DIRECTORY

ADDRESS—Duquesne University,
600 Forbes Avenue, Pittsburgh, Pa 15282.
Telephone (412) 396-6000
For other offices, call (412) 396-6000

ADMISSIONS—Dean of Domestic Admissions
and International Affairs
Admission Building, First Floor
Telephone (412) 396-3000
(800) 456-6990 (Outside of 412 Area Code)

ADVISORS
College of Liberal Arts
College Hall, Room 212
Telephone (412) 396-5905
Division of Continuing Education
Rockwell Hall, Room 210
Telephone (412) 396-5034
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 302
Telephone (412) 396-6652
School of Music, Room 302
Telephone (412) 396-6080
School of Natural and Environmental Sciences
100 Mellon Hall
Telephone (412) 396-4921
School of Nursing, College Hall, Sixth Floor
Telephone (412) 396-5046/5035
School of Pharmacy,
Mellon Hall of Science, Room 410B
Telephone (412) 396-6308
Reserve Officers' Training Program (ROTC)
409 Bellefield Hall
Telephone (412) 624-5847/48

BOOKSTORE—Duquesne Union, Second Floor
Telephone (412) 396-6626

CAMPUS MINISTRY—
Admission Building, First Floor
Telephone (412) 396-6020
Towers, First Floor
Telephone (412) 396-5905
Assumption, Ground Floor
Telephone (412) 396-5093
St Martin, First Floor
Telephone (412) 396-5498
Union, Third Floor
Telephone (412) 396-4827

CAREER SERVICES CENTER—
Rockwell Hall
Telephone (412) 396-6444

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

COMMUTER AFFAIRS—
17 Duquesne Union
Telephone (412) 396-6660

COMPREHENSIVE STUDENT ADVISEMENT—
Room 302, Bayer Learning Center
Telephone (412) 396-5182

CONTINUING EDUCATION—
Rockwell Hall, Second Floor
Telephone (412) 396-5034

FINANCIAL AID—Loan, Scholarship,
Student Employment, Applications
Admission Building, Ground Floor
Telephone (412) 396-6607

OFFICE OF FRESHMAN DEVELOPMENT AND
SPECIAL STUDENT SERVICES—
Duquesne Union, Third Floor
Telephone (412) 396-6637

OFFICE OF GREEK LIFE—
Duquesne Union, Third Floor
Telephone (412) 396-6651

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

HEALTH SERVICE—
Duquesne Towers, Second Floor
Telephone (412) 396-6658

IDENTIFICATION CARDS—
203 Duquesne Union
Telephone (412) 396-6191

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

INTERNATIONAL EDUCATION ADVISOR—
Sixth Floor, Duquesne Union
Telephone (412) 396-6111

LEARNING SKILLS CENTER—
Admission Building, Ground Floor
Telephone (412) 396-6661/6636

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
For Emergency, call (412) 396-4747

REGISTRAR—For Transcripts and Records,
Admission Building, Ground Floor
Telephone (412) 396-5623 (Transcripts)
(412) 396-6212 (General Office)

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

STUDENT ACCOUNTS—
Admission Building, Room 208
Telephone (412) 396-6585

STUDENT HEALTH INSURANCE—
Admission Building, Room 212
Telephone (412) 396-6677

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

Undergraduate Catalog
1998-1999
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.

**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 programs and activities of the University, including, but not limited to, admission and employment practices, educational policies, scholarship and loan programs and athletic or other University-sponsored programs. This is a commitment by the University in accordance with its religious values and applicable federal, state and local laws and regulations. Nothing herein, however, should be interpreted as a waiver by the University of its own Constitutional and legal rights based upon its religious affiliation. The person responsible for coordinating its efforts under this policy is Dr. Judith Griggs, Affirmative Action Officer, ground floor, Administration Building, university extension 6661.

**SECURITY STATISTICS, POLICIES AND PROCEDURES**

In accordance with the College and University Security Information Act (Pennsylvania Act 73 of 1988) and the US 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 Admission's Office.

Information contained in this catalog is accurate to the date of publication.

Published annually by Duquesne University, 600 Forbes Avenue, Pittsburgh, PA 15282.
Academic Calendars
Fall 1998 — Summer 1999

FALL SEMESTER — 1998
Classes Begin August 31 (Monday)
Labor Day Holiday September 7 (Monday)
All Saints Day November 1 (Sunday)
Holy Day
Thanksgiving Holiday November 23-28 (Monday-Saturday)
Immaculate Conception December 8 (Tuesday)
Holy Day
Final Exams December 16-21 (Wednesday-Monday)
Commencement December 22 (Tuesday)

SPRING SEMESTER — 1999
Classes Begin January 11 (Monday)
Martin Luther King January 18 (Monday)
Holiday
Spring Break March 8-13 (Monday-Saturday)
Easter Holiday April 1-5 (Thursday-Monday)
(Offices closed Thursday, April 1
Friday, April 2)
Monday Class April 6 (Tuesday)
Schedule Followed
Final Exams April 30 - May 6 (Friday-Thursday)
Commencement May 8 (Saturday)

SUMMER SEMESTER — 1999
Summer Term Begins May 10 (Monday)
Ascension Holy Day May 13 (Thursday)
Memorial Day Holiday May 31 (Monday)
Independence Day July 5 (Monday)
Holiday Observed
End of 12 week term July 30 (Friday)
Assumption Holy Day August 15 (Sunday)

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 1998.

Please refer to the current schedule of classes booklet for detailed academic calendar dates and deadlines.
GENERAL INFORMATION

Part I: General Information

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

Today Duquesne University is a progressive educational facility which has more than tripled from its early 12.5 acres to its present, self-enclosed 43-acre campus overlooking the city of Pittsburgh. Duquesne was cited by USA Today as having one of the safest urban campuses in the nation.

Several renovations have recently taken place and have added to Duquesne's already-rich physical plant, including a state-of-the-art health sciences facility, three parking garages, a multi-purposed recreation center, a victorian campus thoroughfare, a theatre/classroom complex, the new Arthur J. Rooney Football/Soccer Field in the center of campus, 35 new multimedia classrooms, and a state-of-the-art classroom building.

Recently named one of the top ten national Catholic universities in the United States, Duquesne's academics are recognized both nationally and internationally. As a result of its academic excellence known worldwide, the University has signed agreements with institutions in Belgium, Germany, France, Spain, Ireland, England, China, Japan and Italy as well as the new Commonwealth of Independent States.

Duquesne's recent growth has been tremendous with more than 9,500 students in nine 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 Division of Continuing Education. Duquesne's nine schools offer degree programs on the baccalaureate, professional, master's and doctoral levels.

SUMMARY STATEMENT OF MISSION AND GOALS
Duquesne University of the Holy Ghost 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 Spino est qui vivificat, "It is the Spirit that 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.

Duquesne offers a wide variety of programs and curricula from which students may select freely in accordance with their interests, capabilities and goals in life.

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), has always included service to peoples outside of the United States. Duquesne University 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 the multiple traditions and mores of societies is an invaluable element in the educational process.’

In a world that is growing ever smaller, it is imperative that Duquesne reach out to peoples of different cultures to afford them the opportunity to interact among international and American faculty and students will enrich all and enhance their ability to be better citizens of our shared world.

Duquesne University asserts its commitment to develop and maintain programs, services and practices which promote and express respect for persons of diverse cultures and backgrounds and which provide educational bridges linking the peoples of the world.

THE UNIVERSITY SETTING

Located adjacent to downtown Pittsburgh, Duquesne University’s modern hilltop campus is readily accessible to the business, entertainment and shopping areas of the city, while still offering students the privacy and peace of its own self-enclosed 43-acre site.

Long noted as one of the world’s great corporate centers, Pittsburgh combines the features of urban living with many of the charm and personal characteristics of a much smaller town. One of the largest corporate headquarters centers in the U.S., Pittsburgh was also shown, in a recent survey by Rand McNally to be America’s most livable city.

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 citizens can choose from productions of the Pittsburgh Public Theatre, local college drama departments and programs, and a wide variety of summer and afterdinner club theatres.

Seasonal events include the Three Rivers and Shadyside arts festivals, and the International Folk Festival, three prestigious events which draw both tourists and local residents.

Duquesne students can visit such points of interest as The Pittsburgh Zoo, Carnegie Museum of Art and History, Scadie Gallery, the Conservatory Aviary, Carnegie Science Center and Buhl Planetarium. Pittsburgh History and Landmarks Museum, Duquesne Incline and Phipps Conservatory.

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

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

Each classroom has whiteboards, projection screens and an overhead projector permanently available. Each computer-equipped classroom has complete control over VCRs, laserdisc players, slide projectors, video cameras and CD-ROM players from a single control device. Students can electronically ask questions to professors without leaving their seat, observe a lecture presented at another location through distance learning technology and save lectures on disk.

Canevin Hall, the oldest classroom building on campus, was built in 1922 and completely renovated in 1986. A four-story building, it houses the offices of the Department of Education, Reading Clinic and the Guidance and Counseling Clinic.

College Hall, a six-story classroom and office building dedicated in 1970, is the seat of the McAnulty College and Graduate School of Liberal Arts, housing the majority of its departments and facilities. The School of Nursing is located on the sixth floor. Special instructional facilities include a public computer laboratory, communication, mathematics, and social science computer laboratories, nursing computer laboratory, research center, nursing skills laboratory and seminar halls.

Des Places Language Center of Duquesne University houses the Department of Modern Languages and Literature, and English as a Second Language and the production and broadcasting studios of WDUQ-FM, a full member station of National Public Radio (NPR). Named in honor of the founder of the Holy Ghost Congregation, the center also features multimedia language laboratories, an audio language laboratory, a fully equipped color television studio and seminar rooms.

The Duquesne Towers, a 17-story, air-conditioned double-tower residence for 2,100 men and women featuring separate housing wings, was dedicated in 1970. The facility features a full-size indoor swimming pool with a sundeck, an office of Campus Ministry, the Campus Health Services area, a main student lounge and smaller lounges on each floor, telephones in each room, and a resident dining hall.

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 one of Duquesne’s classroom buildings. With 18 multimedia classrooms, it is the most advanced classroom facility in the region. The center is complete with satellite downlinks, electronic “white” boards and interactive student response pads. Because of the center, Duquesne now ranks in the top one percent in the nation for educational technology according to New Media Centers, a consortium of firms whose mission is aimed at helping university campuses harness interactive media.

The University Library also contains a number of special collections, including the Rabbi Herman Haislip Collection on Medieval Christian and Jewish intellectual and religious thought, and the Silverman Center Collection, an internationally prominent collection of the world’s literature in phenomenology. The Cumnberg Library also houses the Justice Michael A. Musmano Collection, and the John Cardinal Wright Collection containing much of the Cardinal’s personal papers, sermons and correspondence.
ACCREDITATION AND AFFILIATION

With seating capacity for approximately 1,000, including graduate study carrels, the library is a highly functional facility that should remain responsive to the needs of the Duquesne community for many years to come. Architects for the Library Resource Center, Gerard-Nagar Associates, were cited by the Pittsburgh Chapter of the American Institute of Arch- itects for creative design in their renovation and expansion of the original structure, constructed in the 1920s, into the present facility.

In September 1990 the library completed the first of a series of technological advances with the installation of a CD-ROM network. The library continues to maintain a state-of-the-art network providing numerous information resources to users in the library and from remote locations.

McCloskey Field, dedicated in the mid-1970s, and renovated in 1998, is the center for outdoor intramural activity. The field now 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 four tennis courts and one outdoor basketball/tennis 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, chemistry, physics, and the School of Pharmacy. 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 amphitheatre-style lecture halls with seating capacities of 250 each, well-equipped laboratories, and a telescopic computer facility.

The Muskie School, dedicated in 1967, has over 80 pianos, five organs, and over 300 orchestral and band instruments available for student use. Individual and group practice areas are available in the building, along with acoustically equipped class-rooms. Performances throughout the school year in the recital hall which is equipped with two Steinway concert grands. The Center for Music Technology, which houses a Music Learning Resource Center, an Electronic Piano Lab, and a Synthesizer and Recording Studio, features state-of-the-art synthesizers, sequencers, samplers, and audio equipment.

Rockwell Hall, dedicated in 1958, is a 10-story structure which houses the School of Business Administration and whose skyline connects downtown Pittsburgh with Duquesne's campus. The building has been almost totally remodeled in recent years. Rockwell Hall also houses a student lounge/ vending machine area, Rockwell Express (Burger King and Pizza Hut), three modern computer laboratories of the School of Business Administration, Center for Communication and Information Technology, Chrysler Corp. Small Business Development Center, the Division of Continuing Education, Career Services, Center, Psychology Clinic, Printing and Graphics Department, the Mallin County, the Mills Complex, University Press, and University Purchasing Department.

Arthur J Rooney Field is a multi-purpose field named in honor of Arthur J. Rooney, former owner of the Pittsburgh Steelers and Duquesne graduate. The facility provides a home for Duquesne University football, men's and women's soccer, and women's lacrosse as well as intramural activities. In the winter, an air-supported structure (a bubble) is erected over a majority of the field, which serves as the winter practice facility for the Pittsburgh Steelers. The field, which is equipped with lights and a special astroturf surface, houses an adjacent fieldhouse with locker room facilities, a training room and coaches offices.

St Ann's Living-Learning Center, dedicated in 1964, is a seven-floor coed residence hall which houses approximately 500 freshman students. The men and women 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 chapel, computer labs, and vending machines. Each student room has access to a campus computer mainframe.

St Martin's Living-Learning Center, is a 13-floor coed residence hall which houses approximately 500 freshman students. The men and women 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 Holy Ghost Fathers who serve the University as administrators and teachers. The grounds of the hall include an attractive mall and grotto.

Vickery Hall, opened for Fall 1997, is a 284 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 is equipped with cable television and telephones. Each room has private heating and air-conditioning units. Upper classman building. Coed by floor, 2, 3 and 4 are male, and 5, 6, 7 and 8 are female.

Pittsburgh with Duquesne's campus. The building has been almost totally remodeled in recent years. Rockwell Hall also houses a student lounge/ vending machine area, Rockwell Express (Burger King and Pizza Hut), three modern computer laboratories of the School of Business Administration, Center for Communication and Information Technology, Chrysler Corp. Small Business Development Center, the Division of Continuing Education, Career Services Center, Psychology Clinic, Printing and Graphics Department, the Mallin County, the Mills Complex, University Press, and University Purchasing Department.

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ACCREDITATION AND AFFILIATION

University

American Association of Collegiate Registrars

Admissions Officers

National Association of College Admission Counselors

National Association of College and University Business Officers

National Association of Foreign Student Administrators

National Association of Student Personnel Administrators

National Association of Student Financial Aid Administrators

Pennsylvania Association of Catholic College Admissions Officers

Pennsylvania Association of Colleges and Universities

Pennsylvania Association of Student Financial Aid Administrators

Pittsburgh Council on Higher Education

College of Liberal Arts

Membership

American Association for Higher Education

American Association of State and Local Affiliates

American Conference of Academic Deans

American Historical Association

American College of Radiological Physicians

American Journal of Nursing School Administrators

Association of American Colleges

Association of Administrative Directors of English Departments

The Historical Society of Western Pennsylvania

National Collegiate Honors Council

Organization of American Historians

A J Palumbo School of Business Administration

Accreditation

American Assembly of Collegiate Schools of Business

Accreditation Council

Membership

Middle Atlantic Association of Colleges of Business Administration

School of Education

Memberships

American Association of Colleges for Teacher Education

Association of Independent Liberal Arts Colleges for Teacher Education

International Council for Education for Teaching

The Pennsylvania Association of Colleges and Teachers Educators

Rangos 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 (IR-CT)

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 national certification examination to become a Registered Record Administrator (RRA). The Accreditation Council for Occupational Therapy Education (ACOTE)

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the Accreditation Council for Physical Therapy Education (AC-PH) and the Council on Accreditation and Recognition (CAR)

The Commission on Accreditation in Physical Therapy Education (AC-PT)

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the Accreditation Review Committee on Education for the Physician Assistant (ARC-PA) and the Council on Accreditation and Recognition (CAR)

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with the Accreditation Review Committee on Education for the Physician Assistant (ARC-PA) and the Council on Accreditation and Recognition (CAR)

The Accreditation Council on Physical Therapy Education (AC-PT)

The Accreditation Council for Occupational Therapy Education (ACOTE)

The American Speech-Language-Hearing Association (ASHA)

The American Medical Association (AMA)

The American Public Health Association (APHA)

The American Psychological Association (APA)

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EVENING STUDY

Duquesne University offers evening classes for full and part-time students each semester and during the Summer Session. The following undergraduate degrees are able to be completed through evening study.

College of Liberal Arts
Bachelor of Arts in Psychology

School of Business Administration
Bachelor of Science in Business Administration
Concentrations: Accounting, Management, Information Technology, Marketing

Certificate Programs
Certificates in areas including: Marketing, Multimedia Technology, Information Technology

Please see section IV in the Continuing Education portion of this catalog.

Division of Continuing Education
Bachelor of Science in Professional Studies

The Bachelor of Science in Professional Studies is designed for adult students who seek flexibility in a bachelor's degree program. Students are provided the opportunity to customize plans of study to meet personal and professional goals. A strong foundation in both business and the liberal arts allows students to individually design two major areas of study, designated as concentrations. Concentrations are designed in conjunction with an academic advisor and are available in a wide range of business and/or liberal arts subjects.

For additional information regarding evening study, please contact the Division of Continuing Education, 210 Rockwell Hall or call (412) 396-5600.

SUMMER SESSIONS

Undergraduate and graduate courses are offered each summer in most areas. They are open to qualified Duquesne students and to those from other colleges and universities.

The sessions, of varying length, begin in May and run through mid-August. For additional information regarding Summer Sessions, or to request a Summer Schedule of Classes, please contact the Division of Continuing Education, 216 Rockwell Hall, at (412) 396-6232 or 1-800-283-3853.

CENTER FOR COMMUNICATIONS AND INFORMATION TECHNOLOGY

The Center for Communications and Information Technology (CCIT) provides support for computing and information technology needs of the University's instructional, research, academic, and administrative programs. The Center reports to the Provost and Academic Vice President and its main offices are located on the Concourse Level of Rockwell Hall.

CCIT provides operational and maintenance support for over 30 computer laboratories and classrooms. General training for students on productivity tools and the Internet is regularly offered. An employment preparation program is held prior to the start of the Fall semester for students seeking one of over 65 student positions available in CCIT.

A Help Desk service is offered as a single point of contact for technology-related questions from the campus community, including general help for all and requests for repairs from departments. Both voice and e-mail assistance are available at x4357 or helpdesk@duq.edu. E-mail accounts and Internet access are free and can be obtained by bringing your DU card to the Help Desk in CCIT.

Through the department's New Media Center, CCIT provides support for the University's World Wide Web campus information services, as well as specialty consulting for faculty on educational technology development and implementation. Professional development opportunities are available to faculty through the group's regularly scheduled technology institutes and seminars, as well as through customized, department-based sessions.

CCIT staffs and operates the Faculty Development Studio, located in Canevin Hall, home to staff consultants and high-end multimedia development hardware and software. Canevin Hall is also the home for the hub of the University's Media Distribution Center (MDC), which provides the ability for faculty to schedule multimedia presentations (videos, laser disks, satellite programs, CATV and CD-ROM) in one of the many MDC-connected classrooms on campus.

CCIT operates the Campus Computer Connection in Rockwell Hall, a computer reseller that sells computer peripherals to departments, students, faculty and staff. Lists of University-supported hardware and software and minimum requirements for connection to the campus network are published annually. Support for the campus network and software installation and repair is provided through the technical services group. CCIT also supports the University offices at the University by providing programming and maintenance support for Duquesne's business and information systems.

The Operations and Systems group manages the data center and all computer accounts, and supports central file, web and mail servers. See http://www.duq.edu/Technology/ ccit/ccithome.html for more information about CCIT.
Part II: Admissions and Financial Aid

Admissions

OFFICE OF ADMISSIONS

The Office of Domestic Admissions is located on the first floor of the Administration Building
Telephone (412) 396-5000
(800) 456-6590 (Outside of 412 Area Code)
Fax (412) 396-5644

Office hours Monday through Friday from
8:30 a.m. to 4:30 p.m.
e-mail admissions@duq.edu

POLICY

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

ADMISSIONS REQUIREMENTS

1. A candidate should have been graduated from an approved secondary school in the upper two-thirds of the class and demonstrated exemplary personal conduct in that institution. Applicants who have not completed four years of high school must submit a High School Equivalent Diploma issued by their state department of education, in addition to a high school transcript.

2. High School curriculum must include 16 units distributed as follows: four units in English, eight units in any combination from the area of social studies, language, mathematics, and science, and four elective units for which the secondary school offers credit toward graduation. 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: Candidate should plan to enroll in pharmacy or pre-health programs, or as science or mathematics majors who should complete a minimum of seven units in mathematics and sciences.)

3. 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: for admission to the School of Music, an audition is required)

4. EARLY DECISION
   Students who desire Duquesne University as their first choice for college should consider the Early Decision plan. This plan requires that the student apply by November 15 of his/her senior year. The student is notified of the decision by December 15, and is required to send his/her non-refundable deposit within two weeks. This offers the candidate the advantage of knowing of the admission decision early in his/her senior year.

5. EARLY ACTION PROGRAM
   This program holds a deadline date of December 1 and allows the student to receive a decision during their senior year, well in advance of the normal response dates.

6. APPLICATION—NEW FIRST-YEAR STUDENTS
   Applications should be addressed to the Dean of Domestic Admissions, Duquesne University, Pittsburgh, Pennsylvania 15282. An application may be submitted at any time during the candidate’s senior year, but prior to July 1, for fall semester.
   The application procedure is as follows:
   1. Obtain, complete, and file the Application for Admission with the Office of Admissions.
   2. Include the $45 non-refundable application fee with the application form. No application will be processed for consideration by the Committee on Admissions unless accompanied by the required fee.
   3. Request the secondary school principal or guidance counselor to submit a transcript of the candidate’s academic record. A recommendation is requested.
   4. Complete the required SAT or ACT examination during the senior year and/or fall of senior year. It is the personal responsibility of each candidate to have test scores forwarded to the University.
   5. An interview is highly recommended for prospective students. Auditions are required for School of Music applicants.
   6. Students interested in being considered for University scholarships must submit their completed application by January 10 of their senior year.
   7. Early Decision deadline (for students who have Duquesne as their first College choice) is November 15. Notification will be by December 15. If accepted under the Early Decision Plan, commuting students are asked to submit a non-refundable tuition deposit of $200 within two weeks, resident students are asked to submit a $500 non-refundable deposit within two weeks.
   8. Notification of decisions for regular admission begins early. Early Decision applicants have been notified. If accepted, students are asked to submit a non-refundable tuition deposit of $200 for commuter students 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 for all supporting credentials on file with the Office of Admissions and Financial Aid to meet the deadline dates.

7. EARLY ADMISSION/HONORS PROGRAM
   Although the University believes that most students profit from four years in the secondary school, the Early Admission/Honors Program is open to outstanding students who desire a true academic challenge. This is a program whereby unusually able and mature candidates who have completed less than four years of a secondary school program may begin their university studies after their junior year, prior to high school graduation. The high school diploma is awarded following successful completion of the freshman year at Duquesne.
   Applicants for the Early Admission/Honors Program must be in the top ten percent of their class with a grade point average of 3.5 or above. A minimum of 1,100 SAT score or 26 ACT score is necessary for admission. An essay and an interview are also required. Written permission from the applicant’s guidance counselor is required. A recommendation from the high school principal and/or guidance counselor must be provided outlining the courses needed to receive the high school diploma. Applicants under the age of 18 requesting residence on campus must have written permission from their high school principal and/or guidance counselor. Students entering the Early Admission/Honors Program will be given priority consideration for the Integrated Honors Program.

8. Advanced Credit Honors Initiative
   High school juniors and seniors who wish to take university courses may do so at Duquesne if they fulfill the requirements set forth by the Duquesne University Office of Admissions.
   Students must have no lower than a 3.0 grade point average. A letter of recommendation from a high school counselor must accompany the application.
   Students enrolled in the program receive university credit for courses taken. Courses will be offered at a reduced tuition rate.
   Students who maintain a 3.0 grade point average while at Duquesne will be given guaranteed admission to early degree studies at the University when application is made. Due to limited enrollment in select programs, students must consult 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.

9. The International Baccalaureate (I.B.)
   Most of the prominent universities in the United States have developed policies for the International Baccalaureate. Duquesne University awards up to 30 academic credits to a student completing the diploma with a score of 30 or above and honor scores in three higher-end subjects.
   1. Higher Level scores of 5, 6, or 7 will be accepted to a maximum of 30 semester hours.
   2. Subsidiary level scores of 6 or 7 will be accepted in foreign languages to a maximum of six semester hours per language. No credit will be given for other subsidiary level courses.

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 credits. Duquesne University awards credit, as well as placement, for achievement that merits such consideration. Subjects included in the program are English composition, history (American, European, world), art, music, science, foreign languages (French, German, Spanish), Latin, mathematics AB, mathematics BC, physics B and C, chemistry, biology, and computer science.

Applicants who hope to receive advanced placement credits must request that scores be sent to the University. Credit will be given 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, 308 Administration Building, phone (412) 396-6045. Students should double 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 want six months to retake a test). The policy is subject to change.

Honors College/Integrated Honors Program

Highly qualified, motivated, and committed students are searching for challenge and enrichment in a college education. These students, the future leaders in their 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 nine-course University Core Curriculum. Special honors sections of Core courses feature some of the University’s most distinguished faculty.

IHHP 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.

IHHP 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 arrangements through which Honors College students live together on a selected floor in one of Duquesne’s living-learning centers.
- This provides an environment conducive to intellectual dialogue and intensive study within a community of like-minded students.
- Honors facilities such as a conference room, lounge, library, and computer center, which encourage students to work together on team projects and allow for more focused research and study.
- Early registration dates, ensuring that Honors students have a greater opportunity for placement in vital limited-enrollment courses.
- A mentorship program in which leading members of the faculty provide one-on-one academic and professional guidance.
- Special Honors notation on transcripts.
- Participation in national conferences on undergraduate research and honors education.
- 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.

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 ensure they 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:

- Graduation from a secondary school recognized as an acceptable equivalent to a U.S. high school, and
- A demonstrated record of acceptable academic success.

Eligibility criteria for application as a transfer student include the above criteria for freshman-level applicants plus successful completion of some post-secondary study at a recognized institution of higher education either in the applicant’s home country or in another country, including the U.S. 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:

- Duquesne University Undergraduate International Application Form,
- Completed Duquesne University Affidavit of Support Form along with required accompanying financial resource certifications.
- One letter of recommendation, and
- Application fee in the amount specified on the application form.

Duquesne University is authorized under federal law to enroll non-immigrant alien students. Furthermore, 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.

All international students are required to have major medical coverage.

English Language Proficiency Requirements
English is the language of instruction at Duquesne University and demonstrated language proficiency is required of all international applicants.

Since Duquesne University maintains an on-campus Intensive and Semi-Intensive English as a Second Language Program (ESLP), qualified undergraduate applicants may be accepted to academic degree programs conditionally upon completion of English language requirements at Duquesne University.

All accepted international students whose native language is other than English are administered English Language Placement Tests upon arrival. Students who submit scores on the Test of English as a Foreign Language (TOEFL) which are current to within one year and greater than 600 may be partially waived from English Language Placement Tests. Additional English language proficiency development is indicated, the student is referred to the English Language Program (ESLP)

Participation in an honors program offers a competitive edge in admission to professional and graduate schools and in obtaining assistantships and fellowships.

Participation in an honors program offers a competitive edge in admission to professional and graduate schools and in obtaining assistantships and fellowships.

The ESLP is open to qualified international students interested in studying only English on either a short- or long-term, non-degree, certificate of completion basis. A fuller description of the English as a Second Language Program is found on page 40.

Additional Information on International Student Applications
Please direct all inquiries and requests for additional information and application materials to:

Director, Office of International Affairs
Duquesne University
601 Duquesne Union
Pittsburgh, Pennsylvania 15282-1660
U.S.A.
Telephone 412-396-6113
FAX 412-396-5178
e-mail oia@duq.edu

POST-GRADUATES
Post-Graduates are students who already have a Bachelor’s degree, and desire to take undergraduate courses at Duquesne, but are not interested in pursuing another undergraduate degree.

A Post-Graduate student must submit a Post-Graduate application to the Division of Continuing Education if the Bachelor’s degree was received from an institution other than Duquesne. Proof of degree is required either by an official transcript or a certificate of graduation.

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 to which application for admission or re-admission is being made. Once the appeal is heard and the result of the appeal is notified, the student must apply for re-admission 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 to the dean of his/her school a description of the courses which appear on the college transcript.

The student should contact the Admissions 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, the School of Natural and Environmental Sciences, and School of Education award 60 semester hours of credit to accepted transfers for college-level work. A student must present a grades of C or better in all college-level coursework taken within the past three years for transfer credit.

Eligibility criteria for application as a transfer student include:

- Graduation from a secondary school recognized as an acceptable equivalent to a U.S. high school, and
- A demonstrated record of acceptable academic success.

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- Graduation from a secondary school recognized as an acceptable equivalent to a U.S. high school, and
- A demonstrated record of acceptable academic success.
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 (2.0 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 must have attained a cumulative average of 3.0 based on a 4.0 quality point system. In addition, such prospective students must take the College Entrance Examination Board tests and attain the appropriate scores.

An interview is highly recommended for all transfer students and will be required of those students whom the Admissions Office judges personally.

TEMPORARY TRANSFERS

Temporary Transfers are students who are enrolled in another college or university but who desire to enroll at Duquesne for one semester. No Temporary Transfer Student will be granted admission without formal application to the Division of Continuing Education and an official transcript or letter of enrollment from an official at the University at which the student is enrolled. A Temporary Transfer Student must re-apply if he/she desires to take a course or courses at Duquesne University beyond one semester.

No Temporary Transfer shall be permitted to register for more than two semesters without making arrangements to become a permanent transfer.

SUMMER SESSION

DUQUESNE STUDENTS

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

Graduate and transfer students, including any who withdrew from the University, must obtain re-admission before they may register for summer classes.

STUDENTS FROM OTHER INSTITUTIONS

A student of another college or university who wishes to enroll for the Summer Session, and who intends thereafter to return to the original institution and is eligible to continue there, may be admitted to the Summer Session. A tear-out admissions application and registration form for the summer study is provided in the announcement of summer offerings, which may be obtained from the Summer School Office at mid-March. These students are considered to be Temporary Transfer Students.

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

PROGRAMS OF AID ADMINISTERED THROUGH THE FINANCIAL AID OFFICE

University Scholarship/Grants

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

Available to incoming freshmen — then renewable with cumulative QPA indicated

- Chancellor's Award 350
- Strub Merit Award 300
- Presidential Merit 300
- Parish Scholarship 300
- Provost Award 300
- Laval Merit Award 275

Available to renewal students only — with cumulative QPA indicated

President's Scholarship 300 and need**

Scholars/ROTC Assistance toward room and board costs for ROTC Scholarship winners. Renewable with re-application, minimum 300 cumulative QPA, on-campus residence and ROTC award.

Auxiliary Grant

Grants awarded to incoming freshmen with remaining need after utilizing all aid resources available. Renewable with minimum cumulative QPA of 2.50, and continued need for funds after utilizing other aid sources available.

Liz & John E. Murray, Jr. Scholarship

Available to incoming freshmen students. Students will receive one-half tuition and university fee. Renewable for four years provided student maintains a minimum cumulative QPA of 3.50, continues to demonstrate exceptional need, applies for financial aid and resides on campus.

Federal Supplemental Educational Opportunity Grant (SEOG)

Available to undergraduate students with exceptional need preference to students receiving Pell Grants.

Federal Perkins Loans

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

Federal Nursing Health Professions Loans

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

Institutional Loans

Limited loan funds are available to full-time undergraduate students. Repayment periods and interest rates vary. Funds made available through Alcoa Foundation, Kersheng Estate, and Donald E. K. Power Trust of the Pittsburgh Foundation available only to residents of Allegheny County. 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

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 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. Deadlines for each state appear in the FAFSA information. Pennsylvania’s deadline is May 1.

Loans

Federal Stafford Loans

Requires completion of the FAFSA and Stafford Loan Application New forms are normally mailed directly to students, and 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.

- $2625 for first academic level
- $3500 for second academic level
- $5500 for third and fourth academic levels (also 5th year Pharmacy)

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

Additional Federal Unsubsidized Stafford Loans

Available to independent students only. Can apply for this loan using the Federal Stafford Loan Application. Interest rates vary. Loan limits vary with academic level.

- $4000 for first and second academic levels
- $5000 for third and fourth academic levels (also 5th year Pharmacy)

Federal PLUS Loans

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

University Discounts

The following discounts are available to students meeting the requirements indicated. Discounts will be at basic tuition rate and may be used in combination 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. This discount applies with the class entering in the Fall of 1998. 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. Available only.
to students receiving no other University awards including, but not limited to, scholarships, grants, tuition remission and other discounts. Renewal requires continuous full-time enrollment during the academic years following initial enrollment, reapplication through the Financial Aid Office, and no other University funded awards.

Clergy/Religious Members of University-recognized Christian and Jewish Religious, who have been ordained or professed, may be eligible to receive a 50% discount.

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.

Lay 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 Continuing Education (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, (4) major organizations utilizing the skills of the field for which the student is preparing.

ROTC Scholarships Available to incoming undergraduates, two-year graduate students, and currently enrolled students. For additional information and application procedure contact 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.

Artzberber Scholarship Need based Enrollment in School of Business

Betty V Beaman Scholarship Need based Underclass students with minimum 30 QPA

Pauline and Sydney Berlin Scholarship Based on need and academics

Margaret Laughray Bronson Scholarship Need based Minimum QPA 3.0 Biochemistry major

Byzantine Scholarship For Byzantine seminarians

Richard Calegurine Scholarship Child of judge from Allegheny County or Western Pennsylvania or child of any employee in Court System

Centennial Scholarship Based on need and academics Allegheny County residents

Century Club Scholarship Need based Final year student with 3.5 QPA or higher

Chemistry Department Scholarship Chemistry major

Li Col Dan Conn Scholarship Need based Member of parish in Diocese of Pittsburgh

Magr Conroy Scholarship Need based Child of member or member of Our Lady of Grace Parish Must apply through parish and Duquesne

Sonja F DeCrey Scholarship Based on need and academics

Delladottis Scholarship Need based

Duchene Scholarship Based on need and academics Preference to children of Alpha Epsilon then Alpha Tau Omega brothers Third preference to male member of Duquesne University Social Fraternity Eberly Family Trust Based on need and superior academic achievement Preference to Fayette County residents

Eckenrode Scholarship Need based

Diemert Forell Scholarship Education student Normally based on need

Ann Mellen Felding Scholarship Need based Minimum 30 QPA Pre-med student

Ferry Scholarship Based on need and academics

Glatt Scholarship Based on need and minimum 30 QPA Enrollment in School of Natural & Environmental Sciences with first preference to Biochemistry majors and then Chemistry majors

Guitman Scholarship Need based

William Hart Scholarship Need based

Heck Family Scholarship Need based Enrollment in School of Pharmacy

Hoselburg Scholarship Based on need and minimum 2.5 QPA Enrollment in College of Liberal Arts

Leslie Ann Hoover Memorial Scholarship Based on need Enrollment in School of Nursing

Hungarian Heritage Scholarship Based on need and academics Enrollment in 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

Hunkel Scholarship For seminarians of the Roman Catholic Diocese of Pittsburgh

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

Kate M Kelley Scholarship Need based

Keschgens Scholarship Need based Residents of Allegheny County

Frank Kirk Scholarship Need based

John Kokoc, Jr Scholarship Need based Enrollment in School of Business Order of preference Senior or Junior Accounting Major from McKeesport, Senior or Junior Accounting Major from Bethel Park, any deserving student in Business

Koza Scholarship Based on need and academics Juniors and Seniors with math or physics major

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

Linn Scholarship Need based

Lefitus Scholarship Need based

William Lowry Scholarship Based on need and academics

Margottt Scholarship Need based

Mangone Scholarship Need based Enrollment in College of Liberal Arts QPA between 2.6 and 2.9

McAulay Scholarships (2) Both need based One fund restricted to residents of Allegheny and Beaver Counties

McDonogh Scholarship Based on need and academics

McGrath Scholarship Need based

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

Mingolo Award Need based

Munhall Family Scholarship Need based

Paci 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

Rahde Scholarship Need based 3 awards per year

Allan Reynolds Scholarship Need based

Simmons Family Scholarship Need or Merit based Residents of Tri-State area Pennsylvania, Ohio, West Virginia

Jerry Smith II Need based, average grades
FINANCIAL AID

William Rush Scholarship Through Journalism Preference to senior majoring in advertising, journalism, public relations or radio/television Need is not a factor

School of Business Administration

** = Application/Information available from Admis- sion Office, 705 Rockwell Hall

Accounting Scholarships Based on need and academic junior and seniors majoring in accounting Apply by October 1 Applications available from Accounting faculty

Alumni Association Scholarship Awarded annually to qualified Business student(s)**

Glen Besoe Scholarship Based on need and academic (3.5 QPA) Sophomore, Junior or Senior Business Students**

Consolidation Coal Company Scholarship for Information Technology $1,500 to student majoring in Information Technology, with 3.0 QPA and senior stand- ing by fall of award year Final determination based on essay**

Duquesne African-American Accounting Scholarship African-American accounting majors who maintain a 3.0 QPA Application and information available from the Director of the African-American Accounting Scholar's Program

Milec Scholarship Based on need and merit - minimum 2.75 QPA**

Joseph Montecede Scholarship For sophomores, juniors and seniors Based on academic achievement - 3.5 QPA, University and community service and a personal commitment**

Radauich Scholarship Awarded through Delta Sigma Pi to qualified Business student Based on academic achievement with preference to Accounting/Information Technology majors**

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

School of Education

Mary Bachof Scholarship Need based

Katherine Carney Scholarship Based on need and academic Special Education major

Faith Memorial Award Sophomore involvement in on or off campus professional development

Hearst Scholarship Must be an athlete Preference to minority students who have completed associate degree at Allegheny, Beaver or Butler County Community College

Roche Memorial Scholarship Juniors Based on need and academic M E Sullivan Scholarship Juniors or Seniors with Special or Elementary Education majors

School of Health Sciences

Athletic Training Scholarships and grants are available to students who are members of National, Regional, State and Local Athletic Trainers’ Associations Contact Dept of Athletic Training for details

Health Management Systems Loans and scholarships for final year students Information available through American Health Information Management Association, 919 N Michigan Avenue, Suite 1400, Chicago, IL 60611-1683 Phone 1-800-433-3243

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

Perfusion Technology Scholarships available through the American Society of Extracorporeal Technology Contact the Department of Perfusion Technology for information

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

Daniel Uncio Scholarship One fourth and one fifth first year Physical Therapy student Based on academic achievement, service and leadership Not renewable

Physician Assistant Financial aid and scholarships are available through the American Academy of Physician Assistants, The Physician Assistant Founda- tion Scholarship Program, and the Pennsylvania Society of Physician Assistants Highmark Blue Cross Blue Shield has provided scholarships to professional phase students Contact the Department of Physician Assistant for information

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

Institutional Employment Contracts Allegheny Univer- sity Hospitals provide scholarships for students in the professional phase Amounts vary and require a commitment to Allegheny University Hospitals Contact respective department

Many other hospitals in Southwestern Pennsylvania provide similar contracts While information may be posted by departments, the University will not initi- ate 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 academic

Barry Scholarship - Music Recommended by Dean

Hunter Memorial Award Based upon musical and scholarly excellence

Laurelie Trumpet Player Need based

Manardi Scholarship Need based, academic secondary

Music Therapy Scholarship Music Therapy students

Patton Library Fund Based upon musical and scholar- lary excellence

Peurlin Trombone Scholarship Based on talent and pro- mise of Jazz trombone student

Renthold Scholarship Based upon musical and scholarly excellence

Riley Piano Award One award per semester for piano excellence

Rocero Scholarship Woodwind major Based on academic

Matyi & Eddie Shiner Students studying brass instruments

Youngschilch Scholarship Cello student, minimum 3.0 QPA

Womens Advary Scholarship Full time student

Other Awards Contact Dean’s Office for information

Presser Scholarship, Loyola Christian Benefit Association Award, Polish Arts League Scholarship, 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

School of Nursing

Behan Scholarship Based on need and academic

Hauser Scholarship Male student, based on need

Miglorno Thomas Award Based on need RN student returning to earn B.S. in Nursing

Connie Miller Scholarship Based on recommendation of Dean RN student returning to obtain BSN

H. Schreiber Scholarship Based on need, character and potential for leadership Selected by committee

School of Pharmacy

Unless otherwise stated, apply through 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 Pharm- acy students

Chilson Loan To provide assistance for Pharmacy students

Keel 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 ac- tive participation in fraternity functions

Manzone Family Scholarship Established fund estab- lished in 1994 Awarded annually to a Pharmacy student in the professional phase Based on need and academic

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 programs

NCFA 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 Schuller Loan Revolving loan fund for worthy and qualified Pharmacy students Amounts vary based on need and general ability

Overbeck/Ansberry Lambda Kappa Sigma Scholarship Endowed fund created by Tau Chapter of LKS to recognize Hazel Overbeck, P47, and Joan V Ansberry, P47 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 undergraduate 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

Tou Alumni Chapter of Lambda Kappa Sigma - Rose Manzione Scholarship. In memory of Rose Manzione, P49 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 Lamb- da Kappa Sigma to assist 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 (Mua) Fargnuele Scholarship  In memory of Geraldine (Mua) Fargnuele, P'50. Provides scholarships for needy and deserving female students in the School of Pharmacy.

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

School of Pharmacy Alumni Scholarship  Funds available, through support of Pharmacy Alumni, for needy and academically deserving Pharmacy students. Apply through the School of Pharmacy Alumni 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. Careen, Norma Wells, and Mary Connelly 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-Schertz 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'58. 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 on scholarship and need.

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

Gene L. Checcone Scholarship  In memory of Gene L. Checcone, P'52. Annual award to Pharmacy student in good academic standing and need.

Patricia Lynn Traonor Scholarship  Endowed fund established by Charles J. Traonor, P'51, family. Annual award to a Pharmacy student in good academic standing and 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, Sr., P'54 Scholarship  Annual award based on need and demonstrated interest and involvement in independent pharmacy practice.

Sonia F. DeGray, P'39 Scholarship  Assistance based on merit and need to Pharmacy student in professional phase of PharmD program.

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

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

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

Edgar N. Duncan, P'54, Scholarship  Annual award to a deserving Pharmacy student.

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

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

Louis C. DiPulo, P'75 Scholarship  Annual award to a needy and worthy Pharmacy student with interest in industrial pharmacy.

Victor V. Micolucci Scholarship  Endowed fund created by Victor V. Micolucci, P'68, family. Annual award to Pharmacy student with demonstrated need and interest in community pharmacy practice.

Samuel Procaccio, P'73, Scholarship  Annual award to Pharmacy student in the final years of the Pharmacy degree program.

Sylvia Malathall, MD, P'57, Scholarship  Annual award to a deserving Pharmacy student.

Rosemarie Bevacqua Scholarship  Endowed fund established by Larry J. Sarginger, MD, P'75. Annual award to a Pharmacy student.

Lawrence G. Heller Scholarship  Endowed fund established by Lawrence G. Heller. Annual award to a Pharmacy student.

CVS/Pharmacy Scholarship  Annual award to a deserving Pharmacy student with demonstrated interest in industrial pharmacy practice.

Pharmacists Mutual Companies Scholarship  Scholarships for Pharmacy students. Based on financial need and good academic standing in the Pharmacy program.

Mary McPortland 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 PharmD program.

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

Pharmacists Mutual Companies Scholarship  Scholarships for Pharmacy students. Based on financial need and good academic standing in the Pharmacy program.

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**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 preceding months of April, May, June, and July. Spring Semester begins in late August, receive academic advisement and register for classes during the preceding months of April, May, June, and July. 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 policy. 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, pages 29-30 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 activities, or, generally, have access to the buildings and grounds or use of the University's facilities. Official registration is the recognition given by the University to persons who have met these conditions.

1. Appropriate authority for admittance to study in a school or department has been given by an authorized officer of the University. The admitting authority for undergraduate students resides with the Dean of Domestic Admissions and International Affairs.

2. Authorization to continue in the program selected has been given and registration for classes has been accomplished in compliance with all academic requirements and procedures.

3. Arrangements have been made to the satisfaction of the University for payment in full of all financial charges, including fees, tuition, and housing charges, all of which are due and payable in full before the beginning of classes.

### CHANGE OF SCHEDULE

Students requiring a change of class schedule, 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 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 changes 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). Exempt for changes requested by the dean or advisor, a fee of $5.00 is charged for each change form processed after the close of pre-registration.

### 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 College
- Robert Morris College
- University of Pittsburgh

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

### 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 who is free of financial obligations to the University.

### 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 who have previously examined 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 may 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.

### CONFIDENTIALITY OF STUDENT RECORDS

The University regards the student's personal information as a confidential 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...
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 Division of Continuing Education to complete a brief application form. Admission is granted on a space-available basis by consulting the Office of the Registrar and the individual schools. Fees for auditing are uniform for all students.

Registration in a course as an auditor must be declared at registration and is irrevocable after the last date for change of schedule each semester, as indicated in the Academic Calendar (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 non-degree students will be awarded by the Division of Continuing Education. Audited courses are not eligible to be converted to matriculated credits. Courses audited may not be challenged later or completed via CLEP or other advanced standing tests.

Courses eligible for auditing are determined by the individual colleges and schools of the University. A partial list of school policies follows, but students are advised to consult with the Offices of the Deans for the most current listings: 1) No courses in the School of Law are available for audits. 2) No clinical courses in the School of Nursing and Pharmacy can be audited. 3) The Rangos School of Health Sciences will not allow clinical courses or those courses in the professional phase of the curriculum (the last two years of all RSHS majors) to be audited by non-majors. 4) In the College of Liberal Arts and 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, 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 tabloid. 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 materials 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 circumstances is responsible for notifying the office of the appropriate school advisor. The student should supply any required written verification 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 zeros on an examination would result in a final grade of "F". If a student has for significant reasons missed a part of the course or an examination, the grade may be submitted as an "I". If the temporary "I" grade is to be replaced by a passing grade, the work must be completed by the time stated in the Academic Calendar (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 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.

COURSE EXAMINATIONS

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

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

CREDIT BY EXAMINATION

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

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

UNDERGRADUATE GRADING SYSTEM

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

Grade Description
A: Superior
A-: Excellent
B+: Very Good
B: Good
B-: Above Average
C+: Satisfactory
C: Average
C-: Minimum general average for graduation

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 grades will be used in grading course work and rating academic performance of the students in their class.

Lowest passing grade
D: Lowest passing grade
F: Failure (Course must be repeated for credit)
CG: Contested Grade (Used when there is a question of academic dishonesty. Final grade to be determined after proper review by appropriate University personnel)
H: Honors (Used in some courses where scaled grading is inappropriate. Indicates completion of course work with credits earned and with honors but without quality points and is independent of the Quality Point System)
I: Incomplete (A temporary grade given by an instructor when neither a passing nor failing grade can be determined because of incomplete course work. Unless a convincing explanation of extenuating circumstances, acceptable to the instructor, is presented and the missed examination or required assignment is made up by the date specified in the Academic Calendar, the I becomes a permanent F grade)
LG: Late Grade (Used to indicate that grade was not recorded by faculty in time for the semester grade report to be sent to student)
Not Passing (Used to indicate Failure in a Pass/Not Pass graded course) is independent 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) Unsatisfactory—Failure (Used in Pass/Fail elected courses and is independent of the Quality Point System, course must be repeated for credit)
U: Official Withdrawal (Used on a Student's permanent record to indicate termination of attendance in courses under conditions of official withdrawal) (See catalog and Schedule of Courses for Withdrawal from a course and Withdrawal and Termination of Attendance)
X: Used to indicate that although student continued to appear on rosters, student never attended classes.
ACADEMIC POLICIES

A class inaugurated in plus/minus grading may not revert to non plus/minus grading. It is the responsibility of the student to communicate with the academic advisor if they so desire. A letter, if submitted, must be signed by the academic advisor and must specifically state the reasons for the request. The decision to allow the class to revert to plus/minus grading will be made by the academic advisor, subject to the approval of the appropriate College or School Committee on Academic Standing.

COMPUTATION OF THE QUALITY POINT AVERAGE

Quality Point Average is the ratio expressed to the decimal thousandths of the sum of all credits multiplied by the 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>A+</td>
<td>4.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
</tbody>
</table>

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

REPEATING COURSES AND COURSE RETROGRADATION

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

One course a semester, selected by a junior or senior and approved by the academic advisor, providing an opportunity to expand and enrich the student's experience, may be taken on a pass/fail (S-U) 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/fail elective, the course must be completed as such, and the grade submitted must be an S or a U. No required course may be taken on this elective pass/fail basis.

The decision to elect the pass/fail option must be made no later than the close of the period provided for making schedule changes. An authorized pass/fail 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 record of students who fail to meet the minimum requirements as established by the faculty of each college or school will be submitted to the College or School Committee on Student Standing for review and appropriate action. Normally, academic records will be reviewed annually at the conclusion of each academic year.

All students in the University are academically dismissed if they fail three courses in one semester. Students can be readmitted by the student standing committee of the college or school to which the student is returning.

If a student transfers to another school within the University, the student can be admitted only by the Dean of that school for students who have attempted 15-30 credits, or more than 30 credits in one year, the guidelines are:

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

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

Academic Warning: 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 are permitted to re-enroll on a full-time basis but continue participation in non-curricular and extra-curricular 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 will be subject to the jurisdiction of the appropriate Committee on Student Standing. The policy of the Council of Academic Deans on Student Athletes will be subject to the jurisdiction of the appropriate Committee on Student Standing. The policy of the Council of Academic Deans on Student Athletes will be subject to the jurisdiction of the appropriate Committee on Student Standing.

GRADUATE COURSES FOR UNDERGRADUATE CREDIT

Qualified seniors may be permitted to register in certain graduate courses at the 500 level for undergraduate credit on the recommendation of the advisor and with the approval of the dean of the graduate school involved. All 500 level 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 on or before the latest date to apply for graduation as announced in the Academic Calendar, and satisfied all financial obligations with the University.

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

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

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

1. The bachelor's degree requires a minimum of 120 semester hours of course credits in all except Pharmacy which requires 164 credits and Nursing which requires 125 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 must maintain a minimum of 2.0 in upper-division courses.
3. The final year's work (a minimum of 30 semester hours of credit) must be completed in residence at the University.
4. All undergraduates must complete the University Core Curriculum.
5. All undergraduates must complete a minimum of 4 writing intensive courses at the 200 level and above.
6. Students on academic probation may be candidates for graduation only with permission of the Committee on Student Standing of their school.

The candidate who has satisfied graduation requirements by a Challenge Examination (credit by examination), within the last 30 semester hours of study for the degree, will fulfill the residence requirement provided a minimum of 30 semester hours of credit has been earned in course work at the University in the final year's study.
WRITING INTENSIVE COURSES

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

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

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. If a student, other than a first semester freshman, wishes to withdraw from a course after the date announced in the Academic Calendar for withdrawal with a "W" grade, the student then initiates the appropriate form through the advisor.

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

UNIT OF CREDIT

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

HONORS

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

<table>
<thead>
<tr>
<th>Cum Laude—Quality Point</th>
<th>Average</th>
<th>3.50 to 3.74</th>
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</thead>
<tbody>
<tr>
<td>Magna Cum Laude—Quality Point</td>
<td>Average</td>
<td>3.75 and above</td>
</tr>
<tr>
<td>Summa Cum Laude—Upon recommendation of the Faculty and a 3.90 QPA, the Magna Cum Laude citation may be raised to Summa Cum Laude</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 1998-99 term only, unless otherwise indicated.

TUITION

RATE 1 (Arts, Business, Education, Nursing)

<table>
<thead>
<tr>
<th>Full-time Undergraduate Tuition (12-18 cr)</th>
<th>University Services Fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$13,628.00</td>
<td>$1,071.00</td>
<td>$14,699.00</td>
</tr>
</tbody>
</table>

Per-credit

<table>
<thead>
<tr>
<th>Undergraduate Tuition</th>
<th>Graduate Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>460.00</td>
<td>481.00</td>
</tr>
<tr>
<td>University Services Fee</td>
<td>University Services Fee</td>
</tr>
<tr>
<td>39.00</td>
<td>39.00</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>499.00</td>
<td>520.00</td>
</tr>
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</table>

RATE 2 (Natural and Environmental Sciences, Pre-Pharmacy)

<table>
<thead>
<tr>
<th>Full-time Undergraduate Tuition (12-18 cr)</th>
<th>University Services Fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$13,576.00</td>
<td>$1,071.00</td>
<td>$14,647.00</td>
</tr>
</tbody>
</table>

Per-credit

<table>
<thead>
<tr>
<th>Undergraduate Tuition</th>
<th>Graduate Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>463.00</td>
<td>484.00</td>
</tr>
<tr>
<td>University Services Fee</td>
<td>University Services Fee</td>
</tr>
<tr>
<td>39.00</td>
<td>39.00</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>502.00</td>
<td>523.00</td>
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</tbody>
</table>

RATE 3 (Health Sciences)

<table>
<thead>
<tr>
<th>Full-time Undergraduate Tuition (12-18 cr)</th>
<th>University Services Fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15,858.00</td>
<td>$1,071.00</td>
<td>$16,929.00</td>
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</tbody>
</table>

Per-credit

<table>
<thead>
<tr>
<th>Undergraduate Tuition</th>
<th>Graduate Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>508.00</td>
<td>510.00</td>
</tr>
<tr>
<td>University Services Fee</td>
<td>University Services Fee</td>
</tr>
<tr>
<td>39.00</td>
<td>39.00</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>547.00</td>
<td>549.00</td>
</tr>
</tbody>
</table>

RATE 4 (B.S. in Pharmacy, Year 5)

<table>
<thead>
<tr>
<th>Full-time Undergraduate Tuition (12-18 cr) (Year 5)</th>
<th>University Services Fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$16,484.00</td>
<td>$1,071.00</td>
<td>$17,555.00</td>
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</table>

Per-credit

<table>
<thead>
<tr>
<th>Undergraduate Tuition</th>
<th>Graduate Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>528.00</td>
<td>530.00</td>
</tr>
<tr>
<td>University Services Fee</td>
<td>University Services Fee</td>
</tr>
<tr>
<td>39.00</td>
<td>39.00</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>567.00</td>
<td>569.00</td>
</tr>
</tbody>
</table>

RATE 5 (Music)

<table>
<thead>
<tr>
<th>Full-time Undergraduate Tuition (12-18 cr)</th>
<th>University Services Fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$16,937.00</td>
<td>$1,071.00</td>
<td>$18,008.00</td>
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</tbody>
</table>

Per-credit

<table>
<thead>
<tr>
<th>Undergraduate Tuition</th>
<th>Graduate Tuition</th>
</tr>
</thead>
<tbody>
<tr>
<td>557.00</td>
<td>560.00</td>
</tr>
<tr>
<td>University Services Fee</td>
<td>University Services Fee</td>
</tr>
<tr>
<td>39.00</td>
<td>39.00</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>596.00</td>
<td>599.00</td>
</tr>
</tbody>
</table>
RATE 6 (Pharm D, Years 3, 4 and 5)
Full-time Undergraduate Tuition (12-18 cr)  $17,273.00
University Services Fee 1,071.00
Total 18,344.00

Per-credit
Undergraduate Tuition 563.00
University Services Fee 39.00
Total 602.00

FEES
Application (non-refundable) $45.00
Matriculation Deposit (non-refundable) 200.00
Residence Hall Pre-Payment (non-refundable) 300.00
Change of Schedule for processing each form 5.00
Oriention (New Students) 125.00
Late Registration 25.00
Removal of I Grade 5.00
Registration Correction Fee 15.00
Continuing Registration Fee 100.00
*Undergraduate Pharmacy Student Activities (for Third, Fourth, Fifth, and Sixth Year Students) 40.00
*University Services Fee $39 per credit

*Charged on each semester registration

LABORATORY FEES
Some programs require a breakage charge of $15.00 a semester, this is proportionately refundable, depending upon the losses incurred.

Laboratory fees apply to the 1998-1999 academic year

*English Language Placement Testing (ESL) 30.00
**Laboratory Breakage Fee 15.00

*English Language Placement Testing (ESL) fee is a one-time fee
**Labouratory Breakage Fee
One breakage card per semester will cover laboratory breakage in Chemistry

GRADUATION FEES
Thesis Binding Fee—Doctoral Dissertation 113.50
Thesis Binding Fee—Master Thesis 103.50

SUMMER TUITION
Summer tuition is calculated on a per credit basis. See page 27 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. The percent of remission is that on which the appropriate date of withdrawal is based.

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 20
After Second Week None

ROOM AND BOARD
The request for on-campus residence is made on the form used for application for admission to the University. After the student has completed the admission procedure and has paid the matriculation deposit, the residency request is referred automatically to the Director of Residence Life. The request is processed and necessary application forms are forwarded to the student.

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

Regular Session—Room and Board (14 meals a week)
Single for each semester $3990.00
Double for each semester $3079.00

Summer Sessions—Room and Board* (Summer '98 rates)
Single per day $26.95
Double per day $21.95

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

a) If the Student decides not to live in the Living-Learning Centers and so notifies the Assistant Director of Residence Life IN WRITING BEFORE CLASSES BEGIN, the Student will be released from obligations under this Housing Agreement. All amounts which the Student has previously paid pursuant to this

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The content continues with more text on room and board fees, withdrawal and remission schedules, and residence life agreements.
**STUDENT LIFE, PROGRAMS, SERVICES AND ORGANIZATIONS**

**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 development 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, Commuter Affairs, University Counseling Center, Duquesne Union, Financial Aid, Freshman Development and Special Student Services, Greek Life, Health Services, Judicial Affairs, Residence Life, and Student Activities. 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, women's crew, men's and women's cross-country, football (Division I-AA), men's golf, women's lacrosse, rifle (co-ed), men's and women's soccer, men's and women's swimming and diving, men's and women's tennis, women's indoor and outdoor track, women's volleyball, and wrestling. In addition, cheerleading and dance, men's and women's hockey, men's indoor and outdoor track and field, and men's and women's indoor swimming 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 Intramural and Recreation offers to all students the use of a weight room, cardiovascular room, racquetball courts, and various aerobic classes. Other activities in which students can participate include tennis, flag football, street hockey, basketball, softball, and soccer, just to name a few.

**OFFICE OF COMMUTER AFFAIRS**

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

**Commuter Message Center**

If someone needs to get a non-emergency message to a student on campus, they may call (412) 396-6600. 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 upperclassman students who serve as advisors and provide resources for new commuters. A 2-3 plan activities, provide information and supply encouragement.

**Other Services Include**

Suggestions/Complaints, Commuter Update, distribution of Student Directory and Student Handbook to commuter students.

The Office is located in the Duquesne Union, Room 228. Office hours are extended during the Fall and Spring semesters when the Office is open Monday through Thursday, 8:30 a.m. - 5:30 p.m. and Friday until 4:30 p.m. For further information call (412) 396-6600.

**OFFICE OF STUDENT ACTIVITIES**

The Office of Student Activities coordinates the programs, services and facilities of the Duquesne Union, provides programming and administrative support for all recognized student organizations, publishes a Fall and Spring Semester Activities.
**OFFICE OF FRESHMAN DEVELOPMENT AND SPECIAL STUDENT SERVICES**

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

**STUDENTS WITH DISABILITIES**
The Office of Freshman Development and Special Student Services also provides services to all University students with documented disabilities. Services such as classroom relocation, specialized testing accommodations, 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, and 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.

**OFFICE OF GREEK LIFE**
The Office of Greek Life promotes the growth and development of students who choose to affiliate with Greek 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 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, sponsors educational and social programming, and promotes a sense of community inasmuch as these processes promote learning outside 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 an ombudsman 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, understanding financial aid, and in interacting with professionals in other fields who will assist them in their social, psychological and spiritual development. To help maximize their success and satisfaction with university life, students are encouraged to meet with their advisor regularly.

**CAREER SERVICES CENTER**

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

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

Undergraduate/graduate students may earn academic credit for approved preprofessional work under the University’s Internship Program, which is administered by the Career Services Center. The part-time and summer employment program is important to students in financing their education and to those seeking practical experience to augment college training. Part-time and summer jobs in the community are also available through the center. Students interested in campus employment should contact the Office of Human Resource Management.

**UNIVERSITY COUNSELING CENTER**

The University Counseling Center offers personal, career, and academic counseling to all full-time Duquesne students. Short and long-term personal counseling are provided for a variety of reasons such as difficulty adjusting to college life, personal and/or emotional distress. Services are confidential and psychiatric consultation is available as needed.

Testing and career counseling are available for helping students in choosing a major and/or deciding on an occupation and for academic difficulties. A variety of support groups and workshops are held throughout the academic year on topics of current interest such as time and stress management, test anxiety, eating disorders, cultural diversity, and others upon request.

Information about applications for national qualification examinations (CLEP, MAT, GRE, LSAT, GMAT, PRAXIS, etc.) is also available.

Please contact the University Counseling Center at (412) 396-6204/6208 for any additional information. The Counseling Center is located in Room 308 of the Administration Building. Please call (412) 396-6204 for an appointment or to obtain more information.

**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 Learning Center, (412) 396-1650/1652.

**Eligibility**

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

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 and is priced lower than individual health insurance policies.
- Inquires about health insurance should be directed to Genny Hughes (412-396-6677).
- NOTE: The University is not responsible for medical expenses resulting from participation in intramural sports.
EMERGENCY
- A Crisis Coordinator is available 24 hours a day to assist in any type of emergency resulting from psychological problems
- Call 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 many other topics. 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 Gumberg Library. Phone (412) 396-6323

C. OTHER DEVELOPMENTAL SERVICES

OFFICE OF INTERNATIONAL AFFAIRS
The Office of International Affairs (OIA) provides services to international students and scholars pursuing undergraduate and graduate degree programs at the University. These specialized services include furnishing pre-arrival information to accepted students, facilitating compliance with U.S. Immigration and Naturalization Service (INS) requirements, assisting in academic and cross-cultural adjustment through orientation programs, and supporting events, programs, and activities which foster deeper communication, awareness and understanding among U.S. and international students at Duquesne, and providing guidance, advice and support for international students and scholars on campus in a personalized and professional manner.

While the OIA supports the University’s strong commitment to international education as a valued component of the overall mission of the institution, the Learning Skills Center is an ancillary academic service whose primary charge is the intellectual development 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 writing, reading, mathematics and science are offered to students who seek to upgrade their academic skills and advance their intellectual growth.

A free tutorial service provides 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 Learning Skills Center oversees the operation of the Program for Academic Excellence ACT/101/LSP, the Project for Academic Coaching through Tutoring (PACT), and the Spear Division of Academic Programs.

THE PSYCHOLOGY CLINIC
The Psychology Clinic offers initial evaluation, psychological assessment, and brief and long-term psychotherapy services to the general public, as well as those of members of the Duquesne University community. Advanced Ph.D. students in the Psychology Department provide all services under the direct supervision of clinical faculty. Fees are set according to each client’s income and ability to pay.

The Clinic is open Monday through Friday from 8:30 a.m. to 4:30 p.m. During evening appointments are also available. Persons interested in scheduling an appointment should call (412) 396-6562. An intake session will be scheduled as soon as possible.

D. STUDENT GOVERNANCE

STUDENT GOVERNMENT ASSOCIATION
The Student Government Association is designed to provide a forum for the expression of student views and interests, to maintain academic freedom and student rights, and to provide effective representation in the policy making and operations of the University. Two major functions of the SGA 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.

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

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RESIDENCE HALL ASSOCIATION
The Residence Hall Association supports living center activities and is involved with the Office of Residence Life in developing and implementing living learning center policies and procedures. 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 and maintain fraternity life and interfraternity relations at a high level of accomplishment. The Interfraternity Council is the governing body for its 9 member social fraternities. The IFC promotes superior scholarship and social and moral development. It represents the fraternities to the administration, faculty and student body. The IFC regulates all men’s Greek activities, including Rush, Pledge Education, Greek Week, Intramural Sports, and social events, and 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 and maintain sorority life and intersorority relations at a high level of accomplishment. The Panhellenic Association is governed by the Panhellenic Council which serves as the governing and regulatory body for its 8 member social sororities. The Panhellenic promotes superior scholarship and social and moral development. It represents the sororities to the administration, faculty and student body. The Panhellenic regulates all Greek Women’s activities, including Rush, Pledge Education, Campus, Greek Week, Intramural Sports, and social events. It serves as a forum for the airing of constructive proposals for the improvement of the sorority system.

E. STUDENT ORGANIZATIONS

GENERAL
There are more than 110 student organizations at Duquesne. Some serve the needs of specific interest groups, others relate directly to major areas of study, and some honor academic achievement. Many are formed to meet social, service or religious needs and interests.

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

Honor Societies
These societies have as their primary purpose recognition of academic excellence and leadership achievement. There are normally cumulative grade point and leadership requirements for membership in these groups.

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, is comprised of several committees which present such events as concerts, dances, art exhibits, lectures and ski trips. 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. At the same time, they are fulfilling the University’s Mission Statement, which seeks to instill “a spirit of service” in all students.

Fraternities and Sororities
Fraternities and Sororities are organizations composed of college men and women who have joined together. They sponsor and promote social, athletic, service, and academic events.

Performance Groups
Tamburitczans
The Duquesne University Tamburitzans, founded in 1937 at the University and is the first university-based performing folk ensemble in the United States. The group takes its name from the tamburitza family of stringed instruments indigenous to the folk cultures of Southeastern Europe.
The group exists for the dual purposes of preserving and perpetuating the Eastern European cultural heritage in the United States while offering scholarships to students who are academically sound and who possess talents in the performing arts. Each year the Tamburitzans search for new talent to fill vacancies in the ensemble. Applicants do not necessarily need a specific background in the folk arts. Performing experience in a band or orchestra, singing in a chorus, or taking lessons in tap, ballet, or jazz dance may provide the skills needed to qualify for a scholarship in this unique ensemble. The group performs 80 shows each year and travels extensively throughout the United States and Canada. Inquiries concerning auditions should be made in the fall prior to auditions which are held in February. For further information, please contact the Tamburitzans office.

http://www.duq.edu/Tamburitzans
e-mail: pudlak@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 dramatic program. Any Duquesne student is eligible for membership.

**MEDIA ORGANIZATIONS**

**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. Copies are available in the Office of Student Activities, 305 Union.

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.

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**Part VI: WDUQ Radio**

**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. It is available too, to groups for specific services of a religious nature. Prayer rooms are available in Towers and St. Ann Living/Learning Centers. In addition, there is a Muslim prayer space above the Chapel.

The Campus Ministry sees itself at the service of all in an open, unstructured, trusting relationship and invites the participation of the entire Duquesne community in religious, social and community activities. 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: 302 Administration Building, the Campus Ministry Center in Duquesne Towers, the Student Union and the Living/Learning Centers of St. Ann, Assumption and St. Martin.
Part VIII: University Programs and Courses

THE UNIVERSITY CORE CURRICULUM
STATEMENT OF PURPOSE
The core curriculum is a cluster of courses within Duquesne's general curriculum that focus on values central to liberal education and to the mission of the University. The purpose of the core is threefold: Core courses encourage students to develop a universality of vision, they assist students in building a foundation for professional studies, they encourage students to cultivate the habit of life-long learning.

Duquesne's Core courses emphasize critical thinking and effective communication. Making informed judgments and speaking and writing clearly and persuasively are the marks of an educated person. Students practice these skills not only in specific courses but also across the entire curriculum.

Duquesne's Core courses integrate fundamental themes of enduring importance: the history and cultural heritage of the West, the diversity and richness of all human cultures, the structures by which societies organize themselves, the role of science in the modern world, the relation of the arts to human experience, the processes of defining personal identity and personal values. The questions which are generated through the exploration of these themes are enabled by a tradition of philosophical and theological inquiry.

CORE COURSES
There are seven courses and two course-areas in the University Core, totaling 27 credits.

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

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

121 Problem Solving with Creative Mathematics 3 cr
An exploration of mathematics as a science and an art with an emphasis on problem solving. 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 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.

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.

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

172 Chemistry 3 cr
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 3 cr
Through lecture and classroom demonstration, students investigate the fundamental notions of mechanics, motion, inertia, force, momentum and energy. Emphasis is placed on the great Newtonian synthesis of the 17th century. With this foundation, students are prepared to move on to topics chosen from among the following properties of matter, heat and 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 3 cr
Introduction to Earth science for non-science majors. Survey of the Earth in relation to its physical composition, structure, history, atmosphere and oceans. Also included is an examination of 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 3 cr
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 also 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 pre-requisites of science or mathematics are required.

Core Theology 3 cr
The Core Theology courses expose students to the major religious traditions of humankind. The course examines 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 3 cr
An introduction to the central issues of moral theology (religious ethics), including methodological and practical concerns, with a focus on the Christian tradition but some attention to other approaches.

183 Judaism, Christianity, and Islam 3 cr
A study of the beliefs and practices of these three monotheistic religions: the distinct character of each, the varieties within each religion, and the continuities and the differences among all three.

184 Introduction to the Bible 3 cr
An examination of the historical, literary, and theological aspects of a select number of key biblical texts and a discussion of their contemporary relevance.

185 Religions East and West 3 cr
A study of some of the world's great religions: representative of humanity's religious experience, including archaic traditions. In your goals, interests, traditions, Chinese traditions, and the Islamic path.

186 Roman Catholic Heritage 3 cr
An introduction to the fundamental beliefs of Roman Catholicism and its expression in literature and the visual arts, from the origins of Christianity to the Contemporary Era.

187 Christian Understanding of the Human Person 3 cr
An investigation into the question of "What does it mean to be human?" according to Judeo-Christian teaching, including the relationship of the human person to self, others, the world, and the Divine as the basis for humaneness.

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

PRE-HEALTH PROFESSIONS PROGRAM
The Pre-Health Professions Program is a University-wide program which focuses on the importance of both a scientific and liberal arts education. As a student in this program, you will be required to complete a humanities-based core curriculum as part of the University requirement. Pre-Health Professions Program students are required to declare a major provided that you have completed the Pre-Health Professions Core Curriculum, you can declare a major in any area: English, history, psychology, education, mathematics, biology, and chemistry. However, a few of the more commonly chosen ones

Preparation for your career in a health profession will begin in your freshman year. Thus, it is important for you to meet with the director and/or assistant director of the program upon entering Duquesne University to discuss your goals and concerns. At this meeting, we will help you develop a tentative four-year plan of courses, starting with the Pre-Health core curriculum.
188 Classical and Contemporary Theology

An inquiry into representative religious beliefs, movements, ethics and scriptures, with particular attention to the Jewish and Christian traditions
The McAnulty College of Liberal Arts

Administration
Dean
Constance D. Ramirez, 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 became a part of the Commonwealth of Pennsylvania extended the charter to university status and approved the amendment in favor of the corporate title, Duquesne University

STATEMENT OF MISSION AND OBJECTIVES
Throughout history, education in the liberal arts has produced, nurtured and transmitted civilization's greatest ideas and accomplishments. Study of the liberal arts prepares students for the future. It teaches them to see 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 Soul. Founded in 1878 as the first of the University's schools, the College embodies both Duquesne's Catholic tradition and its ecumenical atmosphere. We strive for academic excellence, search for truth, aspire to live a virtuous life, respect the dignity of the human person, foster a spirit of service to the poor and to all others, and seek to build the communities in which we live and work. A liberal arts education provides the practical intellectual framework for informed choice that leaders require in the 21st Century. Successful leaders must have the skills that a liberal arts education best cultivates: disciplined thought, careful analyses, 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 committed 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 Soul 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,
- trans 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 in classics, communication, English, history, modern languages and literatures, philosophy, political science, psychology, sociology or theology receive the B.A. degree. Students majoring in mathematics or computer sciences 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 cumulative grade point average of 2.0. A minimum cumulative quality 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

Pre-registration for SR (1) for B.A. or B.S. degree in major field. Submission of application for the degree on form provided by the Registrar before the deadline published in the current University calendar. No student is considered a degree candidate prior to submission of this form and official registration for the degree.

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 area requirements for graduation:

Modern or Classical Language proficiency at the 202 level
Math/Science (mathematics, computer science, biology, chemistry, physics) 3 cr
Social Sciences (political science, sociology, psychology) 6 cr
History/Literature 6 cr
Philosophy/Theology 6 cr
Communication 3 cr

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

COLLEGE ACADEMIC POLICIES

Effective catalog
Degree requirements are those stipulated in the catalog of the year in which a student matriculates. The student is responsible for knowing the requirements for the degree. Requirements may be changed without notice or obligation. This catalog has been prepared with the best information available as of Spring 1998.

Major requirements are those stipulated in the catalog of the year in which a student declares the major.

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

Academic loads for non-native speakers of English enrolled in degree programs are determined in accordance with the University's English Language Proficiency Requirements in consultation with Duquesne University English as a Second Language Program advisement.

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

THE McANULTY COLLEGE OF LIBERAL ARTS

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

Major/Minor in Same Department
A student may not major and minor in the same department, with the exception of language majors, who may major 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 in a Temporary Transfer at another institution may count toward a College degree unless approved by the Dean.

CLEP and Advanced Placement
See page 9.

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.

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

Academic loads for non-native speakers of English enrolled in degree programs are determined in accordance with the University's English Language Proficiency Requirements in consultation with Duquesne University English as a Second Language Program advisement.

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

SPECIAL PROGRAMS

CERTIFICATE IN BUSINESS
This program enables students to preserve the benefits of a liberal education while also acquiring business skills. The program consists of four prerequisite courses (12-14 credits) in the School of Business Administration. Further information may be obtained from the advisement office in the College of Liberal Arts or the School of Business advisement office.

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 Division of Continuing Education. Further information may be obtained from the appropriate department or from the Continuing Education 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.

BACHELOR OF ARTS — 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 in Humanities or Social Sciences. A concentration requires a minimum of 30 credits and a maximum of 39 hours. Courses must be chosen from courses 200 and above.

Further information is available in the Dean's Office.

DUAL DEGREE PROGRAMS
Dual degree programs are available with the School of Education (Classics, English and Mathematics) and 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.

BACHELOR-MASTER'S PROGRAM
A student who has completed all requirements and carries 90 credits with a 3.5 average may apply for the bachelor/master's program. After successful completion of the master's program, the student will receive the bachelor's degree from the College of Liberal Arts. Further information is available from the Graduate School of Liberal Arts.

Joint B.A./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 Degree (B.A.) and a Master of Business Administration (M.B.A.) in five years. For more information, students should consult with their academic advisor.

REQUIREMENTS FOR THE MAJOR
A History major with a concentration in Art History is available. Consult the History Department listing for requirements.

REQUIREMENTS FOR THE MINOR
The minor consists of 15 credits, none of which must be above the 100-level.

History of Art
Ancient to Medieval World 3 cr
A chronologically oriented, detailed presentation of the history of Western art. This survey deals with
Near Eastern, Greek, Roman, Early Christian and Medieval art (Can be elected to fulfill the history/literature requirement)

112 History of Art Renaissance to Modern World 3 cr
A continuation of 111 Surveys Renaissance, Baroque and Modern art in Western Europe (Can be elected to fulfill the history/literature requirement)

175 Introduction to Asian Art 3 cr
A survey of the art and archaeology of China, Japan, Korea and India with emphasis on the art's historical and social context

210 American Art 3 cr
An overview of American architecture, painting, sculpture and decorative art

220 History of Photography 3 cr
A survey of photographic developments from the early 19th Century to the present Emphasis is upon the United States and upon the interaction of and confrontation between artists and photographers

312 Late Medieval Art 3 cr
Western European Art from the 11th to the 14th century Focus is upon the development of stone vaulting systems, monumental architectural sculpture, stained glass, fresco and panel painting, and illuminated manuscripts in England, France, Italy and Germany

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

331 Art of the Nineteenth Century 3 cr
An assessment of the major movements of the 19th century in Europe and America, with special emphasis on the social, political and economic aspects that determined Modernism in Europe from 1789 to 1890

332 Art of the Twentieth Century 3 cr
Examination of the major American and European artists and movements of the early 20th century Beginning with the work of Cézanne and his impact on the formation of Cubism and Futurism, the traditions and parallels in the various avant-garde practices from 1905-1945 are assessed and evaluated

370, 371, 372, 373, 375 Special Studies in Art History 3 cr
An occasional course in this series is offered when special interests of students and faculty can be served Courses offered include: The Image of Women in Art, Picasso, Impressionism, Egyptian Art, and Post Impressionism

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

## COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>376</td>
<td>Contemporary Art</td>
<td>3 cr</td>
<td>A study of the neo-avant-garde from 1945 to the present in the major European art centers and in America The reception of the various modernist movements of contemporary art are examined in the context of social and cultural changes in the 20th century</td>
</tr>
<tr>
<td>398</td>
<td>Art and Society</td>
<td>3 cr</td>
<td>This course explores the ways that social and political conditions and demands affect artists' aesthetic choices Although many of the examples discussed in class are drawn from the visual arts, other art forms such as literature, drama, music, and dance are included as appropriate The class will examine thematic topics through history such as art and social protest, art in the service of governments, and commercial art It also looks at issues of controversy in contemporary art worlds</td>
</tr>
<tr>
<td>431</td>
<td>Direct Readings in Latin</td>
<td>1-3 cr</td>
<td>Permission of Department</td>
</tr>
<tr>
<td>441</td>
<td>American Painting and Sculpture</td>
<td>3 cr</td>
<td>Selected topics in 16th, 17th and early 20th century American Art History are examined in the context of social, political, cultural and economic issues Topic examples include The Changing American Landscapes in the 19th Century, American Portraiture, American Impressionism, African American Art, The Rise of American Art Academies, Art Criticism, and Patronage, Exhibitions, and Museum Institutions</td>
</tr>
<tr>
<td>442</td>
<td>American Architecture</td>
<td>3 cr</td>
<td>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</td>
</tr>
<tr>
<td>443</td>
<td>American Decorative Arts</td>
<td>3 cr</td>
<td>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</td>
</tr>
<tr>
<td>476</td>
<td>Internship</td>
<td>3 cr</td>
<td>Practical experience in art related areas introduces the student to the many opportunities in the art field Prerequisite Permission of the Art History faculty and completion of 15 Art History credits</td>
</tr>
</tbody>
</table>

## DEPARTMENT OF CLASSICS

**Chair**
Lawrence E. Gachas, 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, 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

1) The Classical Latin major requires at least eighteen credits in Latin as well as six credits in ancient archaeology, ancient history or ancient literature courses in English

2) The Classical Greek major requires at least eighteen credits in Greek as well as six credits in ancient archaeology, ancient history, or ancient literature courses in English

3) The Classical Languages major requires at least twenty-four credits in Latin and Greek in addition to two credits of ancient archaeology, ancient history or ancient literature courses in English

4) The Classical Civilization major is an individual designed program of twenty-four credits of ancient literature, history, art, and archeology Students majoring in Classical Civilization create programs with the close advice and the approval of the Classics Department to fit their backgrounds, interests, and career objectives Majors should formulate programs with balanced history and literature components They are strongly 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

A minor is a minimum of 12 credits above the 100 level The Department offers a minor in Latin, a minor in Greek, and a minor in Classical Civilization with concentration in Greek Civilization, Roman Civilization, Archaeology, Ancient History, and Ancient Art and Literature with approval of the Department and advisors

## ORIGINAL LANGUAGE COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>101, 102</td>
<td>Basic Latin I and II</td>
<td>4 cr each</td>
<td>The fundamentals of Latin grammar and syntax with exercises in translation</td>
</tr>
<tr>
<td>103, 104</td>
<td>Basic Greek I and II</td>
<td>4 cr each</td>
<td>The fundamentals of Greek grammar and syntax with exercises in translation</td>
</tr>
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</table>

## THE McANULTY COLLEGE OF LIBERAL ARTS

111, 112 Basic Sanskrit 3 cr each
The fundamentals of Sanskrit grammar and syntax with exercises in translation

201, 202 Introduction to Latin 3 cr each
Readings I and II

203, 204 Introduction to Greek 3 cr each
Readings I and II

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, Euubides, and Aristophanes

303 Fourth Century 3 cr
Greek orators, Plato, Aristole, Xenophon and Menander

304 Alexandrian Period 3 cr
Apollonius Rhodius, Theocritus, Callimachus and the lesser Alexandrian authors

305 Roman Republic 3 cr
Plautus, Terence, Cicero, Lucretius, Catullus, Caesar and Sallust

306 Augustan Literature 3 cr
Livy, Vergil, Horace, Ovid, Propertius and Tibullus

307. Imperial Literature 3 cr
Seneca, Lucan, Petronius, Martial, Plutarch, Tacitus, Juvenal, Pliny the Younger, Suetonius, Apuleius and Lucian

308 Post Classical Literature 3 cr
Post classical, medieval, renaissance and neo-Latin authors

309 Studies inGenre 3 cr
Selected genre of Greek and/or Latin literature

400. Independent Readings and Research 4 cr each

500 Independent Readings and Research 4 cr each
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 Classes 3 cr
An investigation of the influence of ancient myth on 20th century French, German, Italian, English and American literature

233 Ancient Saturae 3 cr
Investigation of the satirical element with reference to the writings of Lucan, Lucilius, Horace, Persius, Martial, and Juvenal

242 Ancient Law 3 cr
A survey including the contributions of the Greeks and of the Romans to the development of law

244 History of Ancient Medicine 3 cr
Examination of the most significant medical theories and practices in the period from the Egyptian temple physicians to the doctors of the Roman Empire. Special attention will be given to Hippocrates and Galen

245 Greek History 3 cr
Greek history and culture from earliest times 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

300 Seminar 3 cr
Topics variable

315 Archaeological History of the Ancient Greek World 3 cr
A survey of the archaeology of Greece from pre-history 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 pre-history to the middle fourth century A.D.

318 Archaeological History of Rome 3 cr
An investigation of the topography and monuments of Rome from pre-history through Constantine

319 Archaeological History, Seminar 3 cr
Possible topics include The Bronze Age Aegeans, The development of Vase Paintings, The Etruscans, etc.

DEPARTMENT OF COMMUNICATION

Chairperson
Ronald C. Arnett, Ph.D.

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 non-profit), media, journalism, public relations, advertising, marketing and management career options.

The new 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 traditional and public communication issues, including writing/word processing computer laboratories and teleconferencing equipment. Additionally, the Des Places Communication Center houses an instructional laboratory, a television production studio, the studios of public radio station WDUQ, and a Debate Center.

DEPARTMENT OBJECTIVES
Major 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 keynote.

The Department of Communication consists of three different academic majors with areas of emphasis or concentration: (1) Major in Communication Studies with emphasis on Corporate Communication/Interpersonal Public Relations, Marketing Communication, Management Communication, Rhetoric and Argumentation, and a Self-Designed Program, (2) Major in Media Studies, and (3) Major in Journalism with emphases in Print Journalism, News Production and Management, Advertising, Public Relations, Broadcast Journalism, and Online Journalism. Thus comprehensive communication department provides students with a wide array of course options taught by dedicated teachers/scholars.

Practical Experience
An important characteristic of the Duquesne communication program is the quality of internship opportunities. Nearly all jobs require experience. We have more than 250 internship sponsors in the Pittsburgh area alone. We also place students in internships from New York to Los Angeles. We employ our own internship director, reflecting our commitment to internship experience and introduction to professional challenges.

In addition to a comprehensive curriculum and extensive internship program, we have significant on-campus organizations, such as a student newspaper and radio station that provide excellent opportunities for learning, including production experiences for the University television station and our public radio station (WDUQ).

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 301W History of Communication
COMM 407 Intercultural Communication
COMM 494W Communication Ethics

Students are also encouraged to take an internship and, if eligible, to consider writing an Undergraduate Honors Thesis.

SPECIFIC REQUIREMENTS BY DEGREE:

I Major in Communication Studies
A Five core courses 15 hours
B COMM 103 Introduction to Interpersonal Communication
COMM 102 Public Speaking OR 304W Persuasion
C Specialization dependent on advisement
9 hours
Corporate Communication/Interpersonal Public Relations
Marketing Communication
Management Communication
Rhetoric and Argumentation
Self-Designed Program

II Major in Media Studies
A Five core courses 15 hours
B MINIMUM OF ONE COURSE FROM EACH
Media Institutions
Media Audiences
Media Messages
C Specialization dependent on advisement
6 hours minimum

III Major in Journalism
A Five core courses 15 hours
B 271W News Writing and Reporting I (with 177 Language for Journalists)
371W News Writing and Reporting II
373W Editing for Print
C Specialization dependent on advisement
6 hours minimum
Print Journalism
News Production and Management
Advertising
Public Relations
Broadcast Journalism
Online Journalism

REQUIREMENTS FOR THE MINOR
Required 18 Hours minimum
COMM 494W Communication Ethics (three hours)
Two of the following courses (six hours)
COMM 201 Human Communication & Society
COMM 210 Mass Communication & Society
COMM 301W History of Communication
COMM 407 Intercultural Communication
COMM 494W Communication Ethics
### DEPARTMENT OF COMMUNICATION

#### UNDERGRADUATE CURRICULUM

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>102</td>
<td>Public Speaking</td>
<td>3 cr</td>
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<tr>
<td>103</td>
<td>Introduction to Interpersonal...</td>
<td>3 cr</td>
</tr>
<tr>
<td>111</td>
<td>Introduction to Media Arts</td>
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<tr>
<td>120</td>
<td>Acquisition of Communicative Behavior</td>
<td>3 cr</td>
</tr>
<tr>
<td>145</td>
<td>Audio Production 1</td>
<td>3 cr</td>
</tr>
<tr>
<td>146</td>
<td>Audio Production II</td>
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<tr>
<td>151</td>
<td>Voice and Diction</td>
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<tr>
<td>177</td>
<td>Language for Journalists</td>
<td>0 cr</td>
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<tr>
<td>182</td>
<td>Photocomposition, Digital Imaging</td>
<td>3 cr</td>
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<tr>
<td>201</td>
<td>Human Communication and Society</td>
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</tr>
<tr>
<td>202</td>
<td>Business &amp; Professional Communication</td>
<td>3 cr</td>
</tr>
<tr>
<td>210</td>
<td>Mass Communication and Society</td>
<td>3 cr</td>
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<tr>
<td>214</td>
<td>Introduction to Debate</td>
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<tr>
<td>215W</td>
<td>Media Design and Script Writing</td>
<td>3 cr</td>
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<tr>
<td>240</td>
<td>Video Production Studio</td>
<td>3 cr</td>
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<tr>
<td>251</td>
<td>News Analysis</td>
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<tr>
<td>271W</td>
<td>News Writing &amp; Reporting I</td>
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<tr>
<td>275W</td>
<td>Color Photography</td>
<td>2 cr</td>
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<td>285W</td>
<td>Television Criticism</td>
<td>3 cr</td>
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<tr>
<td>301W</td>
<td>History of Communication</td>
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<td>304W</td>
<td>Persuasion</td>
<td>3 cr</td>
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<td>308</td>
<td>Nonverbal Communication</td>
<td>3 cr</td>
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<tr>
<td>333</td>
<td>Advertising and PR Campaigns</td>
<td>3 cr</td>
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<td>340</td>
<td>Video Production EFP/ENG</td>
<td>3 cr</td>
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<td>351</td>
<td>News Announcing</td>
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<td>355</td>
<td>Acting for the Camera</td>
<td>3 cr</td>
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<td>369</td>
<td>Media Programming</td>
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<td>370</td>
<td>Media Promotion</td>
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<td>371W</td>
<td>Media Analysis</td>
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<td>375W</td>
<td>Editing for Print</td>
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<tr>
<td>382</td>
<td>Advanced Photography/Photography &amp;...</td>
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<td>402</td>
<td>Argumentation and Debate</td>
<td>3 cr</td>
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<td>405</td>
<td>Multimedia Advertising &amp; Public...</td>
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<tr>
<td>411W</td>
<td>Rhetorical Criticism</td>
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<tr>
<td>412</td>
<td>Literary Journalism</td>
<td>3 cr</td>
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<tr>
<td>415W</td>
<td>Conflict Management on Organizations</td>
<td>3 cr</td>
</tr>
<tr>
<td>417</td>
<td>Multinational Communication</td>
<td>3 cr</td>
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<tr>
<td>418W</td>
<td>Mass Communication &amp; Everyday Life</td>
<td>3 cr</td>
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<tr>
<td>421</td>
<td>Communication and Gender</td>
<td>3 cr</td>
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<tr>
<td>427</td>
<td>Communication Management</td>
<td>3 cr</td>
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<tr>
<td>428</td>
<td>Visual Theory and Communication</td>
<td>3 cr</td>
</tr>
<tr>
<td>429</td>
<td>Advertising Production</td>
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**Minor Concentration (nine hours)**

- Communication Studies
- Media Studies
- Journalism

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**THE McANULTY COLLEGE OF LIBERAL ARTS**

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**Core Requirement**
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 iconic symbolism into overall class 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
Examines and applies public relations, publicity, media coordination, and event organization and management skills necessary for success in the sports industry

436 Mass 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 multi-faceted dimension of sales within contemporary business environments — with special emphasis on the tools for media sales

441 Interactive Video 3 cr
Investigates interactive video as a medium that goes beyond linear media. Examines its applicability in industrial and educational environments

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

457 Communication, Science, and Revolution 3 cr
Examines how communicative beliefs built upon assumptions common to science and revolution influenced the "modern" world's understanding of communication

458 Communication and 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, Perlmutter, Ong and Hudson

467 Advanced Writing for Radio & Television 3 cr
Teaches newswriting for radio and television in a lecture-laboratory course

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

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

473 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

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

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

476W Media Law and Regulation 3 cr
Examines the legal rights, privileges, ethics, and responsibilities of the mass media — electronic and print

480 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

481 Practicum in Debate 1-6 cr
Uses meetings for critiques of practice performances, sharing of evidence, construction and analysis of arguments and interpretations. Designed for all persons on the University Debate Team

482 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

484 Health Communication 3 cr
Examines communication theory and research as it relates to the health care context

490 Special Topic 3 cr
Check semester class offerings for special classes offered

491 Media Information and Technology 3 cr
Examines societal impact and the political economy of information and technological diffusion

492 Seminar Current Issues in Communication 3 cr
Discusses professional problems and advancements in the field of Communication

493 Multi-Media Production 3 cr
Provides practicum based experience and professional-level production environment to advanced production students

494W Communication Ethics 3 cr
(400-level course)
Explores theoretical and practical issues in the explanation of ethical options and decisions in relational, organizational and media contexts

496 Directed Reading 1-6 cr
Offers the opportunity for students and faculty to conduct a deep study of a topic not covered, or covered only briefly, in other departmental courses

497 Special Projects 1-6 cr
Offers the opportunity for students to prepare print or electronic products (e.g., brochures, slide shows, video programs, etc.) commissioned by University or community organizations

498 Internship 1-6 cr
Provides a supervised observation/experience program of study (assignment and performance) in areas such as media, marketing, editorial, human resources, and public relations. Most placements are in the Pittsburgh/Western Pennsylvania area

499 Undergraduate Honors Thesis 3 cr
Proposal submitted by student approved by thesis advisor and Chair of Department

DEPARTMENT OF ENGLISH
Chairperson
Ronald C. Arnett, Ph D

The Department of English offers a wide range of courses in English and American literature, writing, linguistics, and literary theory. Although courses are taught from a variety of critical perspectives, the faculty are committed to imparting to every student a clear sense that no literary work exists in a historical vacuum. Every work of the creative imagination is a product of its own time that also stands in some meaningful relation to what has preceded it, in its turn becomes a part of the historical matrix out of which succeeding generations of artists bring forth new works. Literary study is the intensive study of texts in their manifold relations as aesthetic objects, as social documents, as chapters in the history of an idea or a people, as occasions for meditation or revolution.

Students of English learn literature, but through the opportunities for analysis, discussion, and written composition, they also develop clarity of thought, precision of expression, and informed critical judgment.

Although there are no formally defined sub-specialties within the English major, there are enough course options to engage students with a particular interest in such areas as film, literary theory, genre studies, linguistics, literary history, gender studies, and World Literature.

Cooperative Programs
The affiliation of the Departments of English and and the Department of Communication, professionally separate but sharing a common center in language and interpretation, creates the possibility of distinctive interdisciplinary programs, such as a double major in English and Communication. Under this program students must meet all existing requirements for a major in one of these disciplines, and may complete a second major in the other, with only 24 additional credits.

The Departments of English, Classics and Modern Languages and Literatures offer a major in World Literature.

The Department of English and the School of Education have approved a course of study leading to two degrees, a B A in English and a B S in Education, and mutual certification in English, in a total of 129 credits.

Prerequisites — For all 200-level courses, students must have completed Core 101, Thinking and Writing Across the Curriculum (or its equivalent) Core 102, Imaginative Literature and Critical Writing (or its equivalent), may be taken concurrently by permission of the Chair. For all 400-level courses, students must have taken Core 101 and 102 and at least one English course at the 200-level. Individual courses numbered above 200 may require specific prerequisites, for more information, consult the Department

REQUIREMENTS FOR THE MAJOR
Total 30 credits

200-Level Courses 6 credits
(2 courses chosen from the following group 201, 202, 205, 206, 210, 211)

400-Level British Literature Courses 9 credits
Three courses chosen from three of the following areas in British Literature and Studies (1) Medieval, (2) 16th/17th Century (including Shakespeare), (3) 18th/19th Century, (4) 20th Century (British/American)
400-level American Literature Course 3 credits
If an American literature course is taken to fulfill the 20th Century requirement above, this requirement must be met with a course in pre-20th Century American literature

400-level Theoretical Course 3 credits
(During final registration, the English Department will list the courses that fulfill this requirement)

Senior Seminar 3 credits
This seminar may fulfill one of the 400-level requirements above

Elective 6-9 credits (including Internships)

REQUIREMENTS FOR THE MINOR
Eighteen credit hours in English above the 100 level required for the English minor. No more than six hours in English may be taken at the 200 level. English minors will concentrate their studies in one of the following three emphases: British and/or American Literature and Studies, Film Studies and Literature, Writing. Additionally, English minors must fulfill the following minimum requirements:

- Any two courses from the following English 201, 202, 205, 210, 211 Under ordinary circumstances, this requirement must be fulfilled by the end of the sophomore year.
- 300-400-level courses offered by the English Department to make up the required number. These courses should be taken in one of the areas of emphasis indicated above. One advanced course from another area may be substituted.

COURSES

201 English Literature Survey I — Through the Eighteenth Century 3 cr
Representative works of English literature in their literary and historical contexts

202 English Literature Survey II — Nineteenth and Twentieth Centuries 3 cr
Representative works of English literature in their literary and historical contexts

203 Advanced Writing 3 cr
Style and precision in expository writing

205 American Literature Survey I — Beginning to 1865 3 cr
Representative selections from American authors treated in their literary and historical contexts

206 American Literature Survey II — After 1865 3 cr
Representative selections from American authors treated in their literary and historical contexts

207 The Novel 3 cr
Introduction to various types of novels and to critical analysis of fiction

208 Poetry 3 cr
Critical analysis of British and American traditional and experimental poetry

209 Drama 3 cr
A historical survey of dramatic forms from the classic to the modern

210 Readings in Western Literature I 3 cr
A thematic survey of non-British literature through the Renaissance

211 Readings in Western Literature II 3 cr
A thematic survey of non-British literature from the Renaissance onwards

215 Non-Western Literature 3 cr
English translations of representative Asian and African literature

308 Applied Linguistics 3 cr
Practical uses of structural linguistics in the teaching of composition and literature

370, 371, 372, 373, 374, 375, 376, 377, 378, 379 Special Studies in English, American, or World Literature 3 cr ea
Various courses meeting current interests of faculty and students

380, 381, 382, 383, 384, 385, 386, 387, 388, 389 Writing Workshops 3 cr ea
Creative and professional writing courses with admission by instructor’s permission only

The remainder of the courses are divided into areas of emphasis: During a four-year period, each course from each area will be offered at least once.

Special Topics in any historical period deals with major writers, dominant genres, significant works, or important themes of the particular period. Detailed course descriptions are available in the English Department.

Senior Seminars deal with topics similar to those above in a seminar format and are open only to English majors and minors if space is available. Detailed course descriptions are available in the English Department.

Medieval Studies

400 Senior Seminar Medieval English Literature 3 cr

402 Chaucer 3 cr
A study of The Canterbury Tales and minor poems

410 Medieval Special Topics 3 cr

Sixteenth/Seventeenth Century Studies

411 Senior Seminar Sixteenth/Seventeenth Century English Literature 3 cr

413 Sixteenth Century English Literature 3 cr
Non-dramatic 16th century literature including Sidney, Spenser, and Shakespeare

415 Milton 3 cr
A survey of Milton and his times. A close scrutiny of the minor poems, Paradise Lost and Samson Agonistes

416 Seventeenth Century English Literature 3 cr
Survey of drama, prose, and poetry to 1660

419 Sixteenth/Seventeenth Century Special Topics 3 cr

Shakespeare Studies

412 Shakespeare I 3 cr
Comedies and romances

418 Shakespeare II 3 cr
Histories and tragedies

Eighteenth Century Studies

420 Senior Seminar Eighteenth Century English Literature 3 cr

422 Restoration Literature, 1660-1740 3 cr
Dryden and his contemporaries. Particular emphasis on satire, drama, and criticism

424 English Classicism 3 cr
Neo-classical literature from the Restoration to the death of Pope, focusing primarily on Swift and Pope

428 Late Eighteenth Century English Literature 3 cr
Johnson and his circle, the development of the novel, the aesthetic movement

429 Eighteenth Century Special Topics 3 cr

Nineteenth Century Studies

430 Senior Seminar Nineteenth Century English Literature 3 cr

435 English Romantic Literature 3 cr
The aesthetic, moral, political, and literary aspects of English Romanticism focusing on Wordsworth, Coleridge, Byron, Shelley, and Keats

436 Victorian Literature 3 cr
The poetry of Tennyson, Browning, and Arnold and the prose of Arnold, Carlyle, and Ruskin

439 Nineteenth Century Special Topics 3 cr

American Studies

440 Senior Seminar Earlier American Literature 3 cr

441 Colonial American Literature 3 cr
A cultural/historical approach to the theological, political, and aesthetic developments in 17th and 18th-century America

442 American Literature of the National Period 3 cr
Post-revolutionary literature focusing on Irving, Brown, Cooper, Simms, Rowson, Child, and Sedgwick

445 American Romanticism 3 cr
The Romantic transcendental movement emphasizing Emerson, Thoreau, Poe, Hawthorne, Melville, and Whitman

446 American Realism and Naturalism 3 cr
Post-Civil War fiction of Twain, Howells, James, Chopin, Wharton, Crane, and Norris

449 American Literature Special Topics 3 cr

Twentieth Century Studies

450 Senior Seminar Twentieth Century English/American Literature 3 cr

452 English Literature from 1890 to 1945 3 cr
Tradition and innovation in the works of such writers as Conrad, Yeats, Eliot, Rhys, Woolf, and Joyce

453 English Literature since 1945 3 cr
Literary innovations reflecting the century’s cultural and philosophical shifts

456 American Literature from 1900 to 1945 3 cr
Poetry, fiction, non-fiction in such diverse literary trends as Modernism, the Harlem Renaissance, the Southern Renaissance, and regional writing

457 American Literature since 1945 3 cr
Various styles, trends, and cultural issues in contemporary poetry, fiction, and non-fiction

458 Twentieth Century Special Topics 3 cr

Studies in Language, Criticism, and Theory

460 The English Language 3 cr
Linguistic analysis with primary emphasis on the history of the structure of English

461 Senior Seminar Language/Criticism/Theory 3 cr

462 Introduction to Linguistics 3 cr
Basic principles and methods of modern linguistics, emphasizing phrase-structure grammar and its practical application to teaching

464 Modern English Grammar 3 cr
Phrase-structure (generative-transformational) grammar and its application to writing

465 History of Literary Grammar 3 cr
A study of the major statements about the nature of literature and the nature of criticism

466 Literary Theory 3 cr
Principal developments in 20th-century literary theory and criticism, emphasizing New Criticism, structuralism, post-structuralism, Marxism, and feminism
DEPARTMENT OF HISTORY
Chairperson
Jerry K. Blatz, Ph.D.

REQUIREMENTS FOR THE MAJOR
A minimum of thirty credits must be taken including Writing History (311), History of U.S. I and II (103 and 104) and either Western Civilization I (111) or II (114). At least six credits must be taken at the 400-Level. Six credits of Art History can count for a History major.

Any History major may take up to six credits of Art History. A History major with a concentration in Art History is required to take 30 credits of History and Art History courses, which must include Western Civilization I and II (113, 114), Art History: Ancient through Medieval (111) and Art History: Renaissance to Modern World (112), and a Senior Honors Seminar or a Directed Readings course in Art History. Of the fifteen additional credits, at least nine must be taken in Art History courses above the 300-Level.

A maximum of twelve transfer credits in History can be applied to the major requirement.

REQUIREMENTS FOR THE MINOR

Students who wish to minor in History should consult with a department undergraduate mentor. The student is required to take fifteen hours including History of the U.S. I and II (103 and 104).

The Art History minor in History consists of fifteen credits of Art History courses, with at least nine credits at the 200, 300, and 400 levels.

100 History of the United States to 1877 3 cr
The historical development of American institutions, ideals, and society, from earliest times 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.

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 History of Asia 3 cr
A survey of Asian civilization from ancient times to the present day, western colonialism, the rise of the nationalist movement, and the establishment of modern states.

257, 258 Russian History I & II 3 cr each
Development of society and state in Russia from their origins through the 20th century.

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, Croat, Slovenes, Ukrainians, and Hungarians. The major themes include struggles for national independence, the impact of Soviet control after World War II, and the reassertion of national sovereignty after the end of the Cold War.

265 England to 1715 3 cr
The foundations of England, emphasizing the origins of the common law, the rise of parliament, the development of English society, and England's contribution to Western thought.

266 Modern Britain 3 cr
A study of the first industrial nation, with special attention to the achievement of constitutional monarchy, the social and economic problems of industrialization, the nature of British imperialism, and the problems faced in the 20th century.

267 Canada 3 cr
An introduction to Canadian history, with particular attention to the years from 1763 to the present. Canadian-American relations, and contemporary Canada.

270 Colonial Latin America 3 cr
A survey of the area, beginning with the complex and powerful native American civilizations that idealized, and central and South America until their conquest by Spain and proceeding through the development of colonial economies and the growing tensions that led to the struggle for independence.

271 Modern Latin America 3 cr
A course which examines society and politics in modern Latin America, from Puerto Rico and Cuba in the Caribbean, through Mexico and Central America, to Peru, Argentina, Chile and Brazil in the south. Among other themes, it explains the persistent recurrence of political dictatorship and economic crisis across this diverse and dynamic land.

302 Age of Crusades 3 cr
For more than five hundred years during the Middle Ages, the Islamic, Byzantine, and Christian worlds were locked in a savage contest over land and religion, yet, at the same time, these same cultures cooperated with each other in trade, politics, and scholarship. Using a multicultural interdisciplinary approach, this course examines how and why this occurred, how and why the Crusades defined medieval culture, and how this age has influenced current geopolitical conditions in the Middle East, the Near East, and the West.

303 Age of Columbus 3 cr
Explains the impact on the world made by the voyages of discovery in the 15th and early 16th centuries, emphasizing the contributions and consequences of a single mariner, Christopher Columbus, and the single most important legacy of the Columbus voyages—an interdependent and interconnected world.

305 History of Medicine 3 cr
A survey exploring the development of medicine as both an art and a science. The latter part of the course will focus on the social and institutional aspects of the development of American medicine.

311 Writing History 3 cr
Through intensive writing activities in a seminar format, students explore the nature of historical evidence and how to formulate that evidence into cogent descriptions and analyses.

320 Colonial America 3 cr
The exploration and settlement of the British North American Colonies to 1763.

321 American Revolution 3 cr
A survey of the major events, persons, and movements in American history from 1763 to 1790.

329 Pennsylvania and the American Revolution 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.

330 History of the Western Law 3 cr
Primary emphasis will be placed on the rise of customary law, especially its development in England and America.

340 History of Western Law 3 cr
A study and analysis of the phenomenon of war in the West from the Ancient World to the Enlightenment, with a special emphasis not only on how and why warfare affected society and brought about changes in politics but also on how soldiers lived their lives and did their duty.

343 Church History 3 cr
A religious and historical exploration of the growth of Christianity from the first century, discussion of those issues within the Church and the external forces which brought about major conflict and development.

345 American Church History 3 cr
Emphasizes the historical development of major religious traditions in America, both Catholic and Protestant.

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 interactions between international conflict and social, political, and technological change.

348 Family and Society in History 3 cr
Interaction between the family, the traditional basic unit of society, and the larger world in modern times, focusing on the changing nature of the family in an effort to better understand the modern institution.

357 History of the American Presidency 3 cr
Primarily an investigation and evaluation—personal, political, contemporary, and historical—of each president with some attention to the growth of the office.

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 Civil 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.

362 History of the United States Political Parties 3 cr
A detailed examination and analysis of the origins, leadership, and operation of the major political parties since 1868.

364 The American Mind 3 cr
The origins, development, and contemporary modes of American thought, including major "climates of opinion," diverse movements, and selected scientific, political, religious, social, and artistic topics.

366 The Modern Mind 3 cr
The major ideological tendencies of modern European thought and their connection to society and politics, and to the major philosophic and scientific currents of the 19th and 20th centuries.
367 Science and Society in the Twentieth Century 3 cr
The economic, social and cultural consequences of the rise of modern science

375 History of Inner Asia 3 cr
The history of Inner Asia from Genghis Khan's Mongol Empire to Michael Gorbachev's Soviet Empire

378 Europe and International Politics 1870-1970 3 cr
A study of global international relations since 1870, with emphasis upon the revolution from a European-centered world to global politics

379 Revolution in the Modern World 3 cr
An analysis of the major political and social revolutions since 1789, the nature of the revolutionary phenomenon, and the inevitable counter-revolutionary trend

382 Psychohistory 3 cr
Examines the interrelationships between psychology—especially psychoanalysis—and history, including the psychology of leadership, of group behavior, of war, etc.

386 The American South 3 cr
By focusing primarily on the antebellum era, this course offers an examination of a distinctive region and culture that illuminates the construction of American civilization

387 Native American History 3 cr
Contact, Conquest, and Colonization
This course focuses on Native American societies and the nature of their contact and conflicts with European settler societies from the 1490s to the 1840s

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

389 Europe Industrialism and the Masses 3 cr
A historical analysis of Europe in the last two centuries with particular attention to the relationship between technological and social change and its impact on politics and culture

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 History of the 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 20th century

397 Reform in Modern America 3 cr
The study of the progressive reform movements in the United States since the Civil War

398 Economic History of the United States 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 appropriate 100-level courses

401 Medieval Europe 3 cr
An exploration of the elements which, taken together, comprise the unique culture of the Middle Ages

413 Renaissance Europe 3 cr
A lecture and discussion course, including audiovisual presentations, emphasizing political, economic, social, and cultural developments in Europe from 1300 to 1500, with special emphasis on these developments in Italy

414 Reformation Europe 3 cr
An examination of the history of Europe between 1648 and 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 monarchs, and the great catalyst of the French Revolution that ushered in the modern world

417 Reason and Revolution 3 cr
An exploration of the history of Europe between 1648 and 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 monarchs, and the great catalyst of the French Revolution that ushered in the modern world

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

421 Europe in the Era of Fascism 3 cr
An examination of the impact of World War I on European society, the rise of fascist movements and the paralysis of democracy, the nature of the fascist regimes, and the impact of fascism on European diplomacy

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
REQUIREMENTS FOR A MAJOR

The student may choose to pursue a major in mathematics with a program leading to a Bachelor of Arts (B.A.) or a Bachelor of Science (B.S.) degree. The B.A. program, which requires a minimum of 33 semester hours of mathematics, allows a great deal of flexibility for persons interested in combining the major program with a strong minor or double major in another discipline. The B.S. program, which requires a minimum of 39 semester hours of mathematics, is recommended for students interested in scientific applications or further study in mathematics on the graduate level. Requirements are as follows:

Mathematics Core (B.A. and B.S.) 115, 116, 215, 216, 300W, 306, 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.

Extra-disciplinary Requirements (B.A. and B.S. Computer Science 150. Additional B.S. Mathematics Requirements

Applications component At least one course chosen from 301 and 308

Theoretical component At least two courses chosen from 403W, 412W, 416W, and 420

Additional B.S. Extra-departmental Requirements

General Analytical Physics 211-212

REQUIREMENTS FOR A MINOR

The minimum requirements for a minor in mathematics are 115-116 and 9 additional hours in courses numbered 150-399 or above including at least one course numbered 300 or above.

MATHMATICS COURSES

101 College Algebra 3 cr

Algebraic expressions, equations and inequalities. Algebraic, exponential, and logarithmic functions and graphs, simultaneous equations and inequalities. Credit is not allowed for both 101 and 105

102 Trigonometry 1 cr

Trigonometric functions and their properties. Credit is not allowed for both 102 and 105

105 College Algebra and Trigonometry 4 cr

The same topics as 101 combined with 102. Credit is not allowed for both 101 and 105 or both 102 and 105

111 Calculus for Non-science Students 3 cr

Limits, continuity, differentiation of algebraic, exponential and logarithmic functions. An introduction to integration. Credit is not allowed for both 111 and 115. Prerequisite: 101 or equivalent

115 Calculus I 4 cr

The same topics as 111 except trigonometric functions are included. Credit is not allowed for both 111 and 115. Prerequisite: 105 or equivalent

116 Calculus II 4 cr

Applications of the definite integral, parametric equations, polar coordinates, sequences, and series. Prerequisite: 115 or equivalent

125 Fundamentals of Statistics 3 cr

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

135 Discrete Mathematics 3 cr

Sets, functions, relations, partial order, methods of propositional logic, introduction to predicate logic, counting, recurrence relations, asymptotic analysis, proof, including induction, introduction to probability, and graphs

215 Calculus III 4 cr

Calculus of functions of several variables and vector-valued functions. Line and surface integrals. Prerequisite: 116

216 Ordinary Differential Equations 3 cr

First order equations, linear equations, differential operators, Laplace transforms, power series techniques. Prerequisite 215

225 Introduction to Biostatistics 3 cr

Descriptive statistics, sampling distributions, confidence intervals, hypothesis testing, non-parametric methods, chi-square tests, regression and correlation methods, and analysis of variance. Credit is not allowed for both 125 and 225. Prerequisite: Evidence of college level algebra skills

300W Foundations of Higher Mathematics 3 cr

Mathematical logic, proof techniques, sets, relations, and functions. Prerequisite: 116

301 Introduction to Probability and Statistics I 3 cr

Univariate and multivariate probability distributions of discrete and continuous random variables, mathematical expectations, limit theorems. Prerequisite: 116

302W Introduction to Probability and Statistics II 3 cr

A continuation of 301 including probability and sampling distributions of random variables, confidence intervals, and hypothesis testing. Prerequisite: 301

306 Linear Algebra 3 cr

Systems of linear equations, vectors and matrices, determinants, vector spaces, linear transformations, eigenvalues, and eigenvectors. Prerequisite: 116

308 Numerical Analysis 3 cr

Linear systems, interpolation, functional approximation, numerical 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)

311 Number Theory 3 cr

Divisibility, congruences, quadratic residues, diophantine equations, and arithmetic functions. Prerequisite: 300W

325W Applied Statistics with Regression 3 cr

One-way, two-way analyses of variance, Latin squares, methods of multiple comparisons, analysis of covariance, balanced and unbalanced designs, linear and multiple regression. Prerequisite: 225 or 301, or permission of instructor

330W Fundamentals of Geometry 3 cr

Euclidean and non-Euclidean geometry from both the synthetic and metric axiomatic approach. Prerequisite: 300W

402W Abstract Algebra I 3 cr

An introduction to algebraic structures rings, ideals, integral domains, fields, and groups, as well as homomorphisms and isomorphisms. Prerequisites: 215, 300W, and 306

403W Topology 3 cr

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

412W Abstract Algebra II 3 cr

A deeper examination of the algebraic structures studied in 402W including quotient groups and rings, external field, and other selected topics. Prerequisite: 402W

415W Advanced Calculus I 3 cr

Functions, sequences and series, limits, continuity and uniform convergence, derivatives. Prerequisites: 215, 300W, and 306

416W Advanced Calculus II 3 cr

A continuation of 415W including integration theory and additional topics in analysis. Prerequisite: 415W

420W Introduction to Complex Variables 3 cr

The complex number plane, analytic functions, integration methods, and conformal mappings. Prerequisite: 415W

425W Experimental Design 3 cr

Factorial designs, fixed and random effects models, nested and nested-factorial designs, split-plot designs, response surface designs. Prerequisite: 325W or permission of instructor

491-99 Selected Topics of Mathematics 1-3 cr

COMPUTER SCIENCE PROGRAM

The major objectives of the computer science program are to provide the student with a knowledge of the theoretical basis of computing, an appreciation for the relationship between the various components of the field, skills in applying the subject to practical problems, and an ability to adapt to new technologies and advancements. Courses in the curriculum give the student appropriate tools to identify problems best solved by means of a computer and to be able to implement effective economical and creative solutions for them. Typically students gain practical exposure to a number of programming languages including Ada, Assembly, C, C++, Java, Lisp, and Prolog, and operating systems including Unix, VMS, and DOS/Windows. Offerings provide opportunities for students seeking courses supporting other disciplines as well as comprehensive programs leading to a major or minor in computer science.

REQUIREMENTS FOR A MAJOR

The student may choose to pursue a major in computer science with a program leading to a Bachelor of Science (B.S.) or a Bachelor of Arts (B.A.). The B.A. program, which requires a minimum of 30 semester hours in computer science, allows a great deal of flexibility for persons interested in combining the major with a strong minor or double major in a non-science discipline. The B.S. program, which requires a minimum of 40 semester hours in computer science, is recommended for students interested in scientific applications or study in computer science at the graduate level. Requirements for all majors are as follows:

Computer Science Core: 150, 210, 220, 300, 325W, and 350W (each with a grade of "C" or better)

Additional B.A. Computer Science Requirements

At least 12 additional hours at the 300-level or above (at least 6 of which must be taken at the 400-level)

Additional B.S. Computer Science Requirements

480W and at least 21 additional hours at the 300-level or above (at least 9 of which must be taken at the 400-level)

Mathematics Support Courses (B.A. and B.S.) 115-116 (Calculus I & II) and 135 Discrete Mathematics

Additional B.S. Support Courses

Mathematics 301 (Intro to Probability and Statistics) and at least one additional credit at the 200-level or above

Science One semester sequence acceptable for major credit in that science and four additional credits in science course(s) for majors or course(s) approved by the department which enhance the student’s ability to apply the scientific method and emphasize quantitative methods.
REQUIREMENTS FOR A MINOR
A minimum of 15 credits in computer science and 3 credits in Discrete Mathematics is required for a minor. All programs must include Computer Science 150 and 210 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 3 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.

150 Computer Programming C++ 3 cr
Object oriented programming, objects and classes, functions, files and libraries, selections, repetitions, arrays, strings, structures, searching, and sorting.

210 Data Structures 3 cr
Dynamic allocation, stacks, queues, linked lists, induction, recursion, stacks, trees, string processing, advanced searching, and sorting, and hashing. Prerequisites 150 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 210.

253 Programming Languages JAVA 1 cr
Object-oriented language, containing such features as classes, objects, inheritance, message passing, and exception handling.

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, tries, B-trees, and graphs. Prerequisite 210.

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 course to MATH 308. Credit can only be received for one of COSC 308 or MATH 308. Prerequisites 150 and MATH 116.

311 System Programming and Design 3 cr
Interaction between software and hardware components in an integrated system, program translation issues, assemblers, linkers, loaders, and compilers. Prerequisite 220.

325W Operating Systems and Computer Architecture 3 cr
Organization of operating systems and basic computer architecture. Implementing multiprogramming, memory management, communicating with input/output devices, concurrency, synchronization, file systems and scheduling the processor. Prerequisite 220.

350W Computers and Humanity 3 cr
An exploration of the impact of computerization on present and future society. Including sociological and philosophical issues in computer science. Prerequisite: one course in computer science or permission of instructor.

401 Data Base Management Systems 3 cr
The use, design, and implementation of data base management systems. Topics include data models, current DBMS implementations, and data description, manipulation, and query languages. Prerequisite 300.

410 Artificial Intelligence 3 cr
Knowledge representation and natural language processing, search strategies, design and applications of heuristics, expert systems, and applications. Prerequisite 300.

418 Formal Languages and Automata 3 cr
Formal languages and their relation to automata. The Chomsky language hierarchy, recognition of languages by automata, Turing machines, decidability, and computability. Prerequisite 300.

425 Computer Graphics 3 cr
Geometric generation of two- and three-dimensional graphs. Scan conversion, geometric transformation, clipping, interaction, curves and surfaces, and animation. Prerequisite 300.

435 Theory of Programming Languages 3 cr
Semi-formal methods for the description of programs. Topics include semantical issues in program language definition and implementation. Static vs. dynamic properties, parameter passing, recursion, and language comparisons. Prerequisite 300.

445W Systems Analysis and Software Design 3 cr
Methods and tools for the structuring and modular design of large systems, organization and techniques of team programming, design evaluation and validation. Prerequisite 300.

450 Computer Networks 3 cr
Network technologies, protocols, and network programming programmed applications. The effects of the Internet and World Wide Web on computing and society. Prerequisite 300.

480W Senior Project 1-3 cr
An individual or group project involving a significant programming component, documentation, and written report on a topic of current interest in computer science. Prerequisites: Senior status and 300.

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

491-499 Selected Topics in Computer Science 1-3 cr
Topics selected in consultation with the advisor. Prerequisite: Consent of the department chairperson.

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

Chairperson
Carla E Lucente, Ph D

The Department of Modern Languages and Literatures offers courses in Chinese, French, German, Italian, Japanese, and Spanish. The four language 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 and also in written and oral translation, internships here and abroad can be obtained. Courses at the 300 and 400-levels are conducted in the target language. All students prior to enrollment in their first course 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 towards 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.

REQUIREMENTS FOR THE MAJOR

The Department offers a major program in Spanish. In addition, it offers a minor in French, German, Italian, as well as non-major courses in Chinese and Japanese.

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 its equivalents. Proficiency at the 202-level or its equivalents is the prerequisite to all courses numbered 301 and above.

The major program in Modern Languages and Literatures consists of a minimum of 27 credits at the 300-level and above. Majors and minors should consult with the department concerning required courses.

REQUIREMENTS FOR THE MINOR

The minor program consists of a minimum of 12 semester hours at the 300-level and above. As for the certificates, inquire at the department office.

490 Independent Field Study (All Languages) 1-3 cr
Under the supervision and guidance of the instructor in foreign countries and the permission of the Department chairperson.

495 Professional Language Internship 3 cr
A paid or unpaid internship consisting of 100-120 hours of supervised work with permission of the Department chairperson.

French

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

102 Elementary French II 4 cr
Fundamentals of oral and written French. Weekly lab attendance. Prerequisite French 101 or its equivalent.

115 French for Musicians 2 cr

120 Intensive French 6 cr

125 Intermediate French I 4 cr
Emphasis on the written and oral aspects of the language. Weekly lab attendance. Prerequisite French 102 or its equivalent.

126 Intermediate French II 4 cr

239, 240 Readings in Modern French Authors 3 cr each

301 French Conversation and Composition I 3 cr
Prerequisite 202.

302 French Conversation and Composition II 3 cr
Prerequisite 301.

303 Intensive French Conversation and Composition 6 cr
The equivalent of 301 and 302 which fulfill the prerequisite for all courses above this level. Prerequisite French 202.

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

320 Stylistics 3 cr
Comparative study of English/French style in spoken and written French.
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<td>468</td>
<td>Goethe's Faust</td>
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<td>Literature of the Enlightenment</td>
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<td>Sturm und Drang</td>
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<td>480</td>
<td>Directed Readings</td>
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<td>Realism and Naturalism</td>
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<td>Existentialism</td>
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<td>327</td>
<td>The Symbolist Movement in French Poetry</td>
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<td>328</td>
<td>French Poetry</td>
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<td>329</td>
<td>17th Century French Literature</td>
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<td>330</td>
<td>French Prose of the 19th Century</td>
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<td>331</td>
<td>18th Century French Literature</td>
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<td>332</td>
<td>Voltaire and His Age</td>
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<td>360</td>
<td>French for Business</td>
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317 Modern Tradition Post Modern Turn 3 cr
322 The Nineteenth Century Novel 3 cr
Examines the realist, naturalist, and regionalist novel
323 Don Juan as a World Literary Figure 3 cr
324 The Generation of 18 3 cr
Major works of Spain's turn of the century authors in their aesthetic and historical contexts
325 Contemporary Spanish Novel 3 cr
The Spanish novel since the Civil War
326 Contemporary Spanish-American Fiction 3 cr
327 Spanish Culture and Civilization 3 cr
A study of the major cultural and socio-political movements of Spain through its literary works and religious thought
328 Modern Spanish Theatre 3 cr
From Buero Vallejo to the present, including the "Underground Theatre"
329 Revolt and Change Spanish American Literature 3 cr
Nature and types of protest in modern Spanish-American Literature Major works of "protest literature"
330 Theatre of the Gold Age 3 cr
Focus on the major dramatists of the period Lope de Vega, Calderon and Tirso de Molina
360 Spanish for Business 3 cr
Spoken and written language of business Spanish
401 Spanish Literature from the Cid through the Siglo de ORO 3 cr
Major works from the Medieval Period through the 17th Century Required for major
402 Spanish Literature from the 18th Century to the Present 3 cr
Major works from the 18th Century to the present Required for major
453 Trends in Latin American Literature 3 cr
Major movements and representative works from Pre-Columbian period to the present Required for major
460 The Quixote 3 cr
An in-depth study of Cervantes' masterpiece and of the symbolic meaning of the two main characters
461 Spanish Literature since the Civil War 3 cr
The Civil War was mirrored in this literature Its relationship to contemporary literary expression in other countries From Hernandez through Goytisolo and Sastre
462 Avant-Garde Spanish-American Theatre 3 cr
Historical perspective Influence of European avant-garde

463 Lorca and the Generation of 1927 3 cr
Major poets of the "Lorca-Guillén generation" who brought Spanish poetry to the new "Siglo de Oro"
464 The Literature of the Siglo de ORO 3 cr
Spain's most glorious era through the poetry, prose, and drama of its major authors
465 Literature of Spanish Romanticism 3 cr
Study of the major poems, plays and historical novels of the period
466 The Age of Enlightenment 3 cr
Major 18th century Spanish writers
467 Advanced Spanish Grammar 3 cr
Selected readings from writings of Hispanic women from the Middle Ages to the present
469 Readings in Medieval Literature 3 cr
Spanish literature from its oral tradition, the evolution of the Spanish language, from "jarchas" through La Celestina
471 Latin American-U S Literature 3 cr
480 Directed Readings 1-6 cr
Reading of literary texts under close faculty supervision for majors only and only with written permission of the Department chairperson
Additional courses are offered as need and interest arise

DEPARTMENT OF PHILOSOPHY
Chairperson
Eleanor Holmbeck, 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 continental philosophy is a specialty
Philosophy fosters the ability to read with understanding, to think logically, to argue rationally, and to evaluate positions critically Majors have distinguished themselves in careers in philosophy, law, business, and in the priesthood

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

INTRODUCTORY COURSES

COR2 132 Basic Philosophical Questions 3 cr
Philosophy, "the love of wisdom," is a discipline for discussing basic questions about ourselves and our world Students read selected works by major figures throughout the history of philosophy, they are encouraged to think critically and to formulate their own answers to perennial philosophical questions This course is required for all students in the university It counts as the first course for the major and minor in philosophy
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 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 concentrates on concrete case studies from various fields Prerequisite PHIL 105 Ethics

BASIC COURSES are useful electives for general undergraduates Prerequisite at least one 100-level course in philosophy
204 Literature and Philosophy 3 cr
This course explores philosophical themes in selected works of literature
212 Political Philosophy 3 cr
Fundamental political questions are explored through readings from some classical but mainly from contemporary sources The link between philosophical and practical political themes is emphasized as much as possible
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
220 Philosophy of Death and Dying 3 cr
This course provides an introduction to traditional and contemporary themes and texts related to this

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
300 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
This course includes an analysis of valid reasoning, logical fallacies, types of definitions, arguments in ordinary discourse, and the formal logic of inferences
302 Early Modern Philosophy 3 cr
Major issues in modern thought beginning with Descartes are discussed Selected texts might include figures such as Montaigne, Pascal, Spinoza, Leibniz, Hume, and Kant
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 Prerequisite PHIL 302 or instructor's permission
305 Contemporary Philosophy 3 cr
This course concentrates on philosophy from 1900 to the present and covers the methods of selected 20th-century movements Prerequisite 302, 304, or instructor's permission

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 law, legal reasoning, and philosophical issues in evidence and procedure
270 American Philosophy 3 cr
This course covers some main figures in American pragmatism, including both classic (e.g., Peirce, James and Dewey) and recent (e.g., Quine, Putnam, and Rawls)
ADVANCED COURSES are designed for majors, minors, and other serious students of philosophy. Prerequisites at least one 100 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 preregistration. The following are a small sample from courses taught recently.

404 Plato’s Republic 3 cr
This course concentrates on Plato’s text, with a consideration of various interpretations.

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

420 The Philosophy of Saint Augustine 3 cr
The early dialogues and the Confessions will be discussed. Possible topics: skepticism, truth, free will, the existence of God, faith and reason, the soul, memory, and time.

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

460 Introduction to Phenomenology 3 cr
The phenomenological method originated by Husserl will be explored. Possible topics may include intentionality, signs, and meaning.

463 Problems in Ethics 3 cr
This course consists of a discussion of selected issues in ethics.

498 Philosophy of God 3 cr
This course introduces students to selected traditional and contemporary texts and base themes in types of religious experience, such as Babylonian, 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
Chairperson
Peter Roman, Ph D

Political Science studies the ideas, institutions, behavior, values, and goals of human collective life. The department stresses that understanding political life is a necessary part of the study of human existence, since politics is an expression of our deepest human concerns, e.g. for justice and order. Empirical and normative methods of understanding political life will lead students to an appreciation for subjects such as sources of conflict in international and domestic politics, similarities and differences among political structures and goals worldwide, debates about political ideals over the centuries, and United States’ political institutions and public law.

Political Science majors go on to law school and careers in law, government and administrative work at the local, state and national levels, jobs in private industry, finance, or the mass media, and continued studies at the graduate level.

REQUIREMENTS FOR THE MAJOR
Thiry semester hours are required, no more than six of which can be at the 100-level. These credits must include 105, 208 or 209, 245, 317 or 318, and 427 or 436.

A student transferring to Duquesne from another College or University may receive a maximum of 12 transfer credits applied to their major requirements.

REQUIREMENTS FOR THE MINOR
Fifteen credits are required, no more than three of which can be at the 100-level. A maximum of six transfer credits can be applied to the minor.

105 American National Government 3 cr
This survey course is designed to provide students with a foundation for understanding and critically assessing American political processes, institutions, and public policies.

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 literature.

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.

235 Mass Media and Politics 3 cr
Studies the role the media play in politics and the impact of the media on politics.

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 determinants of political beliefs and participation.

290 American Political Thought 3 cr
Examines diverse perspectives on American political thinking.

292 Public Policy 3 cr
A study of how and why government responds to problems.

294 The American Presidency 3 cr
Studies the Presidency and the role it plays at the center of the federal system.

295 War and Peace in the Nuclear Age 3 cr
An examination of the interaction between politics and the use of force in the nuclear age.

317, 318 Western Political Thought 3 cr each
A study of the ideas that constitute our western heritage of reflection on political issues. 317 considers theorists from the classical period to the early 16th century, 318 considers theorists from the late 16th to the late 19th centuries.

321 Government and Politics of Eastern Europe 3 cr
An examination of the political and cultural challenges in democratization and market economy transition.

322 Government and Politics of Russia and the Independent States 3 cr
An examination of the political and culture challenges in democratization and market economy transition.

323 Constitutional Law Federalism 3 cr
A study of constitutional interpretation as it relates to federalism and the separation of powers.

324 Constitutional Law Civil Liberties 3 cr
A survey of problems and cases in civil liberties and civil rights, e.g. freedom of speech, freedom of religion, privacy, and equal protection.

325 Constitutional Law Criminal Law 3 cr
This course will consider appellate cases in criminal rights, and major aspects of criminal procedure. Students read and brief court decisions.

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.

351 United Nations I 2 cr
Examines the processes and policies of the United Nations. Offers the opportunity to participate in local and national model United Nations conferences. Permission of instructor required.

352 United Nations II 2 cr
Examines the processes and policies of the United Nations. Offers the opportunity to participate in local and national model United Nations conferences. Permission of instructor required.

360 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.

408 Theory of Comparative Government 3 cr
The issues of democracy, political and economic development, and cultural politics from a global perspective.

419 Ethnicity Identity and Conflict 3 cr
Ethnic conflict, identity issues, politics and cultural policy, and conflict resolution and peacemaking. Permission of instructor required.

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.

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 instructor required.

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

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.
REQUIREMENTS FOR THE MINOR

Requirements for the minor are 103, 225, and 328, and any two of the following: 280, 340, 352, 361, 390. 400-level courses may be taken for the minor with the 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

223. Introduction to Existential Phenomenological Psychology 3 cr
Introduction to a human-science alternative to psychology as a natural science. Prerequisite for 356 and 410, required for majors and minors.

225 Developmental Psychology I (Infancy and Childhood) 3 cr
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

230 Psychology of Community Experience 3 cr
Experience of community phenomena, e.g., individuals versus group priorities, intimacy vs privacy

280 History of Psychology I 3 cr
Overview of figures and issues in the history of psychology, from precursors to present

328 Psychology of Personality 3 cr
Critical examination of major theories of personality, required for majors. Writing-intensive course

340 Social Psychology 3 cr
Foundations of social processes, attitudes, values and roles, public opinion, propaganda and community participation, personal participation in society

352 Abnormal Psychology 3 cr
Examination of theories and data on disordered human existence

356 Research Psychology Theory and Practice 3 cr
Review of theory and practice of traditional and human-science research. Includes student projects. Prerequisites: 220, 223, permission of department head for non-majors

601 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.

700 Psychology of Aesthetic Experience 3 cr
Theoretical and empirical explorations of aesthetic experience

900 History of Psychology II 3 cr
Intensive study of selected historical figures, in dialogue with contemporary themes. Reading of primary sources. Prerequisite: 280

Applied Psychology Practicum 3 cr
An applied psychology setting provides opportunity for working directly with professionals. Settings include psychiatric hospitals and community centers. Majors only. Permission of department head required. Repeatable once.

The Individual and His/Her World 3 cr
Examination of individual's relation to society, from a development and cross-cultural perspective

Principles of Psychoanalytic Thought 3 cr
Examination of the theories and contributions of Freud and selected other major psychoanalytic theories. Permission of department head for non-majors

Psychology of Language and Expression 3 cr
Communication as a life-embodied relation of person to world and others. Emphasis on phenomenological, modern psycholinguistic, and/or post-structuralist approaches. Permission of department head for non-majors

Advanced Existential-Phenomenological Psychology 3 cr
Detailed investigation of selected works in existential-phenomenological philosophy and psychology. Prerequisite: Permission of department head for non-majors

Gestalt Psychology 3 cr
Contributions of Gestalt psychology (especially the works of Kolka, Kohler, and Goldstein) to traditional and human-science psychology. Permission of department head for non-majors

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

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 thematicized, and the biological, social, and personal contexts will be discussed.

Department of Psychology
Chairperson: William Frank Fischer, Ph.D.

The undergraduate program of the Department of Psychology is designed 1) to introduce and familiarize students with the fundamental content, issues, and interest of various areas of psychology and critically evaluate and reframe these in the context of psychology as a human science; 2) to foster intellectual and personal freedom and critical thinking as essential to the humanizing process; 3) to prepare the professionally oriented student for advanced study; 4) to provide a foundation for careers involving human services. To these ends, the department offers a wide variety of courses covering psychology conceived as a human science, a natural science, and within a historical perspective.

Required Courses

101, 200, 201, 202, or 203

103 Introduction to Psychology

280, 340, 352, 361

400-level courses may be taken for the minor with the permission of the Department Head.

DEPARTMENT OF SOCIOLOGY
Chairperson: Douglas Harper, Ph.D.

The Sociology Department concentrates on both intellectual and pre-professional training. Majors and other students are introduced to the discipline, build critical thinking skills and develop intellectual and social consciousness. Our curriculum allows majors to concentrate in either of two areas, Social Change and Social Structure or Criminal Justice.

Requirements for the Major

A minimum of 33 semester hours is required for the major. These must include 101 Survey of Sociology, 200 Classical Sociological Theory, 201 Sociological Methods I, 202 Sociological Methods II, either 300 History of Social Thought or 301W Contemporary Sociological Theory, and 455W or 456W Senior Seminar. Majors must also choose one of two areas: Social Change and Social Structure or Criminal Justice. Courses within the selected emphasis are to be scheduled in consultation with the student's faculty advisor. In addition, the major must complete 125 Fundamentals of Statistics offered by the 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 33 required.

Emphasis

Social Change and Social Structure

This emphasis is designed for the student desiring a broad overview of sociology to prepare for advanced study or a wide range of occupations and careers.

Required Courses

101, 200, 201, 202, 300 OR 301W, 455W

Twelve of the remaining 15 credits must be selected from the following courses within the Criminal Justice emphasis: 103, 211, 212, or 213...
DEPARTMENT OF SOCIOLOGY

It is recommended that at least six credits be selected from those courses at the 300-level or above.

Courses included in the Social Change and Social Structure emphasis are 104, 203, 205, 206, 207, 208, 209, 210, 211, 215, 217, 225, 302, 303, 315, 316, 317, 318, 401, 404, 415, 416, 454

CRIMINAL JUSTICE

This program provides the student with the opportunity to develop knowledge and skills in preparation for career pursuits in many areas of criminal justice, including probation, parole, investigation, corrections and research or for those who wish to pursue advanced study.

Required Courses

101, 103, 200, 201, 202, 300 OR 301W, and 456W

Twelve of the remaining 15 credits must be selected from any courses in the emphasis (course numbers are listed below). Three credits must be selected from the Social Change and Social Structure emphasis. It is recommended that at least six credits be selected from those courses at the 300-Level or above.

Courses included in the Criminal Justice emphasis are 103, 211, 212, 213, 216, 218, 264, 310, 311, 314, 365, 366, 369, 409, 454

REQUIREMENTS FOR THE MINOR

A minimum of 15 semester hours is required for the minor, thus must include 101 Survey of Sociology. Although the minor program is self designed, a faculty advisor should be consulted to assist in the design.

THE GERONTOLOGY CERTIFICATE

The Department offers an 18-credit program leading to a Certificate in Gerontology available to all majors and minors as well as students and para-professionals outside the Department and University. Students enrolled outside the University who register for the Certificate do so through the Division of Continuing Education.

TO EARN THE CERTIFICATE

The student must complete 101 Survey of Sociology and 5 of the following courses: 203, 207, 208, 225, 303, 315, 317, 415, and 450 OR 451.

PROCEDURE FOR APPLICATION

By the end of the change of schedule period in the semester the student intends to complete the Gerontology Certificate, he must (a) Complete the application form in the Sociology Department Office - 504 College Hall, (b) Officially register for the Certificate on the registration form.

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, correctional facilities and community based corrections. Required for the Criminal Justice Emphasis.

104 Cultural Anthropology 3 cr

An inductive and deductive approach to the study of human societies and cultures. Required for ALL Sociology Majors.

105 Intro to Peace and Justice 3 cr

An introduction to the concepts, practical, and ethical dimensions of peace and justice. Peace and justice are treated as by-products of anarchy, interpersonal, situational, organizational, regional, national, and global conflict.

200 Classical Sociological Theory 3 cr

An intensive review of basic sociological principles, and a study of selected classical theories and schools of thought. Prerequisite: 101, Required for ALL Sociology Majors.

201 Sociological Methods I 3 cr

A discussion and application of the techniques and research procedures used in sociological research. Prerequisite: 101, Required for ALL Sociology Majors.

202 Sociological Methods II 3 cr

A study of quantitative research methods used in social science. Emphasis is placed on the application and interpretation of statistics using computerized statistical packages such as SPSS. Prerequisites: 101 and 201. It is highly recommended that the course of 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 SOC Methods II Lab 1 cr

This lab provides guided computer training in data set construction and analysis. Prerequisites: 101 and 201 and concurrent enrollment in SOC 202.

203 Social Gerontology 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.

205 Person and Society 3 cr

A study of the person’s interaction with societal groups, organizations and institutions. Prerequisite: 101.

206 Sociology of Social Problems 3 cr

A study of the major social problems apparent in American contemporary society. Examples of the problems which may be analyzed include poverty, violence, and environmental decline.

207 Sociology of Health and Illness 3 cr

What social and cultural factors affect the health of human populations? This study examines the social organizations and social processes related to well-being and sickness in various societies. Prerequisite: 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

An examination of who gets what and why, with a primary focus on the American setting. 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

A study of the forms and consequences of social deviance and law. Prerequisite: 101.

213 Criminology 3 cr

A study of sociological explanations of crime, correlates, causation, and criminogenic conditions. Prerequisite: 103.

214 Mass Media and Society 3 cr

A 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

A study of the phenomenon, theories and causation of juvenile delinquency. Prerequisite: 101 or 103.

217 Social Movements 3 cr

A study of the theoretical and social movements and an examination of a number of contemporary protest movements and sociocultural movements. Prerequisite: 101.

218 Treatment and Rehabilitation 3 cr

Community and institutional rehabilitative programs are considered in terms of treatment methods used and their effectiveness. Prerequisite: 103.

225 Family Systems 3 cr

A study of the family institution and its interaction with other community institutions.

264 Police and Society 3 cr

An analysis of the role of police in the community, and some of the critical issues in law enforcement. Prerequisite: 101.

270 Sociology of the Life Span 3 cr

An analysis of the perspectives, directions, processes, consequences and mechanisms of social and cultural change. Prerequisite: 101.

280 Racial and Ethnic Groups 3 cr

A comprehensive survey of roles performed and problems faced by racial and ethnic groups. Prerequisite: 101.

290 Social Stratification 3 cr

An examination of who gets what and why, with a primary focus on the American setting. Prerequisite: 101.

301W Contemporary Sociological Theory 3 cr

A study of selected contemporary theories and schools of thought. Prerequisite: 101. This course OR 300 is required of ALL Sociology Majors.

302 Sociology of Mental Health and Illness 3 cr

An examination of the incidence and prevalence of indicators of mental health and illness and an in depth scrutiny of the history, social construction, and implications of issues of mental health and illness. Prerequisite: 101.

310 The Law and The Juvenile Offender 3 cr

A study of those aspects of the legal system that relate to the identification, processing, and rehabilitation of the juvenile offender. Prerequisite: 101.

311 The Law and The Adult Offender 3 cr

The legal procedure from arrest through sentencing emphasizing applicable state statutes and U.S. Supreme Court cases. Prerequisite: 101.

312 The American Judicial System 3 cr

The study of the judicial system, including police, courts, correctional facilities, and community based corrections. Required for the Criminal Justice Emphasis.

314 Social and Cultural Change 3 cr

The study of the phenomenon, theories and causation of juvenile delinquency. Prerequisite: 101 or 103.

315 Socialization and The Life Span 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, roles, and self-image among age-groups. Prerequisite: 101.

316 Social and Cultural Change 3 cr

An analysis of the perspectives, directions, processes, consequences and mechanisms of social and cultural change. Prerequisite: 101.

317 SOC 317W Contemporary Sociological Theory 3 cr

A study of selected contemporary theories and schools of thought. Prerequisite: 101. This course OR 300 is required of ALL Sociology Majors.

319 Socialization and The Life Span 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, roles, and self-image among age-groups. Prerequisite: 101.

320 Work and Organizations 3 cr

This course is designed to introduce the student to the critical examination of modern organizations. Emphasis will be given to issues of power both within the organization as well as between the organization and the larger society. 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: 101.

326 Community Corrections 3 cr

Study of community corrections agencies and programs for criminal offenders, including probation, intermediate sanctions, and parole. Prerequisite: 103.

365 Community Corrections 3 cr

Study of community corrections agencies and programs for criminal offenders, including probation, intermediate sanctions, and parole. Prerequisite: 103.

366 Police Organization and Management 3 cr

Principles of organization, management, and supervisory techniques applied to law enforcement agencies. Prerequisite: 103.

367 Policing Leadership and Management 3 cr

An analysis of the police organization, management, and supervisory techniques applied to law enforcement agencies. Prerequisite: 103.
This course considers the major health and illness issues. Prerequisites 101 and senior standing.

401/501 Complex Organizations 3 cr

The aim of this course is to give students a survey of the sociological approaches to the study of organizations. A chronological perspective is used at the outset, focusing on scientific management, human relations, Weberian, and other perspectives. Major attention is given to current sociological approaches — environment, technology, power, control and culture as they impact upon organizations. Prerequisites 101 and senior standing.

404/504 Social Ecology and Political Culture 3 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. Prerequisites 101 and senior standing.

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. Prerequisites 101 and senior standing.

409/509 Punishment and Corrections 3 cr

This course covers the corrections systems in this country including probation, parole, community corrections, jail and prison. How and by whom these agencies and facilities are administered and organized is examined. The system is studied from the perspective of parole and correctional officers, as well as how the correctional system impacts upon offenders. Prerequisites 101 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. Students are involved in library and field research on the outcomes (identifiable or probable) of current or proposed policy responses to such health and illness issues. Prerequisites 101 and senior standing.

STUDIO ART

Director

Madeleine C. Archer, Ph.D.

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 352.

REQUIREMENTS FOR THE MINOR:

Five courses in Studio Art, including FINAR 101 and 105.

369 Women and Crime 3 cr

The nature and extent of crime committed by women, the processing of women in the criminal justice system, and the theories of crime applied to female offenders. Also considered are women as victims of crime as well as opportunities for women employed by the criminal justice system. Prerequisite 103.

498 Special Topics 3 cr


NOTE: The following courses are cross-listed with the Graduate Center for Social and Public Policy.

450/451 Fieldwork I, II 6 cr

(6 credits for 450, 6 credits for 451) Internship in a number of different settings. 225 hours in placement are required for 6 credits. Prerequisite Major must have 21 completed credits in the Major.

**SENIORS AND MAJORS OR GERONTOLOGY CERTIFICATE STUDENTS ONLY **

**Credits do not count toward the 33 required for the major**

454 Selected Readings 3 cr

(1 or 2 credits) Independent, supervised reading. Prerequisite 27 completed credits in the Major.

SENIORS AND MAJORS ONLY

455W Senior Seminar — Social Change and Social Structure 3 cr

A seminar designed to serve as a capstone to the student's academic career. Prerequisite 21 completed credits in major required for ALL Sociology Majors with a Social Change and Social Structure emphasis. SENIORS AND MAJORS ONLY.

456W Senior Seminar — Criminal Justice 3 cr

A seminar designed to serve as a capstone to the student's academic career. Prerequisite 21 completed credits in the major. Required for ALL Sociology Majors with a Criminal Justice emphasis. SENIORS AND MAJORS ONLY.

465W Senior Seminar — The McAnulty College of Liberal Arts 73

101 Design I 3 cr

Design I is a foundation course that prepares students for more advanced work in art. It introduces the basic visual elements, principles of composition, and introductory design theory. Most of the work is two-dimensional, and in black and white.

103 Drawing 3 cr

An introductory course that exposes students to a systematic study of formal elements, visual perception, and drawing techniques and media. Problems lead students from simple forms and concepts to more complicated ones, culminating in drawing the human form.

120 Advanced Design 3 cr

This course builds on the principles introduced in Design I, with additional work and study in three-dimensional design and color theory. Students are encouraged to move away from preconceived notions about art, and to develop critical thinking skills in their discussion and analysis of compositions. An introduction to graphic art principles is included.

130 Painting I 3 cr

This is a foundation course that employs the acrylic medium. Students execute a series of projects that explore and develop design and compositional issues, to become effective vehicles for conceptual ideas. The developing theory, conceptual development, and expression of 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.

230 Figure Drawing 3 cr

This course provides students with the opportunity for intensive study of the human figure through various drawing techniques. Prerequisite 102.

235 Introduction to Computer Art 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.

238 Advanced Painting 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, conceptual development, and expression of 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.

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 238.

316 Intaglio Printmaking 3 cr

Intaglio media such as etching, aquatint and engraving are introduced in this course. Prerequisite 101 or 103.

317 Lithography 3 cr

The planographic medium of lithography is explored in this printmaking course. Prerequisite 101 or 103.

320 Watercolor Painting 3 cr

Both optical and conceptual compositions are developed in this course using the watercolor techniques. Prerequisites 103 and 130.

330 Oil Painting 3 cr

Still life, figure painting, illustration and abstract problems are explored using the oil medium. Prerequisites 101 or 103.

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 printing, and the use of interactive media and video to create digital narrative pieces. Prerequisite 235.

353 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 which introduce them to the variety of visual problems and possibilities in illustration practices. Prerequisites 101, 103 (120 and 203 recommended).

360 Sculpture I 3 cr

This course explores sculptural elements through various materials and techniques with the goal of increasing the student's spatial conceptual abilities. Prerequisites 101 and 120.

365 Advanced Sculpture 3 cr

A continuation of the principles introduced in 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, 350.

385 Photography 3 cr

Photographic techniques and equipment are introduced in this course. Students will compose conceptual and conceptual issues while executing photographic assignments, and will study the history of the medium for analytical and comparative purposes. Prerequisite 101.

415 Natural History Illustration 3 cr

Prerequisites 103, 130, 350 (245 and 320 recommended).
### DEPARTMENT OF THEOLOGY

**Chairperson**  

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 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.

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**BIBLICAL STUDIES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>416</td>
<td>Medical and Scientific Illustration</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>103, 203, 235, 350 and 375</td>
<td></td>
</tr>
<tr>
<td>425</td>
<td>Advanced Computer Imaging</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>101, 203, 350</td>
<td></td>
</tr>
<tr>
<td>435</td>
<td>Advanced Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>101, 120, 235 and 245</td>
<td></td>
</tr>
<tr>
<td>445</td>
<td>Introduction to Multimedia</td>
<td>3</td>
</tr>
<tr>
<td>Through the use of multimedia authoring software, students study and practice the integration of visual, audio and text sources that culminate in animated and interactive pieces. Both commercial and purely artistic problems will be explored. Prerequisites 101, 120, 235 and 245.</td>
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</tbody>
</table>

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**THE McANULTY COLLEGE OF LIBERAL ARTS**

**DEPARTMENT OF THEOLOGY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>490</td>
<td>Field Experience in Biblical Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>493</td>
<td>Directed Readings in Biblical Studies</td>
<td>1-3</td>
</tr>
<tr>
<td>Independent Study Department permission required.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**RELIGIOUS AND THEOLOGICAL STUDIES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>213</td>
<td>The Old Testament</td>
<td>3</td>
</tr>
<tr>
<td>A presentation of the Old Testament writings in the context of their culture, literary modes, theologies, and themes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>214</td>
<td>The New Testament</td>
<td>3</td>
</tr>
<tr>
<td>A presentation of the books of the New Testament, including their literary makeup, historical origins and theological content.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>311</td>
<td>The Torah</td>
<td>3</td>
</tr>
<tr>
<td>A study of the first five books of the Bible in the light of their historical, literary and theological features.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>313</td>
<td>Archaeology and The Bible</td>
<td>3</td>
</tr>
<tr>
<td>An illumination through archaeology of the historical setting, the cultural background, and the events described in the Bible.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>315</td>
<td>Prophetic Literature of The Old Testament</td>
<td>3</td>
</tr>
<tr>
<td>A study of classical Israelite propheticism which was characterized by sharp protests against social abuses, and by an urgent call to return to the roots of the Israelite faith.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>316</td>
<td>The Pauline Literature</td>
<td>3</td>
</tr>
<tr>
<td>A critical study of the letters traditionally attributed to Paul (including Hebrews).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>317</td>
<td>The Wisdom Literature of The Old Testament</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>321</td>
<td>The Gospel Literature</td>
<td>3</td>
</tr>
<tr>
<td>A critical study of the four Gospels in the light of contemporary scholarship.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>324</td>
<td>The Johannine Literature</td>
<td>3</td>
</tr>
<tr>
<td>329</td>
<td>Special Topics in Biblical Studies</td>
<td>3</td>
</tr>
<tr>
<td>An opportunity to pursue a particular interest of professor and students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>331</td>
<td>The Church in The Modern World</td>
<td>3</td>
</tr>
<tr>
<td>How the Christian community is a prophetic presence in secular society and a community which affirms and sustains human dignity and values.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>335</td>
<td>Theology of The Sacraments</td>
<td>3</td>
</tr>
<tr>
<td>The seven sacraments as rituals and symbols in the growth of the life of Christians.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>345</td>
<td>Women and Christianity</td>
<td>3</td>
</tr>
<tr>
<td>From the Bible to the churches today, with special attention to contemporary roles and spirituality.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>348</td>
<td>Religion in The United States</td>
<td>3</td>
</tr>
<tr>
<td>The role played by religion in American society and culture, with special attention to historical developments and contemporary trends.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>352</td>
<td>Religious Themes in Literature and Film</td>
<td>3</td>
</tr>
<tr>
<td>An exploration of religious experience and religious concepts as expressed in significant works in film and literature.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>375</td>
<td>Special Topics in Theology</td>
<td>3</td>
</tr>
<tr>
<td>An opportunity to pursue a particular interest of professor and students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>473/573</td>
<td>Spiritual Theology</td>
<td>3</td>
</tr>
<tr>
<td>A study of the theological dimension of Christian spirituality, in major historical manifestations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>494</td>
<td>Directed Readings in Religious and Theological Topics</td>
<td>1-3</td>
</tr>
<tr>
<td>Independent Study Department permission required.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>498</td>
<td>Seminar in Theology</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ETHICAL STUDIES**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>245</td>
<td>God, Money, and Power</td>
<td>3</td>
</tr>
<tr>
<td>A study of the religious and ethical meaning of wealth and power in human life, both personally and socially.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>248</td>
<td>Religion and Ecology</td>
<td>3</td>
</tr>
<tr>
<td>A study of the relation of the human to the rest of the earth community and the role religion has played in defining it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>351</td>
<td>Sexuality, Sex, and Morality</td>
<td>3</td>
</tr>
<tr>
<td>An analysis of the nature of sex and sexuality in contemporary moral life.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>353</td>
<td>Health Care Ethics</td>
<td>3</td>
</tr>
<tr>
<td>A study of practical and theoretical issues in the ethics of health care.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>356</td>
<td>Special Topics in Ethics</td>
<td>1-3</td>
</tr>
<tr>
<td>An opportunity to pursue a particular interest of professor and students.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REQUIREMENTS FOR THE MINOR

15 credits These must include 6 credits from the Core, the remaining 9 credits must be selected from qualifying courses in at least two of the participating departments

CORE COURSES

210 Readings in Western Literature I 3 cr
A thematic survey of literature through the Renaissance

211 Readings in Western Literature II 3 cr
A thematic survey of literature from the Renaissance onwards

215 Non-Western Literature 3 cr
English translations of representative Asian and African literature

490 Topics in World Literature 3 cr
Study of literary texts from various national traditions addressing issues involved in the comparative study of literature May be cross-listed with one or more courses in Classics, English, or Modern Languages and Literatures

QUALIFYING DEPARTMENT COURSES

Classics Any literature course, whether in translation or in the original language, numbered 200 or higher

English Any literature course at the 300 or 400-level

Modern Languages and Literatures Any literature course, either in translation or in the original language, above 306

DEGREES

The Bayer School of Natural and Environmental Sciences (BSNES) offers Bachelor of Science degrees in Biological Sciences, Biochemistry, Chemistry, Microbiology, and Physics, as well as Bachelor of Arts degrees in Chemistry, Biochemistry, and Physics for those students enrolled in the Binary Engineering program. Science majors may apply for the Pre-Health Professions Program, the B.S. Biology/Master of Science in Environmental Science and Management, the B.S. in Microbiology/Master of Science in Environmental Science and Management, the B.S. in Chemistry/Master of Science in Environmental Science and Management, the B.A. Physics/B.S. Engineering binary engineering program in cooperation with Case Western Reserve University or the University of Pittsburgh or the B.S. in Biology, Chemistry or Physics/Master of Science in Education

GRADUATION REQUIREMENTS

To receive the Degree of Bachelor of Science or Bachelor of Arts in the BSNES, a student must complete the following requirements:

- A minimum of 120 semester hours of course credits. The last 30 hours must be taken at the University.
- University Core Curriculum as described below.

Thinking and Writing Across the Curriculum 3 cr
Imaginative Literature and Critical Writing 3 cr
Problem Solving with Creative Math WAIVE
Core Science (Biology, Chemistry or Physics) WAIVE
Core Theology (Select one of six courses) 3 cr
Basic Philosophical Questions 3 cr
The Arts and the Human Experience 3 cr
Social, Political and Economic Systems 3 cr
The Shaping of the Modern World 3 cr
21 cr

Bayer School of Natural and Environmental Sciences

Administration

Dean
Heinz W. Machatzke, D.Sc

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 1965, 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 Science and Management.

ACADEMIC POLICIES

Effective Catalog

Academic policies and degree requirements are those stipulated in the catalog of the year in which the student matriculates. The student is responsible for knowing the requirements for the degree. Requirements may be changed without notice or obligation. Major requirements are those stipulated in the catalog of the year in which the student declares the major.

QPA

Students must maintain a quality point average (QPA) of 2.00 or better to remain enrolled in the School.

Academic Load

Students normally carry five courses (15-17 credits) in one semester, although a 12-credit schedule in a regular semester is considered full-time study. A schedule of more than 18 credits must be approved by the Student Advisor. Students on academic probation may not take more than 15 credits. Students who wish to carry more than 12 credits in the summer sessions must consult with the Chair of the department in which the student is majoring.

Residence Requirement

The last thirty credits must be taken in residence at Duquesne University.

Majors

A major may be declared at the time of a student's admission into the BSNES, and must be declared at
the end of the student's freshman year. Transfer students must declare a major when accepted into the BSNES.

Minors
A student may, at his/her discretion, declare a minor. An overall minimum cumulative quality point average of 2.0 is required in the minor for graduation. Refer to Department listing for specific minor requirements.

Sequential Courses
Sequential courses must be taken in proper sequence. Credit will not be given for a prerequisite course if courses for which it is a prerequisite have already been taken.

BSNES Temporary Transfers (Summer Classes)
No course taken by a student in the BSNES as a Temporary Transfer at another institution may count toward the degree unless approved by the Chair of the department in which the student is majoring.

Science classes - The BSNES will accept science courses taken at a 4-year college/university outside Duquesne University upon the approval of the course description by the department of the student's major. If the student has not yet reached 60 credits, (s)he may take the class at a two-year college upon the approval of the student's major department.

Non-science classes - The BSNES will continue to accept courses that are not science courses taken at a 4-year college/university outside Duquesne University. The course description should be approved by the student's faculty mentor 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.

CLEP and Advanced Placement
(Refer to page 9 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.
3. The student has completed one semester at Duquesne with a C- average, 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.

LIBERAL ARTS ENGINEERING
Students who intend to prepare for a career in engineering may enter a 3-2 binary program that Duquesne University maintains with Case Western Reserve University in Cleveland, Ohio, and the University of Pittsburgh. Under the guidance of a faculty mentor, students will follow a three-year program at Duquesne University, then enter an engineering program at Case Western Reserve University or the University of Pittsburgh. Upon completion of the program at Case Western Reserve University or the University of Pittsburgh, students will be awarded the B.A. 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'S-MASTER'S PROGRAM IN BIOLOGY, MICROBIOLOGY, OR CHEMISTRY 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, microbiology, or chemistry, 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 Bachelor of Science in Natural and Environmental Sciences. They may begin coursework in the environmental sciences in the third year. The bachelor of science degree will be awarded at the end of the fourth year if all University and College Core Curriculum requirements have been met. Students must have earned a cumulative GPA of 3.0 or better to be permitted to continue graduate coursework 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 BSNES 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 BSNES in the Department of Biological Sciences, Chemistry and Biochemistry, or Physics and apply to the Graduate School of Education in their junior year. Students who wish to seek certification in General Science take additional courses beyond the requirements in one of the natural science disciplines. 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 Office of the Dean.

SECOND BACHELOR’S DEGREE
A student who has received a bachelor's degree from another school may become eligible for a second bachelor's degree by earning an additional 30 semester hours in residence in the BSNES and by meeting all department and School requirements if not already satisfied. The additional 30 credits must be completed at the University and may not be taken through cross-registration. Further information is available from the Student Advisor.

THREE-YEAR BACHELOR’S DEGREE
For more information contact the Office of Admissions or the Dean's Office.

MAJORS
Biochemistry Microbiology
Biology Physics
Chemistry

DEPARTMENT OF BIOLOGICAL SCIENCES
Chairperson
H. Bernard Hartman, Ph.D.

Professors
Peter Castric, Ph.D.
H. Bernard Hartman, Ph.D.
Anis Sideropoulos, Ph.D.
Steven Thomas, Ph.D.

Associate Professors
Joseph P. Adewale, Ph.D.
Kenneth Boyd, Ph.D.
John Doctor, Ph.D.
Kyle W. Selcer, Ph.D.
John F. Stoltz, Ph.D.

Assistant Professors
Mary Alleman, Ph.D.
Jeffrey W. Clemens, Ph.D.
D. Lampe, Ph.D.
Joseph McCormack, Ph.D.
Melissa A. Melan, Ph.D.

Adjunct Faculty
Arthur K. Katoh, Ph.D.
Spyros D. Komninos, D.Sc.
Anjum V. Singh, Ph.D.
Tata Subhas, Ph.D.

BIOLOGY REQUIREMENTS

Biology Requirements total credits: 38

Biological I 3 cr
Biology I Lab 1 cr
Biology II 3 cr
Biology II Lab 1 cr
Cell Chemistry 3 cr
Cell Biology 3 cr
Genetics concentration 3 cr
Microbiology concentration 3 cr
Physiology concentration 3 cr
### Biology Requirements (Continued)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>6 cr</td>
</tr>
</tbody>
</table>

### Co-requisite Science/Math Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Chemistry I</td>
<td>5 cr</td>
</tr>
<tr>
<td>General Chemistry II</td>
<td>5 cr</td>
</tr>
<tr>
<td>Organic Chemistry I</td>
<td>4 cr</td>
</tr>
<tr>
<td>Organic Chemistry II</td>
<td>4 cr</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>4 cr</td>
</tr>
<tr>
<td>General Physics I</td>
<td>4 cr</td>
</tr>
<tr>
<td>General Physics II</td>
<td>4 cr</td>
</tr>
<tr>
<td>Calculus I</td>
<td>4 cr</td>
</tr>
<tr>
<td>Biostatistics (Math 225)</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

### REQUIREMENTS FOR THE MINOR

The department offers two minor programs:

1. **Professional Minor** which consists of 121, 122, 123, 124 and a minimum of 12 credits selected from the department's major courses numbered 200 or above. Individual course prerequisites must be met.

2. **Academic Minor** which consists of 121, 122, 123, 124 and a minimum of 12 credits selected from the department's courses numbered 200-395. Courses which are open to either majors or non-majors may be selected. Individual course prerequisites must be met.

### NON-MAJOR COURSES

Courses may not be taken for Biology major credit.

**101 Introduction to Life Processes**

An emphasis on the fundamental biochemistry and cellular concepts required for a solid understanding of life's processes. This information will provide the foundation for the Anatomy & Physiology and Biology of Microbes courses. Lecture and Recitation.

**102 Introduction to Life Processes Laboratory**

Laboratory experiments and demonstrations illustrating biochemical and cellular processes. The lab is designed to accompany the Lecture & Recitation.

**201 Biology of Microbes**

Examination of microbes as to what they are, how they grow, how they may be controlled, what their relationships to other living things are, why, and how some of them cause disease. Lecture Prerequisites 101, 102 or 121, 122, 123, 124 or Core 171.

**202 Biology of Microbes Laboratory**

Prerequisite 201 (or concurrent registration).

**203 Introductory Microbiology**

Introduction to microorganisms, their morphology, metabolism, ecology, and cultural characteristics. With emphasis on their interaction with other organisms, including bacteria. Principles of medical and health-related aspects of microbiology, immunology, and animal virology are presented. This course is restricted to Health Sciences students only. Lecture.

**204 Introductory Microbiology Laboratory**

Lecture.

### Major Courses

All courses for majors are also open to non-majors, providing that individual course prerequisites/background expectations are satisfied.

**121 Biology I Diversity, Ecology, Evolution**

A study of the scientific study of living systems at the cellular, community, and ecosystem levels by surveying diversity in the five kingdoms, ecology, and evolution. This course and Biology II provide basic information and concepts necessary to understanding living systems and their interrelationships. Lecture.

**122 Biology II Cells, Genetics, Development**

Study of living systems at the molecular, cellular, and multicellular levels. This semester is an introduction to cell chemistry, cell structure and function, energetics, inheritance, reproduction and development. Lecture.

**211 Cell Chemistry**

An introduction to cellular macromolecular structure, cell biochemical pathways, metabolic control, and gene expression. This sophomore level course will survey cell biochemical processes and is designed to prepare biology students for the cell biology, microbiology, developmental biology, genetics and physiology core courses. Cell Chemistry is not a substitute for Chemistry 401. Concurrent enrollment in organic chemistry is highly recommended. Prerequisites C or better in BIOL 121, 122, 123, 124 and C or better in CHEM 121, 122.

**213 Cell Biology**

An introduction to the structure, function, and physiology of cells. This course will include examinations of cellular organelles, nuclear and chromatin structure, membrane systems, protein trafficking, the cytoskeleton, the cell cycle, cell-cell communications and extracellular matrices. Recommended for students majoring in biology or microbiology, and post-baccalaureate students. Prerequisite C or better in 213. Lecture.

**311 Genetics**

This course includes topics in classical Mendelian genetics, chromosomal inheritance, human genetic disease, and gene expression at the molecular level. Prerequisite C or better in 313.

**313 Developmental Biology**

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 213. 313 is recommended. Lecture.

**315 Mammalian Physiology**

Examination of the molecular and cellular mechanisms of mammalian body function, including consideration of the basic components of biomedical control systems and the manner in which various tissues and organ systems contribute toward the maintenance of physiological homeostasis in health and disease. Lecture Prerequisite C or better in 213 or permission of the instructor.
The second semester continues to build on BIOL Prerequisites 211, library resources), characterizations and manipulation of organisms from bacteria to mammals Included in the molecular, biochemical, and cellular biology of organisms from bacteria to mammals Included are an introduction to research skills (computer use, library resources), characterizations and manipulations of cellular macromolecules including proteins and nucleic acids, and microscopy Laboratory Prerequisites 211, 213

371 Lab II Cell and Molecular Biology 3 cr
The second semester continues to build on BIOL through investigative labs in cellular and molecular biology (experimental embryology, genetic mapping, constructing transgenic organisms, microscopy of cellular structures) and includes a capstone lab mini-project for the last portion of the semester Laboratory Prerequisites 370

372 Lab III Cell and Systems Physiology 3 cr
The second semester continues to build on BIOL through investigative labs in cardiovascular, respiratory physiology, muscle and neurophysiology, and endocrinology Students will investigate selected physiological processes at different levels (whole organism to molecular) using a range of techniques (electrophysiological, isolated organ, pharmacological, cellular, molecular) and procedures (computer-based data acquisition, surgical, tissue culture, microscopy) This course exposes students to a broad range of skills and understandings that contemporary physiological research encompasses Laboratory Prerequisites 315, 316, 370

373 Lab IV Microbiology 3 cr
The second semester continues to build on BIOL through investigative labs in microbial physiology, ecology and genetics. This laboratory also examines cell culture, virology and immunological techniques used in microbiology and virology Laboratory Prerequisite 370

395 Special Topics - Biology 1-3 cr
Treatment of topics of current or special interest in biology Lecture, laboratory or combinations

396 Special Topics - Microbiology 1-3 cr
Treatment of topics of current or special interest in microbiology 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 the instructor Laboratory

400 Biotechnology Laboratory Techniques 3 cr
A course to familiarize the student with a variety of biological and biochemical techniques useful in such areas as medical and industrial microbiology, science education, and biological research. The extraction, assay, and chemical analysis of a bacterial enzyme will be carried out. Purification of this enzyme by ion-exchange chromatography and gel filtration will be done. Physical analysis of this enzyme using polyacrylamide gel electrophoresis (of native and denatured protein) as well as electroblotting and isoelectric focusing will be carried out. Prerequisite: Organic chemistry or permission of the instructor. Laboratory

402 Research Skills 3 cr
Students experience a variety of contemporary computer-based skills that are essential for efficiently carrying out and publishing research. Areas of familiarization include intermediate level proficiency in using various common softwares, photographic and electronic slide making skills, electronic image capturing and manipulation techniques, automated data acquisition, reduction, and analysis techniques, scientific graphing, computer network skills, and research and sequence analyses, library skills, electronic reference searching and retrieval procedures, personal reference database establishment and management techniques, and scientific writing skills. Prerequisite permission of the instructor. Laboratory

403 Techniques in Light and Electron Microscopy 3 cr
This course includes an introduction to light microscopy (phase, differential interference contrast, brightfield, darkfield, and fluorescence microscopy). Transmission electron microscopy and scanning electron microscopy. It covers specimen preparation (fixation, embedding, sectioning), photomicroscopy and darkroom techniques (film developing and printing), in addition to image analysis, enhancement and interpretation. Students are required to do a project outside of class hours. Prerequisite permission of the instructor. Lecture and laboratory

405 Microbial Genetics 3 cr
A course providing the fundamentals to the rapidly growing field of microbial genetics. Emphasis is on gene function and structure. Areas to be discussed are DNA replication, transcription, translation, control of gene expression, transformation, conjugation, transduction, genetic fine structure and co-linearity, mapping methods, mutation, DNA repair, plasmids and their properties. Genetic engineering, gene cloning and in vitro recombination are described. Prerequisite: a course in microbiology Laboratory

407 Recombinant DNA Techniques 3 cr
This course provides a broad hands-on introduction to contemporary techniques in molecular biology. Manipulation of cloned DNA using restriction endonucleases, ligases, and phosphatases will be carried out. Molecular cloning using both plasmid and bacteriophage vectors will be done. The techniques of DNA sequencing and sequence analysis will be discussed. The student will carry out a nucleic acid hybridization in the form of a Southern blot. Cloned DNA will be transposon mutagenized. Analysis of cloned DNA using a reporter gene will be carried out. DNA amplification using the Polymerase Chain reaction will be done. Prerequisite: organic chemistry or permission of the instructor. Laboratory

417 Vertebrate Microstructure 4 cr
A study of tissue and organ structure and the relationship of that structure to function. Prerequisites 121, 122, 123, 124 and permission of the instructor Laboratory

418 Vertebrate Microstructure Laboratory 1 cr
Completion of or concurrent registration in 417 is required

420 Natural History of Animal Viruses 3 cr
Provides an introduction to animal viruses as etiologic agents of disease. Emphasis will be placed on the pathogenesis and epidemiology of virus infections and diseases of humans as well as selected diseases of veterinary significance. Prerequisite permission of the instructor Laboratory

421 Cell Culture and Virology Lab 2 cr
This laboratory course will cover cell culture techniques, propagation and assays for virus, detection of virus antigens and utilization of virus-specific antibodies. Prerequisite permission of the instructor Laboratory

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, immune responses to infectious agents, interactions of immunogenetics, immunopathologies, and immunodeficiencies. Prerequisite permission of the instructor Laboratory

425 Molecular Virology 3 cr
A course is a study of the molecular biology of animal viruses. Major emphasis is placed on virus structure and morphology, virus replication and interaction with the host cell, and molecular genetics. Prerequisites: a course in molecular biology and/or biochemistry. Lecture

426 Pathogenic Microbiology 3 cr
Study of the infectious agents of human disease with emphasis on host-parasite relationships, unique aspects of bacterial and viral physiology and genetics which contribute to pathogenicity, including understanding of bacteria and viruses. Prerequisite: Laboratory or permission of the instructor Laboratory

427 Microbial Ecology 3 cr
In this course the interaction of microorganisms, primarily bacteria, with each other, plants, animals, and fungi, and the environment will be explored. Topics such as photosynthesis, biogeochemical cycling, energy metabolism, microbial evolution, and the role of microorganisms in the biosphere will be examined. Prerequisites: 213, 219, and CHEM 222, or permission of the instructor Laboratory

429 Microbial Physiology 3 cr
This is a course which focuses on microbial energy metabolism, biosynthesis, metabolic regulation, and cell structure. Energy metabolism includes organoanabolism (aerobic and anaerobic respiration, fermentation), chemolithotrophy, and phototrophy. Selected topics of microbial biosynthesis, including cell envelope biosynthesis, will be covered. Regulation of energy metabolism and biosynthesis at the levels of gene expression and enzyme activity will be a major topic in this course. Prerequisites include organic chemistry or permission of the instructor Laboratory

432 Environmental Microbiology 3 cr
An in-depth look at how microbes, both prokaryotic and eukaryotic, affect the environment. Microbial pathways involved in biogeochemical cycles and biomolecularization as well as the design and use of Genetically Engineered Microbes (GEMs) are examined in detail. Prerequisites: organic chemistry and a course in microbiology 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 nonmajors with a strong science background. Prerequisites: BIOL 121/122 or consent of instructor.

444 Plant Biology 3 cr
An in-depth examination of plant biochemistry, genetics, and physiology. Emphasis is placed upon the presentation of current research problems and findings in plant biology. Typical subjects will include developmental genetics, applications of molecular biology to understand cellular structure and function, physiological and plant/pathogen relationships. Prerequisites: 311, 313 or permission of instructor.

445 Advanced Cell Biology 3 cr
An in-depth examination of advanced topics in cell biology. Subjects such as cytoskeletal protein assembly, kinases, motor molecules, cell cycle controls and membrane bio physics will be discussed, as well as the cellular aspects of diseases such as cancer, Alzheimer’s disease and AIDS. Course materials are drawn from review articles and recent primary research reports. Prerequisite: 213 or permission of instructor.

455 Cardiovascular & Respiratory Physiology 3 cr
This advanced course provides students with an in-depth understanding of contemporary mammalian cardiovascular and respiratory system biology. Topics covered include cardiac cell biology and regulation, the endothelium, the microcirculation, vascular smooth muscle biology and regulation, regional circulations, body defense mechanisms, the respiratory properties of blood, pulmonary mechanics and gas exchange, ventilation/perfusion matching, and acid-base balance. After considering the molecular and cellular mechanisms that underlie normal function, the integrated responses to various stresses and diseases are considered. Prerequisite: an animal-based physiology course or permission of the instructor. Lecture.

456 Cardiovascular & Respiratory Physiology Laboratory 1 cr
The primary objectives of this laboratory are 1) to familiarize students with a variety of techniques and analytical instruments used by researchers and clinicians alike to quantify and assess cardiovascular and respiratory system function, and 2) to enhance the student’s ability to analyze and meaningfully interpret cardiovascular and respiratory system data through laboratory experiments supplemented by interactive microcomputer simulations. Prerequisite: an animal-based physiology course or permission of the instructor. Laboratory.

457 Reproductive Physiology 3 cr
This course offers a broad overview of mammalian reproductive physiology. The major emphasis will be on human/primate biology, but other mammalian species will be included for comparison. The application of modern techniques of cellular and molecular biology to answer central questions of reproductive physiology will be explored in more detail. Prerequisite: permission of instructor. Lecture.

460 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, hypothalamo-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 professions students. Prerequisites: 211, 213.

467 Molecular Genetics 3 cr
An advanced course in molecular genetics. Content will vary from year to year but will include topics in gene regulation, gene expression, and genome structure and function in both prokaryotes and eukaryotes. This course is open to biology seniors who have had BIOL 311. Biochemistry majors who have completed CHEM 525 may also take this course. Lecture.

468 Human Genetics 3 cr
This course is an advanced, current survey of molecular aspects of the genetics of humans, with an emphasis on diagnosis and genetic analysis of diseases. Topics covered include strategies for mapping and identifying the underlying molecular basis for genetic diseases, gene therapy, epidemiology, mutation, the organization of the human genome, human population genetics, the genetic basis of cancer, genetics of the immune system, and the human genome project. Prerequisite: 311.

469 Signal Transduction 3 cr
This advanced cell biology course addresses the question of how the messages from various chemical signaling molecules are “transduced” into biological responses. Topics include modes of cell communication, types of chemical signals, steroid hormone action, transduction by cell-surface receptor proteins, channel-linked receptors, G-protein-linked receptors, catalytic receptors, second messengers, cAMP, calcium, calmodulin, ionostil phosphatase pathway, diacylglycerol pathway, protein kinases and growth factors. Prerequisites: 211, 213, and instructor approval.

475 Neurobiology 3 cr
Study of the properties of neurons including excitation, conduction, transmission and integration, as well as sensory mechanisms, neuronal processing, and behavior using vertebrate and invertebrate examples. Prerequisites: a course in animal physiology and approval of the instructor. Lecture.

480 Readings in Cellular and Molecular Biology 1 cr
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature.

481 Readings in Cell and Systems Physiology 1 cr
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature.

482 Readings in Microbiology 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. In addition, there will be bi-weekly sessions with biological scientists from the Department of Biological Sciences, field stations, biotechnology laboratories, and other universities.

Because of the fundamental nature of chemistry as a science, numerous opportunities for advanced study, as well as employment, are open to chemistry and biochemistry majors. A large percentage of students elect to continue their study in graduate programs in chemistry and related fields. Chemists and biochemists provide a core of personnel in pure and applied research, technical sales, technical libraries, management positions in the chemical and related industries, the space industry, education, the environmental sciences and the health professions, such as medicine, dentistry and veterinary medicine. The major in biochemistry centers around the core of basic chemistry courses while also providing advanced courses in biochemistry and electives in biology.

REQUIREMENTS FOR THE CHEMISTRY AND BIOCHEMISTRY MAJORS
All students must take 121, 122, 211, 212, 221L, 222L, 321, 323, and 421, Mathematics 115, 116, Physics 211, 212, Biology 121, 122, 123, 124.

Chemistry Major
B A Chemistry 120 cr All students must take 322, 324, 422L, senior seminar, and Math 215
B S Chemistry 124 cr All students must take 322, 324, 422L, two Chemistry electives, senior seminar, and Math 215.

Biochemistry Major
B A Biochemistry 122 cr All students must take 401, 401L, 402, senior seminar, and Biol 213
B S Biochemistry 125 cr All students must take 401, 401L, 402, 322, senior seminar, Biol 213, and two 300-400 level Biochemistry electives.

To meet the American Chemical Society’s requirements for Professional Certification, the Chemistry Major must elect two additional courses from the following: 401, 402, 523, 524, 537, 538, 545, 546, 547, 572, Mathematics 216 or 308, and Physics 306. One of these must be taken with a laboratory. This laboratory requirement can also be fulfilled with 490. The Biochemistry Major must take 322, 324, and 422 for certification.

REQUIREMENTS FOR THE MINORS
A minor in Chemistry or Biochemistry consists of 121, 122 and a minimum of 12 credits selected from the following. Preferentially, 211 and 211L, 212 and 212L, 401 and either 402 or 401L will constitute a minor in Biochemistry. Individual course prerequisites must be satisfied.

111, 112 Principles of Chemistry 3 cr each
The course is divided into three segments: general, organic, and biochemistry. In the section devoted to general chemistry the laws of chemical behavior and bonding are developed with particular reference.
to the simple molecules of inanimate nature. The organic section deals primarily with the structural features of organic compounds, the chemistry of functional groups and the practical applications of organic compounds in the synthesis of polymers, carbohydrates, lipids, proteins, nucleic acids, enzymes, vitamins, etc. Biochemistry is treated in terms of the digestion and metabolism of nutrients, the functions of enzymes in the metabolic process and the abnormal metabolic conditions that prevail in disease.公主2, 12 hours, laboratory, two hours. Prerequisites: high school algebra or its equivalent for 111, 112, 121, or 131 for 112.

121, 122. General Chemistry 5 cr each
This course covers the fundamental principles and concepts of chemistry as presented from the standpoint of atomic and molecular structure and illustrative examples from descriptive chemistry. The basic concepts of thermodynamics, chemical kinetics, and equilibrium are introduced. The laboratory portion of the first semester illustrates physical and chemical properties in a quantitative manner, and the laboratory portion of the second semester illustrates the principle of atomic and molecular structure in qualitative inorganic analysis. Prerequisite for 121: Math 105 (College Algebra and Trigonometry) or a Math SAT greater than 500 and/or Math Placement Exam score greater than 17. Prerequisite for 122: 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 an integrated two-semester sequence. The first part of the course deals with basic chemical concepts, including stoichiometry, the periodic table, equilibrium, structure and bonding, and acid-base chemistry. The second part of the course provides a survey of the chemical properties of the principal functional groups of organic chemistry, including alcohols, aldehydes, ketones, carboxylic acids and 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 transfer. This course does not serve as a prerequisite for CHEM 211, 212. Prerequisite for 131: high school algebra or its equivalent, as evidenced by satisfactory performance on a math placement examination. Prerequisite for 132: 131 Lecture. Four hours, laboratory, three hours, recitation, two hours.

211, 212. Organic Chemistry 3 cr each
Students are given a firm foundation in the fundamentals of the structure and reactivity of organic compounds. Emphasis is on the basic mechanistic principles of the reactions and the strategies used to synthesize organic compounds. The use of NMR and IR spectroscopy to identify organic compounds is also emphasized. Prerequisites: 122 for 211, 212. Lecture, four hours.

211L, 212L. Organic Chemistry Lab 1 cr each
This lab exposes students to basic synthetic and purification techniques used in organic chemistry. Both macroscale and microscale equipment are used. The student acquires a knowledge of the various wet methods of qualitative organic analysis and also learns to generate and interpret IR and NMR spectra. Prerequisites: 211L for 211, 212L for 212. Must be taken prior to or concurrent with 211L, 212L. Must be taken prior to or concurrent with 211L, 212L. Laboratory, three hours.

221L, 222L. Organic Chemistry Majors' Lab 1 cr each
Students cover the same techniques as 211L, 212L. In 221L and 222L, students are taught additional techniques useful for undergraduate research. They are permitted hands-on use of various instrumentation such as the NMR spectrometer, gas chromatograph, and GC-MS instrument. Students are introduced to the chemical literature and perform individual research projects involving multi-step syntheses. Prerequisites: 221L for 221L, 222L for 222L. Must be taken prior to or concurrent with 221L, 222L. Must be taken prior to or concurrent with 222L. Laboratory, six hours.

321, 322. Physical Chemistry 3 cr each
A study of the structure and properties of the various states of matter: thermodynamics, chemical kinetics, and an introduction to quantum chemistry. Prerequisites: Physics 202 or 212, Chemistry 122, Mathematics 116. Lecture, four hours.

323, 324. Physical Chemistry Laboratory 1 cr each Laboratory portion of Chemistry 323, 324. Four 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, the importance of nucleic acids, the structure and metabolism of carbohydrates, and the bioenergetics of ATP synthesis and utilization. Prerequisite: 212 Lecture, four hours.

401L. Biochemistry Laboratory 1 cr
Students are introduced to the basic techniques of biochemistry, including protein assay, protein electrophoresis, gel filtration and affinity chromatography, Western blotting, and enzyme assay purification, and kinetic analysis. 401L must be taken prior to or concurrent with 401L. 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 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 recent developments in methodology. Prerequisite: 401 Lecture, four hours.

421. Analytical Chemistry 4 cr
Theoretical and practical training in modern methods in chemical analysis with emphasis on instrumental methods. Prerequisite: 321 Lecture. Three hours, Laboratory, four hours.

422. Inorganic Chemistry 4 cr
A survey of the basic principles required for understanding inorganic chemistry including atomic and molecular structure, crystal structure, non-aqueous solvents and coordination compounds. Prerequisites: 322 Lecture, three hours, Laboratory, four hours.

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

DEPARTMENT OF PHYSICS
Chairperson
K. Thomas R. Davtes, Ph D
Professors
Shih-Chi Chang, Ph D
K. Thomas Davtes, Ph D
Rev. J. Clifton Hill, Ph D
Assistant Professor
Barbara M. Manner, Ph D
Assistant Professors
Simoneotta Frittelli, Ph D
Monica Sorescu, Ph D
Instructor
Anna D'Eramo, B Sc

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 in the many professions that are based on the science of physics. Also, it is realized that there are many expanding professions that are based on the science of physics. Therefore, it is strongly suggested that each major take 350.

Extra-departmental Requirements
Chemistry 121, 122 or Biology 111, 112, Mathematics 115, 116, 215, 216, 218, and 308, Computer Science 150 or an approved substitute, and two years of modern language. Mathematics 306 is strongly recommended, but not required.

REQUIREMENTS FOR THE MINOR
The minor consists of eight hours in General Analytical Physics (211, 212) and 12 credits of upper division physics on the 300 and above level. 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
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, and 471, Chemistry 121 and 122, Mathematics 115, 116, 215, 216, 308, and Computer Science 150 or an approved substitute. Mathematics 306 is strongly recommended, but not required.

Depending upon the field of engineering that a student elects to pursue, the Binary Engineering student may select additional courses from the following list in order to enhance his/her background and understanding of physics and chemistry. Chemistry 221, 222, 231, and 232, Physics 301, 302, 329, 330, 350, 361, 372, 380, and 462. Selection of additional courses must be discussed with and approved by the Binary Engineering Faculty mentor.

PHYSICS COURSES:

170. Acoustics 3 cr
A course which 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 Physics for Pharmacists  4 cr
A laboratory course designed especially for Pharma-
cy students to provide a basic knowledge of Physics and its relationship to pharmaceutical science. Topics normally covered include mechanics, properties of matter, heat and thermodynamics, basic electricity, wave motion, and light, and selected topics in modern physics. In addition to being intro-
duced to the physical concepts, the student will also be instruc-
ted in the analytical approach to problem solving that is essential to both the physical and pharmaceutical sciences Pre-Requisite: Mathematics 115 Lecture, four hours, Laboratory/Recitation, two hours (Note: Students preparing for a medical degree program must take Physics 201, 202 or Physics 211, 212.) Students concentrating in Nuclear Pharmacy are encouraged to complete Physics 201 and 202.)

201, 202 General Physics  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 comple-
tion 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. Pre-Requisite: Mathematics 105 or the equivalent. Students who have completed Mathematics 116 and pre-engineering students 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. The course presumes no 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 a physical science course for School of Education students

211, 212 General Analytical Physics  4 cr each
An introduction to the fundamental theories and applications of classical physics designed for students of science and engineering. A good algebra and trigonometry background is presumed and methods of using the 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. Brief treatment of optics and modern physics is usually included. Co-Requisite: for 211 Mathematics 116 Lecture, three hours, Laboratory, two hours

301 Thermodynamics  3 cr
This is an intermediate level course covering the funda-
mental principles of thermodynamics, kinetic theory and statistical mechanics. The following is a partial list of items generally included: temperature, thermodynamic systems, work, heat, the first and second laws of thermodynamics, ideal gases, entropy, Maxwell’s equation, the kinetic theory of ideal gas, and the basic concept of statistical mechanics. Pre-Requisites 212, Mathematics 215

306 Applied Electronics  3 cr
This course seeks to combine a treatment of the prin-
ciples of modern electronic instrumentation with prac-
tical laboratory experience. Topics which will be covered will include operational amplifiers, electronic measuring instruments, power supplies, amplification, feedback and control, linear and digital devices. Emphasis will be on understand-
ing instrumentation rather than on advanced principles of design. Pre-Requisites 202, 211 or permission of instructor. Lecture, two hours, Laboratory, three hours

329 Advanced Laboratory I  1 cr
This course is designed to acquaint the student with the basics of modern electronics to the extent that the student will have a sufficient background to design and use simple electronic circuits in future research. A set of experiments is performed and analyzed by the students. Subjects covered include Discrete Component Electronic Circuits and Measurements, Binary number systems, Gating Circuits, Boolean Algebra, Digital decoding, multiplexing and sequencer, counters, digital circuits, generation and shaping, elapsed time measurement and shift registers Pre-Requisites 212 or 202 and consent of instructor

330 Advanced Laboratory II  1 cr
A continuation of Advanced Laboratory I which includes the following: Random Access Memory, Analog to Digital and Digital to Analog Conversion, Operating Amplifiers, Active Filters, Function Generators, and practical applications of digital circuits including some computer interfacing. Pre-Requisite 329 or consent of instructor

350/550 Theoretical Methods in Science  3 cr
This course will include a variety of theoretical methods that are useful for general problem solv-
ing in advanced science and engineering courses. For example, in atomic and molecular structures, mechanics, electricity and magnetism, thermodynamics, and hydrodynamics, there are a variety of integral computational methods (both ordinary and partial) that will be studied. We will also ad-
dress certain elementary problems involving the
Schrödinger wave equation, which occurs in quantum
mechanics. In addition, we will cover other
important theoretical topics, such as vector, matrix, and tensor methods, complex arithmetic and com-
plex variable theory, Laplace transforms, power se-
ries, and general expansions using orthogonal functions. Also, simple statistical methods and numerical algorithms may be covered, e.g., least squares fitting, Newton’s method, and various Cauchy integration schemes. Pre-Requisites Mathematics 115 and 215

361/561 Mechanics  4 cr
An intermediate level theoretical classical mechanics involving concepts and problems that require the mathematical tools of vectors, calculus, matrices, etc. Many of which will be reintroduced in this course. A good calculus background is indispensable. The topics normally covered are oscillations, the motion of a particle in 3-dimensions, central force systems, dynamics of many particles, transforma-
tion to the center-of-mass system, collisions, non-
linear systems, and the Lagragian and Hamil-
tonian formulations of mechanics. Pre-Requisites 212, Mathematics 215

372/572 Electromagnetism  4 cr
An intermediate course for the science and engi-
neering students. The following topics will usually be
covered: electrostatics, energy relations in elec-
 trostatic fields, dielectrics, currents and their inter-
action, magnetic properties of matter, AC circuits, Maxwell’s equations, and electronic radiations. Pre-Requisites 212, Mathematics 215

402 Optics  3 cr
This course introduces the student to the principles
and applications of wave optics, geometric optics
and quantum optics. Specific topics include Max-
well’s equations as they apply to electromagnetic
radiation, reflection and refraction with dielectric
and conducting media, polarization, Jones for-
malism, properties of lenses and mirrors, photon
theory and the laser. While this course has no for-
nal laboratory component, laboratory exercises and
demonstrations are included at appropriate times
throughout the course. Pre-Requisites 212, Mathematics 215

403 Applied Laser Optics  2 cr
This course is primarily an experimental course with
an emphasis on student work in a laboratory set-
ing. It is open to all interested science students and
is mandatory for all physics majors. Some experi-
ments to be performed are: Laser assembly, the
characteristics, polarizations, and the trans-
verse nature of a laser beam, the reflection, diffrac-
tion, interference and spectra of lasers and holo-
graphy. Additional advanced experiments could be
assigned as special projects. Pre-Requisite 402 or consent of the instructor

419 Introduction to Microcomputers  3 cr
An introduction to the electronic design of micro
and mini (PC-type) computers and the methods of
interfacing microprocessors and PCs to the outside
world. Some aspects of assembler and specialized
languages for small computers are examined and
applications drawn from data acquisition and control
of real-world sensors and other electronic devices.
Pre-Requisites: Computer Science 200, Com-
puter Organization and Assembly Language, and
Computer Science 325, Operating Systems and
Computer Architecture I. Some electronic back-
ground helpful and completion of Physics 202 or
212 is encouraged.

425 Microcomputer Laboratory  3 cr
A "hands-on" laboratory course in the use of small
board microcomputers for interfacing and control.
This course introduces the student to those concepts
of discrete and digital electronics that relate to the
use of these concepts for interfacing the microcom-
puter with the "real," analog world. Some of the
topics covered are assembly language programming
for an 8085 microprocessor, use of parallel and serial
I/O ports, analog to digital and digital to analog con-
version, microcomputer monitors, motor speed control, and pro-
cess control. Pre-Requisites Physics 419, or consent
d of the instructor.

426 Problems in Microcomputers  1-4 cr
Special topics and problems in microcomputers,
microcomputer interfacing circuitry and related sub-
jects suitable for independent work. Pre-Requisites
Physics 419, or consent of the instructor.

427 Robotics  3 cr
This is an introductory course that deals with robotic
controllers, programming, operational aids, drive
systems, interfacing, end effectors, sensors and
robotic applications. Pre-Requisites Physics 212, or
202 and permission of the instructor.

430 Senior Research  2 cr
This is a one-year course in which the student selects
a research project, develops it, and prepares a report
on the results. The student is also required to pre-
sent results of his work at a department seminar or
an appropriate scientific meeting if deemed advis-
able. A research topic is selected from those sug-
gested by members of the Physics Department or
other science faculty members. Work is carried out
in close coordination with the selected advisor,
although all work must be the student's own. No
grade is given at the end of the first semester but
a final grade is assigned at the completion of the
project in the Spring Semester.

471 Modern Physics  3 cr
This course provides an introduction to quantum
physics with applications drawn mainly from
modern theories of atomic and nuclear structures.
Topics include the old Bohr Theory, the periodic table, the wave-particle duality, the uncertainty prin-
ciple, the Schrödinger 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: 212

482 Elementary Particle Physics 3 cr
This course will cover elements of nuclear structure, as well as the discoveries and ideas of modern elementary particle physics. The topics presented may include the charge-independent, nuclear interaction, the nuclear shell model, the four fundamental forces in nature, the properties of baryons, and the exclusion principle, the Schrödinger 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: 212

474, 480, 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 vary widely and at times there is sufficient student demand to justify the offering of the course.
The courses offered include: 474 Quantum Mechanics (please note that the department will accept Graduate Credit in Quantum Mechanics, in lieu of the Quantum Mechanics Course), 480 Nonlinear Dynamics (Chaos), 484 Introductory Solid State Physics, 485 Relativistic Mechanics and 486 Shop Techniques. Descriptions of these courses follow.

474 Quantum Mechanics 3 cr
This course provides an undergraduate introduction to the formalism of modern quantum theory. The course usually begins with a brief review of Schrödinger’s equation. The main content course includes one-dimensional potentials, the harmonic oscillator, angular momentum, spin, and perturbation theory. Throughout the course, emphasis is placed on the mathematical methods needed for a rigorous understanding of the material. The course concludes with the matrix representation. Prerequisites: 212, Mathematics 215

480/580 Nonlinear Dynamics (Chaos) 3 cr
This course provides an introduction to the theory and applications of chaos. The topics presented include: characteristics of dynamical systems and of maps and flows, sensitivity to initial conditions, studies of one-dimensional maps including fixed points, periodic orbits, bifurcation theory, the period-doubling cascade to chaos, universal scaling laws and the Feigenbaum constants, the relation of the critical orbit to the Schwarzian derivative, 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. Prerequisite: Mathematics 116

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: 212, Mathematics 215

485 Relativistic Mechanics 3 cr
This course provides an introduction to the Special and General Theories of Relativity. A list of topics which may be discussed are absolute space, Einstein’s Kinematics, Einstein’s Optics, space-time and four vectors, relativistic particle mechanics. Prerequisites: 212, Mathematics 215

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 independent work.

488 Advanced Problems in Physics 1-4 cr
Problems of a more sophisticated nature.

489 Problems in Health Physics 1-4 cr
Special topics and problems in health physics and related subjects suitable for independent work.

492 Health Physics 2 cr
The objective of this course is to familiarize the student with the various aspects of Health Physics and radiation protection, to introduce the student to that background material necessary to understand environmental radiation safety issues, and to provide a mechanism by which the student may apply the principles and practices of radiation protection. At the completion of the course, the student should have gained a level of working knowledge of radiation protection, its technique and reasoning, such that he may be able to apply this knowledge of the field to many real life and working situations.

495 Field Studies 1 1-4 cr
EARTH SCIENCE COURSES

(NOTE: These courses have Physics Department course numbers.)
PHYS 101 Physical Geology 3 cr
Comprehensive survey of materials, 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 102 Historical Geology 3 cr
A course which examines the essentials of the Earth’s evolutionary development through time. Topics covered in this course may include the early history of Earth, the composition and structure of Earth, plate tectonics and mountain building processes, the concept of geologic time and its measurement, and a history of the development of life on Earth. Evolutionary local features may also be discussed along with their relationships to plate tectonics. This course presumes 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 samples 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, non-magnetic 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 and Hydrogeology 2 cr
The course introduces students to the fundamental topics of geologic materials and soils and deals with ground and surface water and hazardous earth processes, such as flooding and earth movements. Geologic 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.

SCIENCE PROGRAM COURSES
SPRG 101 Foundations of Modern Science 3 cr
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 prerequisite of science or mathematics is required.

SPRG 103 The Big Bang and Beyond 3 cr
The elementary, qualitative course deals with the fundamental topics and questions of cosmology. The experimental and theoretical underpinnings of the Big Bang Cosmology, including Einstein’s General Theory of Relativity, the red shift of the distant galaxies, and the discovery of the 2.7 K Cosmic Microwave Background Radiation. How did matter and radiation emerge and couple in the early universe? Studies of White Dwarf Stars, Neutron Stars, and Black Holes. The discussions of Neutron Star and Black Holes will include Supernova, Pulsars, and Quasars. What processes led to the formation of our galaxy (the Milky Way) and the supergalaxy to which it belongs? Finally, a study of the mysterious Dark Matter known to exist in the universe.
A.J. Palumbo School of Business Administration

Administration
Dean
Thomas J. Murin, B.S., D.M.S., L.H.D
Associate Dean and Director of Graduate Studies
Thomas A. Pollock, 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. During the next six 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 Anthony 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 be the premier teaching institution in our market, helping our students to acquire the knowledge, skills and values necessary for participation and leadership in the evolving global marketplace. In carrying out that mission, the School provides an environment of excellence in teaching and learning. The faculty pursues a balance of theoretical knowledge and practical experience through instructional excellence, research and intellectual inquiry and a commitment to professional and community service.

As a consequence of its mission, the School of Business Administration sets for itself the following key objectives:

- Strive to be a Business School which understands clearly the critically important changes and challenges occurring in the business world and responds effectively by providing world-class training to help prepare students and others to contribute to the survival, competitiveness and long-term success of their organizations. Continuously monitor and analyze relevant business, economic, political and other developments, domestically and overseas, to promote that understanding. Utilize not only our University’s considerable resources, but also personnel and resources from elsewhere in academia, business, government and labor.
- Become leading practitioners of continuous world class quality and productivity improvement by outstanding offerings and expert lecturers, resources, effective educational improvements throughout the School, and innovative pedagogical improvements in the classroom, utilizing the most state-of-the-art resources available.
- Provide insightful training in international business incorporating challenges from such countries as Japan and Germany and outstanding oppor tunities in such areas as Central and Eastern Europe, Central and South America and the Far East. Introduce leading-edge know-how by developing programs on relevant topics and addressing the need for lifelong learning experiences.
- 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.
- Continuously evolve a Mission Statement for our School which optimally guides our commitments to our various customer groups—students, parents, employers, benefactors, alumni and the community. Concurrently contribute substantially to the overall Duquesne goal of becoming The Outstanding Catholic University in America.
- Fully benefit from the resources of existing Advisory Boards, the Admissions Office, and the Executive Advisory Board to assist in the continuing development of the School and to improve the timeliness and effectiveness of our business education.

ADMISSION
Students who wish to enroll in the A.J. Palumbo School of Business Administration should apply through the Duquesne University Office of Admissions, 600 Forbes Avenue, Pittsburgh, PA 15282—Phone (412) 396-3000. The regular University admission requirements can be found on page eight.

Acceptance of all international students will be contingent upon the successful completion of the Duquesne University English Placement tests and any required English language coursework. This may involve at least one semester or more of course work until such time as the student’s English language sufficiently improves to take under graduate classes.

Students transferring from a school of business that is accredited by the American Assembly of Collegiate Schools of Business must present an overall quality point average of 2.0 (on a 4.0 scale) to better for other students, including those transferring from another school within the University, a quality point average of 2.25 or better overall and a grade of C or better in all mathematics and business courses 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 25 of these 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 extending 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. Description of advanced degrees are found in other publications available from the Graduate School of Business Administration.

SECOND BACHELOR'S DEGREE
Persons who have received a bachelor's degree from an approved college or university may be eligible to enter the program for a second bachelor's degree in Business Administration. A second degree candidate must meet all requirements of the School's degree program. A minimum of 30 credits must be completed in residency.

THREE-YEAR BACHELOR'S/J.D.
A student who has completed 90 credits in the A.J. Palumbo School of Business Administration with a 3.5 or better overall average and who has satisfied all undergraduate curriculum requirements at Duquesne University may apply for a bachelor's degree after 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 PROGRAM—BS/PHARMACY/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. Students interested in this program should consult their advisors early in their junior year.

EARLY ADMISSION TO MBA PROGRAM—BS/BA/BA
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 PROGRAMS 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 PROGRAMS WITH COLLEGE OF LIBERAL ARTS, SCHOOL OF EDUCATION AND SCHOOL OF MUSIC
The School of Business Administration and the College of Liberal Arts, the School of Education and the School of Music have developed certificate programs in business for liberal arts, education and music students. Students in the College of Liberal Arts, the School of Education and the School of Music who are interested in the program should consult the advisors in the School of Business Administration.

HEALTH MANAGEMENT SYSTEMS JOINT PROGRAMS WITH COLLEGE OF HEALTH SCIENCES
The A.J. Palumbo School of Business Administration, in conjunction with the Rangos School of Health Sciences' Department of Health Information Sciences, offers a joint program in Health Management Systems for students interested in the application of information technology and business skills to the management of health care. The Health Management Systems program offers specialization tracks in Systems and 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. More specifically, it develops and coordinates economic

EDUCATION AND MUSIC
The School of Business Administration and the College of Liberal Arts, the School of Education and the College of Music have developed certificate programs in business for liberal arts, education and music students. Students in the College of Liberal Arts, the School of Education and the School of Music who are interested in the program should consult the advisors in the School of Business Administration.

SCHOOL OF HEALTH SCIENCES
The A.J. Palumbo School of Business Administration, in conjunction with the Rangos School of Health Sciences' Department of Health Information Sciences, offers a joint program in Health Management Systems for students interested in the application of information technology and business skills to the management of health care. The Health Management Systems program offers specialization tracks in Systems and 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. More specifically, it develops and coordinates economic
The Mission of the Center for Technology Management is to help organizations cope more effectively with rapid, ongoing changes in technology and to use it as a key factor in building long term advantage. The Center is responsible for fostering adoption, organization, management procedures, oversight, technology diffusion and technology transfer. The Center is also responsible for developing curricula and teaching programs for students as well as continuing education programs, forums and seminars for managers and executives.

The Institute for Economic Transformation
The Institute for Economic Transformation (IET) collaborates with university, industry and community sectors to improve the economic performance of our region by rebuilding the global competitive advantages of our industrial base. The IET is committed to being the premier source of assistance for education, training and the creation of broadly based business networks for industry and industry support organizations. In 1998 the IET introduced its new "Center for Corporate Development." This Center was created to serve as a single marketing source for performance improvement and training programs offered by the IET's Connelly Center and Pittsburgh Supplier Training Center.

The Center's goal is to help meet the rapidly growing need for education and development of Pittsburgh and Tri-State manufacturers, service organizations, and suppliers. The new Center will expand IET's current partnership with the National Consortium for Supplier Training, and focuses resources on providing workshops and consulting programs based on the best management practices, from some of the best companies in the world. All training workshops are sanctioned and designed by industry to provide practical instruction and guidance for creating, changing and sustaining implementation.

The American Marketing Association membership at Duquesne University interacts with the Pittsburgh professional chapter on a regular basis to organize seminars, workshops, career forums, and networking events. The AMA is dedicated to furthering the profession and developing students' careers.

Beta Alpha Phi is the local honorary scholarship society of the School. Its membership is limited to juniors and seniors in the Business School who have attained QPA's of 3.25 or better.

The Zeta Chapter of Beta Gamma Sigma, a national honorary fraternity for accredited schools of the American Assembly of Collegiate Schools of Business, is established at Duquesne University. Membership in this honorary fraternity is limited to juniors in the top five percent of their class and to seniors in the top 10 percent of their class.

The 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 is a student organization dedicated to promoting knowledge in the information technology field. The organization is open to all Duquesne University students, faculty and staff.

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 education and training for all individuals, is represented by the Gamma Upsilon College Chapter.

Pi Sigma Epsilon - Delta Chi Chapter is the national, professional, coeducational fraternity in marketing, sales and marketing communications affiliated with the Sales and Marketing Executives International and the Pittsburgh SME chapter.

The Society for Human Resource Management is a student chapter of the national organization SHRM and is also affiliated with the Pittsburgh Personnel Association. The chapter is for students interested in careers in personnel/human resources or line management.

Beta Alpha Psi is the premier national honorary accounting fraternity. Less than 15% of the AACSB-accredited schools' eligible for membership have achieved active status. The fraternity sponsors professional growth and development programs, as well as community and University service activities.

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
The A J Palumbo School of Business Administration offers a total of ten concentrations (majors) from which to choose courses. The respective areas of concentration include: Accounting, Finance, Information Technology, International Business, Investment Management, Marketing, Premark, Sports Marketing and Supply Chain Management.

Revised curricula 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 academic areas of concentration, and to consult with them when choosing junior and senior courses in any area of concentration. 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 in 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. Course suggestions and degree requirements for all major areas of concentration can be obtained from the Academic Advisement office.

PROGRAM FOR PROFESSIONAL DEVELOPMENT
All students in the School of Business Administration are required to participate in the following professional development program in order to complete their degree requirements.

Pre-Business Experience
This orientation program is designed to introduce business students to the broad context of a business education. The program serves as an "advance course" and exposes students to the concept of total quality management, the importance of ethical decision making and the realities of the global marketplace within a cooperative learning environment.

Students meet with A J Palumbo School of Business faculty and administrative staff to develop personal relationships and to become acquainted with the organization of the School and the resources available. Participation in this program is required for graduation.

FOUR YEAR SAMPLE PLAN
(Effective September 1993)

FRESHMAN YEAR
University Core

101 Thinking and Writing
Across the Curriculum 3 cr

102 Imaginative Literature and
Critical Writing 3 cr

103 College Algebra 3 cr

111 Calculus 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

251 The Arts and the Human Experience 2 cr

24 cr
BUSINESS SCHOOL OF BUSINESS ADMINISTRATION

Business Core 182 Information Systems I 3 cr 183 Information Systems II 3 cr TOTAL Credits 30 CR

SOPHOMORE YEAR

University Core 3 cr
- Core Theology Requirement 3 cr
- Core Science Requirement 3 cr
- Potential for Credit: Required for graduation
- CIEP test available for this course—See Advisors for other options
- Core Science Requirement (Sophomore Year) 3 cr
- Core Science Requirement 3 cr

- Communication Requirement 3 cr
- May be business or non-business elective
- Students registering for 300-400 level business courses must have successfully completed s credits and have junior standing. Students are responsible for knowing the prerequisites for those courses in which they are registered.
- The sample plan has a degree of flexibility. The University Core and Communication/Culture Requirements may be taken at any time during the student's four years. Students may consult their academic advisor for further information.

JUNIOR YEAR

Business Core 223 Global Economics 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 3 cr
- Total Credits 30 CR

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. 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. Students on academic probation may not take more than 12 credits.

MAY BE CHANGED WITHOUT NOTICE OR OBLIGATION.

COURSE PREREQUISITES - see p 97

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 in decision making. Students will develop a basic understanding of the preparation of financial statements, including the balance sheet, income statement, and statement of cash flows. Prerequisites: QSMIS 182

ACCOUNTING CURRICULUM

The Accounting curriculum prepares students for excellent career opportunities as professionals in the areas of corporate, industrial, government, nonprofit and public accounting. The program provides students with a sound theoretical foundation as well as practical experiences through internships and employment. 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 two (2) of the above listed Accounting courses along with additional electives from the areas of Accounting, Information Technology or Finance, such as QSMIS 481, 485 and Finance 333.

401 Business Administration Internship 3 cr
- This internship program provides the student with professional work experience in an organizational environment. Internships must be approved in advance by a faculty sponsor and are available to students in all business concentrations. Grading is Pass-Fail.

PREREQUISITES: Junior standing, six credits completed in major, an overall GPA of 2.5 or better, and completion of at least 15 credits at Duquesne University.

GENERAL BUSINESS COURSES

The Pre-Business Experience is required for all students enrolled in the School of Business Administration. The Business Administration Internship is strongly recommended for all who qualify.

CLASS ATTENDANCE

Regular class attendance is required. Class attendance in the School of Business Administration is strongly recommended for maximum educational advantage and, in some cases, may be required. The responsibility for all course work rests wholly with the student. It is the prerogative of each instructor to establish specific policies for attendance at examinations and class lectures, deadlines for reports, and other specific school course or course requirements.

STUDENTS WITH DISABILITIES

Students with disabilities requiring special assistance are urged to notify the class instructor or his/her advisor before the first class.

Enrollment in Business Courses by Students in Other Schools of the University

Students enrolled in other schools in the University community may take business courses provided they meet all prerequisites. Under no circumstances, however, may a student in another school take more than 27 credit hours in business. Students in the College of Liberal Arts, the Music School and the School of Education who wish to take business courses should follow the business certificate program or the dual degree option. Students should consult their advisors on this matter.

Prerequisites: Upper-Level Business Courses

In addition to any specific prerequisites that are listed in the course descriptions, all freshman and sophomore required business courses must be completed before the student may enroll for upper-level business courses. That is, those business courses numbered in the 300s and 400s. The student must also have completed 60 credits or more.

IAJ PALUMBO SCHOOL OF BUSINESS ADMINISTRATION
BROAD UNDERSTANDING OF THE UNIFIED STATES AND INTEGRATED BEHAVIOR, JOB ORDER COSTING, PROCESS COSTING, COST NATIONAL ECONOMIES AND TO DEVELOP IN STUDENTS AWARENESS OF ACCOUNTING PROBLEMS AND LITERATURE. PREREQUISITE: ACCOUNTING 412.

314 Advanced Accounting 3 cr
Activities studied include partnerships, consolidations, foreign exchanges, governmental, and non-profit accounting. Prerequisite: Accounting 311.

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 behaviors, job order costing, process costing, cost allocations, and standard costing. Prerequisites: Accounting 214, 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 studies are used to demonstrate the application of the principles studied. Prerequisite: Accounting 312.

412 Introductory Income Tax 3 cr
A study of basic tax regulations and procedures affecting individuals, and to a lesser extent, business units. Prerequisites: Topics include income, deductions, sales, and exchanges of assets, and credits. Prerequisites: Accounting 214 and 215.

414 Corporate and Partnership Taxation 3 cr
Acquaints the student with the principles of taxation as applied to corporations, shareholders, partners, and partnerships. Prerequisites: Recommended: Principles of Business 412.

419 Seminar in Accounting 3 cr
Designed to develop a student's ability in technical expression, deepen understanding of accounting theory, and acquaint the student with contemporary accounting problems and literature. Prerequisite: Accounting 314.

FINANCE CURRICULUM
Students who look forward to careers in financial services may select a program of courses in any one of these areas, including investments, corporate finance, and financial analysis. The professional designation of Chartered Financial Analyst (CFA) is used by those in the securities industry. Suggested courses for students interested in working toward this designation are Finance 333, 335, 336, 337, 338, 339, and 433. Finance 333, 334, 335, 432, 434, and 437 are suggested for students whose career interests lean toward corporate finance and financial analysis. For students with an interest in Real Estate or Insurance, electives are offered in these areas. Finance students are required to take Accounting 216.

ACCOUNTING 311 and 312 are strongly recommended.

311 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. Prerequisites: Accounting 214, 215, 216.

312 Elements of Economics 3 cr
An introductory course that provides an understanding of the economic system works, 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.

221 Principles of Economics I 3 cr
Principles of economics are introduced to students with the conceptual logic necessary to economic reasoning. Emphasis is placed on understanding the behavior of households and firms under competitive and imperfectly competitive conditions in both output and resource markets.

222 Principles of Economics II 3 cr
Principles of economic relations are applied with aggregate economic relationships. These include theories of national income determination and the interactions among domestic and foreign economies. Monetary and fiscal policies and their implications for inflation, unemployment, economic growth and foreign exchange are analyzed.

223 Global Economic Perspectives 3 cr
Uses economic principles and concepts to analyze business-related current issues in a global context. Emphasis is placed on understanding the process of economic development in different parts of the world, research incorporating the World Wide Web, and overall geographic literacy. Prerequisites: Economics 221 and 222.

224 Business Cycles and Forecasting 3 cr
Studies the process of economic change through the analysis of seasonal, cyclical, and secular movements utilizing theoretical and empirical data and forecasting techniques. Prerequisites: Economics 221 and 222.

225 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 of poverty, and the urban public sector. Prerequisites: Economics 221 and 222.

226 Monetary Theory and Policy 3 cr
Deals with the chief theoretical contributions in monetary and fiscal policy, topics include the modern quantity theory of money, monetarist versus Keynesian policy, and the impact of leverage on the value of the firm. Prerequisites: Economics 221 and 222, and QSMIS 281.

227 Money and Financial Institutions 3 cr
Examines the influence of monetary policy on such variables as the nominal interest rate, level of income, money demand, foreign exchange rate, etc. Specific topics include bank portfolio management, interest rate risk, the yield curve, real versus nominal interest rates, financial intermediation, etc.

228 Urban Land Economics 3 cr
A study of the urban land forces that influence business and residential location in a metropolitan area. Specific areas of study include transportation, housing, values, and the urban public sector. Prerequisites: Economics 221 or 222.

229 Seminar in Economics 3 cr
A study of the regulatory techniques used by government to influence and modify business behavior. Includes an analysis of market structure, and conduct and performance considerations pertaining to the firm and the industry. Emphasis is given to antitrust laws and anti-trust arrangements. Prerequisites: Economics 221 and 222.

311 Business Finance 3 cr
Concerned with maximizing the value of the firm in reference to the risk-return relationship. The student is introduced to financial statement analysis, the time value of money, capital budgeting, working capital management, cost of capital and the impact of leverage on the value of the firm. Prerequisites: Accounting 214 and 215, and QSMIS 281.

312 Money and Financial Institutions 3 cr
Provides a theoretical or conceptual framework that financial managers can use to research decisions. Topics include capital structure, capital management, interested rate risk, the yield curve, real versus nominal interest rates, financial intermediation, etc.

322 Public Finance 3 cr
A study of the organization and management of government revenue and expenditures with emphasis on American political philosophies at the various levels of government. Includes benefit-cost and cost-effectiveness analysis together with the economic consequences of various tax structures and alternative social choice mechanisms. Prerequisites: Economics 221 and 222.

323 Financial Management 3 cr
A study of the organization and management of government revenue and expenditures with emphasis on American political philosophies at the various levels of government. Includes benefit-cost and cost-effectiveness analysis together with the economic consequences of various tax structures and alternative social choice mechanisms. Prerequisites: Economics 221 and 222.

324 Comparative Economic Systems 3 cr
A comparative study of capitalism, socialism, communism and other economic systems with emphasis on analysis rather than mere description of the economies of various countries. Prerequisites: Economics 221 and 222.

421 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, and systems of international monetary system, and fixed versus flexible exchange rates. Prerequisites: Economics 221 and 222.

422 Financial Management 3 cr
A study of the broad spectrum of risk exposures in business enterprise, with special attention to the need for identifying these risks terms of nature and magnitude. Emphasis is given on techniques available to aid the decision-maker in making decisions under constraints of uncertainty. Prerequisites: Economics 333.

325 Business Financial Problems 3 cr
The aim of this course is to provide a vehicle in which the student can utilize material from previous courses to solve problems of a financial nature. Using case studies, the student is expected to be able to identify problems, reach conclusions, recommend solutions, and identify implementation techniques. Prerequisites: Economics 331 and 333.

MACROECONOMICS CURRICULUM
328 Urban Land Economics 3 cr
A study of the urban land forces that influence business and residential location in a metropolitan area. Specific areas of study include transportation, housing, values, and the urban public sector. Prerequisites: Economics 221 or 222.

329 Risk Management 3 cr
A study of the broad spectrum of risk exposures in business enterprise, with special attention to the need for identifying these risks terms of nature and magnitude. Emphasis is given on techniques available to aid the decision-maker in making decisions under constraints of uncertainty. Prerequisites: Economics 333.

330 Business Financial Problems 3 cr
The aim of this course is to provide a vehicle in which the student can utilize material from previous courses to solve problems of a financial nature. Using case studies, the student is expected to be able to identify problems, reach conclusions, recommend solutions, and identify implementation techniques. Prerequisites: Economics 331 and 333.

FINANCE CURRICULUM
Students who look forward to careers in finance may select a program of courses in any one of these areas, including investments, corporate finance, and financial analysis. The professional designation of Chartered Financial Analyst (CFA) is used by those in the securities industry. Suggested courses for students interested in working toward this designation are Finance 333, 335, 336, 337, 338, 339, and 433. Finance 333, 334, 335, 432, 434, and 437 are suggested for students whose career interests lean toward corporate finance and financial analysis. For students with an interest in Real Estate or Insurance, electives are offered in these areas. Finance students are required to take Accounting 216.

ACCOUNTING 311 and 312 are strongly recommended.

COURSE PREREQUISITES - see p 97

FINANCE CURRICULUM...
### INFORMATION TECHNOLOGY CURRICULUM

The Information Technology program prepares students for career opportunities in the analysis, design, development, implementation, integration, management, and maintenance of evolving information systems in organizations. The curriculum provides exposure to established hardware, software, and methodologies as well as incorporating emerging technologies. Emphasis is placed on the ability to provide added value to the processes, products, methods, and decision making found in organizations. For a concentration in IT, completion of QSMIS 382, 385, 481, 482, 483, and 484 is required. In addition, four elective courses must be selected from the following: 384, 386, 483, 485, and 487. Students must also take either COSC 101 Basic Programming or COSC 150 Computer Programming. This course fulfills the freshman or sophomore year requirement.

<table>
<thead>
<tr>
<th>COURSE PREREQUISITES - see p 97</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>182 Information Systems I</th>
<th>3 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>An introduction to the productivity potential of spreadsheets, graphics, database, multimedia, and word processing applications. In recognition of the importance of information resources, students will develop proficiency using Internet tools.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>183 Information Systems II</th>
<th>3 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 the study of 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.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>381 Software Analysis and Design</th>
<th>3 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 382, 482, 484. (May be taken concurrently).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>481 System Analysis and Design</th>
<th>3 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focuses on the theory, derivation and development of the relational database model using entity relationship modeling and a commercial database management system. Emphasis is on the principles of data modeling, the organization of resource issues in database design. Prerequisites: QSMIS 383 and COSC 101 or 150.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MIS Project</th>
<th>3 cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students are expected to use tools and techniques learned in prior MIS courses to develop an information management computer-aided software engineering product and fourth generation languages, students design and implement a project.</td>
<td></td>
</tr>
</tbody>
</table>

### INTERNATIONAL BUSINESS CURRICULUM

The International Business Curriculum provides students with basic skills in dealing with the international dimension of business functions. During the course of studies, students develop an understanding of the internationalization of business and will increase their foreign language competence and understanding of other cultures as they relate to business operations.

For a concentration in International Business, students will take International Business 341, Finance 437, Economics 442, Marketing 443, and Law 454 plus three of the following International Business 342, 444, 446, 448, Management 445. Students must also take 12 hours of credit in a language. Students can request a waiver of the language requirement if (1) They successfully pass the level tests as given by the Modern Language Department. Students are expected to be proficient through the 200-level of a language. (2) Students pay for an independent service to test for language proficiency. Results of these tests will determine whether or not
a waiver will be granted (3) They are native language speakers of a language other than English
(4) Students have taken language courses at another University and are able to pass the language proficiency
test It is recommended that students majoring in IB incorporate courses from a functional area of business

COURSE PREREQUISITES - see p 97

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 Management 361

342 International Business Study Abroad 3 cr
Study abroad opportunities with a number of universities are available Students should check with
their advisor in the School of Business Administration regarding both opportunities and the possibility of transfer of credits

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
The 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 Management 361

445 International Management 3 cr
See 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 Management 361

448 Business and Society in Latin America 3 cr
Survey of the major cultural, social, political and economic factors influencing the conduct of business and the prospects for continued economic development in Latin America The impact of contemporary changes in economic and political conditions on the prospects for long term economic development are discussed The course includes a more detailed examination of economic, social and political conditions in Mexico, Brazil and at least one other Latin American country Prerequisite Management 361

454 The Law of International Commercial Transactions 3 cr
See Pre-Law Curriculum

MANAGEMENT CURRICULUM

The Management concentration enables students to have a broad, global perspective of business managers. Among the courses
that can be applied to a wide variety of business sectors, as well as public and non-profit organizations In addition, it encourages a student's understanding of at least one specialized business discipline while providing a degree of flexibility in pursuing a wider variety of subjects than permitted in other concentrations Management students should be able to qualify for a broad range of entry-level positions in all sectors of the economy

For a concentration in management, students must take at least one course in each of the following four areas: people (MGMT 366 or 461), information technology (from QMIS offerings), international business (five possible choices), and decision making (MGMT 465 or 494). In addition, students should take six to nine credits in another specific discipline, such as marketing, finance, supply chain management, etc. The remaining credits required to complete the major should be chosen in accordance with the student's career plans after consultation with a faculty member and/or academic advisor

COURSE PREREQUISITES - see p 97

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

364 Human Resource Management 3 cr
Explores the strategic role, technical functions and services provided by an organization's personnel/human resources department. Topics covered are human resource planning, and systems, job evaluation, recruiting, performance appraisal, compensation, occupational health and safety, employee rights, labor unions, and equal employment opportunity issues Prerequisite Management 361

365 Industrial Relations 3 cr
Presents the role of labor, management and government in collective bargaining and current industrial relations policies and practices Prerequisite Management 361

366 Behavior in Organizations 3 cr
Students learn a number of theories, concepts, and applications regarding people-oriented managerial skills Topics covered include motivation, personality, perception, group dynamics, performance appraisal, leadership and decision making, cooperation and conflict, organizational politics, organizational structure, managing change, and organizational development Prerequisite Management 361

367 Total Quality and Operations Management 3 cr
An introduction to the principle topics and issues 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 Management 361

368 Business Ethics/Communications 3 cr
Discusses the relevance of social needs in developing a sense of ethics, the need for personal ethics in making business decisions, and the importance of a global 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

463 Collective Bargaining 3 cr
Study of the relation of federal and state legislative issues and administrative aspects of collective agreements, specific provisions including adjustment of grievances, conciliation, mediation and arbitration, collective bargaining and public policy Prerequisite Management 361

465 Introduction to Entrepreneurial Small Business Management 3 cr
Deals with the overall management of the small business enterprise Coverage includes entering the small business arena, organizing and financing a business, operation of the small firm, growth planning, and problems associated with being small Prerequisite Management 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, job 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 human resource management Prerequisites Management 361 and 364

468 Training in Business and Industry 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 Management 364

493 Independent Scholarly Study 3 cr
Students must initiate an original research project in a field of business of their choice The project is then scrutinized by a committee of three faculty members If the project is approved, the Dean will choose a faculty member as director of the project The project must be completed within an academic semester This course is open to students in all concentrations in the School of Business Prerequisite Students must qualify as a University Scholar

494 Field Study 3 cr
Field study is an interactive course in which student teams of two or three provide extensive management counseling to a Pittsburgh area small business owner This course is open to students in all concentrations in the School of Business Prerequisite Approval of the instructor
499 Strategic Management 3 cr
Strategic Management, 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. Emphasis will be placed on developing an understanding of marketing, accounting, finance, production management, human resources, and marketing research. Pre-requisites QSMS 281 and 284, 371.

374 Research Applications in Marketing 3 cr
Examines the methods used by business management to get the information needed to support marketing decisions. Selection of target market, design of product, distribution, promotion, and pricing policies. These methods include exploratory (qualitative) research, conclusive (quantitative) research, sampling theory and application, and various statistical techniques used to support marketing research. Pre-requisites QSMIS 281 and 284, 371.

375 Business Logistics 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. Pre-requisites Management 361, Marketing 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 methods 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 students develop skills in undertaking international strategic marketing planning. Pre-requisite Marketing 371.

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 U.S. The overall effects of technological regulation (federal, state, and local), deregulation, and world economic factors will also be examined in detail. Pre-requisite Marketing 371.

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. Pre-requisites Management 361 and Marketing 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.

378 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. Pre-requisites Accounting 215, Marketing 371 and 374.

477 Strategic Marketing Planning 3 cr
Designs to enable the student to apply acquired marketing knowledge to the real world opportunities. The case method is employed using marketing situations that illustrate opportunity analysis, marketing environments, product management, communication planning, pricing and distribution strategies, and global planning. Students demonstrate decision-making skills through learning to identify and define a marketing problem, analyze and evaluate it, and prepare recommendations concerning implementation for the organization and its environment. Pre-requisites 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. It will demonstrate the differences between industrial and consumer marketing, how industrial marketers evaluate their marketing environments, including an understanding of customers and competitors. Pre-requisite Marketing 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. Pre-requisites Management 361, Marketing 371.

492 Human Resource Management 3 cr
Introduces the fundamentals of salesmanship and the problems confronted by the sales manager. Emphasizes selling within the legal environment of personnel and human resource management. Attention will be given to management of the sales force, recruitment, selection and ethical considerations. Pre-requisite Marketing 371.

The objectives of this curriculum are:
1. To provide students with the opportunity to develop an understanding of the fundamental legal aspects that operate within the legal environment of business. This sequence is focused on the application of substantive legal rights and duties to the analysis of business and economic problems. The fundamental concepts of the law of contracts are examined to provide the student with an understanding of the common law system regarding formation, performance, third party rights, ethics, discharge and remedies. Pre-requisite Law 251.

354 Real Estate Law 3 cr
The principles of real property law and their application to the transfer of property rights. Topics include real estate applications of contract and agency law, and the legal relationships among buyers and sellers, landlords and tenants and borrowers and lenders. Pre-requisite Law 251.

54 The Law of International Commercial Transactions 3 cr
Provides the student with an overview 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. Pre-requisite Law 251.

456 Legal Aspects of Human Resource Management 3 cr
A course which focuses on the legal aspects of the human resources area. Emphasis is on the legal aspects of the human resources area. Emphasis is on the legal aspects of the human resources area. Emphasis is on the legal aspects of the human resources area. Emphasis is on the legal aspects of the human resources area. Emphasis is on the legal aspects of the human resources area. Emphasis is on the legal aspects of the human resources area.
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 external marketing concepts, explores external marketing concepts, sales management, product development, and marketing research techniques, while creating a skill base for employment. For a concentration in Sports Marketing students will take Marketing 373, 374, 376, 377, 475, and 477 plus two of the following: Marketing 373, 470, 471, 475, 477, and 479. In addition, students will take Media and Sports Media Relations in the Department of Communication as non-business electives.

COURSE PREREQUISITES - see p 97

SUPPLY CHAIN MANAGEMENT CURRICULUM

The Supply Chain Management concentration prepares students to assume roles as logistics professionals in both profit and not-for-profit organizations. The focus will be on providing students with the necessary theoretical, analytical, and practical skills required to manage the flow of materials and products from original source to the final consumer. The program 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 Logistics Management 469, Marketing 375, 472, and 474, plus four of the following: International Business 541, Law 353, 354 and 355, QSIMS 481 and Business Internship 401.

COURSE PREREQUISITES - see p 97

INVESTMENT MANAGEMENT CURRICULUM

The Investment Management Curriculum is closely related to the Finance curriculum. Investment Management students take courses in security analysis, money and financial institutions, futures and options, and portfolio management, along with basic finance courses and a business core curriculum that exposes them to all business disciplines. Upon successful completion of the Investment Management program, graduates will be able to effectively communicate their analyses of the global economy and its effect on values of financial and real assets. They will have developed an in-depth understanding of the financial models used by investment professionals to develop strategies and make asset allocation decisions between stocks, bonds, mutual funds, money markets, currencies, futures, options, and derivatives.

For a concentration in Investment Management, students will take INVMG 301, 302, 440, and BUADM 401. Students will also take four courses chosen from FINAN 334, 336, 337, 338, and 433, or from electives offered in Investment Management. Students should contact an academic advisor or speak with a member of the finance faculty to develop their courses of study.

COURSE PREREQUISITES - see p 97

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. Prerequisite: INVMG 301 (may be taken concurrently).

302 Personal Financial Planning 3 cr

Personal Financial Planning provides detailed coverage of important issues and techniques employed in the financial planning process. The course deals with identifying client needs and making recommendations on establishing retirement plans. Course topics include investments in bonds and mutual funds, insurance, tax, and estate planning. Attention is given to developing a financial plan for potential clients. Prerequisites: FINAN 331 and INVMG 301.

401 Business Administration Internship 3 cr

See General Business Curriculum.

440 Seminar in Investment Management 3 cr

Concentration upon selected contemporary topics presented by distinguished visiting professors or resident faculty. Prerequisite: INVMG 301 and senior standing.
SCHOOL OF EDUCATION

School of Education

Administration
Dean
James E. Henderson, Ed.D
Chair, Department of Elementary, Secondary, and Reading Education
William P. Barone, Ph.D
Chair, Department of Counseling, Psychology, and Special Education
Joseph F. Maola, Ph.D
Chair, Department of Foundations and Leadership
Rick R. McCown, Ph.D
Chair, Department of Educational Services
Frank M. Riehle, Ed.D

HISTORY

SELECTION AND ADMISSION
Candidates who express a desire to become teachers are admitted to the School of Education through the University Office of Admissions (apply to Dean of Admissions, Duquesne University, Pittsburgh, PA 15282). The curriculum for the first two years is devoted to the broad lea- arnings in general and basic professional education and beginning course work in a major discipline or area of concentration. Students are expected to demonstrate personal and professional characteristics, attitudes, and competencies that will recommend them as worthy candidates for the teaching profession.

PROGRAMS
The School of Education has program approval from the Pennsylvania Department of Education for the preparation of Early Childhood, Elementary, Secondary, and Special (teaching mental and/or physical disabilities) Education teachers. The programs, in accord with the philosophy and objectives of the School of Education, offer students 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.

DEGREE
The School of Education offers the Bachelor of Science in Education degree.

CURRICULUM
The Undergraduate programs in the School of Education are under revision. Curriculum requirements and/or prerequisite requirements are subject to change at the discretion of the School of Education faculty. Students in the School of Education must comply with all Pennsylvania Department of Education requirements and will be notified of any modifications regarding entrance into certification programs of study. In addition, program requirements will be made known by the Undergraduate advisor and program coordinators.

General Education
The School of Education requires completion of general education which includes courses in the humanities, social sciences, natural and behavioral sciences, and theology. The University Core Curriculum requirements are fulfilled within the General Education Program.

Professional Education
The basic professional education program introduces the student to the teaching profession through study of the principles and practices of education and the learning process. Specialized courses provide preparation in teaching techniques and methods required for specific fields of concentration—early childhood, elementary, secondary, or special (mentally and/or physically handicapped) education.

Professional Laboratory Experiences
The School has developed a diverse and diversified professional laboratory experiences designed to provide opportunities for observing and working with children and youth. These include:

- 1. Planned observations in public and private schools, agencies, institutions and educational settings
- 2. Teacher aide and tutorial experiences
- 3. Student teaching in an approved setting for an entire semester

All of these experiences are completed under professional supervision from the University and from the public or private school or off-campus agency.

To provide students with the most relevant professional training, curricular requirements and/or prerequisite requirements are subject to change at the discretion of the faculty at any time. Changes may affect the students’ program of study.

GENERAL EDUCATION
The following courses in the arts and sciences are an integral part of each certification program.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>English Area</td>
<td>12</td>
</tr>
<tr>
<td>Core Writing</td>
<td>6</td>
</tr>
<tr>
<td>English Elective</td>
<td>3</td>
</tr>
<tr>
<td>Communication Area (Speech, Journalism, English)</td>
<td>3</td>
</tr>
<tr>
<td>Math</td>
<td>6</td>
</tr>
<tr>
<td>*121 Problem Solving with Creative Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>*125 Fundamentals of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>6</td>
</tr>
<tr>
<td>172 Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>173 Physics</td>
<td>3</td>
</tr>
<tr>
<td>175 Earth Science (Student may choose two of the three courses above)</td>
<td>3</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>141 Social, Political and Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>151 Shaping of the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>161 Arts and The Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>94 Historical Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Education Core
The Teacher Education Core focuses on the knowledge base that underlies effective teaching. The theoretical principles that constitute the knowledge base are not only taught but applied to teaching practice in a variety of ways. One way in which students are given opportunities to apply theory in practice is through field experiences which begin in the freshman year. The Teacher Education Core is designed to develop the knowledge, skills, and values undergraduates will need for success in student teaching and for successful entry into the teaching profession.

Courses (Required in All Programs)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>101, 102 Introduction to Education I, II</td>
<td>1, 1</td>
</tr>
<tr>
<td>201W, 202W Educational Psychology I, II</td>
<td>3, 3</td>
</tr>
<tr>
<td>211 Instructional Planning &amp; Assessment</td>
<td>3</td>
</tr>
<tr>
<td>226 Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>290 Professional Development</td>
<td>1</td>
</tr>
<tr>
<td>291 Professional Development</td>
<td>1</td>
</tr>
<tr>
<td>322 Instructional Media</td>
<td>2</td>
</tr>
<tr>
<td>324 Cultural Diversity in Education</td>
<td>2</td>
</tr>
<tr>
<td>328W Developmental Issues in the Management of Elementary Classrooms</td>
<td>2</td>
</tr>
<tr>
<td>328W Developmental Issues in the Management of Secondary Classrooms</td>
<td>2</td>
</tr>
<tr>
<td>329 Society, Politics, and the Teaching Profession</td>
<td>3</td>
</tr>
</tbody>
</table>

EDUCATION CREDITS

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>390 Professional Development Seminar/School Culture</td>
<td>1</td>
</tr>
<tr>
<td>391 Professional Development Seminar/Classroom Interaction</td>
<td>1</td>
</tr>
</tbody>
</table>

*Students take 327W and/or 328W, depending on the area of certification.

In Early Childhood Education, 202W, 211, 327W, and 391 are not required.

STUDENT TEACHING
The undergraduate experience in the School of Education culminates in student teaching. Student teaching allows the undergraduate to apply the principles and techniques in an actual classroom or other instructional setting for a full semester in the senior year. In order to register for student teaching, ALL of the following requirements must be met:

- Autobiographical Data Sheet on file
- Placement Preference Sheet on file
- Two faculty recommendations
- Tuberculosis test on file
- Act 33 Clearance on file
- Act 34 Clearance on file
- Removal of all I and F grades
- Completion of all methods courses
- Completion of all Undergraduate Teacher Education Core courses
- Minimum GPA of 3.0 in major concentration
- Minimum GPA of 3.0 in General Education course work
- Minimum GPA of 3.0 in Undergraduate Teacher Education Core
- Minimum GPA of 3.0 in Professional Preparation courses for each certification area
- Minimum overall GPA of 3.0
- Successful completion of the General Knowledge and Communication tests of the National Teacher Examinations
- Completion of all General Education requirements

EARLY CHILDHOOD EDUCATION
The Pennsylvania Department of Education has approved an Early Childhood Education major available starting Fall of 1998. The Early Childhood Curriculum consists of 18 credit hours in the Teacher Education Core, 60 credit (semester hours) in Professional Preparation, and 42 credits in the General Education Core. The Early Childhood Teacher is certified through the Early Childhood Teacher Education Core, which is designed to develop the knowledge, skills, and values undergraduates will need for success in student teaching and for successful entry into the teaching profession.

PROFESSIONAL PREPARATION

Early Childhood

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>201 Orientation to Early Childhood Education</td>
<td>3</td>
</tr>
</tbody>
</table>
Early Childhood (Continued)  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>202 Child Development I</td>
<td>3</td>
</tr>
<tr>
<td>203 Planning and Assessment in ECE</td>
<td>3</td>
</tr>
<tr>
<td>301 Child Development II</td>
<td>3</td>
</tr>
<tr>
<td>*302 Integrated Curriculum</td>
<td>4</td>
</tr>
<tr>
<td>*303 Field Component</td>
<td>2</td>
</tr>
<tr>
<td>*304 Aesthetic Experience</td>
<td>3</td>
</tr>
<tr>
<td>*305 Play, Movement, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>*391 Professional Seminar/ECE I</td>
<td>1</td>
</tr>
<tr>
<td>*401 Professional Seminar/ECE II</td>
<td>1</td>
</tr>
<tr>
<td>*402 Field Experience</td>
<td>2</td>
</tr>
<tr>
<td>491 Student Teaching - ECE/Nursery School</td>
<td>6</td>
</tr>
</tbody>
</table>

Elementary Education  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>231 Teaching Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>233 Teaching Elementary Health</td>
<td>1</td>
</tr>
<tr>
<td>*325 Teaching Reading/Primary</td>
<td>3</td>
</tr>
<tr>
<td>*330W Teaching Language Arts</td>
<td>3</td>
</tr>
<tr>
<td>*331 Teaching Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>*333 Teaching Elementary Science</td>
<td>3</td>
</tr>
<tr>
<td>*335 Teaching Mathematics, K-4</td>
<td>3</td>
</tr>
<tr>
<td>*484 Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>491 Student Teaching - Elementary</td>
<td>6</td>
</tr>
</tbody>
</table>

*Note Courses during several semesters are blocked. Therefore, these courses cannot be taken out of sequence.

**ELEMENTARY EDUCATION**

The Elementary Education Curriculum consists of 40 credits (semester hours) in professional preparation (listed below), 42 credits in General Education, 27 credits in the Teacher Education Core, and 11 credits in electives.

**Professional Preparation**  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>231 Teaching Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>233 Teaching Elementary Health</td>
<td>1</td>
</tr>
<tr>
<td>237 Teaching Art in Elementary Classroom</td>
<td>1</td>
</tr>
<tr>
<td>238 Teaching Music in Elementary Classroom</td>
<td>1</td>
</tr>
<tr>
<td>325 Teaching Reading in the Primary Schools</td>
<td>3</td>
</tr>
<tr>
<td>326 Teaching Reading in Intermediate and Middle Schools</td>
<td>3</td>
</tr>
<tr>
<td>330W Teaching Elementary Language Arts</td>
<td>3</td>
</tr>
<tr>
<td>331 Teaching Elementary Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>333 Teaching Elementary Science</td>
<td>3</td>
</tr>
<tr>
<td>335 Teaching Mathematics in Grades K-4</td>
<td>3</td>
</tr>
<tr>
<td>336 Teaching Mathematics in Grades 5-8</td>
<td>3</td>
</tr>
<tr>
<td>484 Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>491 Student Teaching</td>
<td>12</td>
</tr>
</tbody>
</table>

*No student may register for additional course work during the student teaching semester without permission from the Committee on Student Standing*

**SPECIAL EDUCATION (MENTAL AND/OR PHYSICAL DISABILITIES)**

This program is designed to prepare students for teaching persons with mental and/or physical disabilities, including Autism/pervasive developmental disorder, serious emotional disturbance, neurocognitive impairment, specific learning disability, mental retardation, multihandicap, other health impairment, and physical disability.

The 49 credits listed below in Professional Preparation and three in Electives in addition to 42 credits in General Education and the 27 in the Teacher Education Core Curriculum are required for the degree.

**Professional Preparation**  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>231 Teaching Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>233 Teaching Health in Elementary Classroom</td>
<td>1</td>
</tr>
<tr>
<td>237 Teaching Art in Elementary Classroom</td>
<td>1</td>
</tr>
<tr>
<td>238 Teaching Music in Elementary Classroom</td>
<td>1</td>
</tr>
<tr>
<td>325 Teaching Reading in the Primary Schools</td>
<td>3</td>
</tr>
<tr>
<td>326 Teaching Reading in Intermediate and Middle Schools</td>
<td>3</td>
</tr>
<tr>
<td>330W Teaching Elementary Language Arts</td>
<td>3</td>
</tr>
<tr>
<td>331 Teaching Elementary Social Studies</td>
<td>3</td>
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<td>333 Teaching Elementary Science</td>
<td>3</td>
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<tr>
<td>335 Teaching Mathematics in Grades K-4</td>
<td>3</td>
</tr>
<tr>
<td>336 Teaching Mathematics in Grades 5-8</td>
<td>3</td>
</tr>
<tr>
<td>484 Children’s Literature</td>
<td>3</td>
</tr>
<tr>
<td>491 Student Teaching</td>
<td>12</td>
</tr>
</tbody>
</table>

*No student student teaching semester without permission from the Committee on Student Standing*

**MUSIC EDUCATION**

General and professional course work and professional education courses required for this program are outlined in the School of Music Catalogue.

**SECONDARY EDUCATION**

In addition to completing the requirements in the General Education Core and 27 in the Teacher Education Core, a student must complete the following: 50 credits, 17-19 in Professional Preparation, 24 in electives and a minimum of 30 in an Arts or Sciences area to satisfy requirements for the degree and certification.

**Professional Preparation**  

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>491W Writing in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>Specific Methods Course</td>
<td>3</td>
</tr>
<tr>
<td>366 Teaching Math Grades 5-8</td>
<td>3</td>
</tr>
<tr>
<td>341 Teaching Secondary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>342 Teaching Secondary Science</td>
<td>3</td>
</tr>
<tr>
<td>343 Teaching Secondary English</td>
<td>3</td>
</tr>
<tr>
<td>345 Teaching Secondary Foreign Languages</td>
<td>3</td>
</tr>
<tr>
<td>346 Teaching Secondary Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>491 Student Teaching</td>
<td>12</td>
</tr>
</tbody>
</table>

*No student may register for additional course work during the student teaching semester without permission from the Committee on Student Standing*

**SCHOOL OF EDUCATION**

**TWO DEGREE PROGRAM FOR MATHEMATICS AND EDUCATION**

The School of Education and the College Office (Department of Mathematics) have approved a program of studies leading to a B.S. in Education and B.A. or B.S. in Mathematics. The program provides an option for students wishing to be certified on the secondary level in mathematics while completing a Bachelor’s degree in mathematics.

It is a rigorous program which requires that the student maintain a minimum grade point average of 3.0 in general education courses, 3.0 in mathematics courses, and a 3.0 in teacher core and professional preparation. The 141 credit hour program can be completed in 4 academic years and one summer session. Students wishing to graduate with two bachelor’s degrees (B.S. in Education and B.A. in Mathematics) would register simultaneously in the School of Education and the College Office and be assigned an advisor from each school.

Requirements for teacher certification in Pennsylvania as specified in the catalog must be met in order to be recommended for state certification.

**TWO DEGREE PROGRAM FOR COMMUNICATION AND EDUCATION**

**TWO DEGREE PROGRAM FOR ENGLISH AND EDUCATION**

**TWO DEGREE PROGRAM FOR LATIN AND EDUCATION**

**TWO DEGREE PROGRAM FOR SPANISH AND EDUCATION**

**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 order for a student to be eligible for certification, the following requirements must be met:

1. Completion of General Education course work with a minimum grade point average of 3.0
2. Completion of the Teacher Education Core with a 3.0 grade point average. Note that students with a concentration in a secondary school area must have a 3.0 grade point average in course work in the area of concentration.
3. Completion of all Professional Preparation courses with a cumulative grade point average of 3.0 in each certification area.
4. Completion of all course work with a cumulative grade point average of 3.0.
5. Successful completion of student teaching.

**STUDENT ORGANIZATIONS**

The School of Education provides opportunities for participation in student organizations related to professional education preparation. Students are encouraged to take an active part in these professional organizations. The organizations are:

- Duquesne University Chapter of the Council for Exceptional Children
- Lambda Pi Epsilon, national education honor society
HONOR AWARDS
These awards, presented at the annual Honors Days Convocation, are open to undergraduates in the School of Education.

Faculty Award for General Excellence in Early Childhood Education
Faculty Award for General Excellence in Elementary Education
Faculty Award for General Excellence in Secondary Education
Faculty Award for General Excellence in Special Education

Kappa Delta Epsilon National Professional Education Sorority Award for outstanding member of Alpha Kappa Chapter
Kappa Delta Epsilon National Professional Education Sorority President’s Award

William P. Faith Memorial Award to a sophomore student for demonstrated potential for excellence in teaching
Lawrence A. Roche Memorial Award to a junior student for general excellence in the School of Education
Philip C. Niehaus Memorial Award for outstanding achievement in the School of Education
Marjorie Elyes Sullivan Award to a junior who demonstrates exceptional promise in special education

Council for Exceptional Children Award

CURRICULUM

HONORARY DEGREES

SCHOOL OF EDUCATION

EDECE 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.

EDECE 202 Child Development I (Birth to Age 5) 3 cr
In-depth examination of the development of the child from birth through Grade 3. Emphasis is given to application of theoretical principles, as well as techniques for observing and assessing growth and development. Prerequisite: EDECE 201.

EDECE 203 Planning and Assessment in Early Childhood Education 3 cr
This course provides experiences in planning, implementing, and assessing early childhood curruculum and instructional materials based on the assessment of a child's cognitive, psychomotor, and affective development.

The following courses (EDECE 302, 303, 304, 305, 310, along with EDELM 325), will be taken as a block experience:

EDECE 302 Integrated Curriculum 4 cr
Integrated Curriculum is designed to help students build their fundamental knowledge of early childhood and early childhood education with the implementation of developmentally appropriate and integrated teaching/learning experiences. The course will provide the opportunity for students to reflect critically on their developing knowledge base and apply this knowledge to schools, kindergarten through grade three.

EDECE 303 Field Component 2 cr
Field experiences will be coordinated with the block coursework. The field component will provide the opportunity for students to reflect critically on their developing knowledge base and apply this knowledge to schools, kindergarten through grade three.

EDECE 304 Aesthetic Experiences 3 cr
Aesthetic development in young children denotes increasingly sensitive to and appreciation of beauty in art, music, and creative activities. Development and implementation of programs promoting aesthetics through expression, participation, and visualization will be the focus of this course.

EDECE 305 Play, Movement, and Nutrition 3 cr
Designed to promote planning and evaluation of developmentally appropriate practices for young children in play, movement, and nutrition (infant through primary level) grounded in principles of child growth and development.

EDECE 391 Professional Seminar/ECE 1 1 cr
The field experiences in the third year emphasize the interaction with students in instructional contexts with the cooperation of certified teachers in public and private school classrooms. Early Childhood education courses, the experience will be extended to nursery, preschool, and day care settings.

EDECE 401 Professional Seminar/ECE 1 1 cr
The field experiences in the fourth year emphasize interaction with students in instructional contexts with the cooperation of certified teachers in public and private school classrooms. Early Childhood education courses, the experiences will be extended to kindergarten through grade three.

EDECE 402 Field Experience 2 cr
Field experiences will be coordinated with the block coursework. The field component will provide the opportunity for students to reflect critically on their developing knowledge base and apply this knowledge to schools, kindergarten through grade three.

EDECE 491 Student Teaching - ECE/Nursery School 6 cr
The student teaching experience involves the prospective teacher in a nursery school setting for 8 weeks and in a primary classroom for 8 weeks. During this capstone experience, the student teacher assumes teaching responsibilities, applies theory to practice, and develops a personal teaching style under the supervision of the cooperating teacher and university supervisor. Verification of student competency will be determined jointly by the cooperating teacher and the university supervisor. No other credits may be taken while the student is enrolled in 491 or in EDELM 491 without special permission of the Early Childhood Coordinator and the student teaching office.

ELEMENTARY EDUCATION

231 Teaching Physical Education in Elementary Classroom 1 cr
233 Teaching Health in Elementary Classroom 1 cr
237 Teaching Art in Elementary Classroom 1 cr
238 Teaching Music in Elementary Classroom 1 cr

An introduction to the basic principles and concepts of teaching physical education, health, and music to children of elementary school age, including exceptional children.

325 Teaching Reading in the Primary School 3 cr
Major emphasis is on the pre-school, emergent literacy, and primary grades. Content deals with language, experiential, cognitive, and perceptual development.
development in young children and their relationship to the beginning reading program. In addition, consideration will be given to the basic reading skills which comprise the first three years of a developmental reading program techniques of individualizing instruction, evaluating and reporting pupil progress.

326 Teaching Reading in Intermediate and Middle Schools 3 cr
Focuses on the transitional period in a developmental reading program in which reading becomes a tool to be used in each content area. In addition to continuing reading skills in the developmental reading program, specialized reading and study skills, necessary for students to function in social studies, science, language arts, mathematics, and other content areas, will be presented. Techniques of determining readability of materials, individualizing instruction, evaluating and reporting pupil progress are also studied.

330W Teaching Elementary Language Arts 3 cr
Presents psychological principles and historical perspective in the language arts, the foundation on which a good language arts program should be built. Four skills—listening, speaking, reading, writing—as acquired by the child, combined with knowledge of the evaluative process, teaching methods, and materials, provide a realistic approach to teaching language arts and reading experience.

Prerequisite: 325

331 Teaching Elementary Social Studies 3 cr
Emphasizes the design, delivery and evaluation of effective social studies plans and units. Higher level thinking processes, values and moral development, and classroom management are explored in small group simulations.

333 Teaching Elementary Science 3 cr
Study of theories, techniques, practices, and content of the science area. Accent is on discovery and inquiry instructional styles, organizing for learning.

335 Teaching Mathematics in Grades K-4 3 cr
Examines mathematical concepts and skills taught in grades K-4, teaching strategies and methods that are developmentally appropriate for early grades.

336 Teaching Mathematics in Grades 5-8 3 cr
Examines mathematical concepts and skills taught in grades 5-8, teaching strategies and methods that foster reasoning and mathematical thinking.

480 Senior Project 3 cr
A capstone experience in which seniors engage in an indepth investigation or pursue a special project related to their area of specialization. Requires sponsorship by an instructor and approval of the Chairman

484 Children's Literature 3 cr
A general survey of books and other printed materials for children, criteria for the evaluation and analysis of the children's books, types of books available, considered in terms of interest, needs, and abilities of children

485 Problems in Teaching Reading 3 cr
Reading difficulties in elementary and secondary school levels. Emphasis on classroom and clinic procedures in solving reading problems, diagnostic and corrective techniques, and materials for the classroom teacher, reading improvement programs, special unit on reading problems of the special needs students (Spring and Summer)

490, 491 Student Teaching — Elementary 9,12 cr
Student teaching in an approved elementary school under the direct supervision of a cooperating teacher. Prerequisites: Senior status, good academic standing, completion of required professional courses, and recommendation of faculty.

493 Student Teaching — Secondary 6 cr
Student teaching in secondary education for students who wish to complete requirements in one certification area. Registration is concurrent with Ed 490-Elementary or Ed 490-Special Education.

SCHOOL OF EDUCATION

497W Reading in Secondary Schools 3 cr
A survey course in the teaching of reading, appropriate for secondary education majors. Major emphasis is on methods of teaching reading, the materials for evaluating pupil growth in reading and reading in the content subjects (Fall).

SECONDARY EDUCATION

341 Teaching Secondary Mathematics 3 cr
Explores methods, strategies, and content of secondary mathematics with emphasis on problem solving and technology.

342 Teaching Secondary Science 3 cr
Explores methods, strategies, and content of secondary science with emphasis on discovery, inquiry, and technology.

343 Teaching Secondary English 3 cr
Examines various ways to teach grammar, language, and composition, provides opportunity for students to review the basics of grammar and composition, and to develop lessons for teaching at the secondary level and in special education.

345 Teaching Secondary Foreign Languages 3 cr
Examines a variety of approaches for teaching foreign languages and cultures, including structure, verbal cases, and literature germane to the specific language to be taught will be discussed.

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.

480 Senior Project 3 cr
A capstone experience in which seniors engage in an indepth investigation or pursue a special project related to their area of specialization. Requires sponsorship by an instructor and approval of the Chairman.

385 Management of Instruction and Behavior in Special Education 3 cr
This course covers the management of instruction in terms of its relationship to successful behavior outcomes, practices in applied behavior analysis and intervention strategies. Topics include parent-teacher partnerships, teaching, specific behavior analysis, and a wide range of programming options within the guidelines of the standards and regulations for Special Education. Prerequisites: 226, 276, 386.

386 Mild Disabilities 3 cr
This course is designed to prepare prospective special education teachers to develop and implement appropriate programs for students with mild disabilities. Principles of individualized instruction and appropriate instructional strategies and materials across the curriculum will be emphasized. Students will develop skills in collaborative approaches to consulting and co-teaching known to facilitate the success of students with disabilities in inclusive education programs. Prerequisites: 226, 276, 386.

387 Severe Disabilities 3 cr
Evaluation, integration, and implementation of theoretically based methodologies, curriculum, adaptive instructional techniques and procedures for persons with severe disabilities. Current legislation is also analyzed. Students will develop skills to facilitate the success of students with severe disabilities in inclusive education programs. Prerequisites: 226, 276, 385, 386.

388 Transition to Adult Life 3 cr
This course provides an overview of secondary curricular practices, issues in planning and implementing a transition plan, interagency collaboration, as well as support issues regarding all aspects of adult life for persons with disabilities, including the impact of the Americans with Disabilities Act. Prerequisites: 226, 276, 385, 386.

478 Advanced Seminar in Special Education 3 cr
Capstone experience for prospective special education teachers focusing on skills for collaboration, specifically in the Instruction Support Team process, and leadership skills in both support and general education environments.

490, 491 Student Teaching — Special Education 12 cr
A full semester of supervised classroom experience in a carefully selected school for mentally and/or physically handicapped pupils. Prerequisites: senior status, good academic standing, completion of required professional courses, and recommendation of faculty.
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 all prospective students. It is suggested that students prepare for their audition in consultation with a music major at their school. The audition consists of solo performance, before a committee, a written theory exam, and an individual aural test. Students requesting scholar-ship assistance should apply through Financial Aid. Taped 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 overlaid 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 three degree programs: the Bachelor of Music 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, opera, media arts or studio recording enroll in the Bachelor of Music program. Students interested in teaching in the public schools, in the Bachelor of Music program. Students interested in teaching in the public schools, in the Bachelor of Science in Music Education program. Prospective music therapists enroll in the Bachelor of Science in Music Therapy program. Students enrolled in other schools and colleges in the University also study in the School of Music in recognition of the importance of arts education to the full development of each individual. Music courses designed for general students are available.

Students in the Bachelor of Music program major in piano, organ, voice, orchestral instruments, guitar, recording arts and sciences, or music technology. They elect a concentration in classical music, jazz, sacred music, or music technology. Students in the Bachelor of Science in Music Education program elect a concentration in choral music or instrumental music.

The curriculum is enhanced by the vital cultural life in the City of Pittsburgh, which was a factor in its recent ranking as America's "most livable city." The proximity of the School of Music to the city's cultural center brings cultural events to the campus workshops, masterclasses, and special performances are often presented by visiting artists who have included Bright Nicolson, Wynn Marsalis, John MacK, Rebecca Pennys, and Barry Green.

The Pittsburgh Opera Center at Duquesne, under the general direction of Tito Capobianco, creates an environment that encourages the development of young artists in all facets of opera production. Visiting faculty have included Beverly Sills, Sher-ald Maine, Renata Scotto, Maureen Forrester, Carlo Bergonzi,Regine Crespin, and Isabel Penagos.

Applicants in the School of Music include members of the Pittsburgh Symphony Orchestra as well as distinguished concert artists. Ensembles include the Children's Festival Chorus, the University Madrigal Choir, and the Pittsburgh New Music Ensemble. Other faculty are recognized in the academic and cultural communities for their activities as performers, conductors, composers, church musicians, clinicians, and music scholars. Interaction with these outstanding professional musicians is valuable 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 Young Symphony Orchestra, the Pittsburgh Civic Orchestra, the Westmoreland Symphony, the McKeesport Symphony, and others.

SCHOOLS OF MUSIC

PHILOSOPHY AND OBJECTIVES
The School of Music offers a comprehensive musical education in tune with the realities of the times. Overlooking the City of Pittsburgh with its unique blend of old and new, with its thriving cultural life, the campus itself symbolizes the goal of the development of a well-rounded professional musician who is well equipped to contribute to the contemporary musical world.

To meet that goal, the School of Music aims to develop in each student the highest caliber of individual performance informed by current music scholarship, an intelligent and sensitive musicianship, and understanding of the role of current technology in the life of a twenty-first-century musician.

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 in traditional studies in music theory, 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 School of Music provides offerings current with a twentieth-century musical education. It offers students an education for the 21st century, rooted in the traditions of historical thought 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 Fender 32 channel digital capable board, Fender professional speakers, and custom designed reinforcement speaker systems and poweramps, full line of Fender guitar amps and guitars with Roland GR-2 synths pickups, Fender basses, Alesis Monitor I. near-field monitors, Digitones' Design Eight Bit, Sample Cell, Sound Designer II, Audiodere II cards, Mark Of The Unicorn's Digital Performer, Unisynth, MIDI Time piece II, Opcode's Max and Studio Visson, Coda's Finale, Turbo Smyth, Art and Aless Single processing, Kurzweil K2000R sampler, Roland VP-70, Roland TD-7 compact digital Drum Kit, Yamaha WX7 and EWI wind controllers, Roland PC200 keyboard controllers, Kawai G-Megas, two Korg 01W/FD advanced integrated workstation, Yamaha SY77 and DX7II/FD synths, Roland D-70, EMU Proteus 1/2/3 sound modules, Korg X5DR, G Vox interactive guitar systems, Ensonic Mirage sampler.

The Recording Studio
Houses a MIDI/Hard disk recording Macintosh Workstation, Digital Performer, Pro Tools a 24-track studio consisting of the Otari MX80 with the Otari 3C4 console, Fostex 8-track tape recorder with MIDI/SMpte auto locator, Panasonic DAT decks, CEDAR noise reduction, CD mastering and manufacturing capabilities.

Classroom of the Future
A keyboard/computer lab housing 16 Macintosh workstations, each equipped with EMU Proteus 1, Kawai G-Mega general MIDI sound modules, Kawai M88R mixes, Kawai 303s Digital Pianos, prosters, Yamaha 1601 16-track tape controller, and Kawai headphone communication system. Mark of the Unicorn's Fast Lane MIDI interfaces, Performer, Coda's Finale, Practica Musica, Music Lessons, Fiber-optic Internet connections.

The Music Learning Resource Center
A multipurpose learning facility containing ten Power Mac workstations A/V and CD ROM, Macromind Director, Multimedia capabilities with scanners and digital audio stations, eight Korg O1WFD MIDI workstations, Korg GEC-36 stereo communication system, Moog Rogue, 6-8 session trainers, ten Kawai M88R mixes, Mark Of
The Unicorn’s MIDI express, Performer, Coda’s Finale, G-Vox guitar software, Fender guitars/amps/\nand basses and PA equipment student sign-out, Fender\nHeartfield six-string bass

STUDENT ORGANIZATIONS
A Chapter of the national music organization Mu\nPhi Epsilon contributes substantially to the students’\nprofessional and social development. The Music\nEducators National Conference has an active student\nchapter which sponsors professional programs and\nattends and participates in the state, regional, and\nnational activities of the association. There are active\nchapters of the American Guild of Organists, the\nNational Association for Music Therapy, and the\nAmerican Choral Directors Association. A chapter of\nMu Kappa Lambda, the national music honor society,\nwas installed in March, 1988

HONOR AWARDS
The Seibert Medal is presented to a senior for excel-
ence in violin or piano upon recommendation of\ndepartment committee.

Andre Marchal Award is presented to the graduating\ngroup student with the highest academic standing in\nperformance.

Jean Langlais Award is presented to the graduating\ngroup student with the highest academic standing in\nSacred Music.

J. Cortenetti Tucci Piano Performance Award is presented\nannually to an outstanding piano student.

Mu Phi Epsilon Sterling Achievement Award is presented\nby Mu Phi Epsilon to an outstanding\nstudent music student.

Robert Egan Award for Academic Excellence, Richard\nGray Award for Outstanding Service are presented by the\nMusic Therapy department to graduating student seniors.

MUSIC EDUCATION
Admission and Retention in the Music Ed Program
Students are admitted to the School of Music through the formal application and audition process. Successful completion of the process results in provisional acceptance to the Music Education program. During the first two semesters, students must achieve a 2.75 GPA and complete the first two sections of the Praxis Exam with scores acceptable to the state Department of Education. After completing four semesters with a minimum 2.75 GPA, students undergo cumulative performance evaluations which determine their suitability for the student teaching experience. Successful results allow a student to apply for the final training level of student teaching. During this final phase, students must complete the final two sections of the Praxis Exam.

Certification
Students who successfully complete the entire baccalaureate program and achieve satisfactory scores on the Praxis Exam may apply for Pennsylvania teachers certification, Instructional Level I, Music, K-12. The baccalaureate curriculum offered by Duquesne prepares students to teach both vocal and instrumental music at all age levels. Permanent certification is awarded after completion of 24 post graduate credits and three successful years of teaching within a six year period.

Curriculum
Students complete 132 credits distributed in the areas of music, professional education, and general education. Core music classes include Theory, Solfège, Eurhythmics, and Counterpoint, Computer literacy, Applied Music and Ensemble as studied for seven semesters. Duquesne is noted for its superb specialized applied music faculty, and all students may request the teacher of their choice. Basic methods classes in piano, voice, general music, and all families of instruments, along with conducting and orchestration are required. All students have the opportunity to utilize the latest technology in a music education in special state-of-the-art computer and piano labs.

Professional education classes include advanced methods courses in vocal and instrumental music education, educational psychology (in conjunction with the School of Education). Several semesters of clinical, pre-student teaching assignments with local schools and musical organizations, a full semester of student teaching spanning K-12 and encompassing both instrumental and vocal music cap the program.

General education courses are designed to develop well-rounded teachers who are able to relate to their society and culture. These include 27 credits of the University’s Core Curriculum in the Liberal Arts, seven electives, and History and Literature of Music.

Duquesne is singular in its capacity to offer all the major international specialized music education methodologies taught by nationally-known specialists Kodály Solfège, Dalcroze Eurhythmics, Orff Percussion, and Suzuki Strings are standard elements of every student’s curriculum. All courses are based on the National Standards for Music Education with leadership and advocacy components.

Students have the opportunity to double-major with Performance or Music Therapy, though it should be noted that this will require additional time for completion.

MUSIC EDUCATION/MUSIC THERAPY CERTIFICATION
Students completing the course work in music education receive the B S in M Ed and may be recommended for certification to the PA Department of Education. Upon successful completion of the Praxis Exam, graduates may receive the Instructional Level I — Music, K-12 certificate.

Selection of students for this program depends upon completion of admissions and audition procedures and an interview with a department member. Candidates are expected to demonstrate leadership qualities, excellent communication skills, critical thinking and analysis ability, and a genuine interest in a service-oriented profession.

Post-graduate certification course work in music education is available to those with B M degrees or B S in Education degrees. Audition and/or course requirements are available upon request.

In order to become certified as a Music Therapist or to earn the Bachelor of Science in Music Therapy degree, Music Therapy candidates are required to complete a structured sequence of Music Therapy courses as prescribed by the American Music Therapy Association. Upon completion of the academic requirements, a six month internship consisting of 400 hours of clinical work under the direct supervision of a Music Therapist at an approved site is required. Completion of both the academic and the internship requirements culminates in eligibility to sit for the board certification examination.

COURSE DESCRIPTIONS
PERFORMANCE
Applied Music 1-3 cr
Private study of voice, piano, harpsichord, organ,\nguitar or orchestral instruments

Piano Accompanying 1-2 cr
This course is designed for the undergraduate with\nthe purpose of preparing the student instruction in\nthe art of piano accompanying.

Vocal Coaching 1-2 cr
Individual work with pianist as a supplement to\nOpera Workshop and/or Applied Music

French, Italian, German for Singers 2 cr\nEach student fluent in a foreign language offered on a\nrotating basis in the fall semester in preparation for\nthe appropriate function and Repertory course offered in the following spring.

Piano Pedagogy 2 cr
The course is designed to provide an introduction to\nthe elements of studio teaching. Topics will include\nlearning theory, business considerations, pedagogical/technical approaches, and materials.

Student Recital 0 cr
This course is designed for students giving non-
degree recitals.

Junior Recital 0 cr
The candidate for the Bachelor of Music degree must\ngive a recital during the junior year.

Recital 1 cr
The candidate for the Bachelor of Music degree must\ngive a recital during the senior year. The recital will be\npresented to a faculty committee for approval at least four months prior to the date of the performance.

Performance Internship 0-12 cr
A rigorous occupational and academic opportunity\nfor highly-qualified students to combine career goals in an individually-designed work experience. Skills in performance, research, analysis, and communication are developed under the supervision of an on-site supervisor in cooperation with a faculty member who may require an academic project.
ENSEMBLE/CHAMBER MUSIC

Required for all students as laboratory work during most semesters of full-time enrollment. Non-music majors are invited to register for ensemble with permission of instructor

Large Ensembles 0-1 cr each
The Large Ensembles include Wind Symphony, Orchestra, Concert Choir, Chamber Singers, and Jazz Band

Small Ensembles 0-1 cr each
The Small Ensembles include Trombone Choir, Brass Ensemble, Guitar Ensemble, Percussion 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 2 cr
Study and performance of all types of chamber music for various instrumental combinations

MUSICIANSHIP

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

131, 132 Theory I and II 2 cr each
These sequential courses are designed to acquaint the student with the harmonic materials of art music of the Western Civilization. For basic knowledge the Baroque-Classical idiom is explored. Harmony is examined in full, but formal and textural aspects are also discussed. Class content includes part writing, analysis, keyboard work, dictation, harmonic and intervallic ear training, and drills with computers. The classes meet twice a week for lectures, and once a week for an in-depth laboratory session. The scope of the first two semesters includes diatonic harmony, secondary dominants and simple modulation. Prerequisite: passing the entrance examination to the School of Music

133, 134 Solfege I & II 2 cr each
These sequential courses are designed to develop students' competencies in the areas of intervals, melodic and rhythmic dictation as well as sight singing in traditional meters and tonalities. Prerequisite: passing the entrance exam to the School of Music

231 Theory III 2 cr
This semester completes the study of materials of the Baroque and Classical style with emphasis on harmonic and advanced modalizations, then presents some of the most important elements of the Romantic and 20th Century idioms. Class meetings and the elements of teaching are the same as in 131 and 132. Prerequisites: 131 and 132

233, 234 Solfege III & IV 2 cr each
A continuation of 134, these sequential courses are designed to develop students' competencies in the areas of intervallic relationships, melodic and rhythmic dictation as well as sight-singing in non-traditional tonalities and meters. Prerequisite: Solfege 233 is successful completion of Solfege 134

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

251, 252 History and Literature of Music 3 cr each
The survey embraces two semesters which are arranged chronologically. These courses seek to provide a broad historical frame of reference within which the relationship of music to the development of man's thought can be seen clearly, along with a survey and analysis of representative literature

253 Music from 1900-1950 2 cr
The evolution of music from 1900 to World War II. Topics include post-romanticism, modality, neo-classicism, twelve-tone music, quartal harmony, ragtime, jazz, musical comedy, music for radio and film, and various experimental trends

254 Music from 1950 - Present 2 cr
The evolution of music since World War II. Topics include serialism, aleatory music, minimalism, electronic music, pop influences, neo-romanticism, and performance art

335 16th Century Counterpoint 2 cr
The course is devoted to a study of the polyphonic techniques of the 16th Century. The class meets twice a week for lectures, analysis, written assignments, and listening. The species approach is employed. Prerequisite: At least 2 semesters of Theory

336 18th Century Counterpoint 2 cr
A course study concerned with the contrapuntal techniques of the period of Bach. Class content includes lectures, written assignments, listening, and analysis. Prerequisites: Theory I, II, III

340 Orchestration 2 cr
A study of the basic problems of scoring for individual instruments, particularly orchestral choirs, the entire orchestra, and unique instrumental combinations. Analysis of the techniques of orchestration of selected composers of the 18th, 19th, and 20th centuries

341 Analysis 2 cr
A course designed to acquaint the student with the formal structure of tonal music, from the smallest components to the most complex full compositions through analysis, performance and listening

351 Composition 2-3 cr
A course in original creative writing

CONDUCTING

373 Instrumental Conducting I 2 cr
A course in basic conducting techniques with emphasis on proper conducting posture, the preparatory gesture, the release, basic beat patterns, and styles, use of the baton, and development of the left hand. Students enrolled will form a laboratory ensemble to gain conducting experience

374 Instrumental Conducting II 2 cr
A continuation of Instrumental Conducting I, with emphasis on score analysis and the development of a refined conducting technique

375 Choral Conducting I 2 cr
An introduction to basic conducting techniques with emphasis on proper conducting posture, the preparatory gesture, the release, basic beat patterns and styles, use of the baton, and development of the left hand. Course also will include instruction in score reading, analysis, and preparation, with emphasis on the standard choral literature. Class time will be divided equally between lecture-demonstrations and practical conducting experience in a laboratory setting

376 Choral Conducting II 2 cr
A continuation of Instrumental Conducting I, with emphasis on proper conducting posture, the preparatory gesture, the release, basic beat patterns and styles, use of the baton, and development of the left hand. Course also will include instruction in score reading, analysis, and preparation, with emphasis on the standard choral literature. Class time will be divided equally between lecture-demonstrations and practical conducting experience in a laboratory setting

MUSIC EDUCATION

091, 092 Fundamentals of Piano I, II 2 cr each
This course introduces students to basic piano skills including scales, chord progressions, reading, and improvisation. The course is intended for students preparing for Piano for Music Education I but is also open to non-music majors

101 Introduction to Music Education 1 cr
This course for music education majors is an overview of the primary facets of the profession including skills, teaching, professional preparation, relation between music and the community, curriculum development, performance, psychology and teaching, discipline, multicultural resources, assessment, field observation skills, inclusion and reading skills

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 various styles. Repertoire includes folk songs, art songs and musical 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 harmonizations, improvisation and transposition using a MIDI piano lab equipped with music workstations that consist of electronic keyboards, synthesizer modules and six-track recorders

173 Woodwind Techniques 2 cr
This course focuses on the playing skills and pedagogical applications of clarinet, flute, saxophone, oboe and bassoon. Students are expected to play each instrument and to be knowledgeable of appropriate teaching materials for each

251 Music Ed Methods I 2 cr
This course presents an introduction to a sequence in music teacher training based on the National Standards for Arts Education. Music Advocacy and Leadership in Arts Education Content emphasizes early childhood development in music from pre-K to grade 2. The structure of the 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 folk songs suitable for the age group. Advocacy projects in the schools comprise the field experience.

253 Music Ed Methods II 2 cr
A continuation of Music Ed Methods I, with emphasis on the general music class from grades 2-4. In addition to singing and movement, the Orff, Dalcroze and Suzuki methods of instruction are studied. Traditional instruments, international folk dancing and games are included with the instructional techniques. The anthology is expanded, and the first 15 hours of clinical experience in a school system is required. Students begin a portfolio which will document their experiences during the entire Music Education Methods sequence

254 Music Ed Methods III 2 cr
This course advances the sequence of the National Standards, developing tracks in general, choral, instrumental and orchestral methods for grades 5-8. Music technology, inclusion and assessment techniques appropriate for these grades are included. Students continue the anthology, expanding it to include composed choral, band and string repertoire. They continue the advocacy projects, which are incorporated into the portfolio documenting the second 15 hours of clinical experiences
256 Music Ed Methods IV 3 cr
This course focuses on the National Standards sequence. 9-12, proficient. Emphasis is on the development of performing ensembles as well as non-performance classes and appropriate means of assessment. Students complete a third 15 hour clinical experience. Repertoire collection and portfolios are expanded with the study of grade 9-12, advanced standards. It includes the fourth 15 hour clinical experience.

258 Music Ed Methods V 3 cr
This is the final course in the Music Ed Methods sequence. Its structure parallels that of previous semesters, and completes the study of grade 9-12, advanced standards. It includes the fourth 15 hour clinical experience.

326, 283 Brass Techniques I, II 1 cr each
This course focuses on playing skills and pedagogical applications of trumpet, French horn, euphonium, trombone and tuba. Students are expected to play each instrument and to become knowledgeable of appropriate teaching materials for each.

290 Guitar Class 1 cr
An introductory course in guitar techniques for the music education candidate includes playing skills as well as pedagogical applications for elementary, middle and high school levels, all of which align to the National Standards.

295 Classroom Instruments 1 cr
An introductory course which develops skills in recorder playing, Orff instruments, standard and non-traditional classroom instruments.

325 Marching Band Methods 1 cr
An overview of band methods with an emphasis on marching band styles.

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 to be knowledgeable of appropriate teaching materials for each.

386W Children's Choir Lab 1 cr
This course provides field and clinical experiences in conjunction with three training levels of the Children’s Festival Chorus, in residence at Duquesne. Students will study rehearsal techniques, group motivation, repertoire and concert production.

481 Percussion Techniques 2 cr
This course is designed to develop an introduction to understanding of percussion pedagogy with special emphasis on the musical growth of elementary students. Secondary considerations will include percussion related information, and ideas needed to successfully conduct and train junior high and high school individuals in traditional instrumental and Orff ensembles.

486 Clinical Experience 1 cr
This experience occurs in the senior year, offering the student teaching semester. Students work a minimum of 15 hours in the instructional area of their choice in an approved school setting.

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

141 Chamber Music - Jazz 2 cr
The purpose of this course is to develop the skills and techniques necessary for small jazz ensemble performance. Emphasis is on rhythm section techniques, interaction among the members of the group, and development of repertoire.

151 Evolution of Jazz Styles 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, on written and written piece of totally improvised, metrical, conceptual, and idiolectic jazz, artichokes, major and minor and modals, altered scales and chords, extended forms and practical applications to standard and jazz literature.

330 Ear Training for Jazz Musicians 2 cr
The course is designed to train the student to recognize au-cally 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.

410 Jazz Arranging 2 cr
An in-depth study of the basic techniques of scoring for individual instruments and jazz ensembles of various groups, from small groups to studio orchestras. Analysis of scores by contemporary big band arrangers.

439 Jazz Theory 2 cr
Student learns five and six part harmony, chromatically altered chords, chord spacing and voice leadings appropriate to jazz writing.

MUSIC THERAPY

MUTHR 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 about the validity of music therapy and the relationship of theory to practice. Intensive class participation will be required to prove qualification for further in-depth study of the profession.

MUTHR 108W Music in Therapy 2 cr
An introduction to Music Therapy methods utilized in music therapy settings. Assessment, planning, implementation and evaluation of sessions designed for a variety of populations will be the focus of this course.

MUTHR 124W Practicum I-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 development of the student.

MUTHR 300W Psychology of Music Teaching and Learning 3 cr
A study of the psychological, physiological, and sociological aspects of music teaching with emphasis on current research in these areas.

MUTHR 305W Stress Reduction and Relaxation 2 cr
Review and examination of theories on the impact of music on total health and behavior. Develops a holistic philosophy of Music Therapy as a servant of the people.

MUTHR 315 Piano Improvisation for Music Therapy 2 cr
Expansion of functional piano skills with emphasis on rhythmic patterns and dissonant chords as an aid in non-verbal communication with multiple populations.

MUTHR 317 Guitar for Music Therapy I 2 cr
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 choral 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 reception. 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 which mediates the rituals of liturgy. Special areas of liturgical celebration in the worship 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 liturgy, and their musical expression, and pastoral issues in their celebration.

476 Organ Design and Maintenance 2 cr
A study of the basic concepts or 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.

SOUND RECORDING TECHNOLOGY
MUSR 101 Introduction to Audio I 2 cr
Introduction to basic concepts of audio propagation both acoustically and electrically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio.

MUSR 102 Introduction to Audio II 3 cr
The focus of this course is a presentation of more basic audio concepts both acoustically and electrically. An introduction and overview of the hardware and software used in the recording process. Prerequisite: Introduction to Audio I.

MUSR 145 Audio I 3 cr
Foundations of the recording process. Covered are all aspects of the recording chain and basic procedures for two track and multitrack production. Lab required. Prerequisite: Introduction to Audio I.

MUSR 146 Audio II 3 cr
An intensive study of the commercial recording process. Intensive hands-on and production projects. Lab required. Prerequisite: Audio I.

MUSR 149 Audio III 2 cr
Individual studio projects with instructor coaching. Prerequisite: Audio II.

MUSR 153 Audio IV 2 cr
The focus of this course is reinforcement of recording techniques learned in Audio I, II, and III. Each student is required to be engaged in a current weekly recording session and to be working toward completion of assigned projects. Students meet with the instructor upon completion of recordings and are critiqued on their performance. Prerequisite: Audio III.

MUSR 202 Maintenance 2 cr
A hands-on overview of daily studio maintenance, from both a theoretical and practical standpoint. Topics include machine alignment and maintenance, as well as concepts of basic interconnection and troubleshooting.

MUSR 230 Studio Procedures 2 cr
Standard setup routines along with basic studio procedures are covered. Paper work and session organization is emphasized.

MUSR 240 Advanced Audio Production 2 cr
Students gain experience in either a computer-based studio or in a commercial recording studio. Prerequisite: Introduction to Audio II.

MUSR 301 Post Production & Mastering 2 cr
This course is designed to give hands-on experience with various post production and mastering tools. Proper procedures in formatting and preparing projects for cassette or CD production are covered. Sony 1630 operation and mastering is covered. Prerequisite: Audio IV.

MUSR 300 Digital Theory 3 cr
Foundations in digital theory for application in digital audio. The study of Analog to Digital and Analog to Digital Conversion covers digital signal processing as well as storage mediums. Digital terminology is explained.

MUSR 311 Applied Audio 1 cr
Directed individual study in Audio.

MUSR 420 Sound Recording 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.

MUTK 105 Music Synthesis II 2 cr
A continuation of Music Synthesis I, with more advanced applications of MIDI theory, computer notation and sequencing, and the history of electronic music (1945 to the present). Prerequisite: Computers for Musicians.

MUTK 201 Music Synthesis I 2 cr
Synthesis and sound design, advanced sequencing techniques on complex workstations, and SMPTE synchronization. Prerequisite: Music Technology II.

MUTK 205 Music Synthesis II 2 cr
Advanced sound design, hard disk recording techniques, and introduction to multimedia production. Prerequisite: Music Synthesis I.

MUTK 206 Music Synthesis III 2 cr
Sampling, digital sound design and editing, multimedia production, and advanced score notation. Prerequisite: Music Synthesis II.

MUTK 207 Music Synthesis IV 2 cr
Advanced project in music technology which demonstrates expertise in a variety of technology skills, including the creation of a professional portfolio. Prerequisite: Music Synthesis III.

MUTK 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. Prerequisite: Music Synthesis II and Traditional Orchestration.

MUTK 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 nuance of performance on electronic instruments. Prerequisites: Computers for Musicians and Music Technology II.

MUTK 350 Electronic Chamber Music 2 cr
A performance 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.

MUTK 335 Introduction to Composition I 2 cr
An introduction to composition that focuses on the development of a musical idea through process, harmonic, rhythm, and compositional forms. Students will begin development of individual composition portfolios, and are encouraged to have their works performed at a student composition recital held during the semester. (Class format.)

MUTK 356 Introduction to Composition II 2 cr
A continuation of basic concepts needed to write successful musical compositions. Students will continue development of individual composition portfolios, and are encouraged to have their works performed at a student composition recital held during the semester. Prerequisite: Introduction to Composition I (Class format).

MUTK 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. Prerequisites: Music Synthesis IV.

MUTK 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.

MUTK - Multi-Media for Musicians 2 cr
An advanced class in multi-media for music technology majors. Students will work with the latest multimedia software to create an electronic resume and personal world wide web page, using digital audio, music, graphics, text, and quick time movies. Prerequisite: Music Synthesis IV.

GENERAL
105 Seminar 0 cr
Registration for Seminar is required of all undergraduates. Music majors during most semesters of full-time enrollment. Course matriculation guarantees availability for master classes, student club meetings, and guest lectures held during the Tuesday and Thursday "commons 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

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 1994, the Graduate Nursing Program was opened to offer the Master of Science in Nursing. The areas of specialization offered are Nursing Administration, with business options including the dual MSN/ MBA degree, Nursing Education, Advanced Practice Nursing, and Nursing Research.

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 PHILOSOPHY AND DEFINITION OF NURSING

The School of Nursing's philosophy evolves from that of Duquesne University and its mission, goals, and objectives. Thus, the School's philosophy provides a framework for the development of a personal and professional philosophy of life based on the moral and spiritual values espoused by the University and supports a commitment to the values and dignity of Man which give meaning to life. Further, this philosophy fosters a spirit of inquiry that promotes continuing intellectual growth.

The School of Nursing faculty believe that nursing is a profession and an academic discipline. Therefore, a professional nursing education should occur in institutions of higher education. The faculty is committed to curricula that view nursing as a human science in which the primary concern is the health care of Man from conception through death. A creative, flexible, and dynamic environment supports curricula in which students can pursue scholarly excellence. The faculty believes that the learning process involves both the teacher and learner who plan experiences, share knowledge, and evaluate results. Within this context, the teacher supports and encourages the student to synthesize knowledge and theories from the discipline of nursing, the humanities, and the natural and behavioral sciences. The curricula and environment are strengthened by the faculty's commitment to excellence teaching, scholarship, and research, and professional and community service.

In making explicit the philosophy that underpins the curricula, the concepts of Man, Environment, and Health are implicit in the meaning of the concept of Nursing as a human science.

Within graduate education, there is a core of knowledge which pertains to specialty areas. Each nursing specialty area is viewed as evolving. This evolution is a synthesis of the fields of advanced clinical nursing and other related disciplines. The purpose of the Duquesne University Master of Science Nursing Program is to prepare specialists in nursing administration, education, or advanced practice (Family Nurse Practitioner) and provide a foundation for doctoral study.

Nurse administrators are prepared to lead and manage providers of care in organizations within an increasingly complex social, political, and economic environment. Nurse educators are prepared to teach specific target populations in a variety of health care settings. In both specialty areas, concepts are those which enable students to fulfill specific role expectations in their area of specialization. Other content emphasizes concepts related to the values, attitudes, and behaviors necessary for role socialization within the area of specialization. Scholarly inquiry and research are a major component of the educational process in the graduate program. As nursing leaders, both administrators and educators assess, plan, initiate, and evaluate change in the health care delivery system to ensure quality health care, and to enhance the profession of nursing, and to meet the future health care needs of society.

PURPOSES OF THE SCHOOL

The purposes of the School of Nursing are to meet the needs of the public and the health care community by:

1. Providing an undergraduate educational program to prepare students to be professional nurses
2. Providing a program of graduate studies to prepare advanced practitioners
3. Providing continuing education programs for professional nurses that prepare graduates for roles in advanced nursing practice

PROGRAM PURPOSES AND GOALS

The purposes of the program are:

1. To prepare generalists who are accountable for their nursing practice, accept responsibility for the management of nursing care, and serve as advocates in a variety of health care settings

2. To provide a foundation for graduate study

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. The goals of this program state that upon completion of the program, the graduate...
The School of Nursing offers a program with a major ing to qualified high school graduates, registered in nursing leading to a baccalaureate degree in Nurs-

PROGRAM OF

Nursing

four years of study, and is designed to provide the populace of professional nursing programs. Professional nursing courses, which constitute the nursing major, include theory and practice in the nursing care of individuals and families. Learning opportunities are provided in hospitals, in homes, in schools, in health agencies and in the community. A learning resource center in the School provides students with access to computerized learning, media review, and simulations used in learning nursing skills. The School's Center for International Nursing and AGH/DU Center for Nursing Research offer students an environment of cultural exchange and inquiry in nursing.

The faculty of the School of Nursing conducts all professional nursing courses and also guides and directs the practical learning experiences. A variety of hospitals and agencies cooperate with the School of Nursing to provide a wide selection of excellent practical settings.

Upon the successful completion of their program of studies, graduates are eligible to take the NCLEX-RN examination for licensure.

The faculty reserves the right to make changes at the curriculum and program requirements which are believed to be in keeping with the changing health needs of society and/or the best interest of the students and the School to maintain quality professional nursing education. The undergraduate program of study is fully approved by the State Board of Nursing and is fully accredited by the National League for Nursing. While completing their BSN, students have an opportunity to pursue a minor in select areas such as Spanish, Psychology, Sociology, and Communications. A focus area in Music Therapy is also available.

ADMISSION REQUIREMENTS

ADMISSION OF HIGH SCHOOL GRADUATES

Students who are interested in applying for admission to the School of Nursing should submit an application from the Office of Admissions or the School of Nursing, Duquesne University, Pittsburgh, PA 15282. 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
   - 3-4 years recommended
   - 2 years recommended
   - 4 years required

2. English
   - 4 years required
3. Social Studies
   - 4 years required
4. Language
   - 4 years required
5. Math & Science
   - 4 years required
6. Biology 1 year
7. Chemistry 1 year
8. Algebra 1 year
9. Physics 1 year
10. A cumulative QPA of 2.5 from the transferring institution
11. A minimum of 1 year of physical and emotional health

Other additional School of Nursing requirements include the presence 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, and prior to matriculation, the School of Nursing candidate must:

1. Submit the School of Nursing's required health forms to the University Health Services Department
2. Submit signed School of Nursing Standards of Personal Conduct Statement

In specific instances, and at the discretion of the Committee on Admissions, the equivalent of these requirements may be accepted in lieu of the foregoing. All applicants are evaluated based on individual potential and total profile with variances permitted as necessary and desirable

THE ACCELERATED BSN/MSN PROGRAM FOR HIGH SCHOOL GRADUATES

The Accelerated BSN/MSN Program for High School Graduates is open for admissions in the fall of 1998. One of the most attractive programs of its kind in the country, this program will enable high school honors students to complete both the BSN and MSN Programs in 4-5 years. Once accepted, students will work closely with their advisor to help develop an individualized program of study. Students enrolled in this program must maintain a 3.5 GPA and satisfactorily complete the national licencing examination. Standardized tests will be waived for admission to the MSN Program. Accelerated students will have preference for salaried internships at local hospitals and community agencies. During the one or two year internships, BSN graduates will work to gain experience for the MSN clinical courses and register for MSN non-clinical courses. Students who wish to work out of state, rather than accept a local internship, will be able to complete many of their MSN courses through the School's pioneering distance learning program.

Admission Requirements for the Accelerated BSN/MSN Program for High School Graduates

Applicants must have a SAT score of 1100 or greater and a high school GPA of 3.5 on a 4.0 scale. Students must first be accepted into the BSN Program through the Office of Admissions. Accepted students who meet the admission criteria for the accelerated track will receive a letter of invitation from the Dean of Nursing. Students must apply to the MSN Program during their senior year of the BSN Program.

TRANSFER STUDENT ADMISSION

See the section on Admissions for further University requirements.

Admission criteria for transfer students:

1. A cumulative QPA 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 postsecondary institution
3. Personal interview with a representative of the School of Nursing; two letters of reference may be requested
4. Compliance with the Standards of Personal Conduct Policy
5. Evidence of physical and emotional health adequate to meet the demands of the program as indicated above
Provisions affecting Placement

1. No transfer student can be accepted into nursing clinical practicum courses during the first semester of attendance at Duquesne University.

2. Only courses taken within the past ten years will be evaluated for transfer credit for courses in the natural sciences, the limit is five years. This time limit may be waived in special instances.

REGISTERED NURSE STUDENTS

Duquesne University School of Nursing also offers the registered nurse an opportunity to obtain the baccalaureate and master's nursing degrees. Part-time or full-time enrollment is available to allow the registered nurse to continue to be employed while undertaking the course of study. Through the acceptance of transfer credits, CLEP testing, and challenge examinations, the School of Nursing strives to apply the registered nurse's previous learning experience towards the requirements of the BSN degree.

Specific information concerning the acceptance of transfer credits, eligibility for CLEP testing and challenge examinations can be obtained by contacting the R.N./BSN/M.S.N. Advisor within the School of Nursing.

Admission Requirements — R.N./B.S.N./M.S.N. Option

Students who are interested in applying for admission to the R.N./B.S.N./M.S.N. option should request an application from the Office of Admissions or School of Nursing, Duquesne University, Pittsburgh, PA 15282.

- Graduation from a baccalaureate program in another discipline
- Personal interview with the Second Degree student advisor within the School of Nursing
- Compliance with the Standards of Personal Conduct Policy
- Evidence of physical and emotional health adequate to meet the demands of the program

TEMPORARY TRANSFER

With prior written approval, a nursing student may take courses during the summer at an accredited college or university other than Duquesne University. A student wishing to do this will become a temporary transfer student, providing he or she receives the necessary clearance from both institutions.

1. A student must bring to the appropriate advisor in the School of Nursing, Undergraduate Program, both the catalog description of courses he or she wishes to take and the schedule for the summer session in which they are given. This request will be evaluated for course equivalency and appropriate placement.

2. Ordinarily, a student who has acquired 60 or more credits may not receive advanced standing for courses taken at accredited community or two-year colleges. Students desiring waiver of this policy must obtain the permission of the Student Standing Committee of the School of Nursing.

3. A candidate for the Bachelor's degree must complete the last 30 credits (exclusive of challenge credits) toward the degree at Duquesne University.

SECOND DEGREE STUDENTS

This option is available to those who already have an earned baccalaureate degree in another discipline and who wish to earn a bachelor's degree in Nursing at Duquesne University. A possible 62 credits may be transferred into the program. Other possible opportunities include challenge examinations and CLEP testing for University credit. Specific information concerning this option can be obtained by contacting the Second Degree student advisor within the School of Nursing.

Admission Requirements — Second Degree in Nursing Option

Students who are interested in applying for admission to the Second Degree in Nursing Option should request an application from the Office of Admissions or School of Nursing, Duquesne University, Pittsburgh, PA 15282.

- Graduation from a baccalaureate program in another discipline
- Personal interview with the Second Degree student advisor within the School of Nursing
- Compliance with the Standards of Personal Conduct Policy
- Evidence of physical and emotional health adequate to meet the demands of the program

ADDITIONAL EXPENSES AND REQUIREMENTS

Student Liability Insurance (Professional) (annually)

- Uniforms, identification pin, shoes $2500
- Transportation to and from clinical agencies (weekly) $100
- School of Nursing pm, upon graduation (if desired) cost varies
- Physical examinations, diagnostic procedures, and immunizations
  - 1st year $2000
  - 2nd-4th year $1500
- Physical Assessment Kit $400
- Semesters Assessment Examinations $300
- All expenses are approximate

Training in Cardiopulmonary Resuscitation (CPR) is a prerequisite to all nursing clinical courses. Students must show evidence of current CPR training prior to entering the clinical area.

Preadmission and periodic physical examinations, immunizations, and laboratory tests are required for all students in the School of Nursing. Students must complete these health requirements by the designated deadline date in order to register for the following semester courses or before proceeding to the clinical practicum. The School of Nursing provides information on required school uniforms to students prior to entrance into the clinical area. Nursing students enrolled in clinical courses must purchase liability insurance in the amounts of $1,000,000/$3,000,000 professional coverage.

Each student is responsible for transportation to and from hospitals and other clinical and community agencies. Each student will be expected to have access to an automobile to permit experience with home care of clients and their families during the senior year.

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 and organizations as well as professional organizations. These organizations exist for the promotion of the scholarly and professional interests of members of the campus community.

Alpha Tau Delta (meaning "through force of character") is a national professional fraternity for persons in nursing. Theta Chapter was chartered on the Duquesne University campus on April 21, 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.

Student Nurses Association of Pennsylvania is a constituent of the National Student Nurses Association, Inc. (NSNA). The purpose of NSNA is to assume responsibility for contributing to nursing education, to provide programs representative of fundamental and current preprofessional 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.

Kappa Alpha Beta, an undergraduate nursing sorority of Chi Eta Phi, Inc., was established in 1966. 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, as well as male nursing students, are invited to join.

Class Organizations Each class is an officially recognized organization in the School of Nursing. As such, each class elects its own officers and conducts programs and affairs as its members deem desirable toward achieving its goals.

Sigma Theta Tau International, Inc. is the international honor society of nursing. The Duquesne University Nursing Honor Society was officially chartered as Epsilon Phi Chapter in March 1982. Membership is open to senior students and community leaders who meet the criteria for election.

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, these awards and others are presented at Honors Day.

The Mary W Tobin Gold Medal and The Dean Johnson Memorial Medal are awarded annually to two outstanding seniors chosen by the faculty. The Mary W Tobin Gold Medal is awarded by the Theta Chapter of Alpha Tau Delta National Professional Fraternity for persons in nursing. It was established in 1945 to honor Mary Tobin, the first Dean of the School, on the occasion of her retirement from the University.

The Dean Johnson Memorial Medal established in 1963 commemorates Dean Johnson's contributions to the growth of the School of Nursing as its Second Dean.
### Four new awards were presented for the first time in 1983.

The first award on behalf of Bayer Corporation is awarded annually to the outstanding graduating senior in the area of acute care nursing. The award is called the Bayer Award for Excellence in Nursing Practice in the Acute Care Setting. The second award is the Lanza Award for Excellence in Home Health Nursing, and is sponsored by Lanza, Hospital Equipment for the Home. This award is presented annually to the graduating senior demonstrating outstanding ability in the area of community health.

The third award is sponsored by the United States Air Force. This award, the Air Force Leadership in Nursing Award, is presented to the graduating senior best demonstrating outstanding leadership qualities, contributions to the nursing program and/or class, and evidence of community service and commitment to the profession. Fourth, Sigma Theta Tau International, Epsilon Phi Chapter, presents four awards, one each to a Basic, R N / B S N / M S N, Second Degree and Graduate Program student for excellence in scholarship, leadership, and professional commitment.

Five new awards have also been added. The Community Health Education Award, established in 1985, is awarded to recognize the graduating senior who demonstrates initiative, creativity, and teaching skills in promoting community health. The Faculty Recognition Award, established in 1986, is awarded to an outstanding graduating senior by faculty vote. The Nursing Alumni Award, established in 1987, is awarded to three graduating senior students, a Basic Program student, a Second Degree Option student, and a Registered Nurse student, for excellence in scholarship, professional commitment, and implementation of Duquesne's philosophy.

### GRADUATION REQUIREMENTS

General University requirements for graduation are in the Academic Policies section of this catalog. In addition, specific School of Nursing requirements are:

1. Completion of 125 credits
2. A minimum cumulative over-all quality point average of 2.0
3. Successful completion of all clinical practice courses
4. Completion of the required curriculum plan
5. Removal of I and F grades in all required courses
6. A candidate for the Bachelor's degree must complete the last 30 credits toward the degree at Duquesne University Challenge credits are not included in this 30 credit requirement
7. Submission of an application for the degree. No student is considered a degree candidate until he/she files an application for the degree on a form provided by the Registrar
8. NCLEX-RN Preparation Classes. In preparation for the NCLEX-RN licensing examination, all students are required to attend formal and informal NCLEX preparation classes.

Degree requirements must be completed within 10 years after initial enrollment. At the end of the 10-year period, the student's record is re-evaluated in terms of the curriculum in effect at that time, and the student is advised of any additional requirements for graduation. The responsibility for fulfilling degree requirements rests with the student.

### RECOMMENDED COURSE SEQUENCE

#### FALL

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
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<tbody>
<tr>
<td>101 Think/Wrt Across/Curr*</td>
<td>3</td>
</tr>
<tr>
<td>122 Basic Philosophical Quest*</td>
<td>3</td>
</tr>
<tr>
<td>103 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>111 Principles of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>N100 Orientation to Prof Nsg</td>
<td>3</td>
</tr>
<tr>
<td>102 Imag Lit/Crt/Writing*</td>
<td>3</td>
</tr>
<tr>
<td>151 Shaping of the Mod World*</td>
<td>3</td>
</tr>
<tr>
<td>106 Theology Core*</td>
<td>3</td>
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<tr>
<td>112 Principles of Chemistry</td>
<td>3</td>
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<tr>
<td>201 Biology of Microbes</td>
<td>3</td>
</tr>
<tr>
<td>158 Senior Citizen</td>
<td>3</td>
</tr>
<tr>
<td>207/8 Anatomy &amp; Physiology I</td>
<td>4</td>
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<tr>
<td>225 Family Systems</td>
<td>4</td>
</tr>
<tr>
<td>N222 Human Dev/Life Continuum</td>
<td>4</td>
</tr>
<tr>
<td>N229 Toward Healthy Aging</td>
<td>2</td>
</tr>
<tr>
<td>N234 Intro to Inquiry in Nursing</td>
<td>1</td>
</tr>
<tr>
<td>N272 Basic Comm in Nursing</td>
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Total = 125 credits

#### SPRING

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<tr>
<td>208/9/10 Anatomy &amp; Physiology II</td>
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<td>N25 Basic Pharmacology</td>
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<tr>
<td>N250 Phy Assessment of the Adult</td>
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<tr>
<td>N253 Nutrition for Hlth Prom</td>
<td>3</td>
</tr>
<tr>
<td>N262 Health Promo/Nsg Process</td>
<td>3</td>
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<tr>
<td>264/5 Community Health Ed</td>
<td>3</td>
</tr>
<tr>
<td>272/3 Public Health</td>
<td>3</td>
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<tr>
<td>275/6 Epidemiology</td>
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<td>277/8 Biostatistics</td>
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<tr>
<td>279/10 Health Admin</td>
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</tr>
<tr>
<td>281/2 Medical Ethics</td>
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<td>282/3 Community Health Ed</td>
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<tr>
<td>284/5 Urban Planning</td>
<td>4</td>
</tr>
<tr>
<td>287/8 Health Promotion</td>
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<tr>
<td>289/10 Health Admin</td>
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<tr>
<td>291/2 Medical Ethics</td>
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### SCHOOL OF NURSING

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<th>Courses</th>
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<tr>
<td>N312 Pathology</td>
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<td>N320 Nsg Care Adult Client I</td>
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<tr>
<td>N325 Psychopathological Alterations in Health</td>
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</tr>
<tr>
<td>N354 Therapeutic Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>N55 Nsg Leadership/Mgmt of Client Care</td>
<td>4</td>
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</tbody>
</table>

### REGULATIONS

Students in the School of Nursing are preparing themselves for entry into a respected health profession for the highest degree of character and sense of responsibility and accountability are basic requirements. As such, they are expected to conduct themselves, at all times, in a manner befitting this position and according honor to it. For these reasons, the School of Nursing insists on strict adherence to the following regulations:

1. Attendance Attendance is expected for every class session of each course within the School of Nursing. Students are expected to attend the entire class session. Specific class attendance requirements (in relation to grading) will be stated in each course syllabus. Acceptable reasons for absence will be in accordance with the current Undergraduate Catalog statement of scholastic policies. Consideration of any other request for an excused absence will be at the instructor's discretion.

A student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstances is responsible for notifying the appropriate faculty member, Associate Chair or Chair of the Undergraduate Program, School of Nursing. A student who is absent for...
Students will not be allowed to repeat any nurs-
ing course. These students should progress without the
approval of the Undergraduate Study Committee. Additional coursework may be required
An authorized “Request to Repeat a Course” form must be obtained from the appropriate academic
adviser before registering in the repeat course.
In accordance with the university’s writing-intensive
requirements for all students admitted to Duquesne University, the School of Nursing faculty
has identified five required courses (N201 Survey of Professional Nursing, RN/BSN/MSN only, N224
Introduction to Inquiry in Nursing, N360 Nursing Health Care of the Adult Client I, N430 The Research
Process as Inquiry, N485 Trends and Issues in Nursing) as providing meeting this condition. While
most, if not all of the required undergraduate nurs-
ing courses have some written component as a
course requirement, students who are determined
to need further assistance with their writing skills
will be advised to select such courses as electives.
The faculty of the School of Nursing reserves the right
to withdraw any student from the nursing major
who, in its opinion, has not met academic, profes-
sional, or clinical standards established by the
faculty, even though the quality point average meets
required standards.
The faculty of the School of Nursing also reserves the
right to make any changes in curriculum that
seem necessary or desirable.

NURSING COURSE DESCRIPTIONS

100 Orientation to Professional Nursing 3 cr
This course introduces students to the discipline of
nursing as a human science, and provides the
framework for explaining the practice of professional
nursing according to the philosophy of Duquesne
University School of Nursing. Students explore the
assumptions about man and environment, the
relationship of valuing the process and self-esteem as a
means of valuing self. In addition, students examine beliefs
about man, environment, and health and how they
make a difference in the practice of nursing.
Professional nursing is explored from the histor-
ical aspect as it relates to present and emerging
role.

272 Basic Communications in Nursing 2 cr
This course is a basic theory course in communication.
Students examine the theoretical components of the
communication process, and modalities of nursing
theories while exploring their own style of
communication, evaluating the effectiveness of
communication and learning ways to change one's
patterns of relating. The course is foundational to nurs-
ing practice as interaction is essential to the nurs-
ing process. It is offered prior to or concurrent with
Health Promotion Through the Nursing Process to
enable students to begin to apply communication
theory with clients in a long-term setting. Prereq-
usite Orientation to Professional Nursing.

Note: RN/BSN/MSN students enroll in 201 Survey
of Professional Nursing (3 cr) to meet this require-
ment. Second degree students enroll in 224 Intro-
duction to Professional Nursing Practice (5 cr) to
meet the requirements of 100 and 262.

115 Basic Pharmacology 3 cr
This course covers the basic principles of pharma-
ecology needed in daily practice. This includes drug
effects, mechanism, and interaction. In most
cases, the emphasis will be on the pharmacological
action of drugs on various organ systems. In some
instances, drugs will be discussed in relation to their
clinical use in the treatment of disease conditions
Prerequisites Anatomy and Physiology I.

222 Human Development Throughout
the Life Continuum
This course builds upon the major concepts of man,
health, environment, and health and nursing. The student
studies human development from conception through
death. Emphasis is placed on an individual's psy-
ological, intellectual, and personality development
within the context of the family, society and culture.
Health promotion practices are explored relative to
each age group throughout the life continuum. This
course includes the basic areas students to assess
the developmental stages in the clinical environment.
Prerequisites Introduction to Psychology.

229 Toward Healthy Aging 2 cr
This course focuses on elderly people, the aging
process, and age-related physiological and psychosocial
changes. Emphasis is placed on enhancing quality
of life through the promotion of health and wellness,
and strategies to encourage independence and func-
tioning. Emphasis is placed on understanding the
relationship of health and personal safety, various
living situations, and emotional and legal considera-
tions are discussed. The development of gerontology
is highlighted by Prerequisites Anatomy and Physi-
ology I (concurrent) and Introduction to Psychology (concurrent).

234 Introduction to Inquiry in Nursing 1 cr
This one credit Introduction to Inquiry in Nursing
course is offered early in the Nursing program.
The focus of the course is on the assessment and further
development of intellectual capacities of student
nurses as independent critical thinkers. Students
will be introduced to the critical thinking process
and its components, describe how they think, and
participate in determining learning strategies that
will enhance thinking. Students will be encouraged
to actively participate in learning as they progress
through the course. Through the process of critical
thinking, this course provides a foundation that
promotes open inquiry into assumptions, beliefs, goals
and values that characterize nursing.

250 Physical Assessment of the Adult 2 cr
This course builds on previously learned knowledge
of natural and human sciences. A systems approach
is utilized to teach students to perform a physical
assessment. Students learn to differentiate between
normal findings and alterations indicative of actual
or potential health problems. Students are provided
with the opportunity to perform physical assess-
ments in the laboratory setting and to utilize these
skills in the clinical setting in Health Promotion
Through the Nursing Process which is taken concur-
rently.

This course enhances the student's ability to utilize
knowledge of body systems for the purpose of plan-
ing a holistic approach to nursing care. Prereq-
usite Anatomy & Physiology II (concurrent).

253 Nutrition for Health Promotion 3 cr
This course focuses on nutrition and the nursing
role in health promotion for well individuals and
groups throughout the life cycle. Emphasis is placed
on nutrition assessment and intervention. Food
needs for energy and the major nutrients are con-
sidered for the promotion of health. Prerequisites
Principles of Chemistry 111 and 112.

262 Health Promotion Through
the Nursing Process 5 cr
This course is designed to introduce students to the
application of concepts and skills relevant to the
practice of professional nursing. The course explores
methodologies for health promotion and introduces
an introduction to alterations in health patterns. Stu-
dents study the nursing process as the vehicle for
providing nursing care to clients. The concepts of
health education, rehabilitation, and loss and grief
are incorporated. Students identify the interrelation-
ship of these theoretical components in man's
experience of health. The professional role is
explored within the framework of the nursing pro-
cess. Prerequisites CPR Certification, Orientation
to Professional Nursing, Anatomy & Physiology I,
Anatomy & Physiology II (concurrent), Human
Development Throughout the Life Continuum (concurrent), Basic Communications in Nursing (concurrent).

SCHOOL OF NURSING

267 Physical Assessment of the Adult 2 cr
This course builds on previously learned knowledge
of natural and human sciences. A systems approach
is utilized to teach students to perform a physical
assessment. Students learn to differentiate between
normal findings and alterations indicative of actual
or potential health problems. Students are provided
with the opportunity to perform physical assess-
ments in the laboratory setting and to utilize these
skills in the clinical setting in Health Promotion
Through the Nursing Process which is taken concur-
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This course enhances the student's ability to utilize
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ship of these theoretical components in man's
experience of health. The professional role is
explored within the framework of the nursing pro-
cess. Prerequisites CPR Certification, Orientation
to Professional Nursing, Anatomy & Physiology I,
Anatomy & Physiology II (concurrent), Human
Development Throughout the Life Continuum (concurrent), Basic Communications in Nursing (concurrent).

272 Basic Communications in Nursing 2 cr
This course is a basic theory course in communication.
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communication process, and modalities of nursing
theories while exploring their own style of
communication, evaluating the effectiveness of
communication and learning ways to change one's
patterns of relating. The course is foundational to nurs-
ing practice as interaction is essential to the nurs-
ing process. It is offered prior to or concurrent with
Health Promotion Through the Nursing Process to
enable students to begin to apply communication
theory with clients in a long-term setting. Prereq-
usite Orientation to Professional Nursing.
312 Pathology
This course is a theory course designed to acquaint students with the structural and functional changes that occur as the result of disease as well as the body’s remarkable ability to compensate for those illness-related changes. Since the abnormal changes can ultimately be traced to underlying molecular, cellular and histological deviations from the homoeostatic balance, the mechanisms that disrupt this optimal state will also be elucidated. In addition, the basic mechanisms involved in the pathogenesis of various body systems and the body as a whole are emphasized and contrasted with the similar mechanisms that support normal health. Prerequisites: Biology of Microbes, Anatomy and Physiology I and II

320 Nursing Care of the Adult Client I
Nursing Care of the Adult Client I is the first clinical nursing course offered at the Junior level. This course builds on previously learned knowledge in the natural and human sciences, concepts from selected nursing theorists, Pathology and Physical Assessment of the Adult which are taken concurrently with Adult I. The student is provided with the opportunity to apply the nursing process to the care of adult clients in a variety of acute medical-surgical settings. Basic concepts related to the integrity of biological, psycho-social, spiritual and environmental health patterns are presented. Concepts of loss, grief, and rehabilitation are integrated throughout the course. Students explore the ways in which adult clients respond to alterations in health and the experiences of illness. How these changes influence the adult client’s unique experiences of biological, psycho-social, spiritual and environmental patterns of health, well-being, and life style is integrated to provide holistic and individualized nursing care. Students examine how different sociocultural values influence health patterns. Adult teaching/learning principles are utilized to meet the client’s health education needs. Prerequisites: Health Promotion Through the Nursing Process, Basic Communications in Nursing, Basic Pharmacology, Nutrition for Health Promotion, Physical Assessment of the Adult (concurrent), and Pathology (concurrent)

325 Psychopathological Alterations in Health
This course is designed to address the major theories of psychopathology and diagnostic categories as defined by the DSM-3R. Emphasis will be placed on the multifaceted nature of psychopathology. Attention will be directed to the developmental, biological, psychological, and sociocultural aspects of pathological functioning. The theoretical and practical basis for current treatment modalities will also be addressed. Prerequisites: Anatomy and Physiology I and II, Health Promotion Through the Nursing Process

354 Therapeutic Nutrition
This course focuses on nutrition in nursing practice for the restoration of health. Emphasis is placed on nutrition previously learned knowledge of persons with short or long term disruptions of health status in relation to current research in therapeutic nutrition. Prerequisites: Principles of Chemistry I and II

360 Nursing Care of the Adult Client II
This clinical nursing course offered at the Junior level builds on previously learned knowledge of Pathology, Physical Assessment, Nursing Care of the Adult Client I, and concepts from selected nursing theorists. The student is provided with the opportunity to apply the nursing process in caring for the adult in a variety of medical-surgical settings. The family is viewed as a support system to the client. Increasingly complex concepts related to the integrity of biological, psycho-social, spiritual and environmental health patterns are presented. Concepts of loss, grief, and rehabilitation are continued throughout the course. Students explore the ways in which adult clients respond to long and short term alterations in health, and examine the influence of more complex changes related to the client’s experience of health. Students also explore community resources for supportive and rehabilitative care, and participate in the referral of clients for these health care services. Students integrate previously learned and more advanced nursing knowledge reflecting the uniqueness of the client’s experience of health to provide holistic nursing care to the adult client. Prerequisites: Nursing Care of the Adult Client I, Physical Assessment of the Adult, and Pathology

370 Psychiatric-Mental Health Nursing Care of the Adult
This clinical nursing course builds on previously learned communication theory, abnormal psychology content, and concepts from selected nursing theorists. The student is provided with the opportunity to care for clients in the psychiatric-mental health setting and to examine how different sociocultural values influence health promotion of individuals and families. The student identifies the role of the professional nurse in a variety of multidisciplinary treatment team planning and explores community mental health resources utilized in rehabilitation of clients with psychiatric-mental health problems. Prerequisites: Basic Communication in Nursing, Psychology, pathological Alterations in Health and Nursing Care of the Adult Client I

410 Nursing Care of the Childbearing Family
The focus of this clinical nursing course is on health promotion with the family as it relates to childbearing and neonatal care. Utilizing the nursing process, the student will focus on the practice of maternal-infant health nursing based on selected nursing theories, knowledge of normal and selected altered patterns relative to the developmental processes of the childbearing client, newborn and family. Concepts of loss, grief, maternal and paternal role identity, body image and self-esteem are explored relative to the childbearing family. Changing family belief systems related to health promotion for mothers and partners are examined from ethical, socio-cultural and political perspectives. The student’s role as a health educator is further developed through teaching the family. Growth in critical thinking and inquiry is expected as students continue to synthesize their knowledge of childbearing in the performance of their professional roles. Prerequisites: Family Systems, Nursing Care of the Adult Client II, Psychiatric-Mental Health Nursing Care of the Adult

420 Nursing Care of the Child and Family
In this clinical course, the student learns the role of the nurse caring for the child and family. Using the nursing process as a framework, the student will assess the child with alterations in health and address the biological, spiritual, environmental, and psychosocial patterns of the child and family. Norms and alterations in health patterns will provide the basis for discussion as they relate to the developmental level of the child. Content for the physical assessment of the child is presented. The nurse’s role in the promotion of health is identified as a major focus of the course. Prerequisites: Family Systems, Nursing Care of the Adult Client II, Psychiatric-Mental Health Nursing Care of the Adult

430 The Research Process in Nursing
This senior level undergraduate research course focuses on the role of the professional nurse as a consumer of research. Each step of the research process is examined. Application exercises reinforce didactic material. The critiquing process is utilized with current nursing studies. The advantages and disadvantages of quantitative and qualitative research are explored. Prerequisites: Fundamentals of Statistics, Introduction to Research in Nursing, Nursing Care of the Adult Client I, and II

455 Nursing Leadership and Management of Client Care
This clinical course provides students the opportunity to synthesize previous learning and develop knowledge and skills relevant to the leadership and management roles of the nurse. Concepts of power, change and decision-making form the foundation for exploring leadership styles and functions. Clinical knowledge, judgement and technical skills development encourage an environment in which the student performs as a beginning professional in both the practice and management dimensions of client care. Prerequisites: Nursing Care of the Childbearing Family, Nursing Care of the Child and Family

475 Promotion of Health with Individuals, Families, and Groups in the Community
This clinical nursing course builds upon all previous learning and synthesizes that knowledge with a focus on the promotion of health with individuals, families and groups within a variety of community settings. The student investigates multidimensional health needs of culturally diverse population groups and seeks to identify high risk populations. Current health care and population trends require attention to the highly complex care and rehabilitative needs of individuals and families in the home. Further, health needs of the community are explored and evaluated for possible changes that enhance the promotion of health. Various roles of the community health nurse are investigated with an emphasis on the role of the nurse as health educator. Prerequisites: Nursing Care of the Childbearing Family, Nursing Care of the Child and Family

485 Trends and Issues in Nursing
This course builds upon all previous learning experiences. It considers current issues in nursing, trends in health care delivery, political accountability and ethical decision making. Trends and issues and their interrelationship are explored in order to assist the student to assume professional responsibility for involvement in issues affecting nursing and delivery of health care. Prerequisites: Nursing Care of the Adult Client II, Psychiatric-Mental Health Nursing Care of the Adult

495 Advanced Concepts in Clinical Nursing
This preceptored nursing course builds upon previous learning and develops additional knowledge and skills. Concepts of alteration in patterns and clinical decision-making form the foundation for nursing judgement and practice. The student is introduced to complex care situations. Student performance as a beginning professional in the practice dimensions of client care is enhanced through advanced clinical knowledge, clinical judgement and technical skill development. Prerequisites: Nursing Care of the Childbearing Family, and Nursing Care of the Child and Family
SCHOOL OF NURSING

NURSING ELECTIVES

NOTE Not all nursing electives are offered each semester

104 Dosages and Solutions 1 cr
This directed study course provides the student with an opportunity for a self-paced review of the basic mathematical functions preparatory to problem-solving and instruction in the calculation of dosages and solutions necessary for the administration of medications in clinical practice. The course is designed around student use of a computer-assisted instructional program with teacher supervision. Special permission is required to register for this course.

299 Nursing and Spirituality 3 cr
Nursing and Spirituality is a non-clinical nursing elective. Students explore the universal and timelessness of the spiritual dimension of human nature. Case histories in nursing are investigated which focus on spiritual needs encountered in the nurse/client/family relationship.

397 Health Care of Women 3 cr
Health Care of Women is a nursing elective that provides students with an opportunity to explore many of the prevalent health experiences of women in contemporary society in the United States. This course investigates aspects of women’s health and focuses relative to the quality of their lives. It provides students with an opportunity to analyze health promotion for women from a historical and nursing perspective and provides them with the knowledge of health resources available to meet the specific needs of women. Prerequisite: Nursing Care of the Adult Client I.

399 Patient/Consumer Health Education 2-3 cr
Today’s health care professional is required to be more than an expert clinician. The client as a consumer of health care expects to be taught the intricacies of illness and selective treatments. The client requires extensive knowledge of health promotion and self-care. It becomes the responsibility of the health care professional to meet these needs through the process of health education. This course, utilizing an interdisciplinary approach, introduces the student preparing for a health care role to the role of educator through identification, analysis, synthesis, and application of the teaching-learning process. Students from various disciplines have an opportunity to share their perspectives on health and health promotion as related to client education.

427 Introduction to Case Management 3 cr
This course introduces the student to the theory and concepts inherent in the process of case management. The role of the case manager is analyzed within the framework of health care delivery systems, quality cost, and legal, ethical issues. Several case management models are examined.

458 Transcultural Nursing and Health Care 2-3 cr
Transcultural Nursing and Health Care builds on the basic concepts of Man, health, nursing, and environment, and their interrelationships as developed in the student’s previous sciences, humanities, and nursing courses. Emphasis is placed on the development of Leninger’s model of transcultural nursing and transcultural health care systems. Various issues related to the Health Care Professional’s role in the delivery of health care and the client’s acceptance of health care are explored. Emphasis is placed on the assessment and analysis of select cultural diversities as related to clinical practice. Methods utilized in transcultural nursing and Health Care research that foster culture-specific care are included. Prerequisite: Health Promotion Through the Nursing Process.

499 Directed Study in Nursing 1-3 cr
This course is designed for students to pursue an area of interest in nursing that enriches and expands upon basic nursing courses. Students will be encouraged to develop a body of work that is meaningful, useful, and important to their own growth as nurses and is both evidence-based and reflective. Prerequisite: Nursing Care of the Adult Client I.

SCHOOL OF PHARMACY

PREPROFESSIONAL PHARMACY CURRICULUM

Duquesne University 139
Course Requirements

CURRICULUM

Biological Sciences

Sem

Hrs

Biology and II (121, 122, 123, 124) 8
Chemistry I and II (121 and 122) 10
Organic Chemistry I and II (211 and 212) 8
Calculus I (115) 4
Physics for Pharmacy (200) 4
Thinking & Writing Across the Curriculum (101) 3
Imaginative Literature & Critical Writing (102) 3
Theology (Core) 3
Basic Philosophical Questions (132) 3
Shaping of the Modern World (151) 3
Arts and the Human Experience (161) 3
Elements of Economics (121) 3
Computer Literacy (COSC 100 or QMIS 182) 3
Public Speaking (102) 3
Psychology 3
General Sociology/Political Science 3

Computational Sciences

Sem

Hrs

Sem

Hrs

Hrs

8

Non-Duquesne University (Transfer) Course Requirements

Sem

Hrs

Sem

Hrs

Sem

Hrs

General Biology with Laboratory 8
General Chemistry with Laboratory 8
Organic Chemistry with Laboratory 8
Calculus (for science or math majors) 4
General Physics with Laboratory 8
English Composition and Literature 3
English Literature 3
Religious Studies 3
Philosophy 3
Modern U.S., European or World History 3
Music or Art Appreciation 3
Economics 3
Computer Literacy (Applications) 3
Speech (Interpersonal Communication) 3
Psychology 3
General Sociology 3

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.
John G. Rangos, Sr.
School of Health Sciences

Administration
Dean
Jerome L. Martin, Ph D
Director of Student and Alumni Services
Deborah L Dunca, B S
Director of Budget and Management
Denise M. Dunwidde, B 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 in the world. The academic programs are designed to create a competent future generation of health professionals who can beautorelease.

MISSION
The mission of the Rangos School of Health Sciences is to educate students to be excellent clinical practitioners, leaders in their field, and practitioners who understand the uniqueness of their patients and have empathy for all those with whom they interact.

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 management systems (B S in Health Management Systems), and perfusion technology (B S in Perfusion Technology) which follow a traditional curricular design. The academic model for these programs is two years of liberal arts and science requirements followed by two years of professional education. In the case of the Health Management Systems program, students may also opt to stay for an additional year and pursue a Master of Health Management Systems.

Entry-Level Master's Degree Programs

The RSHS offers five-year entry-level master's degree programs in occupational therapy (M OT), physical therapy (M PT), physician assistant (M P A) and respiratory therapy (M S). Health management systems students may opt to complete a five-year, entry-level master's degree program. The academic model for these programs is three years of liberal arts and science requirements followed by two years of professional education. Typically, professional-level education occurs on a year-round basis during the fall, spring, and summer semesters. This three-two model is unique for these professions and provides the RSHS faculty the opportunity to maximize the 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 will award a Bachelor of Science in Health Sciences at the end of the fourth year and a professional master's degree at the end of the fifth year. Students who have already earned a bachelor's degree may or may not be awarded a BS in Health Sciences, but will work directly toward the appropriate master's degree.

Advanced Master's Degree Program

The Advanced Master of Health Management Systems program is a 36-credit, project-oriented, real-world, problem-based curriculum. A joint MHMS/MBA option will be available to graduates of an accredited business school, or to those who have completed Duquesne University's graduate business core, who have sought and been granted admission into the MBA program as well. A flexible schedule is also available for students with work obligations. For further information, please contact the Department of Health Management Systems at (412) 396-4772.

Joint Degree Programs

The RSHS offers some joint degree programs to currently enrolled RSHS students. Students must formally apply for these programs. These joint degree programs are designed to assist students seeking simultaneous admission into the RSHS.

 Majors in athletic training also have the opportunity to complement their degree with a Master of Science in Education. With this joint degree, opportunity students may be eligible for permanent certification in the areas of Mentally and Physically Handicapped, Secondary General Science, Secondary Biology, or Elementary Education.

In addition, on a very limited basis, athletic training majors may apply for the joint degree program with the Department of Physical Therapy, and physical therapy majors may apply for the joint degree program with the Department of Athletic Training. An application to this joint degree program will automatically be sent to all first semester freshmen in both athletic training and physical therapy.

There is also a joint degree opportunity for athletic training students to pursue physician assistant Applications for this joint program are made available during the junior year. Additional, perfusion technology students may apply for the joint degree program with the Department of Physician Assistant Applications will automatically be sent to all first semester freshmen in perfusion technology.

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 programs for the fall semester only, with the exception of those students who will be entering directly into the Advanced Master of Health Management Systems program.

New Students

All new incoming freshmen, transfers and second degree candidates (includes any student who is currently enrolled at Duquesne or who has already graduated from Duquesne University) must apply through the Office of Admissions. These students can request information and an application by writing to the Office of Admissions, Duquesne University, Pittsburgh, PA 15282 or by calling (412) 396-5000 or (800) 456-0590.

Interviews and appointments for the unofficial evaluation of transfer credits may be arranged through the Office of Admissions and International Affairs, but are not required for most programs.

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 or the Division of Continuing Education at Duquesne University.

2. Any student within the RSHS who seeks to transfer to another program or class level, within the RSHS itself.

ADMISSIONS POLICIES

Please note that admissions policies are subject to change at the discretion of the RSHS and the Office of Domestic 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. Students may apply to all RSHS programs for the fall semester only, with the exception of those students who will be entering directly into the Advanced Master of Health Management Systems program.

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 or the Division of Continuing Education at Duquesne University.

2. Any student within the RSHS who seeks to transfer to another program or class level, within the RSHS itself.

SCHOOL OF HEALTH SCIENCES

Academic and Program Requirements for Entry into the Professional Phase

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. Final approval for entrance into the professional phase will be predicated on satisfactory completion of all academic and program requirements. Students who do not meet the minimum academic or program requirements set forth by their respective departments, will be delayed entrance into the professional phase or will be dismissed.

For academic and program requirements, please contact the Office of the Dean at (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 in order to complete graduation and professional requirements as measured by state and national certification, licensure, and registration programs.

It is the student's responsibility to 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. Further, in limited cases, the student may be required to demonstrate the ability to perform certain "essential" tasks or techniques to the satisfaction of the faculty, prior to professional study.

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 space. Waitlisted students may be contacted as late as the start of the academic year. Waitlisted students who cannot be offered positions for the current academic year, will be notified after the start of the classes to provide them an opportunity to reactivate their applications for another year.

Changes in Admissions/Enrollment Status

An offer of acceptance into a particular RSHS program (e.g., athletic training), class level (e.g., as a third-year student), or academic year (e.g., Fall 1998) is only valid for that respective program, class level, or academic year.

Students should be aware that the possibilities of a change in program, class level or academic year will be extremely limited due to severe space limitations in all programs. Students who are granted approval to change programs, class levels or academic years must meet the academic and program requirements dictated by their new status. Any student who is granted a change in class level after matriculation will not be able to request any subsequent change in class level.

ADMISSION OF FRESHMEN

Admissions Deadlines for Freshmen

1. All early action applications to the physical therapy and physician assistant programs must be completed and postmarked by December 1.

2. Admission to the athletic training, health management systems, occupational therapy, perfusion technology and speech-language pathology programs is by EITHER Early Decision or Regular Decision.

    a. Early Decision applications must be completed and postmarked by November 15.
    b. Regular Decision applications must be completed and postmarked by January 1.

3. All qualified students whose applications are submitted by January 10 will be reviewed for scholarship consideration.

Admissions Criteria for Freshmen

Freshmen admissions will be on selective basis as long as space permits. 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.

The Office of Domestic Admissions and International Affairs will review all freshmen applications based on the following guidelines established by the RSHS.

Candidates should have

a. Seven units of math and science, including Algebra I, Algebra II, Geometry and Trigonometry (with Calculus recommended but not required) and General Science, Biology, and Chemistry (with Physics or advanced sciences strongly recommended).

b. 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/Trigonometry.

c. A class rank in the top two-fifths of their graduating class for Physical Therapy candidates a class rank in the top one-fifth of their graduating class for Physician Assistant candidates and a QPA of at least a 2.5 for Physical Therapy and Physician Assistant candidates a QPA of at least a 3.0.

d. A total SAT score of at least 1100 or a composite ACT score of at least 24.

Although volunteer experience in the field to which they are applying is not required for the admission of freshmen applicants, it is highly recommended.

Please note that once enrolled, all RSHS students are 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 which 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.

Advanced Standing Freshmen

Any student who indicates any past or current college history (excluding advanced placement, CLEP credits or University-level courses taken while in high school) who will have earned 12 or fewer non-transferable credits at the point of matriculation, will be considered as potential advanced standing freshmen. Students admitted as advanced standing freshmen may not exceed these credit restrictions prior to matriculation, failure to comply with this policy may result in rescinding the student's acceptance.

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 therapy and physician assistant programs must be completed and postmarked by December 1.

2. All applications to the athletic training, health management systems, occupational therapy, perfusion technology and speech-language pathology programs must be completed and postmarked by January 1.

Students may transfer into any program at any time, based upon their credentials, courses completed at other institution(s), courses yet to be completed prior to entry into the professional phase, and space availability in the desired program.

Prospective internal transfer, transfer and second degree candidates should carefully investigate the financial implications of entering any RSHS program.

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 a RSHS academic advisor in the Office of the Dean for an Internal Transfer Application

   b. Transfers and Second Degrees - Must contact the Office of Domestic Admissions and International Affairs for the standard undergraduate admissions application (excluding the personal statement on the back of the application and the initial letter of reference). Applicants to the advanced master's program in Health Management Systems should contact the Department of Health Management Systems at (412) 396-4772.

2. The addendum

   a. A minimum cumulative QPA of at least a 2.5 for athletic training, health management systems, perfusion technology and speech-language pathology programs and a minimum cumulative QPA of at least a 3.0 for occupational therapy, physical therapy and physician assistant programs.

   b. A "C" or better in all RSHS, Science, Math and Humanities, Communications and Education (SPL, Business (HMS), Medical Sciences courses, and core courses.

3. GRE's are not required for admission.

PLEASE KEEP IN MIND THAT THE ABOVE CRITERIA REFER TO THE MINIMUM CRITERIA REQUIRED FOR CONSIDERATION FOR THE RSHS DUE TO SEVERE SPACE LIMITATIONS, HIGHLY COMPETITIVE APPLICANTS GENERALLY CARRY A 3.5 QPA OR WELL ABOVE; HAVE "A" AND "B" GRADES IN COURSE WORK AND HAVE EXTENSIVE VOLUNTEER/PROFESSIONAL EXPERIENCE.

READMISSION

Students who are no longer enrolled, but had previously attended or graduated from Duquesne University, must fill out the "Application for Readmission" available through the Office of Domestic Admissions and International Affairs.

Students who have completed 12 credits or less at another institution(s) prior to starting at Duquesne, are considered "straight returns," their applications for...
EDUCATIONAL EXPENSES AND FINANCIAL AID

ADDITIONAL EDUCATIONAL EXPENSES FOR RSHS STUDENTS

Pre-Professional Phase

Students in their final year within the preprofessional phase will also need to meet the program requirements for entry into the professional phase (e.g., C.P.R., physical examination and immunizations).

Professional Phase

Expenses for all programs may include the purchase of a lab coat/clothes, medical instruments for laboratory work, personal education costs (e.g., travel and living expenses), and fees for certification, licensure and registration. Information on required supplies will be provided to all students during their professional orientation program(s).

FINANCIAL IMPLICATIONS OF STUDENT CLASSIFICATION AND ACADEMIC LOAD

Students who are interested in financial and/or scholarship assistance through the various sources offered at the University and elsewhere, should be aware that financial aid and scholarship opportunities and eligibility requirements require students to carry and earn specific credit loads and Q.P.A.S. It is the student’s responsibility to investigate these requirements, to consult with his/her academic advisor to meet them. In particular, students should carefully investigate how their credit loads each semester/term, each academic year, and overall, will affect financial aid and athletic eligibility not only for the current year but also subsequent years. Students should consult the Office of Financial Aid for further information regarding their personal financial situation and the appropriate credit load for their financial needs.

The University makes the following distinctions in regard to undergraduate student classification for financial aid — all based on credit level:

Freshman 0-29 credits completed
Sophomore 30-59 credits completed
Junior 60-89 credits completed
Senior 90 or more credits completed

THE RSHS, HOWEVER, CLASSIFIES STUDENTS BY CLASS LEVEL (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 be financially 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 might indicate. Students should carefully investigate any financial implications involved in such a situation.

PROGRAM AND CURRICULUM INFORMATION

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The following preprofessional programs may be required by some of the programs:

- **HLTSC 101 Health Sciences Orientation** 1 cr
  - An overview of the health care industry and specific health professions. Students will learn study skills and learn about various health professions while becoming familiar with the health professionals who work in the health care industry.

- **HLTSC 305 Physiology I** 4 cr
  - This course presents the normal functions of the human body, with additional emphasis on histologic organization and histophysiology. Molecular and physical mechanisms are highlighted at all levels of structural organization, from cells to organ systems.

- **HLTSC 306 Physiology II** 4 cr
  - This course continues the presentation of normal functions of the human body, with additional emphasis on histologic organization and histophysiology. Pertinent examples of pharmacologic and pathophysiologic mechanisms are used to reinforce concepts of normal physiologic design. Topics in this course will be presented in the context 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.

- **HLTSC 305 and 307/307L**
  - This course continues the presentation of normal functions of the human body, with additional emphasis on histologic organization and histophysiology. Pertinent examples of pharmacologic and pathophysiologic mechanisms are used to reinforce concepts of normal physiologic design. Topics in this course will be presented in the context 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.

- **HLTSC 305/307 Human Anatomy I** 5 cr
  - 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 basic human embryology as well as 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 contents of the abdominal and pelvic cavities will be presented to the student.

- **HLTSC 306/306L Human Anatomy II** 5 cr
  - 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 basic human embryology as well as 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 contents of the abdominal and pelvic cavities will be presented to the student.

- **HLTSC 400 Independent Study** 1-3 cr
  - 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: Enrollment of the supervising faculty member and approval of the Department Chair.

- **HLTSC 403 Neuroscience** 4 cr
  - 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 vasculature and the clinical ramifications of regional vascular insufficiency. Throughout the course, case histories are presented with emphasis on clinical problem solving. Prerequisites: HLTSC 305 or 306, 307/307L or 310/310L, or permission of the instructor.
ATHTR 407W Nutrition & Weight Management in Sport 3 crs
This course covers the essential nutrients, their physiological effects on the body, and the methods by which these nutrients may influence the performance of a physically active individual. Information on energy balance, weight management, special dietary considerations, and ergogenic aids is also discussed.
Prequisites: CHEM 131, ATHTR 407W

ATHTR 408W Psychology of Sport 3 crs
This course incorporates basic and applied psychological principles to discuss topics such as mental imagery, psychology of injury, self-esteem, self-confidence, stress management and burnout, pain tolerance, gender roles, performance enhancement, and the interrelationships between coaches, athletes, parents, and the medical community. Prerequisites: PSY 103, ATHTR 315, 316

ATHTR 407W Physiology of Exercise 3 crs
This course prepares students to understand, assess, and manipulate the physiological components of metabolism, muscular activity, and cardiorespiratory function to enhance performance. Students are required to develop a year-round physical conditioning program to maximally enhance the performance in a specific active population. Students also are introduced to standard physiological evaluation equipment. Prerequisites: BIOL 111/113, HLTSC 307/L, CHEM 131, HLTSC 310/L

ATHTR 410W Clinical Practicum in Athletic Training III 4 crs
Building on past experiences, students are deemed as the Head Student Trainers for the assigned sports teams. Students are responsible for the total care of the assigned sports teams, including the design and implementation of rehabilitation and reconditioning programs. Advanced psychomotor skills and preparation for employment and graduate education are discussed. Prerequisites: ATHTR 303, 306, 316, HLTSC 425

ATHTR 411W Advanced Clinical Practicum in Athletic Training 3 crs
During this practicum, students may receive experiences in either a traditional or non-traditional athletic training setting. Preparations for the National Athletic Trainers' Association Examination are made during this semester. Advanced psychomotor skill, job interview techniques, and a mock comprehensive examination is required in this course. Prerequisites: ATHTR 303, 306, 316, HLTSC 425

ATHTR 412W Organization & Administration in Athletic Training 3 crs
This course provides students with information that will enhance their ability 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 man-
agreement, facility design, record keeping, professional organization, and liability Additional areas of discovery include educational requirements, personnel management, public relations, and preparation for the future of Athletic Training Prerequisite ATHTR 316

ATHTR 414 Medical Perspectives in Athletic Training 3 crs
This course is designed to expose students to a variety of medical topics to include orthopedics, OB/GYN, dental, family practice medicine, podiatry, physical therapy, dermatology, and radiology Professionals from each of the respective areas provide information to enhance the interdisciplinary approach of the responsibilities of an athletic trainer Prerequisite ATHTR 303, 305W, 410W

ATHTR 416 Applied Science of Physical Performance 3 crs
Expanding upon the basic principles learned in Physiology of Exercise, Kinesiology and Biomechanics, and Therapeutic Exercise and Reconditioning in Athletic Training, students are expected to research and present, via peer teaching, information on specific sport skill training, biomechanical analysis of common chronic and acute injuries, and physiological requirements for the sports of football, volleyball, soccer, wrestling, basketball, lacrosse, baseball, track and field, swimming, tennis, ice hockey, and weight training This class involves physical activity and participation in all physical activities Prerequisite ATHTR 306, 407W, HLTSC 305

DEPARTMENT OF HEALTH MANAGEMENT SYSTEMS (HMS)

SCHOOL OF HEALTH SCIENCES

The Bachelor of Science in Health Management Systems has three tracks
- HEALTH MANAGEMENT SYSTEMS gives students the opportunity to interface in any medical and technical setting
- REGISTERED RECORD ADMINISTRATOR concentrates on administrative and technical positions in medical record departments
- DUAL DEGREE — Bachelor of Science in Health Management Systems — Bachelor of Science in Business Administration with the A J Palumbo School of Business Administration

A fast track Master's degree is available Students must apply for admission during their third year of study This degree can be completed in one additional year after receiving the Bachelor of Science degree

PROJECT EXPERIENCE
Undergraduate students will be required to complete two 360 hour projects, one in the Junior year and one in the Senior year Students are able to obtain real world experience in a variety of health management systems settings both 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

SCHOOL OF HEALTH SCIENCES

HLTMS 306W/305W Healthcare Management 3 crs
This course covers the management functions — planning, organizing, controlling, and decision making In addition, organizational structures, leadership, motivation, and social responsibility in relation to the dynamic healthcare industry are examined This writing intensive course requires essay examinations, case studies, and a group project based on a real world situation

HLTMS 315/315 Clinical Processes I 3 crs
This course, based on the student's previous anatomy and physiology experience, examines disease processes and their related procedures and tests The course follows a review of systems and case study approach

These integrated skills can be applied in a variety of healthcare and related settings that range from the traditional ones of acute care hospitals and clinics to the non-traditional ones of software development companies, consultant organizations, and health insurers

The Bachelor of Science in Health Management Systems (HMS) gives students the opportunity to interface in any medical and technical setting

- REGISTERED RECORD ADMINISTRATOR concentrates on administrative and technical positions in medical record departments
- DUAL DEGREE — Bachelor of Science in Health Management Systems — Bachelor of Science in Business Administration with the A J Palumbo School of Business Administration

A fast track Master's degree is available Students must apply for admission during their third year of study This degree can be completed in one additional year after receiving the Bachelor of Science degree

PROJECT EXPERIENCE
Undergraduate students will be required to complete two 360 hour projects, one in the Junior year and one in the Senior year Students are able to obtain real world experience in a variety of health management systems settings both 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

SCHOOL OF HEALTH SCIENCES

HLTMS 316W/516W Clinical Processes II 3 crs
This course builds on the material learned in Clinical Processes I It will focus on further review of systems of various related components such as laboratory and pathology This writing intensive course requires essay examination and case studies

HLTMS 320/520 Healthcare Delivery & Organizations 3 crs
The purpose of the course is to introduce students to the various organizations and entities that comprise the healthcare delivery system Students will address current healthcare trends, quality assessment, cost containment, the use of information technology, reengineering efforts, and the purpose and role of accrediting and regulatory agencies in the healthcare environment

HLTMS 325/525 Healthcare Human Resource Management 3 crs
This course reviews the human resource process in the planning phase through recruiting, interviewing, hiring, training, and to the separation case Ancillary topics such as compensation and benefits, unions, negotiations, and contract will also be covered The course will provide the student with insight into his or her own career planning This course will involve class exercises, case studies, examinations, and discussions

HLTMS 340W/540W Health Policy 3 crs
The healthcare industry continues to evolve, one must understand how policies are made and various policy issues This course covers the four steps of the policy process — analysis, formulation, implementation, and evaluation In addition, issues such as Medicare, Medicaid, Certificate of Need, vulnerable population groups, and access to care will be examined This writing intensive course requires a policy examination, case studies, a policy position paper, a group project to write a policy report to Government officials, and use of the World Wide Web Prerequisite HLTMS 320/520

HLTMS 360/560 Elements of Health Information Science 3 crs
This course introduces clients to the development and use of databases, computer systems, and networks in various healthcare environments This course will focus on the use of the World Wide Web and databases in healthcare environments

HLTMS 445 Health Management Systems Seminar 1 cr
This course will examine topics related to contemporary issues in healthcare and the impact of these forces on the management of healthcare enterprises

HLTMS 451/551 Data Analysis 3 crs
Being able to take raw data and create an organized data base to generate reports and manage an organization is a key skill which the course focuses on Students will learn Access and develop data bases for real world clients Conceptual matters of data base design and management in relation to client needs will also be discussed Prerequisite QSMIS 183

HLTMS 453/553 Managed Care and Integrated Delivery Networks 3 crs
This course examines the structures of managed care entities, the various perspectives (physicians, insurers, and consumers), and managed care operations (information technology, legal issues, and marketing) Students will investigate the effect of managed care on local organizations and as a class, build a managed care network This dynamic, interactive course requires library and World Wide Web research Prerequisite HLTMS 320/520

HLTMS 455/555 Health Management Systems Project 3-6 crs
This is the capstone experience of the program Students are able to obtain real world experience in a clinical and technical setting It is intended that this experience be suitable for inclusion in the student's resume or portfolio Requirements will be discussed on an individual basis

HLTMS 470/570 Healthcare Systems Analysis & Design 3 crs
The traditional systems development life cycle (SDLC) and the object oriented approach to the analysis and design of healthcare information systems are compared Cost/benefit studies, interviews, data collection, data analysis, process and data flow models, report, screen, and database designs are covered Whenever possible, students apply their knowledge through implementation using graphical development Prerequisite HLTMS 361/561

HLTMS 471/571 Networking for Health Professionals 3 crs
Client/Server, Internet access, distributed computing, and multimedia delivery services are changing the way healthcare is provided Telemedicine, distributed clinical databases, and local area network access are commonplace in today's ever more sophisticated healthcare systems This course shows
how to develop, deliver, and manage such diverse systems. Hands-on experience with the World Wide Web site management and local area networking systems prepares the student for tomorrow's environment. Prerequisite HLTS 470/570

HLMS 477/577 Health Law 3 crs
This course focuses on the laws and regulations of the healthcare industry and the impact of these on healthcare planning. Topics include confidentiality, anti-trust issues, rights, fraud, and abuse. This course requires in-depth reading

HLTS 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. Students will be required to complete financial analyses based on case studies and in-depth reading

HLTS 485/585 Health Information Processes 3 crs
The health information processes provide an introduction to eight major processes that occur within the healthcare delivery system. These processes are registration, billing, medical records, laboratory, surgery, pharmacy, radiology, and cardiology. These processes shall be examined from a data flow perspective as well as an examination of current trends and issues within these processes

HLTM 493/593 Medical Informatics 3 crs
Medical Informatics examines a variety of topics related to computers in the delivery of healthcare. Included are artificial intelligence, hand-held computers, the electronic medical record, and robotics. This course demands that the students tie a theory to practice based on their past or present employment

HLTS 495/595 Health Information Systems Management 3 crs
The healthcare continuum of care utilizes a variety of hardware, software, and computer systems to deliver and manage quality and cost-effective care. This course will take the student through this continuum looking at computers in hospitals, physical practice, managed care organizations, insurers, long-term care facilities, and others. Real-world vendors and users will participate in the course}

DEPARTMENT OF OCCUPATIONAL THERAPY (OT)

Chair
Patricia A. Csnst, 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, 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 treat and consult with persons to promote an individualized, self-directed balance of the three occupations throughout the life-span. Competence is developed by treating the "whole person" including physical, psychological, emotional, social and cultural components, as influenced by the occupational environment. Occupational therapists promote self-determination by involving persons in choosing the activities and attention during service delivery. The enhancement of person-environment interaction through the various occupations is a primary focus of occupational therapy. This includes not only the individual performance components, but also, removal of architectural barriers that hinder performance, and provision of reasonable accommodations, such as rehabilitation technology or assistive living devices.

Occupational therapy direct and indirect 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, socio-political integration, multiculturalism, and balanced lifestyles are central to occupational therapy practice. As a result, graduates of this program must be able to evaluate emerging information, anticipate new practice opportunities, develop new knowledge, participate in research, guide professional decisions, cooperate effectively with a variety of groups, and serve as professional leaders and community advocates. These competencies are the essence of occupational therapy service delivery and underscore the principles that guide this program.

The occupational therapy program at Duquesne University is an entry-level master's degree program offered in a traditional academic model as well as a non-traditional online program. The Weekend Program in Occupational Therapy is offered jointly by the RHSS and the Division of Continuing Education. The weekend program presents the same content as our traditional, on-campus program, in a weekend format. Graduates of both programs are eligible to sit for the national certification examination administered by the National Board for Certification in Occupational Therapy (NBCOT) and apply for state licensure, if required

SCHOOL OF HEALTH SCIENCES

The traditional and weekend programs are fully accredited by the Accreditation Council for Occupational Therapy Education (ACOTE). Information regarding the accreditation status of either program is available from the ACOTE, 4720 Montgomery Boulevard, PO Box 1220, Bethesda, MD 20824-1220 (301) 652-2682

OCCUPATIONAL THERAPY CURRICULUM

A sample course plan for the pre-professional and professional phase of the traditional curriculum can be found on the RHSS at (412) 396-6552. Weekend Program information may be obtained from the Division of Continuing Education at (412) 396-5990

EXAMINATION FOR THE PROFESSIONAL PHASE

(Weekend Program course descriptions may be obtained from the Division of Continuing Education.)

OCCTH 305 Occupational Therapy Foundations 3 crs
Overview of the profession's history, philosophies, roles and functions, scholarship activities, current issues, and future directions. Prerequisite Junior in the pre-professional occupational therapy program.

OCCTH 400 Independent Study 1 to 3 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 410 Life Span Occupational Performance 3 crs
Occupational performance across the life span in activities of self-care, work/education, play/leisure, and person-environment-performance interaction. Prerequisites: OCCTH 305, HLTS 437/438

OCCTH 420 Neuromotor & Sensory Approaches to Treatment 4 crs
Approaches to treatment of neurologic motor learning, and development theories in practice. Prerequisites: OCCTH 430, 445, 455, HLTS 403

OCCTH 425 Psychological Approaches to Treatment 4 crs
Psychodynamic, behavioral, developmental, and volitional theories and intervention strategies for lifespan psychological conditions. Prerequisites: OCCTH 440, 445, 455, HLTS 441, 460W

OCCTH 430 Biomechanical Treatment 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, 435, 445, HLTS 310/310L, 437/438

OCCTH 435 Occupational Performance Assessment 3 crs
Introduction to measurement and interpretation of occupational performance areas and performance components. Prerequisite: OCCTH 305

OCCTH 440 Interpersonal Communication & Group Dynamics 3 crs
Analyzing and directing individual and group interaction activities for therapeutic and supervisory functions. Prerequisite: OCCTH 305

OCCTH 445 Activity Analysis & Adaptations 3 crs
Introduction to activity analysis and the teaching-learning process during occupational performance using a variety of therapeutic modalities specific to practice. Prerequisites: OCCTH 305, HLTS 307/307L, 310/310L, 437/438

OCCTH 455 Clinical Education & Reasoning I 2 crs
Transformation of didactic learning into clinical reasoning with a focus on evaluation, treatment planning and implementation, and documentation. Includes 40 hours of practicum. Prerequisites: OCCTH 430, 445, HLTS 403, 441, 460W

OCCTH 456 Clinical Education & Reasoning II 2 crs
Transformation of didactic learning into clinical reasoning with a focus on evaluating therapeutic interactions, clinical observation, and case study methodology. Includes 40 hours of practicum. Prerequisites: OCCTH 410, 435, 440, 445

OCCTH 500 Independent Study 1-3 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 535 Cognitive Approaches to Treatment 2 crs
Cognitive and information processes, theories, and rehabilitation approaches in occupational therapy. Prerequisites: OCCTH 420, 425, 456, HLTS 403, 441, 442

OCCTH 540W Research Procedures 2 crs
Implementation of a group research project, including proposal development, human subjects approval, and computer resources. Prerequisites: OCCTH 456, HLTS 431, 442

OCCTH 545 Occupational Performance Approaches 3 crs
Synthesis of material from previous treatment courses. Emphasizing provision of service within various systems through case study methodology. Prerequisites: OCCTH 420, 425, 430, 456 Corequisites: OCCTH 535

OCCTH 549 Independent Study 1-3 crs
Independent study in occupational therapy. Prerequisites: Junior standing and consent of the Department Chair.
The perfusionist is responsible for the selection, set-up and operation of extracorporeal devices and basic applications of perfusion techniques. Endorsement of the supervising faculty approval of the Department Chair and the American Board of Cardiovascular Perfusion are required.

**SCHOOL OF HEALTH SCIENCES**

**OCCTH 550 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.

**OCCTH 552 Clinical Seminar**
2 crs
Guided discussions regarding Level II Fieldwork to integrate theory and practice between the clinical experiences and essential curriculum concepts. Advanced learning in several specialty areas will be included.

**OCCTH 555, 556, & 557 Level II A, B, & C Fieldwork**
8 crs, 4 crs & 4 crs
Clinical education including exposure to a wide range of diagnoses and treatment in a variety of settings supervised by a registered occupational therapist. Duration of each course: a minimum of 40 hours per week for six or 12 weeks.

**OCCTH 561 Occupational Therapy Administration**
2 crs
Introduction to the basic principles of organization and management of occupational therapy programs.

**OCCTH 562 Leadership**
1 cr
Analysis of leadership approaches in practice, management, and education. Prerequisites: OCCTH 555, 556, 557.

**OCCTH 565 Community & World Health Care Issues**
2 crs
Focus will be on community resources, health promotion, disease prevention, and future directions in national and international health care. Prerequisites: OCCTH 456, 545, HLTSC 460W.

**OCCTH 571W Research Project I**
1 cr
Data collection. Prerequisite: OCCTH 540W.

**OCCTH 572W Research Project II**
1 cr
Data analysis and formal presentation of research study results.

**DEPARTMENT OF PERFUSION TECHNOLOGY (PERFT)**

Chair
Joyce A. D'Alessandro, M.S., Ph.D.

A perfusionist is a skilled health professional trained and educated specifically as a member of an open-heart surgical team. The perfusionist is responsible for the selection, set-up and operation of a mechanical device commonly known as the heart-lung machine. During open-heart surgery, the patient's blood is diverted and circulated outside the body through the heart-lung machine and then back into the patient. Thus, during surgery, this device assumes the function of both the heart and lungs.

While operating the heart-lung machine during surgery, the perfusionist is responsible for monitoring the altered circulatory process, taking appropriate measures when abnormal situations arise, and keeping the surgical team fully informed of the patient's condition. Perfusionists also function in supportive roles for other medical situations where extracorporeal circulation is required.

The field of perfusion technology is regarded by many as a very demanding vocation, requiring mechanical aptitude, patience, dedication, integrity, discipline, and the ability to think critically. Perfusionists should also be in good health, possess physical stamina, and enjoy making timely and critical decisions.

The perfusion technology program at Duquesne University, in collaboration with several hospitals, offers a four-year bachelor's degree program. Upon successful completion of the fourth year, which includes performing a required number of clinical perfusion cases under the supervision of a certified perfusionist, students will receive a Bachelor of Science in Perfusion Technology. Graduates are eligible to sit for the certification examination that is administered by the American Board of Cardiovascular Perfusion.

**PERFUSION TECHNOLOGY 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**

**PERFT 299 Independent Study**
1-3 crs
With the guidance of a faculty member, students 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.

**PERFT 301 Introduction to Perfusion Technology**
4 crs
Emphasizes the physiologic aspects pertinent to the development of extracorporeal devices and basic applications of perfusion techniques.

**PERFT 302 Clinical Perfusion Technology**
4 crs
Defines the applications of extracorporeal technology and the effects of artificial circulation on the body. Prerequisites: PERFT 301, HLTSC 305, 307/307L.

**PERFT 310 Observations in Perfusion Technology I**
1 cr
Designed to give the student gradual exposure to the operating room by observing open-heart surgery. Corequisite: PERFT 301.

**PERFT 311 Observations in Perfusion Technology II**
1 cr
Designed to give the student direct exposure to the operating room and open-heart surgery. Corequisite: PERFT 302.

**PERFT 313 Business Management for Health Professionals**
2 crs
Basic management skills including organization, planning, human resource management, finance, and quality control are covered with an emphasis on their application to the health sciences.

**PERFT 320W Perfusion Techniques & Applications**
2 crs
This course emphasizes laboratory experiments utilizing extracorporeal devices. Technical writing skills will also be discussed and evaluated. Prerequisite: PERFT 301.

**PERFT 330 Basic and Cardiovascular Pharmacology**
3 crs
Cardiovascular drugs and agents used during open-heart surgery are discussed. Particular emphasis is placed on the interactions of these drugs as they apply to the cardiovascular and respiratory systems.

**PERFT 331 Cardiovascular Pathophysiology I**
4 crs
Designed to provide the student with a thorough understanding of the common pathologies associated with the adult cardiovascular system.

**PERFT 332W Cardiovascular Pathophysiology II**
2 crs
Focuses on the pathophysiology of congenital heart disease. Prerequisites: PERFT 331, HLTSC 305, Level IIIA.

**PERFT 340W Introductory Practicum**
1 cr
Emphasis is on interactive clinical experience in the role of a perfusion technologist. Prerequisites: PERFT 302, 320.

**PERFT 401W Clinical Perfusion Technology I**
4 crs
This writing intensive course is designed to give the junior perfusion student the opportunity to discuss and develop a strong understanding of techniques and thought processes involved in the clinical practicum. Prerequisites: PERFT 302, 320, 330, 332.

**PERFT 402W Clinical Perfusion Technology II**
4 crs
Designed to discuss advanced applications and current topics in the science of perfusion technology. Prerequisite: PERFT 401.

**PERFT 411W Research Seminar**
2 crs
Discussions focus on the analysis and interpretation of clinical research studies. Computer and technical writing skills will be reinforced through the presentation of student research projects. Prerequisites: PERCT 100, 411W.

**PERFT 450 Clinical Practicum I**
8 crs
Students will acquire the skills that are necessary for the practice of perfusion technology by performing clinical activities at several different clinical affiliations. Prerequisites: PERFT 302, 320, 330, 332.

**PERFT 460 Clinical Practicum II**
8 crs
As a continuation of PERFT 450, this practicum will emphasize autonomy and proficiency in clinical perfusion skills. Prerequisite: PERFT 450.

**DEPARTMENT OF PHYSICAL THERAPY (PT)**

Chair
Robert C. Morgan, Ph.D., PT

Physical therapists assess and treat patients with a variety of diagnoses. They work to prevent, detect, evaluate, correct, treat, and alleviate pain, movement dysfunction, and muscle imbalances. Their work includes the administration, interpretation and evaluation of tests, and physical examinations. They work to prevent, reduce, and/or limit the incidence and severity of physical disability and pain.

On a very limited basis, physical therapy students may enroll in the joint degree program with the Department of Athletic Training, leading to a Bachelor of Science in Athletic Training, and a Master of Physical Therapy.

There are two Clinical Education Matriculation Examinations that students must pass BEFORE they are permitted to enter into clinical education. These examinations are done in order to determine that students have reached a level of proficiency necessary to safely work with patients. The first examination is given prior to Clinical Education I, near the end of Spring Semester, fourth year. The second examination is given prior to Clinical Education III, near the end of Spring Semester, fifth year. Students who do not pass all parts of the examination will not be permitted to begin clinical education. This will result in students sitting out of the program for one year and re-taking the clinical examination the following year. If all parts of the examination are not successfully completed the second year, students will be dismissed from the program.
SCHOOL OF HEALTH SCIENCES

THE PROFESSIONAL

PHYTH 411 Clinical Education I 2 crs
This is an introductory clinical experience, which will broaden the student's understanding and appreciation of the physical therapist's professional role.

PHYTH 421W PT Seminar I 1 cr
This course will be devoted to clinically-related discussions.

PHYTH 422 PT Seminar II 1 cr
This course is a clinically-related seminar with an emphasis on documentation and the acute care patient. Prerequisite: PHYTH 421W.

PHYTH 431 Evaluation Methods I 3 crs
This course will serve as an introduction to basic evaluation techniques. This will include observation and inspection, range of motion, manual muscle testing, basic neurological testing, postural analysis, girth measurements and palpation skills of bony and soft tissue landmarks.

PHYTH 432 Evaluation Methods II 3 crs
Special emphasis will be placed on learning the evaluation and treatment skills for musculoskeletal dysfunction of the upper quarter.
Prerequisite: PHYTH 431.

PHYTH 447 PT Science I 4 crs
An introduction to basic procedures in physical therapy common to all areas of practice. Emphasis will be given to body mechanics, gait training, functional activities, safety, basic manual techniques, wound care, and basic exercise programs.

PHYTH 448 PT Science II 4 crs
This second course in the PT Science sequence will cover the theories and management of musculoskeletal dysfunction with emphasis on upper quarter dysfunction.
Prerequisite: PHYTH 447.

PHYTH 468 Therapeutic Considerations in Development 3 crs
This course will cover the theories of motor control, motor development and motor learning. It will also provide the student with knowledge of issues during early development and through the aging process. Both pediatric and geriatric topics will be addressed, including special evaluation and treatment considerations for those groups.

PHYTH 501 Wellness and Nutrition 1 cr
This introductory course provides basic information on nutrition and weight management principles as they relate to the general patient population. General weight training, flexibility development, and cardiovascular improvement principles and techniques are also covered in this course.

PHYTH 505 Exercise in Health & Disease 3 crs
An in-depth study of the body's physiological function during exercise and its capacities within the contexts of disease prevention and rehabilitation.
Prerequisites: HLTSC 305, 306.

PHYTH 511 Clinical Education II 4 crs
This is an intermediate level clinical experience which will build on the skills attained in Clinical Education I.
Prerequisites: PHYTH 411, 523, 533, 549, 561W, and 568.

PHYTH 514 Clinical Education IIIA 5 crs
During this final phase of clinical education, the students will complete their professional training and become integral members of the health care team.
Prerequisites: PHYTH 421W, 422, 431, 432, 447, 448 and successful completion of all elements of the Clinical Education Matriculation Examination II.

PHYTH 515 Clinical Education IIIB 5 crs
Prerequisite: PHYTH 514.

PHYTH 523 PT Seminar III 1 cr
Through speakers from a variety of professions, this course addresses ethical and legal issues the student will encounter in the clinic.
Prerequisite: PHYTH 422.

PHYTH 533 Evaluation Methods III 3 crs
This course is a continuation of Evaluation Methods II. The major emphasis is on techniques to assess the lower quarter of the musculoskeletal system.
Prerequisite: PHYTH 432.

PHYTH 534 Evaluation Methods IV 3 crs
This course serves as an introduction to neurorehabilitation. It emphasizes evaluation of the neuromuscular systems, including standardized assessments and outcome measures. Analysis of movement dysfunction in normal and abnormal systems will be integrated.
Corequisite: PHYTH 533.

PHYTH 549 PT Science III 3 crs
The third course in the PT Science sequence will cover the theories and management of movement dysfunction in the lower quarter.
Prerequisite: PHYTH 448.

PHYTH 550 PT Science IV 4 crs
This course serves as a continuation of neurologic rehabilitation introduced in Evaluation Methods IV. The focus is on developing treatment rationales and plans. The student will have the opportunity to develop treatment skills in laboratory and clinical settings.
Prerequisites: HLTSC 403, PHYTH 334, 549, 568.

PHYTH 551 Special Topics in Clinical Neuroscience 4 crs
This course will provide the student with an in-depth understanding of the pathophysiology, clinical signs and symptoms, and treatment of common neurologic disorders.
Prerequisites: PHYTH 534, 550.

PHYTH 561W Research Methods and Statistics 3 crs
This course examines the process by which research questions are proposed and analyzed. Students will write and defend a formal research proposal. Experimental design and the statistics used to analyze the study are presented using actual examples from published research. Analysis procedures appropriate for the design are presented through computer laboratory experiences using statistical software.
Prerequisite: HLTSC 430.

PHYTH 562W/563W Research Project I & II 2 crs (each)
During these two courses the research prerequisite course will be completed. The student will be guided through the acquisition, analysis, and written description of his/her results by an assigned mentor. The end result should be a written document of the quality to be presented at professional meetings.
Prerequisites: PHYTH 561W.

PHYTH 566 PT Management 3 crs
An thorough examination of the position of Manager of Physical Therapy Service/Department will be undertaken.

PHYTH 567 Patient & Consumer Health Education & Consultation 2 crs
This course utilizes an interdisciplinary approach, introduces the student preparing for a career in health care to the role of educator through identification, analysis, synthesis and application of the teaching-learning process.

PHYTH 570 Ergonomics & Environmental Considerations 3 crs
This course is designed to study the environmental barriers that are impediments to normal function in the home and workplace.
Prerequisites: HLTSC 437/438.

PHYTH 575 Orthotics & Prosthetics 3 crs
This course will provide students with an in-depth understanding of normal and pathologic gait, limb prostheses and orthoses, the prosthetic and orthotic training phases of rehabilitation for people with amputations, and the use of orthoses in rehabilitation.
Prerequisites: HLTSC 437, 438.

PHYTH 580 Practice in the Modern Health Care Environment 2 crs
This course will serve as a capstone course for physical therapy students. Integration of previously learned concepts will be applied to complex clinical situations. In addition, a current review of practice, reimbursement, and regulations will be analyzed in detail.
Prerequisite: PHYTH 550.

PHYTH 590 Grand Rounds 0 cr
Invited clinicians and faculty will present a weekly case study to the physical therapy students. An interactive format is planned to help the student prepare for the objective of enhancing the students' clinical problem-solving capabilities. Student presentation of case studies encountered in their clinical education will be included.

DEPARTMENT OF PHYSICIAN ASSISTANT (PA)
Chair
A J Pinevich, M D
Medical Director
Michael J Essig, M D
Associate Medical Director
Jack E Wilberger, M D, F A C S

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 (NCCPA).

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 National Commission on Certification of Physician Assistants (NCCPA).
PHYSICIAN ASSISTANT 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.

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 Clinical History Skills & Practice 2 crs
The skills of communicating with the patient and documenting data are explored in the context of the medical history.

PHYS 406 Clinical Lab Methods 3 crs (each)
Indications, technique and interpretation of a variety of common clinical lab tests are discussed.

PHYS 409 Clinical Pharmacology 4 cr
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 Problem Solving I/II/III 3 crs (each)
The integration of didactic sciences with patient problems is accomplished in case-based discussions.

PHYS 415 Basic Pathology 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 3 crs
Childhood diseases are discussed in-depth, including diagnosis, treatment, and prognosis.

PHYS 420/421 History & Physical Examination I/II 3 crs (each)
A practical study of physical examination techniques of the adult patient including a systematic approach to history-taking, integration of examination systems, patient assessment, and documentation practices (includes laboratory).

PHYS 515 Fundamentals of Surgery 3 crs
Lecture series addresses preoperative, peroperative and postoperative patient care and management.

PHYS 524 Patient Counseling and 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 528/536 Clinical Externships I-III 24 crs (total)
A coordinated series of supervised clinical externship assignments in a wide variety of clinical areas.

PHYS 541 Master’s Research 3 crs
An independent research project is completed with ongoing faculty support and recommendations.

DEPARTMENT OF SPEECH-LANGUAGE PATHOLOGY (SLP)
Chair
Mikael D. Z. Kemelman, Ph.D

Speech and language disorders affect the way people talk and understand. These disorders may range from simple sound substitutions to not being able to use speech and language at all.

Speech-language pathologists are specialists in human communication, its development, and its disorders. They are professionally educated to evaluate and treat persons with communication problems.

The speech-language pathologist will have a master’s degree or doctoral degree in speech-language pathology and should hold a Certificate of Clinical Competence (CCC) from the American Speech-Language-Hearing Association. In many states a license is also required.

Speech-language pathologists provide many specialized professional services which include helping people with articulation disorders learn proper production of speech sound, assisting people with voice disorders to develop proper control for correct production, assisting people who stutter to increase the amount of fluent speech, and to cope with this disorder, assisting people with aphasia to re-learn language and speech skills and sentence order to compensate for lost language and speech skills, counseling people with speech and language disorders assessment and diagnosis, and understanding their disorder to achieve normal communication in education, social and vocational settings, and helping people understand the types and severity of communication disorders.

SPEECH-LANGUAGE PATHOLOGY CURRICULUM
A sample course plan for the pre-professional and professional phase of the curriculum can be obtained from the RSHS at (412) 396-6652.

PHYS 524 Patient Counseling and 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 528/536 Clinical Externships I-III 24 crs (total)
A coordinated series of supervised clinical externship assignments in a wide variety of clinical areas.

PHYS 541 Master’s Research 3 crs
An independent research project is completed with ongoing faculty support and recommendations.

PHYS 524 Patient Counseling and 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 528/536 Clinical Externships I-III 24 crs (total)
A coordinated series of supervised clinical externship assignments in a wide variety of clinical areas.

PHYS 541 Master’s Research 3 crs
An independent research project is completed with ongoing faculty support and recommendations.

SPEECH-LANGUAGE PATHOLOGY CURRICULUM
A sample course plan for the pre-professional and professional phase of the curriculum can be obtained from the RSHS at (412) 396-6652.

Students should be aware that the Department is pursuing accreditation. Students must graduate from an accredited program to be eligible for state/certification examination. Concerns should be clarified with the Department Chair.

PHYS 524 Patient Counseling and 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 528/536 Clinical Externships I-III 24 crs (total)
A coordinated series of supervised clinical externship assignments in a wide variety of clinical areas.

PHYS 541 Master’s Research 3 crs
An independent research project is completed with ongoing faculty support and recommendations.

CURRICULUM

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SPEECH-LANGUAGE PATHOLOGY CURRICULUM
A sample course plan for the pre-professional and professional phase of the curriculum can be obtained from the RSHS at (412) 396-6652.
and treatment strategies for children at varying developmental levels, d) treatment efficacy, and e) prognosis. By the end of this course, students will have explored many of these topics. Students will demonstrate competence in selecting and justifying treatment goals and procedures, and will engage in multiple clinical problem-solving activities.

SLP 436 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 435

SLP 445 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. A range of audiometric techniques will be practiced. Students will have opportunities to hear the discussion and discussion of hearing will be discussed. This course is focused on audiological issues related to the clinical practice of speech-language pathology.

SLP 450W 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 leaders in the field. Specific to speech-language pathology, topics covered will include a) general discussion of the scientific process, b) an overview of qualitative and quantitative research designs, c) strategies for reviewing research critically, and d) research opportunities in the area of clinical practice.

SLP 455 Fluency Disorders 3 crs
In this course students will learn about stuttering and other disorders of fluency in children, adolescents, and adults. Topics will include a) the clinical presentation of fluency disorders, b) theories of causation, c) assessment and treatment strategies for clients of all ages, d) treatment efficacy, and e) prognosis. By the end of this course, students will have practical experience in the evaluation of stuttering, will demonstrate competence in selecting and justifying treatment goals and procedures, and will have engaged in multiple clinical problem-solving activities.

SLP 460 Speech-Language Pathology in the Medical Setting 4 crs
This course will introduce students to principles and procedures in the clinical management of a variety of communication disorders encountered in the medical setting. This will include neurological disorders, voice disorders, swallowing disorders, aphasia, dysarthria, apraxia, and speech and cognitive disorders. Issues specific to the pediatric patient, the geriatric patient, and the complex medical patient will also be addressed. Students will be introduced to the culture and requirements of working in the medical setting.

SLP 500 Introduction to Audiology 3-3 crs
Individually directed study in a special area of speech-language pathology. Prerequisite Permission of the instructor.

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 develop a knowledge of norms and standardized testing techniques, interpreting and chart review procedures, informal diagnostic tools and techniques, as well as methods for interpreting and summarizing results. Referral criteria and procedures will be reviewed. Case studies will be used to illustrate key concepts. Prerequisites SLP 405, 435, 436, and 460, or permission of the instructor.

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 405.

SLP 525 Motor Speech Disorders 3 crs
This course focuses on motor speech disorders in children and adults. Theoretical and methodological issues underlying motor speech disorders will be addressed. Students will demonstrate functional knowledge of assessment, diagnosis, and treatment of motor speech disorders.

SLP 530 Aphasia 3 crs
This course will review the neurophysiology and clinical management of communication disorders that result from damage to the language-dominant hemisphere of the brain. Students will learn about theoretical approaches to the study of aphasia. They will also learn to differentially diagnose and describe aspects of the aphasia syndrome. 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 communication disorders associated with neurocognitive disorders including right hemisphere syndrome, traumatic and non-traumatic brain injuries, and the dementia. Students will learn to differentially diagnose, describe and manage the communication, cognitive, and behavioral characteristics of each of these disorders as they affect individuals across the age span. Research into basic cognitive and psycholinguistic functioning will be presented. Approaches specific to the acute and long-term management of these disorders will be addressed. Prerequisites SLP 530 or permission of the instructor.

SLP 550 Dysphagia 3 crs
This course is designed to provide students with basic information about the anatomy and physiology of the normal swallowing mechanism as well as the characteristics and presentation of the abnormal swallow (dysphagia). Information about medical conditions associated with dysphagia will be presented. Students will learn to identify symptoms of abnormal swallowing and nutritional intake using observation and specialized evaluation procedures. They will also learn a variety of treatment approaches for dysphagia. Functional issues related to integrating dysphagia management into clinical practice will be discussed.

SLP 555 Alternative & Augmentative Communication 3 crs
Augmentative and Alternative Communication (AAC) is an area of clinical practice that, through the use of both high and low technology, attempts to compensate for the communication challenges faced by children and adults with severe expressive communication disorders. This course will introduce students to the history of 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 lifespan disability spectrum. Outcome measurement, funding, consumer rights, and service delivery issues will also be addressed. Students will be required to participate in technology lab activities.

SLP 556 Head, Neck and craniofacial Disorders 3 crs
This course reviews a number of related clinical problems including cleft lip and palate, laryngecotomy, tracheotomy and ventilator dependency in 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. Also discussed are issues related to the use of tracheotomy tubes and tracheotomy speaking devices for patients who may be ventilator dependent. Speech, language, and hearing disorders stemming from craniofacial anomalies and cleft lip and palate will be addressed. Principles and methods of assessment and treatment within an interdisciplinary rehabilitation framework will be reviewed for both types of disorders. Prerequisite SLP 425 or permission of the instructor.

SLP 557 Advanced Clinic Instrumentation 3 crs
This course will review how to conduct instrumental testing of various aspects of speech production and how to understand and utilize the data collected. The course will include an introduction to fundamentals of electronics and test instrumentation including microphones, signal-to-noise ratios in speech, hearing conservation, hearing assessment, and other disorders of fluency in children, adolescents, and adults. Topics will include a) the clinical presentation of fluency disorders, b) theories of causation, c) assessment and treatment strategies for clients of all ages, d) treatment efficacy, and e) prognosis. By the end of this course, students will have practical experience in the evaluation of stuttering, will demonstrate competence in selecting and justifying treatment goals and procedures, and will have engaged in multiple clinical problem-solving activities.

SCHOOL OF HEALTH SCIENCES

SLP 558 Multicultural Issues in Speech-Language Pathology 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 Seminar Series

SLP 440 Clinic I 1 cr
Prerequisite Documentation of 25 hours of clinical observation

SLP 441 Clinic II 2 crs
Prerequisite SLP 440

SLP 442 Clinic III 2 crs
Prerequisite SLP 441

SLP 443 Clinic IV 2 crs
Prerequisite SLP 442

SLP 444 Clinic V 2 crs
Prerequisite SLP 555

This series of courses 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. Subsequently, students will participate in clinical education activities both in the Department's clinic and in a number of off-site clinical settings. Students must arrange their own travel to clinic practicum sites.

SLP 555 Externship 9 crs
Students will participate in a full-time clinical experience. This will offer the student the opportunity to gain extensive experience and to become immersed in the daily activities of a clinical speech-language pathologist. Students must arrange their own travel to clinic practicum sites.
Army Reserve Officers’ Training Corps (ROTC)

DEPARTMENT OF MILITARY SCIENCE

The Army Reserve Officers’ Training Corps (ROTC) program supporting Duquesne University is located at the University of Pittsburgh. It exists to train the future officer leadership of the United States Army and offers opportunities and challenges that can put college students on the fast track to success in life. ROTC provides a combination of academic and important hands-on training, in addition to physical and mental challenges that will help students succeed in college and beyond. Through the training in ROTC, students will develop the confidence, self-esteem, motivation and leadership skills they will need regardless of their career plans.

THE FOUR-YEAR PROGRAM

The traditional Four-Year Program is divided into two parts. The Basic Course is taken in the freshmen and sophomore years. There is no commitment for non-scholarship students at this level. Upon successful completion of the Basic Course, students are eligible for the Advanced Course, taken in the junior and senior years. At the beginning of the Advanced Course, students must decide whether or not they wish to become officers in the Army and enter into a formal contract. During the summer between the junior and senior years, students are required to attend Advanced Camp. Upon successful completion of a University degree and the Army ROTC program, students are commissioned into the United States Army as a Second Lieutenant.

THE TWO-YEAR PROGRAM

If the first two years of ROTC are not taken, students can attend Camp Challenge during the summer between the sophomore and junior year. This camp will qualify students to begin the Advanced Course in their junior year or in the first year of a two-year graduate program. Or, if a student has served in the active duty military, attended a military academy for one year, or participated in JROTC for three years or belong to a Army National Guard or Army Reserve unit, they already qualify for entrance into the Advanced Course.

ARMY ROTC SCHOLARSHIPS

Army ROTC offers four, three and two-year scholarships of up to $6,000 per year with additional annual allowances of $450 for books and $1,500 for spending. At Duquesne, this scholarship is increased with up to a $5,000 bonus for room and board if academic standards are met. High school, undergraduate and incoming two-year graduate students are eligible to apply. For application and information call ROTC at the University of Pittsburgh at (412) 624-6197/6198/6199.

THE ARMY ROTC NURSE PROGRAM

Nursing students may take Army ROTC along with their other studies and begin their professional careers as officers in the Army Nurse Corps. Nursing students are exposed to the professionalism of Army Nursing through a special Nurse Summer Training Program.

THE SIMULTANEOUS MEMBERSHIP PROGRAM (SMP)

This program allows students to become members of the Army National Guard or the Army Reserve while enrolled in Army ROTC Students in the Advanced Course who are SMP are paid for their Guard/Reserve training plus a $1,500 allowance each year from ROTC. The benefit of this program is that students in the Advanced Course are able to act as Army officers in their National Guard or Reserve unit, receiving valuable leadership experience.

SUMMER PROGRAMS

Advanced Camp
This 35-day camp is a requirement for all contracted students. Students attend the summer between their junior and senior year. Students are placed in various leadership positions throughout Camp and their skills and abilities will be tested and evaluated in preparation of a commission in the United States Army. All expenses are paid by the Army Students are paid while attending.

Camp Challenge
This 35-day camp is taken as a prerequisite for entry into the Advanced Course if the Basic Course cannot be fulfilled. It is taken the summer before the junior year. All expenses are paid by the Army Students are paid while attending.

Nurse Summer Training Program (NSTP)
The Nurse Summer Training Program is offered between the junior and senior year. This program offers students a clinical training phase, where they work one-on-one with Army nurses at Army hospitals throughout the United States and some locations overseas. Participation in NSTP is voluntary.

Army Adventure Training
ROTC students may participate in Airborne School, Air Assault School, Northern Warfare School and Mountain Warfare School the summer before the sophomore and junior year. These courses range from two to four weeks and students must arrive in top physical condition. All expenses are paid by the Army.

EXTRACURRICULAR ACTIVITIES

Army ROTC students are eligible to participate in the Cadet Ranger Club. The Club conducts physically and mentally challenging extracurricular training to promote fitness, teamwork, self-confidence and leadership. Training includes physical fitness, rappelling, rope bridging, tactics, hiking, climbing, weapons training and orienteering.

Scabbard & Blade
National Honor Society consisting of cadets/midshipmen from Army, Air Force and Navy ROTC.

Phi Tau Chi
Military fraternity established for the members of the various branches of ROTC. Purpose is to draw together cadets to increase communication and feelings of goodwill between the Cadet Corps and the community. Cadets participate in a variety of community service projects.

Color Guard
Dedicated group of Army ROTC cadets who train and perform to present the American flag and Army colors at football and basketball games and various community events.

MILITARY SCIENCE CURRICULUM

THE BASIC COURSE

ROTC 101/102 Military Science I
These courses cover leadership, ethics, the role and origin of the Army, customs and traditions of the Army, branches of the Army, the role of the U.S. Army Reserve and Army National Guard. Physical training, field training exercises, socials and a weekly hour leadership lab accompany the class. All uniforms, books and supplies are provided. This freshman class is offered during the Fall and Spring term.

ROTC 201/202 Military Science II
These courses cover leadership, ethics, principles of war, the role of the non-commissioned officer, communications, professionalism and first aid. Physical training, field training exercises, socials and a weekly one hour leadership lab accompany the class. All uniforms, books and supplies are provided. This sophomore class is offered during the Fall and Spring term.

THE ADVANCED COURSE

ROTC 301/302 Military Science III
These courses cover leadership, command and staff functions, laws of war, weapons, one-on-one, basic tactics and ethics. Physical training, field training exercises, socials and internal leadership and evaluation positions in ROTC accompany the class. All uniforms, books and supplies are provided. This junior class is offered during the Fall and Spring term.

ROTC 401/402 Military Science IV
These courses cover leadership, ethics, military justice, Army Personnel Management System, Army Logistics System, post and installation support and operations and tactics. Physical training, field training exercises, socials and internal leadership and evaluation positions in ROTC accompany the class. All uniforms, books and supplies are provided. This senior class is offered during the Fall and Spring term.
Continuing Education

Administration
Dean and Professor
Benjamin Hodes, Ph D
Director of Continuing Education — Program Management
Robert Aronson, M A, M A, M B A
Director of Continuing Education — Program Development and Summer Sessions
Marianne Lester, M A

MISSION STATEMENT
The mission of the Division of Continuing Education is to extend the resources of the University to advance lifelong learning and economic development

SUMMARY STATEMENT OF PHILOSOPHY
Credit Programs
The Division of Continuing Education (412-396-5034) is the arm of Duquesne University which addresses the needs of adult learners. Through the Division, adult students have access to undergraduate courses offered in the college and many schools within the University. Entry requirements are that the individual be twenty-one (21) years of age or older and have a high school diploma or GED equivalency. The student population of the Division includes working adults and other non-traditional students whose preference is to pursue a degree through day, evening or weekend study, on either a full or part-time basis.

Continuing Education students may pursue course work for a variety of reasons:
- to earn a Bachelor of Science in Professional Studies (BSPS) during the day, evening, or on Saturday College
- to earn a Master of Arts in Leadership and Liberal Studies or Occupational Therapy
- to pursue course work as preparation for application to an undergraduate or graduate program
- to earn a post-baccalaureate Professional Certificate
- to take courses for personal enrichment

Professional Development Programs
With the Professional Development Programs, the Division of Continuing Education is committed to education for the changing workplace. A wide range of courses, workshops, certificate programs and seminars is offered to provide participants with the skills, knowledge, and techniques they need to develop in order to meet the demands of the changing world of work.

CREDIT PROGRAMS
1) The Saturday College
Saturday College provides the adult student the opportunity to earn a degree by attending classes only on Saturday. Five eight-week terms comprise the accelerated academic calendar. The student earns the Bachelor of Science in Professional Studies with concentrations in Organizational Leadership, Professional Communication, Organizational Behavior or Computer Technology.

The Division of Continuing Education recognizes that students enrolled on weekends demand the same intellectual integrity in their academic programs as those attending the University in a more traditional manner. Hence, the baccalaureate curriculum of Saturday College requires the same level of achievement as that expected of students in a more traditional academic environment, but in an intensive, challenging format appropriate only to the adult student. Saturday College is a rigorous program with a competitive and high admissions standard. Students are considered for admission according to the following criteria:

a) Applicants with prior college course work must have a cumulative QPA of 2.5 for full admission. Provisional admission is possible for students with a cumulative QPA less than 2.5, based on the quality of the overall application.

b) Applicants with no prior college course work must take a series of placement tests to document the skills necessary for college level work. Results of the placement tests determine whether remediation at the community college level is necessary, prior to entering the program.

Due to the challenging nature of this unique, accelerated degree program, all applicants are required to have a personal interview.

A) Bachelor of Science in Professional Studies Degree

Students in Saturday College earn a Bachelor of Science in Professional Studies (BSPS - Saturday College) Professional Studies is the term that describes the four (4) interdisciplinary concentration areas: Professional Communication, Organizational Leadership, Organizational Behavior or Computer Technology. A minimum of 120 total credits is required to complete this degree. Components of the degree are as follows:

University Core Curriculum — 33 Total Credits
The University Core provides undergraduates with a common intellectual experience as the foundation for their college careers. Core courses focus on issues and values central to the tradition and mission of the University. These courses are not merely preparation for professional study but for lifelong learning.

General Core 27 Credits

Professional Core Curriculum — 24 Total Credits
Professional requirements prepare students to meet the challenge of a wide range of professions through an appreciation of initiative and responsibility, by encouraging logical thinking and analytical reasoning, and by developing an awareness of the important role of quantitative measurements in today's professional world.

A) Professional Core Curriculum...

B) Organizational Leadership

Organizational Leadership — 18 Total Credits

Electives — 27 Total Credits
Electives provide a balance to the required course work. Through the electives, the student achieves the well-rounded quality education which is the hallmark of a Duquesne University degree.

B) Bachelor of Science in Business Administration-Accounting Degree
A Bachelor of Science in Business Administration with an Accounting Concentration is available on Saturdays. Please refer to the School of Business sec-
CONTINUING EDUCATION

C ) Entry-level Master's in Occupational Therapy Degree
The Weekend program in Occupational Therapy is an entry-level master's degree program. The pre-professional program is offered through the Saturday College and mirrors the current full-time curricular. Please call (412) 396-5034 for more information.

II) The Master of Arts in Leadership and Liberal Studies
Duquesne University's Graduate School of Liberal Arts has collaborated with the Division of Continuing Education to create this innovative and exciting program for individuals who wish to be or to become effective leaders. Rooted in the liberal arts, the Master of Arts in Leadership and Liberal Studies (MLLS) emphasizes the importance of integrity and social responsibility in leaders. This approach to leadership education focuses on the dimensions of human behavior and human nature as illuminated by some of the great thinkers of the past and present. The MLLS program also emphasizes the self-assessment and development of skills that are crucial to the leader's role, as well as an examination of the world in which today's leaders will function.

This premier program is designed for busy adults who wish to earn their master's degree without interrupting their careers. Modeled after the award-winning Saturday College, courses are offered on alternate Saturdays in the morning and afternoon. Students who take two courses per semester in the fall, Spring and Summer semesters can complete their master's degree in two years.

Thirty-six (36) credits are required to earn a Master of Arts in Leadership and Liberal Studies. The curriculum has three components:

Liberal Studies Core — 12 Total Credits

Liberal Studies Core — 12 Total Credits

701 Leadership and Liberal Studies: The Humanities Perspective 3 Cr
702 Leadership and Liberal Studies: Social, Political & Economic Issues 3 Cr
703 Leadership and Liberal Studies: The Ethical and Spiritual Dimensions 3 Cr
709 Leadership and Liberal Studies: Colloquium 3 Cr
710 Introduction to the Graduate Study of Leadership (required) 3 Cr
711 Organizational Communication 3 Cr
712 Decision Making and Problem Solving for Leaders 3 Cr

Electives — 9 Total Credits

Select Three of the Following

730 Science, Technology, and Society 3 Cr
731 The Shaping of the Contemporary World 3 Cr
732 Economics and the Modern World 3 Cr
733 Comparative Political Systems 3 Cr
734 Human and Financial Resources 3 Cr
735 Information Technologies for Modern Organizations 3 Cr

III) The Bachelor of Science in Professional Studies Degree

The Bachelor of Science in Professional Studies (BSPS) is designed for adult students who seek flexibility in a bachelor's degree program. While the BSPS in Saturday College consists of a prescribed series of courses, students are also provided the opportunity to customize plans of study to meet personal and professional goals. A strong foundation in both business and the liberal arts allows students to individually design two major areas of study, designated as concentrations. Concentrations are designed in conjunction with an academic advisor and are available in a wide range of business and/or liberal arts subjects.

A minimum of 120 total credits is required to complete degree requirements, which are listed below:

University Core Curriculum — 30 Total Credits

The University Core Curriculum for this version of the BSPS is the same as that for the BSPS in Saturday College, outlined above on page 162.

Professional Core Curriculum — 24 Total Credits

The Professional Core Curriculum for this version of the BSPS parallels that for the BSPS in Saturday College. Since Saturday College courses are limited to Saturday College enrollies, courses from the A J. Palumbo School of Business Administration, which are available in the curriculum and/or liberal arts subjects, are utilized in this version of the BSPS. Those courses are

182/183 Information Systems I & II 6 Cr
214/215 Financial and Managerial Accounting 6 Cr
221/222 Principles of Economics I & II 6 Cr
251W Business Law 3 Cr
371 Principles of Marketing 3 Cr

Electives — 18-36 Total Credits

Select one (1) of the following

150 Computer Programming C++
182 Information Systems I
183 Information Systems II
382 Programming for Information Processing
385 Computer Systems
481 Systems Analysis and Design
482 Database Management
483 MIS Project
484 Networks and Telecommunications

Accounting (Basic)

This certificate is a six-course, 24-credit program of the following courses

214 Financial Accounting
215 Managerial Accounting
216 Accounting Practice and Systems
311 Intermediate Accounting I
312 Intermediate Accounting II
411 Auditing

Accounting (Advanced)

This certificate is a nine-course, 24-credit program which satisfies the course work requirements for the Pennsylvania CPA examination. The candidate must also have a bachelor's degree to sit for the CPA exam.

The required curriculum includes 36 credits from the Basic Certificate program, plus nine (9) credits from the following:

251W Business Law
412 Intro Income Tax Accounting

Select one (1) of the following

353 Taxation
354 Corporate Transactions
355 Law and Business Organizations
356 Legal Aspects of Human Resource Management
454 The Law of International Commercial Transactions

Multimedia Technology

Earning the Certificate in Multimedia Technology requires that you complete the four foundation courses and one additional multimedia tools course for a total of 15 credits. You may also register in these courses in a non-credit capacity. The certificate is available at the undergraduate and graduate level:

Required Courses

301 Multimedia Technology
303 Multimedia and Instructional Design Theory
305 Graphic Design Theory for Multimedia
330 Digital Imaging for Multimedia

Choose one (1) of the following

507 Animation Principles and Applications
579 Digital Video
535 Cross Platform Authoring

INFORMATION TECHNOLOGY

This certificate is an eight-course, 24-credit program of the following courses:

150 Computer Programming C++
182 Information Systems I
183 Information Systems II
382 Programming for Information Processing
385 Computer Systems
481 Systems Analysis and Design
482 Database Management
483 MIS Project
484 Networks and Telecommunications

CONTINUING EDUCATION
MARKETING
This certificate consists of seven undergraduate courses that comprise a focused area of professional knowledge. All courses are taught by faculty through the AACSB accredited School of Business Administration. Required Courses
371 Introduction to Marketing 3 Cr
373 Sales Administration 3 Cr
375 Business Logistics 3 Cr
475 Consumer Behavior 3 Cr
476 Product Management 3 Cr
477 Strategic Marketing Planning 3 Cr
478 Indusrtial Marketing 3 Cr
NON-CREDIT PROGRAMS
The Paralegal Institute
A paralegal, or legal assistant, is a trained professional who works under the direction of an attorney. With the changing needs of the legal profession, it is one of the nation's fastest growing professions in America today. Paralegals are employed in private law firms, banks, corporations, public service organizations, and in state and federal government. A paralegal's job responsibilities include client and witness interviews, legal research, drafting correspondence, pleadings and other legal documents, conducting real estate closings, summarizing depositions, and rendering direct assistance to lawyers, clients, and the courts.
In response to the demand for highly trained, well-qualified paralegals, the Division of Continuing Education at Duquesne University prepares professionals for career opportunities. The Institute is the only program in the Pittsburgh area with American Bar Association approval.
Admission to Duquesne University's Paralegal Institute is restricted to qualified candidates. Students may be considered for admission to the program if they possess a bachelor's degree.
This program has been approved by the American Bar Association.
**In certain cases, the Admissions Committee may waive this requirement and consider other related factors such as previous experience.**
Call (412) 396-1643 for complete information, including a catalogue and an application.

ENTRY REQUIREMENTS
A college degree is normally required for admission to the Benefits Institute. In certain cases, the Admissions Committee may waive this requirement and consider other related factors such as previous experience.
Call (412) 396-1643 for complete information, including a catalogue and an application.

ACADEMIC STANDARDS
Students must maintain a 2.5 grade point average for successful completion of the program and certificate. Students with academic deficiencies may be required to complete additional coursework. The Director of the Paralegal Institute and the Academic Review Committee will evaluate deficiencies on a case-by-case basis and recommend the appropriate course of action.

The Benefits Institute
The Benefits Institute provides continuing professional education for those who work in the field of employee benefits.
Once principally the domain of tax lawyers, the employee benefit field exploded with the passage of the Employee Retirement Income Security Act of 1974 (ERISA). This field has become one of the most challenging areas of professional practice, encompassing professionals from the areas of law, human resources, management, consulting, actuarial science, insurance and investment management, banking, accounting, and many other disciplines.
This is an intensive training program in all phases of employee benefit plans, from qualified pension and profit sharing plans to group insurance plans, IRAs, VEBAs and fringe benefits.
The curriculum consists of five (5) courses and leads to a Certificate in Employee Benefit Plans. Entering the holder to the designation "CBP" after his or her name.
For those entering the field, the Program is designed to provide a solid foundation of practical skills which will enable the certificate holder to discharge major responsibility in the design, installation and operation of employee benefit plans. For those already in the field, the Program is designed to provide a combination refresher/update on all of the latest developments in this fast-moving area, as well as broaden the professional's base within the field.

Faculty is professional local University faculty.

EXAM PREPARATION COURSES
Three review courses are offered for individuals interested in preparing to sit for examinations required for graduate school admission.
Each preparation course will enable you to take the selected exam with confidence and skill. Learn how to approach and analyze complex questions and discover the most effective ways to use your test time — identify and strengthen your weak areas.
Instructors are professional local University faculty.

LSAT
Performance on the LSAT can count for as much as 50% of your chances to be admitted to the school of your choice.


<table>
<thead>
<tr>
<th>DATE</th>
<th>EXAM DATE</th>
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<tr>
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Ph.D., University of California, Berkeley

Roger Brooke
Professor of Psychology
B.A., University of Cape Town
B.A., Ph.D., Rhodes University
M.A., University of Witwatersrand
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<tr>
<td>Daniel Burston</td>
<td>Assistant Professor of Psychology</td>
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<td>B A, M A, Ph D, Ph D</td>
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<td>Donald H. Kellander</td>
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<tr>
<td>Rev. David F. Kelly</td>
<td>Professor of Theology and Director, Health Care Ethics Program</td>
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Michael Sipora  
Associate Professor of Psychology  
B.A., M.A., San Jose State University  
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Natalie Pavlovich
Professor of Nursing
BSN, MSN, University of Arizona

M.S., M.A., Ph.D., University of Michigan

Major Routes to the Duquesne Campus
Duquesne University is easily accessible by plane, bus, rail, or car. The campus is a 10-minute walk from downtown where both the Gateway and Duquesne University are located. From within the city, the campus is located by bus, train, or car. For those arriving by car, major interstates and state routes lead to Duquesne from all points north, south, east and west. Interstate 79 runs north and south from the east, the Pennsylvania Turnpike and state routes 22 and 30. Both I-79 and I-376 lead to downtown Pittsburgh.