of Athletic Training 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 their 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 ATHTR 202/202L, BIOL 207/208 and 209/210

ATHTR 303/303L Art & Science of Athletic Training 2 3/0 crs
This is the second part of the two-part course designed to provide 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, spine, and internal organs. Learning and evaluative skills developed in ATHTR 302 are reinforced and built upon during this course. Prerequisites ATHTR 302/302L, HLTSC 315/L

ATHTR 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 HLTSC 320 or 315, 425, ATHTR 302/302L

ATHTR 315 Athletic Training Practicum I 1 cr
This content of this practicum course includes discussions 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 ATHTR 302/302L, 315/315L

ATHTR 316L Athletic Training Practicum II Lab 2 crs
This is a continuation of the clinical experiences encountered in Athletic Training Practicum I. However, students now are encouraged to apply knowledge and clinical skills gained from the current and previous semesters' coursework and clinical practice 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 a Pass/Fail basis. Prerequisites ATHTR 302/302L, 315/315L

ATHTR 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, weight management, special dietary considerations, and ergogenic aids is also 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, ATHTR 407W/407L

ATHTR 404W Psychology of Sport 3 crs
This course incorporates basic and applied psychological principles in the recognition of
common psychological conditions and the consideration of mental imagery, psychology of injury, self-esteem, personality, self-efficacy, stress management and burnout, gender roles, performance enhancement, and the interrelationships between coaches/athletes/parents and the medical community as they relate to the practice of certified athletic trainers. The goal of the course is to prepare students to work with athletes and physically active individuals in a "mental coaching" role with the goal of improving sport and activity performance. Students are required to recognize psychological conditions and problems that are beyond the scope of a certified athletic trainer and to intervene and refer those individuals appropriately to other medical professionals. Prerequisites: Psy 103, ATHTR 202/202L

ATHTR 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 for developing 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 and professional assessment skills and to participate in a general medical observation experiences with local health care practitioners. Prerequisites: BIOL 111/113, ATHTR 316/316L, HLTSC 315/L

ATHTR 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 111/113, 209/210, CHEM 131, HLTSC 315 or 320

ATHTR 410 Athletic Training Practicum III 1 cr
The content of this practicum course includes discussions of advanced professional behaviors. Course requirements include preparation for advanced graduate education, preparation for the NATA/BOC certification examination, professional interview skills, resume, cover letter, and professional portfolio development. The clinical emphasis of this course includes the theory, application, and psychomotor skill development in the area of performance enhancement and non-traditional rehabilitation and reconditioning work. Prerequisites: ATHTR 303/303L, 306/306L, 316/316L, HLTSC 425

ATHTR 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 sports teams. Under the direct supervision of certified athletic trainers, students assume even greater responsibility for the total care of the individual assigned. This increased responsibility includes thorough and professional evaluations, as well as appropriate therapy design and implementation of rehabilitation and reconditioning programs. This course is graded on a Pass/Fail basis. Prerequisites: ATHTR 303/303L, 306/306L, 316/316L, HLTSC 425

ATHTR 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 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: ATHTR 410/410L

ATHTR 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 advanced graduate education. Students also are encouraged to participate in field experience opportunities in practice areas in which they may wish to practice in the future. This course is graded on a Pass/Fail basis. Prerequisites: ATHTR 410/410L

ATHTR 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: ATHTR 316/316L

ATHTR 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: ATHTR 405, 410/410L, BIO 209/210

ATHTR 416/416L Applied Science of Physical Performance 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: ATHTR 316/316L

ATHTR 416L Applied Science of Physical Performance 3 crs
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: ATHTR 306/306L, 407W/407L, HLTSC 437/438

ATHTR 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 the National Academy of Sports Medicine's Performance Enhancement Specialist certification. This course is designed specifically as an elective for Athletic Training majors. Prerequisites: ATHTR 410

ATHTR 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 guide 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, orthotic evaluation and construction, neural mobilization, and progression of functional and activity-specific activities. Prerequisites: ATHTR 306/306L, 316/316L

ATHTR 421L Applied Therapeutic Exercise Lab 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 guide 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, orthotic evaluation and construction, neural mobilization, and progression of functional and activity-specific activities. Prerequisites: ATHTR 306/306L, 316/316L

ATHTR 422/422L 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 guide 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, orthotic evaluation and construction, neural mobilization, and progression of functional and activity-specific activities. Prerequisites: ATHTR 306/306L, 316/316L

ATHTR 423/423L Applied Therapeutic Exercise Lab 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 guide 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, orthotic evaluation and construction, neural mobilization, and progression of functional and activity-specific activities. Prerequisites: ATHTR 306/306L, 316/316L
DEPARTMENT OF HEALTH MANAGEMENT SYSTEMS (HMS)

Chairperson
Joan M. Kiel Ph D

Health Management Systems is the utilization of healthcare data, 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 management, and information systems. Health sciences and communication with other medical professionals and in understanding the patient perspective. Business management strategies are needed to manage and make decisions. Information systems are 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 systems 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
- REGISTERED HEALTH INFORMATION ADMINISTRATOR
  concentrates on administrative and technical positions to manage information, data, and medical records
- HEALTH MANAGEMENT SYSTEMS
  give 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 two internships, one in the junior year and one in the senior year. 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 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

HLTMS 305W/505W  Healthcare 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.

HLTMS 310/510  Elements of Health Information Science 3 crs
Introduction to the creation of interactive healthcare applications on the World Wide Web. Topics include hypertext markup language, scripting languages, methodologies for converting paper forms to electronic, and e-HIM.

HLTMS 315/515  Clinical Processes I 3 crs
This course examines disease processes and their related procedures, tests, pharmacology and how information technology affects clinical processes.

HLTMS 316/516  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.

HLTMS 320/520  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.

HLTMS 328/528  Information Systems Support 3 crs
This course introduces the student to the hardware and software systems of a computer, their utilization in a healthcare setting, and e-HIM.

HLTMS 330/550  Health Information Science 3 crs
Introduction to event-driven object-oriented computer application creation using a visual development environment to create an electronic medical record in an e-HIM environment. Prerequisite: HLTMS 310/510

HLTMS 333/533  Classification, Nomenclature & Reimbursement 4 crs
This course emphasizes both ICD-9 and CPT coding methodologies in addition to various reimbursement strategies.

HLTMS 335/445  Health Management Systems Seminar 1 cr
As the healthcare and information technology fields change, speakers exercises, and technologies will be reviewed.

HLTMS 340W/540W  Health 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: HLTMS 320/520

HLTMS 350/550  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.

HLTMS 351/551  Data Base Design & Management 3 crs
Being able to take raw data and create an organized database to generate reports and manage an organization is a key skill which the course focuses on within the e-HIM framework. Prerequisite: QSMIS 183

HLTMS 368  Health Management Systems Laboratory 3 crs
This hands-on course will introduce students to various softwares and their uses.

HLTMS 425/525  Healthcare Human Resource Management 3 crs
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.

HLTMS 453/553  Managed Care & Integrated Delivery Networks 3 crs
This course examines the structures of integrated care entities, the various perspectives, and managed care operations (capitation, information technology, legalities, and marketing). Prerequisite: HLTMS 320/520

HLTMS 455W/555W & 456W/556W  Health Management Systems Project 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. Requirements will be discussed in an individual basis with the Faculty Project Director.

HLTMS 470/570  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: HLTMS 330/550

HLTMS 471/571  Networking for Health Professionals 3 crs
Networking concepts based on the HIPAA Security Rule are taught as well as demonstrated in the laboratory component.

HLTMS 477/577  Health Law 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.

HLTMS 480/580  Healthcare Finance 3 crs
This course focuses on the financing and reimbursement of healthcare and how they affect the availability and utilization of services. Various payment methods, budgets, and the insurance industry will also be examined.

HLTMS 485W/585W  Health Information Processes 3 crs
This course examines in-depth healthcare processes from e-HIM and data flow diagramming perspectives. This course requires on-site visits.
DEPARTMENT OF OCCUPATIONAL THERAPY (OT)

Chairperson
Patricia A. Crnst, Ph D., OTR/L, FAOTA

Occupations are the essence of productive living. 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 competency 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, participate in research, use critical thinking, cooperate effectively with a variety of groups, and serve as professional leaders and community advocates. These competencies underscore the principles that guide this program.

The occupational therapy program at Duquesne University offers a 5-year entry-level (BS, MOT) for freshman and transfers and a 2-year, entry-level, post-baccalaureate (MOT) curriculum. Students in the 5-year program are encouraged to pursue minors and double majors using their elective coursework to enhance their professional objectives. 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, PO Box 31220, Bethesda, MD 20824-1220 (301) 652-3362.

Level I fieldwork education must be completed within 24 months of the last day of a student 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/philosophy.html

COURSE DESCRIPTIONS FOR PROFESSIONAL COURSEWORK

OCCTH 224/PSYCH 224 Occupational & Disability 3 crs
Lifespan exploration of living with a disability or chronic illness from the perspectives of individuals and society with emphasis on the influence of occupation on health and well-being.

OCCTH 305/505 Foundations & Concepts of Occupational Therapy 3 crs
Overview of the profession’s history, philosophies, roles and functions, scholarship activities, current issues, and future directions. Preerequisite Junior in the pre-professional occupational therapy program.

OCCTH 310/510 Occupational Performance Throughout the Life Span 3 crs

OCCTH 337/536 & 537/538 Human Motion & Movement 4 crs
Analysis of movement using motor learning, motor control, motor development, kinesiological theories, and applied principles that contribute to functional human motion. Prerequisites: HLTSC 315/315L, 515/515L, OCCTH 305/505, 310/510

OCCTH 345/545 Occupational Performance Perspectives 3 crs
Study of theories, models, and frameworks of reference that guide and shape occupational therapy practice. Emphasis on case study integration.

OCCTH 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 Chair.

OCCTH 411W/511W 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: OCCTH 345/545, 416/516, 435W/435L, 535W/535L.

OCCTH 412/512 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: OCCTH 411W/511W, 418/518, 435W/435L or 535W/535L.

OCCTH 416W/516W Fundamentals of Practice & Fieldwork IIA 3 crs
Introduction to measurement and interpretation of occupational performance areas and performance components. Prerequisites: OCCTH 305/505 and 310/510 or 502.

OCCTH 446/546 Cognitive & Perceptual Function 3 crs
The influence of cognitive, perceptual rehabilitation and motor learning theories and approaches on evaluation and treatment. Prerequisites: OCCTH 448, 435L, HLTSC 403.

OCCTH 448/548 Medical Conditions in OT 4 crs
Overview of medical conditions typically seen in occupational therapy practice. Prerequisites: HLTSC 315/315L or 515/515L, 403/503, OCCTH 337/536 or 537/538.

OCCTH 449W/549W Medical Conditions in OT II 2 crs
Introduction to medical conditions typically seen in occupational therapy practice. Prerequisites: HLTSC 315/315L or 515/515L, 403/503, OCCTH 337/536 or 537/538.

OCCTH 450/550 Bioelectrical 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: OCCTH 310/510, 337/536, 435W/435L or 535W/535L.

OCCTH 451W/551W Qualitative Research 2 crs
An introduction to the theoretical frameworks, research designs, and methods of data analysis that characterize qualitative research.

OCCTH 452/552W Occupational Performance Evaluation 3 crs
Introduction to measurement and interpretation of occupational performance areas and performance components. Prerequisites: OCCTH 305/505 and 310/510 or 502.

OCCTH 464/564 Cognitive & Perceptual Function 3 crs
The influence of cognitive, perceptual rehabilitation and motor learning theories and approaches on evaluation and treatment. Prerequisites: OCCTH 448, 435L, HLTSC 403.

OCCTH 484/584 Medical Conditions in OT 4 crs
Overview of medical conditions typically seen in occupational therapy practice. Prerequisites: HLTSC 315/315L or 515/515L, 403/503, OCCTH 337/536 or 537/538.

OCCTH 488/588 Humans, Groups & Occupations 3 crs
Analyzing and directing individual and group participation in occupations. Introduction to the teaching-learning process in occupational performance. Prerequisite: OCCTH 305/505, 310/510.
OCCTH 502 Occupational Therapy Overview 3 crs
Examine the profession including fundamental skills for practice. Prerequisite: Approval from the department chairperson.

OCCTH 541 Evidence Based Practice 3 crs
Analysis and synthesis of the research evidence that supports occupational therapy practice. Prerequisites: OCCTH 432/552, HLTSC 450/530.

OCCTH 550/550L Environmental Adaptations & Rehabilitation Technology 3 crs
Assessment and modification of the physical environment to enhance occupational performance including computer resources, assistive technology, home health, environmental controls, and environmental accessibility. Prerequisites: OCCTH 420/420L, 520/520L, 425/425L, 525/525L, 561, 565.

OCCTH 552 Clinical Seminar 2 crs
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: OCCTH 555, 556, 557.

OCCTH 555, 556, & 557 Level II A, B, & C Fieldwork 8 crs, 4 crs & 4 crs
Exposure to a wide range of diagnoses and treatment in a variety of settings to gain entry-level practice competence. Prerequisites: OCCTH 412/512.

OCCTH 561 Occupational Therapy Administration 3 crs
Introduction to the basic principles of organization and management of occupational therapy programs. Prerequisites: OCCTH 412/512, 420/420L, 520/520L, 432W/532W.

OCCTH 562 Leadership 2 crs
Analyses of leadership approaches in practice, management, and education. Prerequisites: OCCTH 555, 556, 557.

OCCTH 564 Special Topics 2 crs
Small group discussions of contemporary interventions. Prerequisite: Permission of the instructor.

OCCTH 565 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: OCCTH 412/512, HLTSC 360/460/560.

OCCTH 574 Fieldwork Proposal 1 cr
Students develop a proposal for a research project while on Level II Fieldwork. Prerequisites: HLTSC 430/530, OCCTH 432W/532W, 541.

OCCTH 700 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.

OCCTH 701 Project II Data Collection 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 literature relevant to the research project. Prerequisite: OCCTH 700.

OCCTH 702 Project III Presentation 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: OCCTH 701.

DEPARTMENT OF PHYSICAL THERAPY (PT)
Chairperson: F. Richard Clemente, Ph.D., PT

Physical therapists assess and treat people with a variety of ailments. They work to prevent, detect, evaluate, and treat painful conditions, movement dysfunction, muscle weakness and imbalances. Physical therapists also work with people following a variety of surgical interventions. Their work includes the administration, interpretation, and evaluation of tests and physical examination. They work to prevent, reduce, and/or limit the incidence and severity of physical disability and pain.

In addition to successful completion of all course work, each student must take two Clinical Education Matriculation Examinations. The student must successfully complete the requirements of the examinations in order to enter the clinical education phase of the physical therapy program. The goal of these examinations is to establish that the student has reached a level of proficiency in their clinical skills necessary to safely work with patients. The first examination is given prior to Clinical Education I near the end of the Spring Semester, fifth year. The second examination is given prior to Clinical Education III near the end of Fall Semester, sixth year. If a student does not successfully meet all requirements of a matriculation exam it will be necessary for that student to sit out of the program and retake the exam the following year. If a student is unable to successfully complete the matriculation exam for a second year they will not be able to continue in the program.

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

PHYS 301 Introduction to Physical Therapy 1 cr
This course provides the physical therapist student the opportunity to become acquainted with their role as a physical therapist professional in preparation. The course will expose the student to the many and varied settings in which physical therapists are currently practicing. The student will also become acquainted with issues surrounding the generic abilities required of a physical therapist, how to succeed in their professional education, physical therapy licensure, and the many facets of the American Physical Therapy Association, the professional organization for physical therapists.

PHYS 421W/531W PT Seminar 1 cr
This course is designed as a professional seminar targeted at exposing the student to various topics related to the practice of physical therapy. Topics to be discussed include the role of the physical therapist as a member of a healthcare team, the physical therapy guide to practice, standards of practice, and guide to professional conduct code of ethics. The students will also become acquainted with the process of reading a medical chart, they will be taught how to appropriately take a medical history, they will be exposed to the intricacies of writing appropriate documentation, and they will be introduced to various agencies that provide reimbursement for physical therapy/rehabilitative services.

PHYS 435/535 Psychology of Illness & 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 service delivery issues, patient-practitioner interaction, the grieving process, and cultural differences in response to illness and disease.

PHYS 447/547 Foundational Skills 3 crs
This course is an introduction to basic physical therapy procedures, patient management, and problem-solving skills that will serve as the foundation for future course work.

PHYS 502 Wellness & Nutrition 1 cr
This introductory course provides basic information on nutrition and wellness concepts as they relate to the general population. Topics will include, but are not limited to, general fitness concepts as they relate to wellness, relaxation techniques, general nutrition, dietary supplements, and threats to wellness.

PHYS 504 Exercise Physiology 3 crs
This course examines in detail the effect of exercise on healthy individuals. The student will learn the differences between normal and abnormal responses to acute exercise. Principles of exercise prescription are presented and directed toward identifying the training effects of exercise on anatomy and physiology. Emphasis is placed on understanding muscular, metabolic, and cardiorespiratory physiology as these relate to exercise performance, deconditioning, and rehabilitation in special populations typically encountered in the community.

PHYS 508 Evaluation Methods 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 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, and postural analysis. Prerequisites: HLTSC 470/470L, 471/471L, 480 & 481.
PHYTH 510 Clinical Education I 4 crs
This is an introductory clinical experience, which will broaden the student's perception and understanding of the physical therapist's professional role. Prerequisites: HLTC 430, 460, 470/471L, 471/471L, 480, 481, 437/438, 503, 520, 551, 552. PHYTH 501, 502, 504, 508, 518, 519, 520, 521, 522, 525, 543, 567, 615. 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 where the student is assigned.

PHYTH 518 Orthopedic Science I 3 crs
This course will serve as the foundation from which the subsequent orthopedic courses will build. This lecture-based course will provide the student with the theoretical basis and framework for the evaluation and treatment of musculoskeletal dysfunction.

PHYTH 519 Orthopedic Science II 3 crs
This lecture/laboratory course will serve to enhance and build upon the evaluation skills of Evaluation Methods. Special emphasis will be placed on evaluation and treatment techniques for musculoskeletal dysfunction of the upper quarter. Prerequisite: PHYTH 518.

PHYTH 520 Orthopedic Science III 3 crs
This lecture/laboratory course will serve to enhance and build upon the evaluation skills of Evaluation Methods. Special emphasis will be placed on learning the evaluation and treatment techniques for musculoskeletal dysfunction of the lower quarter. Prerequisite: PHYTH 518.

PHYTH 521 Orthopedic Science IV 3 crs
This course will serve to enhance and build up the evaluation skills of Evaluation Methods and Orthopedic Science II. The major emphasis will be on methods of evaluation and treatment of spinal conditions. Prerequisite: PHYTH 518.

PHYTH 522 PT Seminar II-Clinical Orientation 1 cr
This course is a clinically related seminar designed to orient students to expectations for documentation, professional communication and basic procedures generic to a variety of clinical settings. Students will be introduced to medical devices used in hospitals settings, which must be managed by physical therapists during delivery of care. Basic emergency care will be reviewed along with proper expectations for communication of any adverse event. The student will learn professional goal setting and development of a career plan to be implemented during clinical experiences and beyond.

PHYTH 530 Topics in Research 2 crs
This course presents three perspectives 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. Lastly, 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: HLTC 430.

PHYTH 543 Clinical Neurologic Science I 3 crs
This course will cover determinants of movement dysfunction in persons with neurological disorders and introduce the student to neurologic-physical therapy treatment models. Students will learn to select and perform appropriate examination techniques for patients with neurological disease/dysfunction and interpret results of clinical findings. Students will be instructed in specific techniques to promote bed mobility and transfer tasks for persons with various neurological disorders. Due to the nature of this course, the material from many previous classes will be reexamined. Prerequisite: PHYTH 508.

PHYTH 544 Clinical Neurologic Science II 3 crs
This course serves as a continuation of Neurologic rehabilitation introduced in Clinical Neurologic Science I. This course will cover theories of motor control, motor development, and motor learning and how these theories are applied to various patient populations. Additionally, this course will focus on developing treatment rationale and plans. The student will have the opportunity to develop treatment skills in laboratory and clinical settings. Prerequisites: HLTC 503, PHYTH 543.

PHYTH 564 Special Topics in Geriatrics 2 crs
This course will focus on the normal changes that occur with aging and how physical therapists should modify their approach to examination, assessment, and program planning based on these 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.

PHYTH 567 Patient & Consumer Health Education & Consultation 1 cr
Physical therapists routinely are involved in education and consultation activities. This course will introduce educational principles that are used by physical therapists to educate clients, the families of clients, community groups and professional colleagues. The similarities and distinctions in educational consultation processes used for each of these groups will be emphasized.

PHYTH 570 Ergonomics & Environmental Assessment & Intervention 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 disablement process. Prerequisite: HLTC 437/438.

PHYTH 572 Pediatrics 3 crs
This course will provide the student with knowledge of typical and atypical motor development. Different pediatric topics will be addressed including special examination and intervention considerations for special diagnoses.

PHYTH 601 Differential Diagnoses in PT 3 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. The emphasis will be on teaching the students how to differentiate between patient conditions that are within the scope of physical therapy practice and those patient conditions that would be more appropriately dealt with by some other healthcare provider.

PHYTH 605 Cardiovascular & Pulmonary Science 3 crs
An in-depth study of the body's physiological function during exercise and its capacities within the contexts of rehabilitation of patients with deficits in the cardiovascular and pulmonary systems. Students will use clinical examinations to quantify the degree of illness or disability. Cases and clinical encounters with patients will provide an opportunity to integrate clinical data so students may learn to define a physical therapy diagnosis for patients with cardiovascular and pulmonary dysfunction. Students will analyze data to determine the potential for functional improvements gained through specific therapeutic interventions. Prerequisite: HLTC 480, 481, 520, 551, 552, PHYTH 502, 504, 522.

PHYTH 610 Clinical Education II 4 crs
This is an intermediate level clinical experience that will build on the skills attained in Clinical Education I. Students will begin to fulfill clinical education requirements for graduation by participating in either an outpatient neuromusculoskeletal rotation, inpatient acute care rotation or interdisciplinary rehabilitation rotation. Prerequisites: PHYTH 510, 544, 564, 570, 572. 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.

PHYTH 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 attain competency in all performance dimensions indicated in the APTA Clinical Performance Instrument. Skill development and performance expectations in delivery of physical therapy services will vary according to the assigned rotation and student expectations written by the clinical site. Prerequisites: PHYTH 601, 610, 605, 625, 620, 621, 630. Prior to beginning Clinical Education III, all coursework must be successfully completed and the student must pass Matriculation Examination II. 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.

**PHYTH 612 Clinical Education IV 5 crs**
This course is the second of three final clinical experiences culminating in attaining full professional competence in a clinical setting. Students are expected to attain competency in all performance dimensions defined in the APTA Clinical Performance Instrument. 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. Prerequisite: PHYTH 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.

**PHYTH 613 Clinical Education V 9 crs**
This course is the third of three final clinical experiences culminating in attaining full professional competence. The student will demonstrate an ability to implement a career plan with written objectives that go beyond the performance dimensions defined in the APTA Clinical Performance Instrument. The student will develop self-evaluation and external review mechanisms to demonstrate the attainment of specific objectives designed to enhance their professional development. 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. 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.

**PHYTH 616 Prosthetics & Orthotics 2 crs**
This course will provide students with an in-depth understanding of normal and pathologic gait, limb prostheses and orthoses, the preprosthetic and prosthetic training phases of rehabilitation for people with amputations, and the use of orthoses in rehabilitation. Prerequisite: HLTC 437/438.

**PHYTH 620 Clinical Neurology Science III 3 crs**
This course will provide the students with an in-depth understanding of the pathophysiology, clinical signs and symptoms, and treatment of common neurologic disorders related to the spinal cord, acquired brain injury, and peripheral nervous system. Prerequisite: PHYTH 544.

**PHYTH 621 Clinical Neurology Science IV 2 crs**
This course will provide the students with an in-depth understanding of the pathophysiology, clinical signs, symptoms, and treatment of common neurologic disorders related to brain diseases and disorders. Prerequisite: PHYTH 544.

**PHYTH 625 PT Management 2 crs**
This course examines principles of management in relation to Physical Therapy services and current health care systems.

**PHYTH 630 Grand Rounds 0 cr**
This course is designed to comprehensively bring together previously acquired knowledge of physical therapy practice to the problem solving of five different cases. For each case, students will perform an examination, evaluation, diagnosis, prognosis (including plan of care), intervention and assessment of outcomes. Following the assessment of outcomes, progression of intervention and discharge planning, which includes the impact of environmental and societal considerations on disability, will be discussed.

**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 THE PROFESSIONAL PHASE**

**PHYS 400W 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.

**PHYS 401/402/520 Clinical Medicine I/II/III 3 crs (each)**
Fundamental principles of disease, diagnosis, intervention and management are discussed (includes case-based laboratory).

**PHYS 403/420/421 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).

**PHYS 406 Clinical Lab Methods 3 crs**
Indications, technique and interpretation of a variety of common clinical lab tests are discussed.

**PHYS 409 Clinical Pharmacology 4 crs**
The mechanisms of actions of medications are discussed in correlation with specific disease processes.

**PHYS 410/411 Applied Clinical Methods I/II 3 crs (each)**
Cognitive understanding and technical performance of medical procedures are emphasized (includes laboratory).

**PHYS 413/505/506 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.

**PHYS 415 Pathophysiology 4 crs**
Principles of basic pathology and the mechanisms of the physiologic responses associated with selected human disease processes are discussed.

**PHYS 418 Fundamentals of Pediatrics 2 crs**
Childhood diseases are discussed in-depth, including diagnosis, treatment, and prognosis (includes case-based laboratory).

**PHYS 419 General Medical Topics 2 crs**
An ongoing introduction to medical issues is combined with discussion of related aspects of medicine, including genetics, microbiology, immunology, nutrition, public health and epidemiology.

**PHYS 515 Fundamentals of Surgery 3 crs**
Lecture series addresses preoperative, perioperative and postoperative patient care and management (includes case-based laboratory).

**MYS 524 Patient Counseling & Education 1 cr**
Emphasizes basic considerations and techniques needed for effective communication with patients regarding their health problems, with emphasis on enhancing patient compliance with medical therapy.

**PHYS 529-536 Clinical Externships I-VIII 24 crs (total)**
A coordinated series of supervised clinical externship assignments in a wide variety of clinical areas.

**PHYS 540 Master's Independent Research Study 3 crs**
An independent evidence-based medicine project.
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 Sciences & Disorders 3 crs**
This course offers a survey of the field of human communication sciences and disorders. Students 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. Prerequisites: 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 its 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 examined. Methods for studying speech, including instrumentation and research findings will be reviewed. Prerequisites: 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 specialized 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, 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 515W.

**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 3 crs**
Students will learn about language disorders affecting children, with an emphasis on developmental, 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 Aphasias 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 aphasias, 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 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. Instrumental and non-instrumental techniques for assessment and management of voice will be reviewed.

SLP 555 Augmentative & Alternative Communication With Lab 4 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
This 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.

SLP 557 Communication Disorders in Children with Severe Multiple Disabilities 3 crs
In this course, students will learn about causative factors, characteristics, and communication needs of children with severe and multiple disabilities. Students will learn about methods for assessing communication skills and analyzing the communication environment. Students will also discuss and summarize the role of communicative partners, strategies for controlling self-injurious behavior, and intervention techniques for promoting alternative forms of communication.

SLP 558 Management of Communication Disorders in Multicultural Populations 3 crs
This course will include a review of the major cultural groups in the United States with particular reference to factors that have an impact on the assessment and treatment of communication disorders. It will also address the role of culture on specific communication disorders, and how diagnostic and treatment protocols may need to differ when providing clinical service to cultural groups different from one's own.

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 Seminar in Speech-Language Pathology 1 cr
This seminar provides students with a capstone learning experience. Students will complete individual or group projects designed to integrate their graduate learning experience. Issues pertinent to multiculturalism are integrated into the course project.

SLP 700 Thesis 1-3 crs
Students may choose to engage in thesis based research.
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 US 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, D.C.

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 programs. 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 $17,000 annually toward tuition, $600 annually toward books, and a monthly spending stipend ranging from $250–$400 based on academic year group. The University also compli- ments 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.

JUNIOR EXECUTIVE EXPERIENCE AFTER COLLEGE
Upon successfully completing the Military Science program, and earning their collegiate degree, students will be Commissioned as Army Officers, and will go on to Junior Executive positions where they can expect to be in charge of 30–40 people and hundreds of thousands of dollars worth of equipment within the United States or overseas, all within their first year of service. These opportunities and responsibilities are unmatched by newly graduated men and women in civilian organizations.

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 Room 322 Fisher Hall Phone 412-396-1709 Email armyrotc@duq.edu www.armyrotc.com

Air Force Reserve Officers' Training Corps (AFROTC)

Department of Aerospace Studies

The Air Force ROTC program is administered by the Department of Aerospace Studies at the University of Pittsburgh. This program is available to 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 five-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 a tax-free monthly stipend.

GENERAL MILITARY COURSE (GMC)
The subject matter for the freshman and sophomore years is developed from a historical perspective and focuses on the scope, structure, and history of military power with emphasis on the development of air power. The freshman courses explore the role of U.S. military forces, and the Air Force in particular, through a study of the total force structure, strategic offensive and defensive forces, general purpose forces, and support forces. The sophomore courses include an introduction to the history of air power with emphasis on development of concepts and doctrine governing the employment of U.S. air power.

PROFESSIONAL OFFICER COURSE (POC)
The Professional Officer course, taken during the Sophomore and Senior Years, concentrates on three main themes: the concepts and practices of management, leadership, and national defense policy. During the first term of the junior year, the course concentrates on a study of the management functions: planning, organizing, coordinating, directing, and controlling. Basic and advanced management techniques, as found in the military and industrial environment, are explored. The second term deals with the application of general concepts of leadership to Air Force situations. As a basic study of human behavior, human relationships, and professional ethics, the course emphasizes the similarities between the problems encountered in the military and civilian environment. The first term of the senior year concentrates on selected elements of the U.S. government and national security process engaged in producing national strategy as well as various elements of U.S. military forces, doctrine, and employment capabilities. During the second term, the course concentrates on the strategic options available to the U.S. and on the manner in which policy choices are made. The course also includes a review of the military justice system.

For details about the two programs as well as more information on the courses, scholarships, and flying programs interested students are encouraged to contact the Air Force ROTC Detachment at (412) 624-6396, or contact the Professor of Aerospace Studies, Air Force ROTC, University of Pittsburgh, 2925 Cathedral of Learning, Pittsburgh, PA 15260-0001. Alternatively, see our website at http://www.rotc.pitt.edu.
Naval Reserve Officers’ Training Corps (NROTC) Program

Naval Science Training Corps after graduation academic experience and who desire to serve participate in extracurricular activities midshipmen as other Carnegie Mellon students. They positions of leadership in student government, on active in all facets of university life, many are in 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 Carnegie Mellon 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 program become officers in the Navy or Marine Corps and incur a four-year active duty obligation in a selected area of the naval science.

THREE-YEAR SCHOLARSHIPS

Three-year scholarships are available on a competitive basis to those qualifying college students who have demonstrated leadership and academic excellence during their freshman year and are nominated for the scholarship by the Professor of Naval Science. 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 three years. Students receive all naval science textbooks, uniforms, and during their junior and senior years a tax-free subsistence allowance of $250 per month. A paid summer training period is provided between the junior and senior years. 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

Naval Science courses are open to all students. Since these are required courses for NROTC students, they will be given priority in enrollment. Remaining spaces will be filled through the normal university registration process.
Each program of study requires at least 6 courses or 18 credits, some may have prerequisites. Certificates are offered in the following areas:
- Accounting (basic and advanced)
- Computer Technology
- Database Technology
- Electronic Communications
- Information Technology
- Leadership
- Self-designed

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 or 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:
- Fundamental 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 BISYS, the leading provider of financial planning and education materials. Upon completion, students are eligible to sit for the CFP® Certification Examination.

Reading Development Institute
The Reading Development Institute offers a series of very effective and popular reading programs for all ages. The goal of these programs is to permit each student to achieve their full potential as a reader.

Preschoolers will develop the reading readiness skills to make learning to read easier and more enjoyable.
Younger students will master basic phonics and develop a love of reading with increased fluency, vocabulary, and comprehension skills.
Older students will increase their reading speed, while significantly improving comprehension and study habits.

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.

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Charles J. Dougherty, Ph.D.
Michael A. Granillo

EMERITI MEMBERS

Hon. William F. Cercone
Joseph W. DeNardo
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*This information has been provided by the Office of the University Secretary.
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McANULTY COLLEGE AND GRADUATE SCHOOL OF LIBERAL ARTS

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Rick R. McCown, Ph.D.  
Dean  
B.S., M.A. – Duquesne University  
B.S., M.S. – University of Bridgeport  
Ed.D., Ball State University  
William P. Barone, Ph.D.  
Interim Dean  
B.S., M.S., M.A. – University of Pittsburgh  
M.S., M.P.H. – University of Pittsburgh  

FACULTY  
V. Robert Agostino  
Professor of Education  
Chair, Instructional Leadership  
B.S., B.S.Ed., M.Ed., M.A. – Duquesne University  
M.Ed., M.S. – University of Illinois  
Ph.D. – University of Arizona  

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M.Ed., University of Sheffield  
Ph.D., Virginia Polytechnic Institute and State University  
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M.Ed., Ed.D., University of Pittsburgh  
Bruno A. Casile  
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William J. Castle  
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M.Ed., Ph.D., University of Pittsburgh  
Janine L. Certo  
Assistant Professor of Education  
B.A., Grove City College  
M.Ed., University of Virginia  
Ph.D., Virginia Commonwealth University
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tr>
<td>James E Henderson</td>
<td>Professor of Education</td>
<td>Duquesne University</td>
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<tr>
<td></td>
<td>Director, Interdisciplinary Doctoral Program</td>
<td>University of Pennsylvania</td>
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<td>Rodney K Hopson</td>
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<td>Arizona State University</td>
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<td></td>
<td>Interim Chair Department of Foundations and Leadership</td>
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<td>Tammy Hughes</td>
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<td>Mildred Lane</td>
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<td>Linda Lengel</td>
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<td>Lisa Lopez Levers</td>
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<td>Karen E Levitt</td>
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<td>Director, Leading Teacher Program</td>
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<td>Coordinator, Undergraduate Program, Elementary Education</td>
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<td>Barbara M Manner</td>
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<td>Joseph F Maola</td>
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<td>Rosemary Mautino</td>
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<td>Co-Director, Center for Advancing the</td>
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<td>Jeffrey Miller</td>
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<td>Elizabeth J Moll</td>
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<td>Emma C Mosley</td>
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<td>Director, Duquesne Community Collaborative</td>
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<td>Connie Morehead</td>
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<td>Graduate Program Coordinator, Educational</td>
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<td>Susan M Munson</td>
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<td>Carol Webb</td>
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<td>Derek Whordley</td>
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Duquesne University
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S T L, University of Fribourg
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Ph D, University of Montreal
Duquesne University is easily accessible by plane, bus, rail or car. The campus is a 10-minute walk from downtown, where both Greyhound and Trailways bus and Amtrak train stations are located. If you are arriving by plane, the Pittsburgh International Airport is located only 30 minutes from downtown Pittsburgh via bus, cab, rental car, or limousine. For those arriving by car, major interstate and state routes lead to Duquesne from all points north, south, east and west. Interstate 79 runs north and south of the campus where it intersects with 279. From the east, the Pennsylvania Turnpike and state routes 22 and 30 intersect with 376. Both I-279 and 376 lead to downtown Pittsburgh.