DIRECTORY

ADDRESS—University
600 Forbes Avenue, Pittsburgh, Pa 15282
Telephone Call specific number (see following)
for offices, call 396-6000

ADMINISTRATION—Director of Domestic and
International Admissions,
Administration Building, First Floor
Telephone (412) 396-6220/6221/6222
(800) 456-0590 (Outside of 412 Area Code)

ADVISORS
College of Liberal Arts
College Hall, Room 212
Telephone (412) 396-6389/5905
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, Carnegie Hall, Room 213
Telephone (412) 396-5713
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 Scienes
Mellon Hall, Room 103
Telephone (412) 396-6349
School of Nursing College Hall, Room 657A
Telephone (412) 396-6346/6347
School of Pharmacy
Mellon Hall of Science, Room 4108
Telephone (412) 396-6338
ROTC—Rockwell Hall, Room 1001
Telephone (412) 396-664/6665
BOOKSTORE—Duquesne Union, Second Floor
Telephone (412) 434-6626

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

CAREER SERVICES CENTER
Rockwell Hall
Telephone (412) 396-6653

CASHIER—Payment of Tuition and Fees,
Administration Building, Ground Floor
Telephone (412) 396-6085/6587/6588

COMMUTER AFFAIRS—
Duquesne Union, Third Floor
Telephone (412) 396-6558

COMPREHENSIVE STUDENT ADVISMENT
Administration Building, Ground Floor
Telephone (412) 396-6304

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

COUNSELING/TESTING CENTER—
Administration Building, Third Floor
Telephone (412) 396-5204/5208

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

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

OFFICE OF GREEK LIFE—
Duquesne Union, Third Floor
Telephone (412) 396-6653

GOVERNMENTAL AFFAIRS—
Administration Building, Third Floor
Telephone (412) 396-5907

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

IDENTIFICATION CARDS—
Public Safety Building
Telephone (412) 396-6191

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

INTERNATIONAL EDUCATION ADVISOR—
Assumption Hall, Sixth Floor
Telephone (412) 396-6113

LEARNING/SKILLS PROGRAM—
Assumption Hall
Telephone (412) 396-6661/6636

PSYCHOLOGY/COUNSELING CENTER—
Rockwell Hall, 10th Floor
Telephone (412) 396-6562

PUBLIC AFFAIRS—
Administration Building, Fourth Floor
Telephone (412) 396-6090

PUBLIC SAFETY—Public Safety Building
Telephone (412) 396-6001/6002/6003

REGISTRAR—For Transcripts and Records,
Administration Building, Ground Floor
Telephone (412) 396-6223 (Transcripts)
396-6212 (General Office)

RESIDENCE LIFE—Assumption Hall, First Floor
Telephone (412) 396-6653/5028

STUDENT HEALTH INSURANCE—
Administration Building, Room 212
Telephone (412) 396-6657

TESTING BUREAU—
Administration Building, Third Floor
Telephone (412) 396-6204/6208

DUQUESNE UNIVERSITY
PITTSBURGH, PENNSYLVANIA

Undergraduate Catalog
1994-1995
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, as an educational institution. 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 of the University, including, but not limited to, admission, educational policies, scholarship and loan programs, and athletic or other University-sponsored programs. This is a commitment by the University in accordance with the University’s non-discrimination and non-harassment policies. The person responsible for coordinating its efforts under this policy is Dr. Judith Griggs, Affirmative Action Officer, Room S-1, Assumption Hall, 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 1994 — Summer 1995

FALL SEMESTER — 1994
Classes Begin August 29 (Monday)
Labor Day Holiday September 5 (Monday)
All Saints Day November 1 (Tuesday)
Holy Day Thanksgiving Holiday November 21-26 (Monday-Saturday)
Immaculate Conception December 8 (Thursday)
Holy Day Final Exams December 15-21 (Thursday-Wednesday)
Commencement December 22 (Thursday)

SPRING SEMESTER — 1995
Classes Begin January 9 (Monday)
Martin Luther King Holiday January 16 (Monday)
Spring Break March 6-11 (Monday-Saturday)
Easter Holiday April 13-17 (Thursday-Monday)
(Offices closed Thursday, April 13 Friday, April 14)
Monday Class April 18 (Tuesday)
Schedule Followed
Friday Class April 26 (Wednesday)
Schedule Followed
Final Exams April 28 - May 4 (Friday-Thursday)
Commencement May 6 (Saturday)

SUMMER SEMESTER — 1995
Summer Term Begins May 8 (Monday)
Ascension Holy Day May 25 (Thursday)
Memorial Day Holiday May 29 (Monday)
Independence Day July 4 (Tuesday)
Holiday End of 12 week term August 4 (Friday)
Assumption Holy Day August 15 (Tuesday)

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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 1994.

Please refer to the current schedule of classes booklet for detailed academic calendar dates and deadlines.
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 40-acre campus "Bluff" site. Duquesne was cited by USA Today as having the safest campus in Pennsylvania and one of the safest 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, two parking garages, a multi-purposed recreation center, a Victorian campus throughway, a theatre/classroom complex, and the new Arthur J Rooney Football/Soccer Field in the center of campus.

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 8,600 students in nine schools of study including the College of Liberal Arts (1978), and the Schools of Law (1911), Business Administration (1913), Pharmacy (1925), Music (1926), Education (1929), Nursing (1937), the School of Health Sciences (1990), and the School of Natural and Environmental Sciences (1994). 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 motive of Duquesne University is Spiritus 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 also is committed to providing an educational environment which recognizes cultural and national pluralism.

Duquesne welcomes qualified students from 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 affirm the opportunity to acquire educational experiences not otherwise available to them. Interaction 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 centers of the city, while still offering students the privacy and peace of its own self-enclosed 40-acre site.

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


PHYSICAL FACILITIES

The Administration Building, "Old Main," was the first building constructed on the Duquesne campus, dedicated in 1885. Recently renovated, it houses the Executive Offices of the University, Office of Admissions, Registrar's Office, Campus Ministry, Business Offices, Counseling and Testing Center, Financial Aid Office, and the offices of University Events, the Development, and Public Affairs. Adjoining the building is the University Chapel, which offers daily Mass.

A J Palumbo Center dedicated in 1988, is the home of the Duquesne Dukes basketball team. In addition to the Duke's home court, the center serves as a recreational facility for students, faculty and staff. The 6,200-seat arena also houses intramural activities, racquetball and squash courts, a weight room, exercise room, and locker facilities. The arena is also a convocation facility that allows the entire University to come together for major events.

Assumption Hall, the oldest residence hall on campus, was dedicated in 1956. A four-story structure with a 280-student capacity, the facility has its own recreation area, and offers both single and double occupancy rooms. The Learning Skills Center is also housed here.

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

College Hall, a six-story classroom and office building, was dedicated in 1970, is the seat of the College of Liberal Arts and the Graduate School of Liberal Arts, housing the majority of their individual departments and faculties. The School of Nursing is located on the sixth floor. Special instructional facilities include a Writing/Computer Laboratory, an interactive Language Laboratory, nursing laboratories and two lecture halls.

The success of the various professional and major college sports teams has won for Pittsburgh the title of "City of Champions." The 1971 and 1994 NCAA Champion Pirates and four-time Super Bowl Champions play at Three Rivers Stadium, home of the Pittsburgh Penguins (Stanley Cup Champions) perform in the nearby Civic Arena, one of the largest indoor sports arenas in the United States and one of the few retractable domes in the world. The Duquesne Dukes play their season in the new on-campus facility, the Palumbo Center Facilities for such participatory sports as tennis, golf, running, hiking, skating, and many others are available throughout the Pittsburgh area.

Des Places Communications Center, dedicated in 1982, houses the Department of Communication and the production and broadcasting studios of WDUQ-FM, The Law of National Public Radio. Dedicated in honor of the founder of the Holy Ghost Congregation, the center also features a journalism laboratory, a fully equipped color television studio, a simulation laboratory, an instructional photo laboratory, seminar rooms, and a graphics art classroom.

The Duquesne Towers, a 17-story, air-conditioned double-tower residence for 1,200 men and women featuring separate housing was, was dedicated in 1970. The facility features a fice-size indoor swimming pool with a sun deck, offices of the Residence Life Division, 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 with a 2,500 student capacity.

The Duquesne Union, a modern architectural facility with an innovative concrete and glass design, is the center of campus activities and student life. Dedicated in 1967, it houses the offices of Student Life, International Education and various student organizations. The Union includes meeting rooms, information center, bookstore, cafeteria, art gallery, and a recreation center which features four bowling lanes, video arcade as well as other games.

The G & G Building houses the Physical Plant Office.

Health Sciences Building, dedicated in 1991, resulted from the renovation of the old Gymnasium. The three-story building is the home of the John G. Rangos, Sr. School of Health Sciences with its departments of athletic training, health information sciences, occupational therapy, physical therapy, and physician assistant. The building includes faculty and staff offices, teaching and research laboratories, student study rooms, and two classrooms.

The Edward J. Hanley Hall, dedicated in 1982, resulted from the expansion and expansion of the Old University Library building. The facility houses School of Law faculty and administrative offices, research and study rooms, two large amphitheatre lecture halls, interview rooms, seminar and class room areas, and a moot courtroom. The greatly expanded law library is the most accessible one of its kind in the city, with its central location and convenient hours. The law library is open to members of the local bench and bar, as well as law students.

Laval House houses the Spratlin Vocation Office.

The Library Resource Center, dedicated in 1978, is a modern, attractive five-story structure. housed in over 100,000 square feet of space is a collection of over 571,683 volumes, more than 3,342 journal titles, and an extensive microprint and audiosvisual collection.

The facility also contains a number of special collections, including the Rabbi Herman Halpern Collection on Medieval Christian and Jewish intellectual and religious thought, the Silverman Center Collection of world literature in phenomenology, the Justice Michael A. Musmanno Collection, and the John Cardinal Wright Collection of the Cardinal's personal papers, sermons and correspondence.

With seating capacity for approximately 1,000 patrons, including graduate students, the Library's card catalog is one of the largest in the nation. The library also and from remote locations. The Library's card catalog has been automated and is available for remote use as well. The new online library information system also permits access to numerous other databases located in other areas of the nation.

McCloskey Field, dedicated in the mid-1970s, and renovated in 1988, is the center for outdoor intramural activity. The field has been named one of the top 100 athletic turf and is surrounded by a practice track used by the University track team. Other athletic facilities include three self-enclosed tennis courts and two outdoor basketball courts, one of which is converted for street hockey in the winter months.

The Public Safety Building is headquarters for the University's Public Safety Office and the 1D Center.

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 1969 Edward H·Abbe Award as the most innovative educational building of the year. The three-story, 124,000 square foot building houses four departments of instruction: the Biological Sciences Department, the Chemistry Department, the Physics Department, and the Science Education Center. The instruction facilities include two large amphitheater-style lecture halls with seating capacities of 175 each, well-equipped laboratories, and a science computer facility.
**ACCREDITATION AND AFFILIATION**

**University Membership**
- American Association of Collegiate Registrars and Admissions Officers
- American Council on Education
- Catholic College Coordinating Council
- College Entrance Examination Board
- Council for Advancement and Support of Education
- Council of Independent Colleges and Universities
- Middle States Association of Colleges and Teachers
- National Association of College Registrars and Admissions Officers
- National Association of Student Personnel Administrators
- Pennsylvania Association of Catholic Colleges and Universities
- Pennsylvania Association of Student Financial Aid Administrators
- Pittsburg Council of Higher Education

**College of Liberal Arts Membership**
- American Association for Higher Education
- American Association for State and Local History
- Association of Academic Deans
- American Historical Association
- American Society of Journalism School Administrators
- Association of American Colleges
- Association of Departments of English
- The Historical Society of Western Pennsylvania
- National Collegiate Honors Council
- Organization of American Historians

**A J Palumbo School of Business Administration Membership**
- American Assembly of Collegiate Schools of Business
- Accreditation Council
- Membership
- Middle Atlantic Association of Colleges of Business Administration

**School of Education Accreditation**
- Middle States Association of Colleges and Schools
- Pennsylvania Department of Education

**School of Music Accreditation**
- American Association for Music Therapy
- Percussive Arts Society
- Music Industry Conference
- Pennsylvania Alliance for Arts Education
- Pennsylvania College of Business Administration
- Association for Supervisory & Curriculum Development
- Pennsylvania Federation of Music Clubs
- Association of Pennsylvania Orchestras
- College Music Society
- Center for Black Music
- American Music Center
- National Opera Association
- Pennsylvania Music Educators Association
- Pennsylvania Arts Coalition

**School of Natural and Environmental Sciences Accreditation**
- American Chemical Society
- Membership
- Alliance for Environmental Education
- North American Association for Environmental Education

**School of Nursing Accreditation**
- National League for Nursing
- Pennsylvania State Board of Nursing
- Membership
- American Association of Colleges of Nursing
- National League for Nursing (Council of Baccalaureate and Higher Degree Programs)
- Pennsylvania Higher Education Nursing Schools, Inc

**School of Pharmacy Accreditation**
- American Council on Pharmaceutical Education
- Pennsylvania State Board of Pharmacy
- Membership
- American Association of Colleges of Pharmacy

**Division of Continuing Education Membership**
- American Association for Paralegal Education
- American Council on Higher Education
- Continuing Education Association of Pennsylvania
- North American Association of Summer Sessions
- Approval
- American Bar Association
- Paralegal Institute

**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:

- Bachelor of Science in Computer Science Applications
- Bachelor of Arts in Corporate Communication
- Bachelor of Arts in Mathematics
- Bachelor of Arts in Psychology

**College of Liberal Arts**
- Bachelor of Science in Business Administration
- Concentrations: Accounting, Management, Management Information Systems, Marketing

**School of Business Administration**
- Bachelor of Science in Business Administration
- Concentrations: Accounting, Management, Management Information Systems, Marketing

**School of Nursing**
- Bachelor of Science in Nursing
- (for current RN's only)
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 396-5600.

SUMMER SESSIONS
Many 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 Office of Summer Programs, 216 Rockwell Hall, at 396-6232 or 1-800-283-3853.

CENTER FOR COMMUNICATIONS AND INFORMATION TECHNOLOGY
The Center for Communications and Information Technology provides facilities for and guidance in the use of computing and communications equipment for the University's instructional, research, and administrative programs. The Center reports administratively to the Provost. The present facilities include the following Digital Equipment Corporation minis and mainframe computers: a VAX6410, a VAX6620, a VAX8550, a DEC5810, a DEC5000, and a DEC6000. Distributed across campus via fiber optic networks are a variety of workstations including products from DEC, NeXT, and SUN. These systems provide state-of-the-art academic and administrative applications including a variety of relational database tools, language compilers, statistical packages, financial modeling packages and graphics packages. Twenty-two computer labs distributed across campus provide access to nearly 350 IBM and Apple microcomputers and DEC and NeXT workstations and over 50 terminals. In addition to this equipment, over 350 terminals and personal computers are used in the Administration for registration, admissions, financial aid and financial record keeping.

Duquesne University has a campus wide fiber optic network that connects over 90% of the academic buildings and all residence hall rooms to the national and international instructional and research computing networks including the National Supercomputing Centers. Duquesne University is one of less than 5% of colleges and universities in the nation that provides in the room connections for students. Connections for all faculty and staff offices as well as connections from public laboratories are in place.

The Center provides a professional staff to serve Duquesne faculty, administration, students, and staff. Included in these services are seminars on using the variety of computing environments and resources that are available both on and off campus.

The sessions and services provided by the Computer Laboratory have been designed to be used in conjunction with the Office of Domestic and International Admissions.

Studying summer courses at Duquesne University will allow students to meet personal and professional goals.

Division and Financial Aid

Part II: Admission and Financial Aid

Admission

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

- Telephone: (412) 396-6220, 396-6221, 396-6222
- (Outside of 412 Area Code) 412-396-5644
- Fax: (412) 396-5644
- Office hours: Monday through Friday from 8:30 A.M. to 4:30 P.M.

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 regarding religious preference, sex, racial characteristics, and ethnic origin is not taken into consideration by the Committee on Admissions.

ADMISSION REQUIREMENTS

1. A candidate should have been graduated from an approved secondary school in the upper three-fifths 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.

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 sciences, 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 above. (Note: Candidates planning to enroll in pharmacy or pre-Health programs, or as science or mathematics majors should have completed a minimum of seven units in mathematics and 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).

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 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 admissions decision early in his/her senior year.

APPLICATION—NEW FIRST-YEAR STUDENTS

Applications should be addressed to the Director of Domestic and International Admissions, Duquesne University, Pittsburgh, Pennsylvania 15282. An application may be submitted at any time during the candidate's senior year up to July 1, for the 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 spring of junior year and/or fall of senior year. It is the personal responsibility of each candidate to have test scores forwarded to the University.

5. An interview is highly recommended for prospective students. Auditions are required for School of Music applicants.

6. Students interested in being considered for University Scholarships must submit their application by January 15 of their senior year.

7. Early Decision Deadline (for students who have Duquesne as their first College choice) is December 1. 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. Residents are asked to submit a $500 non-refundable deposit.

8. Notification of decisions for regular admission begin once Early Decision applicants have been notified. If accepted, students are asked to submit a non-refundable tuition deposit of $200 for commuters or $500 for resident students by May 1 of their senior year.

9. Students applying to programs in Health Sciences please refer to the application and school handbook for application deadlines.
It is the responsibility of the applicant to arrange to have all supporting credentials on file with the Office of Admissions and Financial Aid Office prior to the deadline dates.

EARLY ADMISSION/HONORS ADMISSION

Although the University believes that most students profit from four years in the secondary school, the Early Admission/Honors Admission plan is open to outstanding students. This is a plan whereby unusually able and mature candidates who have completed less than four years of a secondary school program may apply for consideration to begin college after their junior year. The high school diploma is awarded following successful completion of their freshman year in college. An interview is required. Further details may be obtained by telephoning or writing to the Admissions Office.

APPLICATION—OTHER CATEGORIES

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

ADMISSION OF UNDERGRADUATE INTERNATIONAL STUDENTS

Application Criteria

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

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

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

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

Application Procedures

Interested applicants should submit the following items:

a) Duquesne University Undergraduate Application Form,
b) Completed Duquesne University Affidavit of Support Form along with required accompanying financial resource certifications,

(While limited scholarships are available to undergraduate international students)

c) Original or certified copies of all academic records of secondary and any post-secondary study. Credentials should be submitted in the native language and with certified English translation,
d) One letter of recommendation, and

e) Application fee in the amount specified on the application form.

Duquesne University is authorized under federal law to enroll non-immigrant alien students. However, no immigration documents can be issued until all application materials, including financial resource certification, have been received. In order to complete campus arrival orientation, language proficiency testing, and registration, accepted international students should plan to arrive approximately one week before semester 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. If additional assessment of English language proficiency development is indicated, the student is referred for appropriate ESL coursework on either an intensive or semi-intensive basis.

Up to six units of academic credit, applicable towards elective credit requirements, may be awarded for ESL coursework successfully completed by eligible international students accepted into academic degree programs at Duquesne University.

NOTE: Undergraduate applicants who have completed one year of university postsecondary study in the United States or who submit acceptable scores (current to within one year) on the Test of English as a Foreign Language (TOEFL) may qualify for conditional waiver directly into full-time academic coursework. Therefore, while TOEFL scores are not required in order to receive an undergraduate admissions decision, submission of TOEFL scores is strongly recommended. The Duquesne University TOEFL Institution Code is 2196.

Applicants To English as a Second Language Program

The same application procedures detailed above may also be used by international students interested in applying only for English language study in the Duquesne University ESL Program (ESL). 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 full description of the English as a Second Language Program is found on page 42.

Additional Information on International Student Applications

Please direct all inquiries and requests for additional information and application materials to:

Associate Director
Office of International Education
Duquesne University
Pittsburgh, Pennsylvania 15282-1606
U.S.A
Phone 412-396-6113
Fax 412-396-5178

POSTGRADUATES

Post-graduate 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 Office 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 readmission 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 of admission or readmission is being made, once the application has been submitted to the Admissions Office.

TRANSFERS

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

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 Semester. Students who were dismissed by their school at the close of the preceding Spring Semester for academic reasons may register for summer classes by permission of the Committee on Student Standing of their school. All students must have their course selections approved by their academic advisor.

Graduates and other former students, including any who withdrew from the University, must re-admit 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 admittance determined upon receipt of grades and/or transcripts (current to within one year) and a letter of recommendation from the Dean of his school. Additional information is available from the Office of Admissions and Financial Aid.

ADMISSION AND FINANCIAL AID

Applicants for admission to the University must submit all required supporting credentials to the Office of Admissions and Financial Aid prior to the deadline dates.

The application fee is $50 and must accompany the application form.

ADMISSION AWARD: The University will provide all qualified students with an award based on academic achievement and financial need.

FINANCIAL AID: In addition to University funds, students are eligible for outside scholarships and loans.

NOTE: A student may apply for both admission and financial aid at the same time.
The Early Admission Honors Program
Outstanding students who desire a true academic challenge may begin their university studies 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 Honor Program must be in the top ten percent of their class with a grade point average of 3.5 or above. A minimum 1100 SAT score or 26 ACT score is necessary for admission. An essay and one interview is also required. Written approval from the applicant's high school principal must be provided. Applicants under the age of 18 requesting residence on campus must have parental permission. Students entering the Early Admission Honors Program will be given priority consideration for the Integrated Honors Program.

Advanced Credit Honors Initiative
High School Juniors and Seniors who wish to take university courses may do so at Duquesne if they fill 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 their application.

Students enrolled in the program receive university credit for courses taken. Courses will be offered at reduced tuition rate.

Students who maintain a 3.0 grade point average while at Duquesne will be given guaranteed admission into full time 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.

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.

I B Higher Level scores of 5, 6 or 7 will be accepted to a maximum of 30 semester hours. I B 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. Duquesne University grants credit, as well as placement, for achievement that merits such consideration. Subjects included in the program are English composition, history (American and European), history of art, modern foreign languages (French, German, Spanish), Latin, mathematics AB, mathematics BC, physics B and C, chemistry, biology and computer science.

Applicants who hope to receive advanced placement credits must request that scores be sent to the university. Credit will be given 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 Counseling and Testing Center or at any CLEP Center. Additional information regarding test dates, applications and sample test questions is available from the Counseling and Testing Center, 308 Administration Building, phone (412) 396-6204.

Students should double check with the College Office or the Counseling and Testing Center to ensure that they are eligible to receive credit for a particular exam(s) they plan to take. Students must wait six months to retake a test. The policy is subject to change.

Integrated Honors Program
For the highly-qualified, motivated and committed student who is searching for challenge and enrichment in a college education, Duquesne University offers the Integrated Honors Program (IHP).

Established in 1984 with the help of a grant from the National Endowment for the Humanities, the IHP provides academically gifted students with a depth and breadth of experience appropriate to their exceptional abilities.

About the Integrated Honors Program
All students entering Duquesne University must take a number of basic courses in the liberal arts and sciences. These courses constitute the University Core Curriculum. The IHP is the honors track of the University Core and is intended for students who want the challenge of an accelerated learning experience. The IHP is open to qualified students from the College as well as from the professional schools.

IHP Features
- Faculty who are dedicated to good teaching, who are well-known scholars in their fields, and who possess a breadth of interest beyond their individual specialties. The belief learning is a life-long adventure.
- A set of courses that focus on our essential human heritage and on the major ideas and issues forming the background and direction of modern life.
- Small classes to allow for close interaction between students and teachers and to encourage individual initiative as well as collaborative learning.
- Special housing in a Duquesne University Living-Learning Center to provide an environment conducive to intellectual dialogue and intensive study.

IHP Curriculum
The Integrated Honors Program consists of six foundation courses (18 credits) in the humanities and social sciences and six additional courses (18-20 credits) chosen from prescribed areas in the liberal arts and sciences.

The IHP substitutes for the University Core Curriculum. IHP students in the College of Liberal Arts and School of Natural and Environmental Sciences who complete the 36-credit IHP curriculum are exempt from other arts and sciences area requirements except for the foreign language proficiency.

PRINCIPLES OF AID
FINANCIAL NEED
The major criterion of many aid programs is the student's need for funds. In general, parents and the student are expected to pay the expenses of education. However, to the extent that students cannot reasonably be expected to meet this expense, there is a demonstrated financial need or eligibility for aid. Methods of determining need may vary slightly among aid sources, but all have the common objective of identifying the difference between educational costs and the individual family's ability to contribute to these costs. The costs considered include tuition, fees, room and board or an allowance for maintenance at home, travel or commuting expenses. The belief learning is a life-long adventure.

AWARD CONDITIONS
All financial aid awards are subject to terms and conditions set forth in applications and award notifications. It is important that the student carefully read all information provided by aid sources and promptly notify them of changes pertinent to their applications or awards.

STUDENT SELF-HELP
As the primary beneficiary of higher education, the student is expected to accept at least partial financial responsibility for the cost. Two types of self-help programs of aid are available: loans and work. Student loans provide rates, terms, and conditions superior to those offered by commercial lenders, and offer the student the opportunity to help himself/herself by accepting future repayment responsibility. Student employment programs provide the opportunity to help earn a portion of the educational costs.

GIFT ASSISTANCE
Non-repayable scholarships or grants are available in accordance with one or a combination of the following criteria: 1) Financial Need, 2) Superior Academic Potential or Achievement, and 3) Special Ability, which reflects proficiency in a specialized field or activity, such as music, athletics, etc.

MEETING STUDENT NEED
The Financial Aid Office attempts to provide aid equal to need for all student applicants.
this requires an “aid package” consisting of funds from multiple aid sources and programs. Those programs are under the direct control of the Aid Office and are not usually sufficient to meet full need or provide an aid package of the most beneficial composition. It is expected that students who apply for assistance to the University will also apply to federal, state, and other available sources.

PROGRAM FUNDING
All programs of financial aid are subject to limitations of available funds. Therefore, in addition to the eligibility requirements of a particular program, assistance depends upon the level of funding in the program. First consideration is always given to applicants who apply within deadlines of available funds and who provide complete and accurate information. All programs are subject to change, elimination, or replacement.

CURRENT INFORMATION
Because programs of aid and conditions of eligibility do change from time to time, the student should attempt to keep abreast of new developments. The high school guidance office, the University Financial Aid Office, and the office of education in the student’s home state are excellent sources of information. Students should avoid the error of disqualifying themselves for specific forms of aid because of hearsay or dated information. A decision not to apply to particular aid source should be made only upon the advice of an aid officer.

UNIVERSITY AID APPLICATION PROCEDURE

1. Applicants must be currently enrolled in the University or be in the process of applying for admission. Incoming students should not wait for official acceptance to the University before applying for financial assistance.

2. Obtain the formal application for financial assistance (Freshmen and transfer students may obtain the form through Admissions Office publications or through the Financial Aid Office. Currently enrolled students may obtain the form only through the Financial Aid Office.) Complete this application and submit it to the Financial Aid Office. Duquesne University, Pittsburgh, Pennsylvania 15282 PRIOR to these deadline dates. For the Fall Semester or the academic year, no later than May 1, for the Spring Semester, no later than December 1. Late applications will be considered on the basis of available funds.

3. Obtain from the high school guidance office or the Financial Aid Office a Financial Need Document. Complete and submit it according to instructions. Statements take four to eight weeks to process and therefore should be submitted as early as possible.

4. A reply to this application, if filed by deadline dates, should be anticipated as follows: Freshmen and new transfers between mid-February and late March (providing student has been accepted for admission). Upon notification of admission, replies should be anticipated in June or July.

5. Applications must be filed annually.

PROGRAMS
The following programs for which the foregoing application procedures apply, are administered exclusively by the Financial Aid Office. All awards are based on available funds.

Chancellor’s Awards
The University awards scholarships annually to Exceptional high school seniors. These awards are not based on a demonstrated need and are renewable yearly provided the student maintains a minimum cumulative Quality Point Average of 3.00.

Strub Merit Award
The University awards scholarships annually to outstanding high school seniors. These awards are not need based and may be renewed each year provided the student maintains a minimum cumulative Quality Point Average of 3.00.

Spartan Grant-In-Aid Program
Available to renewal applicants only. Renewable based on continued financial need and a minimum cumulative Quality Point Average of 2.75.

Perkins Loan Fund
Perkins Loans are available to both full-time and half-time students who demonstrate financial need and are making acceptable progress toward a degree. Recipients are selected in accordance with guidelines published by the Federal government. Loan repayment does not begin until one year after the student ceases to pursue a full-time course of study in nursing and is scheduled over a 10-year period at an interest rate of five percent a year.

Health Professions Loans
Health Profession Student Loans are available to full-time dependent undergraduate students in the B.S. in Pharmacy program who demonstrate need and are making acceptable progress toward a degree. Recipients are selected in accordance with guidelines published by the Federal government. Loan repayment does not begin until one year after the student ceases to pursue a full-time course of study in pharmacy and is scheduled over a 10-year period at an interest rate of five percent a year.

Alcoa Loan Fund
Loan fund established through the Alcoa Foundation. Awarded to full-time students who demonstrate financial need. Repayment begins six months after termination of enrollment, with a five year repayment period. Interest rate is nine percent.

Gulf Loan Fund
Loan fund established through the Gulf Oil Corporation. Awarded to full-time students who demonstrate financial need. Repayment begins six months after termination of enrollment, with a five year repayment period. Interest rate is four percent. Funds are normally awarded to students in the first year who have exhausted other loan eligibility.

Kensigons Loan Fund
Loan fund established through the Johanna W. Kensigons Estate to be awarded to residents of Allegheny County who demonstrate financial need. Repayment begins six months after termination of enrollment, with a five year repayment period. Interest rate is nine percent.

High School Guidance Office
The University financial aid programs include grants, scholarships, and loans. All programs are need-based and may be renewed each year provided the student maintains a minimum cumulative Quality Point Average of 2.75. The following programs are listed alphabetically by title:

4. Bursaries
5. Scholarships
6. Loans

Bursaries
These are funds provided by the University to students who demonstrate financial need and are making acceptable progress toward a degree. Recipients are selected in accordance with guidelines published by the Federal government. Loan repayment does not begin until one year after the student ceases to pursue a full-time course of study in nursing and is scheduled over a 10-year period at an interest rate of five percent a year.

Scholarships
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Health Profession Student Loans are available to full-time dependent undergraduate students in the B.S. in Pharmacy program who demonstrate need and are making acceptable progress toward a degree. Recipients are selected in accordance with guidelines published by the Federal government. Loan repayment does not begin until one year after the student ceases to pursue a full-time course of study in pharmacy and is scheduled over a 10-year period at an interest rate of five percent a year.

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Loans
These are funds provided by the University to students who demonstrate financial need and are making acceptable progress toward a degree. Recipients are selected in accordance with guidelines published by the Federal government. Loan repayment does not begin until one year after the student ceases to pursue a full-time course of study in nursing and is scheduled over a 10-year period at an interest rate of five percent a year.
Students working under either program may not retain outside jobs during academic periods. Clearance is determined based on financial guidelines. Placement in available positions is handled by the Office of Human Resource Management.

**OTHER SOURCES OF AID**

**PELL GRANT PROGRAM**

Direct grant assistance through the federal government is available to undergraduates based on an eligibility determination reviewed and adjusted each year by Congress. All undergraduates are advised to apply for this form of aid. Students receiving aid through the University are required to apply for a Pell Grant. Necessary forms may be obtained through the Financial Aid Office or the High School Guidance Office.

**STATE GRANT ASSISTANCE**

General: Depending upon the student’s legal state of residence, direct grant assistance from the state may be available for study at Duquesne University. Pennsylvania residents should contact their high school guidance counselor or state Department of Education to determine if grants are available, and to determine application procedures.

Pennsylvania residents should obtain the application from high school guidance offices, the University Financial Aid Office, or the Pennsylvania Higher Education Assistance Agency (PHEAA). At current levels, grants ranging from $200 to $2,625 a year are available to full-time undergraduate students, based on considerations of financial need. Filing deadline is normally May 1.

**LOANS**

Federal Stafford Loans: This program provides long-term, low-interest student loans available through the cooperative efforts of federal and state government and participating private lending institutions. These loans are available to students enrolled in an institution of higher education on at least a half-time basis. To apply, a Common Loan application must be obtained through a bank or lending institution.

Health Education Assistance (HEAL). Available only to fourth and fifth-year Pharmacy students.

Health Education Assistance (HEAL). Available only to fourth and fifth-year Pharmacy students.

In addition to mass programs of aid previously described, financial assistance may be obtained from a wide variety of sources. Since application procedures and requirements differ greatly, it is not possible to provide specific information. In general, the student seeking potential sources of aid may inquire of: 1) high school guidance counselors; 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; and 5) specific departments within the University.

**AID FROM DEPARTMENTS AND SCHOOLS**

**COLLEGE OF LIBERAL ARTS**

The Carroll Centre Writing Award. The award, funded by the Maytag family, honors the memory of Bishops Coalition F and Howard J. Carroll and Monsignor Walter T. Carroll. The scholarship consists of the total annual income from a restricted growth endowment fund and is awarded to an undergraduate student enrolled at Duquesne University, who will be selected on the basis of merit in the field of creative writing. Interested students should contact the chairperson of the English Department prior to January 15.

Andrew Kozora Memorial Scholarship. This award was established to honor, in perpetuity, the memory of Andrew Kozora. Full-time third or fourth-year students enrolled at Duquesne University and having declared a major field of study to be either Physics or Mathematics, are eligible for the scholarship. The primary considerations will be financial need, academic achievement secondary. Recipients are selected by the University’s Director of Financial Aid upon nominations from the Chairperson of the Physics or Mathematics Departments after they have previously consulted with the Deans of the College of Liberal Arts and the School of Natural and Environmental Sciences.

The Rev Joseph A. Lauritis, C.S.S.P., Communication Scholarship. This is an annual scholarship in tribute to the Rev. Joseph A. Lauritis, C.S.S.P., founder of the former Department of Journalism and the University’s radio station, WDUQ-FM. It is available to a junior or senior entering Duquesne University who is planning to major in Communication. The award is administered by the Lauritis Scholarship Committee of Communication faculty and friends.

The Roxy Alexander Scholarship Award. The award was established in 1991 by the Scripps-Howard Foundation. The scholarship award is available to full-time junior/senior students who demonstrate outstanding academic achievement. An application deadline is April 1. This award is not renewable.

Edward T. Leech Scholarship. The scholarship was established in 1971 by the Scripps-Howard Foundation. The scholarship award is available to students who demonstrate outstanding academic achievement. An application deadline is April 1. This award is not renewable.

**SCHOOLS OF BUSINESS ADMINISTRATION**

**Admissions and Financial Aid**

Accounting Scholarships. Twenty $1,000 scholarships are awarded annually to students whose major area of concentration is accounting. Ten are awarded to juniors and ten to seniors. The scholarships result from an endowment funded by the "Big Six" accounting firms as well as local accounting firms. Applications are available from the Accounting faculty. Completed applications must be received by October 1 of each academic year. Recipients are selected by the School on the basis of demonstrated need, academic achievement, and contributions to the University and the community.

Glen Beeson Memorial Scholarship. A scholarship in memory of the late Dean, Glen Beeson, is awarded annually to a qualified sophomore, junior, or senior enrolled in the A. J. Palumbo School of Business Administration who maintains a GPA of 3.0 or better. The award is made on the basis of demonstrated need, outstanding academic achievement, university and community contributions, employment, and a personal essay. Students in all areas of concentration are eligible. Completed applications must be submitted no later than Dean’s office by October 1 of each academic year.

Consolidation Coal Company Scholarship for M.S. An annual grant of $1,500 is awarded to a student in the School of Business Administration majoring in Management Information Systems (MIS). Recipients must have attained a GPA of 3.0 or better and completed all requirements for senior-study by the fall in the year in which the grant is awarded. Final determination will be made by faculty recommendations.

Duquesne African-American Accounting Scholars Program. The scholarships program is open to all African-American accounting majors in the A. J. Palumbo School of Business Administration who maintain a GPA of 3.0 or better overall and in their major of accounting. Financial awards are based on merit and designed to supplement students’ tuition expenses. The program is divided into three main components: outreach activities, financial assistance, and academic support. Initial funding for this scholar program was provided by Arthur Andersen and Company Foundation. Applications and information are available from the Chairperson of the Accounting and Finance Division.
as a senior in the School of Education of the University at the time of receiving the award. Applications must be submitted to the Dean's office no later than March 1.

Marjorie Eyles Sullivan Scholarship: The award will be made to a junior student in the School of Education who shows exceptional promise as a teacher in special education. Preference is given to students who are in special education, or elementary and special education. Qualified students are identified through faculty nomination.

SCHOOL OF HEALTH SCIENCES
Allegheny General Hospital has provided scholarships for students who are in the professional phase of their curricula. These scholarships are competitive, for a specified amount of money, and if awarded carry a commitment on the part of the student to work at Allegheny General Hospital for a specified period of time. Information about application procedures, level of funding, and employment obligations can be obtained by calling the Rangos School of Health Sciences, 396-6652. Many other hospitals within southwestern Pennsylvania also provide scholarship programs. Specific information can be obtained from the Departments directly.

SCHOOL OF MUSIC
Women's Advisory Board Scholarships: This fund provides a scholarship each year to outstanding performers. This scholarship is awarded on the basis of recommendation of the Music School faculty.

Polish Arts League Scholarship: This award is made annually by the Polish Arts League of Pittsburgh to an outstanding performer in the School of Music.

Musical School Scholarship: These awards are made possible by donations from individuals and organizations in appreciation of performances as well as leadership contributions by School of Music students.

Robert Minardi Memorial Scholarship Fund: Awarded to needy undergraduate music students, with academic consideration a secondary criterion. Recipients are selected by the School of Music, but must also file application through the Financial Aid Office.

Anne Patton and George Locher Award: This award is made annually in memory of Albert and Ambrosia Colecha. The Scholarship award is available to juniors and seniors in the undergraduate College of Liberal Arts and the School of Natural and Environmental Sciences.

Joel P. Laughlin Scholarship: In honor of Joel P. Laughlin, a fraternity brother whose life ended early in his professional program. The Graduate Chapter of Phi Delta Chi annually awards three $300 scholarships to graduate fraternity brother in each of the three professional years. The recipients must have demonstrated academic achievement and active participation in the functions of the Fraternity.

Manzone Family Scholarship: An endowed scholarship established in 1994. An award is made annually to a pharmacy student(s) in the School of Pharmacy. The scholarship recipients will be chosen based on academic performance and financial need.

Clint Eddy Goodwin Memorial Scholarship: This scholarship was established to honor the memory of Clint Eddy Goodwin by making annual awards to deserving Pharmacy students. Candidates must be a declared Pharmacy major, attained a minimum quality point average, and have an interest in and demonstrated support of the University’s athletic program. Apply through the School of Pharmacy.

Mary McPartland Beck Scholarship Fund: Awards are made to one fraternity brother in each of the three professional phases. The scholarship recipients will be chosen based on academic performance and financial need.

Galen Pharmaceutical Society Loan Fund: Provides loans to students of pharmacy during times of urgent financial distress. This revolving fund was established in 1963 for the purpose of providing financial assistance to worthy students.

SCHOOL OF PHARMACY

University of Pittsburgh Graduate Chapter of Kappa Psi Pharmaceutical Fraternity maintains a revolving loan fund for members of the undergraduate chapters. Details are available from the School of Pharmacy.

Rite Aid Scholarship: Scholarships from the Rite Aid Corporation are available to students entering the final year of the pharmacy program. Selection is based on financial need, demonstration of normal progress, and good standing in the pharmacy program.

Pittsburgh Graduate Chapter of Lambda Kappa Sigma: This professional Pharmacy fraternity for women has established financial awards for members in the three years of the pharmacy program. Awards are based on financial need and participation in the organization.

Dr. B. Olive Cole Graduate Educational Grant: A $300 grant is offered by Lambda Kappa Sigma to financially assist an alumnus member who is enrolled in a program of graduate study and research in the pharmaceutical sciences. Applications must be received by the chairman of the grant committee by November 15. Applications are available in the School of Pharmacy Office.

Burroughs Wellcome Loan Fund: A revolving loan fund established by donations of Pharmacy alumni who are awarded Burroughs Welcome Educational Grants. Interest-free loans are available to qualified Pharmacy students.

WONARD Scholarship: The Women's Organization of the National Association of Retail Druggists offers annual scholarships for pharmacy study in accredited colleges within the United States. The award amount is determined by the established need and the academic standing of the applicant. Apply directly to WONARD by June 1.

Donald Bell Memorial Scholarship Fund: Scholarships are awarded annually to deserving Pharmacy students who are entering the third or fourth year in the B.S. in Pharmaceutical curriculum. Selection is based on a combination of scholarship and need and a demonstrated interest in community pharmacy practice.
An endowed scholarship fund to honor Rosemarie Bevacqua, P’55, which will provide financial assistance to needy and deserving Pharmacy students. Selection of a Pharmacy student recipient will be based on demonstrated financial need and service to the Duquesne University campus community.

Phar-Mor, Inc Scholarship Fund A scholarship will be awarded annually to a deserving Pharmacy student entering the fourth or fifth year in the B.S. Pharmacy program through the generosity of Pharmacist and Pharmaceutical Manufacturer Joseph A. Mosso. The endowed fund is based on demonstrated financial need and service to the School of Pharmacy through the School of Pharmacy Faculty Scholarship Committee.

Joint A. Mosso, Sr Scholarship Fund An endowed scholarship fund established by Joseph A. Mosso. A recipient of an annual scholarship will be selected by the Financial Aid Office. The recipient must provide evidence of interest in entering community pharmacy practice.

Bevacqua, Rosemarie Scholarship Fund An endowed scholarship fund to honor Rosemarie Bevacqua, P’55, which will provide financial assistance to needy and deserving Pharmacy students. Selection of a Pharmacy student recipient will be made to a Pharmacy student in good standing with the primary consideration being financial need.

Don Bell Memorial Scholarship Fund An endowed scholarship fund in memory of Don Bell, P’57, who was an active member of the School of Pharmacy faculty and student organizations. The recipient must have demonstrated a high academic standing and be a member of the School of Pharmacy faculty and student organizations.

Scholarship Fund for Promising Young Women Students A recipient of an endowed scholarship fund established by the Children of Pharmacy Alumni, who are attending Duquesne University, without respect to college/school of enrollment. The recipient must have demonstrated scholastic ability, good character, and volunteer service to the community. Recipients are selected on the basis of community service, academic achievement, and financial need.

Richard and Marie Barry Scholarship Fund An endowed scholarship fund created as a memorial to Richard H Barry, a long-time School of Pharmacy faculty member and officer of the Pharmacy Alumni Association. The recipient must be a Pharmacy student in good academic standing and have demonstrated an interest in intercultural or international relations.

Charles Trainor, Sr Scholarship Fund An endowed scholarship fund established by Charles Trainor, Sr., a long-time School of Pharmacy faculty member and officer of the Pharmacy Alumni Association. The recipient must be a Pharmacy student in good academic standing and have demonstrated an interest in intercultural or international relations.

Trainor, Charles Scholarship Fund An endowed scholarship fund established by his family and friends. A recipient of an endowed scholarship fund will be granted to a student entering the School of Pharmacy who has demonstrated high academic standing and service to the community.

Jock J. Rosenberg Memorial Scholarship Fund An endowed scholarship fund established by Jock J. Rosenberg, P’28, a member of the first graduating class of the Duquesne University School of Pharmacy. The recipient must have demonstrated high academic standing and service to the community.

GENERAL

The University is committed to providing a high-quality education for all. The scholarship will be awarded to deserving students who have demonstrated high academic performance, need, and are residents of Allegheny County. The endowed scholarship fund is based on demonstrated financial need and service to the School of Pharmacy Faculty Scholarship Committee. The recipient must provide evidence of interest in entering community pharmacy practice.

Geraldine (Mua) Furguele Scholarship Fund A memorial scholarship fund to honor Geraldine (Mua) Furguele, P’50. The endowed fund will provide scholarships for needy and deserving female students entering the School of Pharmacy through the generosity of the alumni of the School of Pharmacy. Requests for financial assistance should be directed to the School of Pharmacy Committee.

School of Pharmacy Alumni Scholarship Fund Scholarships are available to Pharmacy students entering the School of Pharmacy. Requests for financial assistance should be directed to the School of Pharmacy Alumni Scholarship Committee.

National Association of Chain Drug Stores Pharmacy Education Foundation Scholarship One scholarship awarded annually to a Pharmacy student in good academic standing and with the primary consideration being financial need. The recipient must have demonstrated high academic standing and service to the community.

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

Corn E. Caven Educational Grants These grants are awarded annually to members in good standing of Lambda Kappa Sigma, enrolled in B.S. Pharmacy, or Pharm D programs. The recipient must have demonstrated high academic standing and service to the community.

Powers-Schering Scholarship An endowed scholarship fund provides support for Pharmacy students entering the School of Pharmacy. The recipient must have demonstrated high academic standing and service to the community.

Alfred J. Pfannesn, Jr Memorial Scholarship Fund An endowed scholarship fund was established by the family and friends of Alfred J. Pfannesn, Jr., a 1982 School of Pharmacy graduate. The recipient must have demonstrated high academic standing and service to the community.

Russel L. Craven Educational Grants These grants are awarded annually to members in good standing of Lambda Kappa Sigma, enrolled in B.S. Pharmacy, or Pharm D programs. The recipient must have demonstrated high academic standing and service to the community.

Wolf Pharmacy Alumni Scholarship Fund An endowed scholarship fund established by Wolf Pharmacy Alumni in memory of Wolf Pharmacy Alumni. The recipient must have demonstrated high academic standing and service to the community.


declared financial need, and an demonstrated interest on the part of the student in a career in real pharmacy practice.

Don Bell Memorial Scholarship Fund An endowed scholarship fund in memory of Don Bell, P’57, who was an active member of the School of Pharmacy faculty and student organizations. The recipient must have demonstrated a high academic standing and be a member of the School of Pharmacy faculty and student organizations.

Gene L. Checcone Memorial Scholarship Fund An endowed scholarship fund created by Gene L. Checcone, P’52. An annual award will be made to a Pharmacy III, IV or V student in good academic standing and have demonstrated need. The recipient must have demonstrated high academic standing and service to the community.

Patrec Lynnu Tranor Scholarship Fund An endowed scholarship fund established by Charles J. Tramor, P’51, an active member of the School of Pharmacy faculty and student organizations. The recipient must have demonstrated high academic standing and service to the community.

Richard and Marie Barry Scholarship Fund An endowed scholarship fund created by Richard H Barry, P’39. A recipient of an annual scholarship will be selected by the Financial Aid Office. The recipient must have demonstrated high academic standing and service to the community.

John S. Soksky Scholarship Fund The endowed fund was established in 1992 by close friends of John S. Soksky. A scholarship will be awarded annually to a needy and worthy student(s) in the School of Pharmacy.
pents must be enrolled as undergraduate students Interested students should apply through the Financial Aid Office

Louis and Ida Amdursky and Benjamin Amdursky Memorial Fund This fund was established to assist Jewish students who are residents of Allegheny County Recommendations are made by the University to the Trustees of the fund, and are on the basis of merit and need Interested students should apply through the Financial Aid Office

J W Ralston Memorial Scholarship Fund A fund in honor of J W and Ruth Lewis Ralston in recognition of their long-time affiliation for the City of Pittsburgh Factors to be considered for selection include leadership qualities, good character, strong potential for civic contributions (especially to the City of Pittsburgh) and the ability to relate well with others Interested students should apply through the Financial Aid Office

Stella and Charles Gattman Scholarship Foundation Awards are based on need with academic considerations secondary Interested students should apply through the Financial Aid Office

John Joseph Mongillo Memorial Scholarship Fund Awards are based on financial need The fund was established through a gift to the University from Marie Locher in memory of her brother, John Mongillo Interested students should apply through the Financial Aid Office

Century Club Scholarship Awarded to needy students in their final undergraduate year QPA of 3.5 or higher is required Apply through the Financial Aid Office

Monsignor Michael J Conroy Endowed Scholarship Fund Awarded to needy, full-time undergraduate student who is a child of a member, or a member, of Our Lady of Grace Parish Eligible students must apply through Our Lady of Grace Parish and the Financial Aid Office

Hungarian Heritage Endowed Scholarship Fund Awarded to student studying Hungarian, (4) Student studying in Hungary, (3) Student studying Hungarian, (4) Student of Hungarian Heritage, and, (5) a needy and worthy student of any cultural derivation if there are no students who qualify under the first four categories Apply through the Financial Aid Office

Frank H Kirk Memorial Scholarship Endowment Fund Awarded to needy and deserving students Apply through the Financial Aid Office

James L & Paul L McGrath Scholarship Awarded to needy and deserving students Apply through the Financial Aid Office

William J Hart Scholarship Awarded to needy students for books and personal expenses Award can also be used for room and board Apply through the Financial Aid Office

Jerry Smith, II Memorial Scholarship Awarded to needy students with average grade point average Apply through the Financial Aid Office

Spring Hill Foundation Awards for Wayne County Residents, with consideration given to children of employees or residents of Sterling Township QPA of 2.6 required for renewal Apply through the Financial Aid Office

Marva B Stalet Tr ush Awarded to needy and deserving students Apply through the Financial Aid Office

Donald L Very Memorial Scholarship Awarded to needy students who have demonstrated academic achievement Apply through the Financial Aid Office

Rev Joseph A Young Endowed Scholarship Fund Awarded to needy and worthy students Preference given to members of St Aloysius parish, Pittsburgh Apply through the Financial Aid Office

Allan Reynolds Memorial Fund Awarded to needy and deserving students Apply through the Financial Aid Office

Eberhardt Memorial Fund Awards, to honor Melville Alexander Eberhardt, based on academic achievement, financial need and activities Selection is made by outside committee upon recommendation of the Financial Aid Office Apply through the Financial Aid Office

Eberhardt Memorial Fund Awarded to needy students who are juniors or seniors from the Special Studies Program Recipients are selected by the Financial Aid Office/Special Studies Scholarship Committee

Clergy/Religious Discount Members of University-recognized Christian and Jewish Religions, who have been ordained or professed, may be eligible to receive a discount of one-half basic tuition for undergraduate or graduate studies

Catholic School Lay Teacher Discount Current full-time teachers in Catholic schools in Pittsburgh, Greensburg, or Altoona-Johnstown Dioceses or teachers from other dioceses, who have completed a minimum of two years teaching at an approved diocesan school, may be eligible to receive a discount of one-half basic tuition for undergraduate or graduate studies

Senior Citizen Discount Men and women who are 60 years of age or older may be eligible to receive a discount of one-half basic tuition for undergraduate or graduate studies

RESERVE OFFICER TRAINING CORPS (ROTC) SCHOLARSHIPS

Army ROTC offers a number of four-year scholarships for qualified students through a national competition These scholarships pay for most of the tuition, fees, required textbooks, and other purely academic expenses as well as providing a $100 per month subsistence allowance Interested high school students may apply by writing Army ROTC, Duquesne University, Pittsburgh, Pennsylvania, 15282 The application period begins in April of the student's junior year and ends in December of the senior year Early application is recommended

For students already enrolled at Duquesne University, three-year and two-year scholarships are available Students need not be participating in the ROTC program to apply For additional information, contact the Military Science Department at 396-6664

Admissions and Financial Aid
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 students register during the Fall Semester in November.

Orientation programs for new students are conducted by the schools in late spring and summer in conjunction with academic advisement and registration.

A comprehensive invoice that confirms the class schedule of courses for which the student is registered and lists fees, tuition, housing charges, deposits, financial aid awards, and balance due is mailed to the student at his or her permanent address 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 day of registration. A student who has registered for classes but who later decides not to attend 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, page 31 of this catalog.

OFFICIAL REGISTRATION

Only students who are recognized as officially registered are bona fide students of Duquesne University. Unless students are officially registered, they are not permitted to attend classes, engage in student affairs, or 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 in the Director of Admissions.

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 the same manner and before the beginning of classes.

CHANGE OF SCHEDULE

Students requiring a change of class schedule, change class times or to add or to drop a class, are permitted to do so during the periods of preregistration, Final Registration, and Late Registration. Change of class schedule is not permitted after the Latest Date for Change of Schedule as announced in the Academic Calendar (published in the Schedule of Classes Booklet).

All schedule changes must be approved by an academic adviser 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 added or dropped.

Students who process change forms late are entitled to refund for the course credits dropped. Courses dropped after the deadline for make-up schedule changes are classified as course withdrawals. (See Withdrawal from a Course, in ‘Withdrawal from the University’ mentioned elsewhere in this catalog.)

Except for changes requested by the dean or advisor, a fee of $5.00 is charged for each change 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 of 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 all full-time student enrolled in a PCHE college or university.

Each college or university accepts registration from the other institutions, however, first priority in registration is given to students of the host college. Exceptions include all departments or schools in all institutions that are not able to participate in this program. In each case of student cross-registration, the approval of the dean or designated individual from the home college or university must be obtained prior to registration.

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

Full credits and grade will be transferred, the academic regulations of the host institution will prevail, and the academic honesty code and other rules of conduct of the University providing instruction will apply with respect to its courses and behavior on campus. That institution also determines whether it will consider proper payment when violations are reported to it.

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

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

Duquesne University students who are participating in this program are charged tuition and university fees in accordance with the current rates of Duquesne University. However, taking courses at other institutions during those terms is facilitated by ‘temporary transfer student’ procedures separately agreed to by the PCHE colleges and universities.

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

Procedures

A Cross-Registration form is obtained either from an Advisor or the Registrar’s Office. The student then completes the form by indicating which course(s) he or she wishes to enroll in at the host institution. Copies of the class schedules of all PCHE institutions are maintained in the Registrar’s Office.

The completed Cross-Registration form must be submitted to the student’s advisor for approval

LATE REGISTRATION

With approval of the appropriate dean and upon payment of the penalty fee, Late Registration may be permitted for a serious reason. However, no student may be registered and begin attending classes later than the Latest Date for Registration Change of Schedule as announced in the Academic Calendar (published in the Schedule of Classes booklet).

RECORDS AND REPORTS

SEMINAR 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 obligation 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 are encouraged to examine their records for accuracy and immediately report any errors in writing to the Registrar.

To obtain additional copies of their academic records, students must write to the Registrar for transcripts for themselves or for mailing to the other institutions and agencies. All official transcripts issued by the Office of the Registrar bear the signature of the Registrar and the embossed seal of the Office of the Registrar. Whenever an official transcript is released directly to the student, it will also bear the stamped designation, Issued to Student.

No transcript will be issued unless all financial obligations owed by the student to the University have been fulfilled. A fee of $5.00 is charged for the issuance of each transcript, and a 24-hour processing time is required for pick-up service from the Registrar’s Office.

CONFIDENTIALITY OF STUDENT RECORDS

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

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

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

Academic Policies

POLICIES

ACADEMIC ADVISEMENT

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

The student must consult with the academic advisor about any questions of an academic nature. No student may register without the 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 to be audited, and 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 attempt lecture, complete course readings, and, at the discretion of the professor in charge of the course, participate in classroom discussion and examinations.

CLASS ATTENDANCE

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

The student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstance is responsible for notifying the office of the Academic Dean. The student should supply the necessary written verification as soon as possible.

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

CLASSIFICATION OF STUDENTS

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

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

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

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

COURSE EXAMINATIONS

Final 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.

Application forms may be obtained from the Office of the Registrar.

Since policies vary among the Schools, students who feel they have acquired mastery 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 course work and rating academic performance of undergraduate students at the University.

Graded course work is independent of the Quality Point System. Course must be repeated for credit if a grade of "I" is assigned.

Minimum acceptable grade for graduation is a "C" in all but those courses designated in the catalog as "F" grades only.

The Quality Grade of a course is the average of the letter grades achieved in the course. The Quality Grade of a course is assigned by the instructor who originates and enrolls in that course.

The Quality Point of a student is the average of the Quality Grades earned in all courses in which the student participated during a term, divided by the number of quality hours attempted during that term. A quality hour is one in which the student is assigned an academic grade.

To calculate the Quality Point of a student, the Quality Grades are multiplied by the corresponding quality hours, and the total of these products is divided by the total number of quality hours attempted.

The Quality Grade of a course is a letter grade assigned by the instructor who originates and enrolls in that course. The Quality Grade is one of the following:

A - Excellent
B+ - Very Good
B - Good
B- - Above Average
C+ - Satisfactory
C - Average (Minimum general average for graduation)

D - Lowest passing scale grade
F - Failure (Course must be repeated for credit)
I - Incomplete (A temporary grade given by an instructor when neither a passing nor failing grade can be determined because of incomplete work. Unless a cogent 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.)

N - Not Passing (Used to indicate Failure in a P graded course. Is independent of the Quality Point System. Course must be repeated for credit.)

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

S - Satisfactory (Used in pass/fail elected courses and independent of the Quality Point System.)

U - Unsatisfactory—Failure (Used in pass/fail elected courses and independent of the Quality Point System. Course must be repeated for credit.)

W - Official Withdrawal (Used on a student's permanent record to indicate termination of attendance in courses under conditions of official withdrawal. See pages 28 and 31 and Schedule of Classes booklet for Withdrawal from a Course and Withdrawal from the University.)

PLUS/MINUS GRADING OPTION

The Plus/Minus Grading System is the official grading system of the University.

Faculty are to announce at the first class meeting whether or not plus and minus grade values will be used in grading course work and rating academic performance of the students in their class.

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

The grading system for graduate students is published in the catalog of the particular graduate school.

COMPUTATION OF THE QUALITY POINT AVERAGE

Quality Point Average is the ratio expressed to the decimal thousands of the sum of A, A+, B+, B, B-, C+, C, D, and F received to the sum of quality points earned. The Quality Point value of these grades are
REPEATING COURSES AND COURSE RETROGRADATION

Students ordinarily are permitted to repeat courses in which D and F grades were received. The request for permission to repeat a course is to be submitted in letter form to the academic advisor. An authorized request to repeat a course form must be obtained from the advisor before registering in the repeat course. All grades are retained on the permanent academic record. The result of the final attempt in a repeated course is entered in the student's status in the course with regard to attempted credits, earned credits, and the completion of requirements. Retrogradation, a corollary of the repeat credit rule under which a student may earn credit once only for a course, prescribes that a student may not move backward from an advanced course to a lower level course and receive credit for both. Any doubtful situation must be decided by the department chairperson or dean involved.

PASS/FAIL ELECTIVES

One course a semester, elected and approved by the academic advisor, is permitted. 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 records of students who fail to meet the minimum requirements as established by each faculty of each college or school will be submitted to the College or School Committee on Student Standing to 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 may 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 restyle 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 have attempted up to 61 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 restyle 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 have accumulated three F grades in one semester are subject to dismissal. Appeal 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 are expected to know, as well as the following:

Dean's List: To achieve distinction of being named to the Dean's List, a student must have a record for a semester that shows completion of a full-time schedule, a quality point average of at least 3.25, and no grade lower than a C. The full-time schedule must include at least 12 credits exclusive of pass/fail credits.

GRADUATE COURSES FOR UNDERGRADUATE CREDIT

Qualified seniors may be permitted to register in certain graduate courses at the 500 level for undergraduate credit on the recommendation of the advisor and with the approval of the dean of the graduate school involved. All 500 courses are described in graduate school catalogs.

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. The application for the University Degree with the Office of the Registrar or before the deadline for graduation as announced in the Academic Calendar, and has satisfied all financial obligations with the University.

The student is responsible to determine that courses taken in each semester are sequentially correct and necessary for the degree program.

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

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

1. The bachelor's degree requires a minimum of 120 semester hours of course credits in all except Pharmacy which requires 163 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 grade average in a 4.0 system (Students should further determine the need for minimum QPA requirements in their major, science course, etc.)

3. The final year's work (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 four 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 clearly, correctly, and effectively is a central component of a well-developed education. The candidate who has satisfactorily completed the requirements for the degree, will fulfill the writing requirement by enrolling in one or more Writing Intensive courses. All Writing Intensive courses with the designation of writing intensive are described in the student handbook and catalogs of each school, department, or college where the courses are offered.
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.

**HONORS**

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

- **Cum Laude—Quality Point Average:** 3.50 to 3.74
- **Magna Cum Laude—Quality Point Average:** 3.75 and above
- **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.**

**UNIT OF CREDIT**

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

**TRANSFER WITHIN THE UNIVERSITY**

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

**WITHDRAWAL FROM A COURSE**

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

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

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

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

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**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 1994-95 term only, unless otherwise indicated.

**Tuition**

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| Graduate Tuition | 391.00 |
|---|---|---|
| University Services Fee | 26.00 |
| Total | 417.00 |

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<td>Total</td>
<td>13,696.00</td>
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<tr>
<th>Per-credit</th>
<th>Undergraduate Tuition</th>
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<td>University Services Fee</td>
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<tr>
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| Graduate Tuition | 416.00 |
|---|---|---|
| University Services Fee | 26.00 |
| Total | 442.00 |

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<th>RATE 3 (Pharmacy)</th>
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<td>Total</td>
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<th>Per-credit</th>
<th>Undergraduate Tuition</th>
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<td>University Services Fee</td>
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<tr>
<td>Total</td>
<td>444.00</td>
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</table>

| Graduate Tuition | 420.00 |
|---|---|---|
| University Services Fee | 26.00 |
| Total | 446.00 |

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<th>RATE 4 (Music)</th>
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<tr>
<td>Total</td>
<td>14,576.00</td>
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</table>

(Continued next page)

AUDITING A COURSE

Summer tuition is calculated on a per credit basis. See page 29 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.
No student is permitted to remain in the residence halls after academic withdrawal from the University has been completed.

*Those desiring residency for the Summer Session should make reservations with the Assistant Director of Residence Life three weeks prior to opening date of your session. A non-refundable deposit of $20 must accompany each application. After occupancy, the deposit is applied toward the room and board expenses. This deposit is not refunded if the room is not occupied. Rates shown are for 1994 summer session only.

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

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

a) Balance Forward, Credits, Payments Deposits—Accounts Receivable Office
c) Student Finance Program, Deferred Payment Plan—Accounts Receivable Office
d) Housing Reservations and Housing Charges—Office of Residence Life

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

Ten Month Payment Plan
The University is now offering a 10-month payment plan through Tuition Management Systems (TMS).

The basics of the program are:
1) The parent pays TMS $120.00 to enroll in the plan. Enrollment must be completed prior to August 1st.
2) The parent makes 10 monthly payments to TMS making allowances for any financial aid. TMS then forwards payment to the University on a monthly basis.

For additional information, contact TMS at 1-800-722-4867.

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

BAD CHECKS
It is the policy of the University to charge bad checks to the student who cashes them regardless of the maker. A $300 service charge will be assessed on checks that are returned from a bank for lack of funds. Payment of registration or room and board with an NSF check will result in cancellation of the registration.

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

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 learning, leadership 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, Counseling and Testing, Duquesne Union, Freshman Development and Special Student Services, Greek Life, Health Service, Judicial Affairs, Residence Life and Student Activities. 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
Duquesne University is a member of the National Collegiate Athletic Association (Division I). All rules of this organization, including those pertaining to a student's eligibility for a varsity team, are followed.

Duquesne University believes in and promotes the concept of the student athlete. Athletic grants-in-aid are available for all varsity sports with the exception of football.

The Athletic Department fields men's varsity teams in baseball, basketball, cross-country, football, swimming, tennis, wrestling, and men's women's teams in basketball, cross-country, swimming, tennis, track and volleyball, and club teams in bowling, hockey, and crew.

Duquesne sponsors a very active intramural program in such fields as tennis, touch football, volleyball, street hockey, basketball, softball, indoor/outdoor soccer, coed wiffle ball, and aerobics.

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. If commuter students have a question, suggestion, complaint, concern or simply need information, check with this Office. Assistance is available in many areas, including parking and transportation.

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

Off-Campus Housing: Up-to-date listings are maintained of rooms, apartments, houses and "roommate needed" situations. Area maps, apartment directories and housing search assistance are available.

Commuter Message Center: If someone needs to get a message to a student on campus, they may call 396-6660. The message is posted outside the Office for the student to pick up.

Adult Learner Services: Services are provided for adult learners including newsletters, family programming, assistance with adult tutoring, and a monthly Brown Bag Enrichment Series Duquesne Adult Learners Organization (DALO) is an adult organization specifically designed for adult learners. Its officers can be contacted through the Office. 

Commuter Assistance Program: This program is a support network of upperclassmen students who serve as advisors and provide resources for new commuters. C A's plan activities, provide information and supply encouragement. Students should be contacted by their C A prior to entering their first semester.

Other Services include: Suggestions/Complaints in Action, Commuter Update, Student Handbook distribution, and distribution of commuter ID cards after validation by the ID center.

The Office is located in the Duquesne Union, Room 315 and is open throughout the year to serve students. Office hours are extended during the fall and spring semesters when the Office is open Monday through Thursday, 8:30 a.m. - 6:00 p.m. and Friday until 4:30 p.m. Additional evening and weekend hours are available by appointment. For further information call 396-6660.
OFFICE OF STUDENT ACTIVITIES
The Office of Student Activities coordinates the programs, services, and facilities of the Duquesne Union, provides programming and administrative support for all recognized student organizations, publishes the Fall and Spring Semester Activity Calendars, and coordinates the Duquesne University Volunteer and the Student Volunteer Program. The staff of this office provides services and amenities required to meet the daily needs of campus life, provides advice and assistance in all phases of campus programming, arranges all scheduling of events in the Duquesne Union, and produces and presents a balanced series of cultural, educational, social, and recreational programs in support of the mission and goals of the University. The Duquesne Program Council is the student organization of the Duquesne Union which involves students in all aspects of planning and implementing various programs. The DPC offers students a chance to be creative and to gain effective leadership, communications, and program planning skills.

OFFICE OF JUDICIAL AFFAIRS
The Office of Judicial Affairs plays an important role in developing responsible student conduct. Its purpose is to protect the rights and freedoms of all students while insuring that these rights and freedoms are not misused within the context of students’ responsibilities to the University. It administers the University Judicial Board comprised of students, faculty, and administrators with a student chairperson. The Judicial Board maximizes legal technicalities in dealing with student conduct problems, and instead focuses on the developmental process.

OFFICE OF RESIDENCE LIFE
The Office of Residence Life is committed to creating an environment in each of the four (4) Living Learning Centers in which the student may grow and develop as a total person. Its philosophy and programs are based on the belief that the Living Learning Center experience is an important part of the total University education. Therefore it is the purpose of the Office of Residence Life to facilitate the personal and academic growth of the resident student. To this end, the professional and resident assistant staff will provide the means to foster such development.

All freshmen students and sophomores with a QPA of below 2.5, except those residing with their parents or relatives, are required to live in one of Duquesne’s Living Learning Centers. All students living on campus are further required to take a University meal plan. Housing Agreement terms are effective for the entire academic year, with room and board rates being determined on an annual basis. Additional information regarding programs, policies and regulations for the Living Learning Centers is included in the Residence Life Handbook.

OFFICE OF FRESHMAN DEVELOPMENT AND SPECIAL STUDENT SERVICES
The Office of Freshman Development and Special Student Services serves to implement and direct programs which integrate and enhance the academic, co-curricular, and spiritual dimensions of the Freshman Experience at Duquesne University. To accomplish this, the office directs the Freshman Orientation Program, implements the Freshman Mentor Program, assists freshmen with finding tutors when needed by interacting with the Learning Skills Center and the other departments providing tutorial services, coordinates the New Student Seminar, and works with the Counseling and Testing Center, prepares and edits both the Freshman Newsletter and the Parents Newsletter. The office is also responsible for monitoring freshmen grades by interacting with the Dean’s Offices of the Undergraduate Schools of the University as well as the Comprehensive Student Advisement.

STUDENTS WITH DISABILITIES
The Office of Freshman Development and Special Student Services also provides services to all University students with disabilities. Services include classroom relocation, specialized testing accommodations (extended time testing, exclusion testing, and oral testing, etc.), note-taking and other accommodations can be arranged through the office on an individual basis. Students with learning disabilities should submit a psychological evaluation that is no more than three years old, to the Office of Freshman Development and Special Student Services, Room 309, Duquesne Union. The student’s evaluation is utilized to assist in determining the student’s strengths and needs. A review of the evaluation is conducted by a Learning Disabilities team which includes the student and pertinent University staff. Following a meeting of the team, certain learning accommodations are recommended. The office works with students on communicating their needs to faculty members and the University community, and assists students in connecting with campus resources, such as the Learning Skills Center, the Counseling and Testing Center, and other campus resources. Please contact the Office of Freshman Development and Special Student Services at 396-6657 or 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 Letter Groups, and seeks to promote the Greek system as an integral and productive part of the institution. To accomplish this mission, the Office of Greek Life promotes the intellectual, vocational, social, recreational and moral development of students, provides training in leadership skills and other personal and social skills, promotes student involvement in extracurricular activities and community projects, provides training in group processes, including the development of “esprit de corps”, promotes Greek Life as a productive and viable lifestyle on campus, and promotes an appreciation for different lifestyles and cultural heritages.

B. PROGRAMS
COMPREHENSIVE STUDENT ADVISMENT
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 interactions with all officials throughout the University. Advisors are trained to assist students in developing and maintaining academic schedules, securing financial aid, and in interacting with professionals in other fields who will assist them in their social, psychological and spiritual development. To 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 professional services. The graduating student may also be interested in campus interviews with visiting employers.

Graduate/Undergraduate 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 are available through the student employment program established by the Office of Student Employment.

COUNSELING AND TESTING CENTER
The Counseling and Testing Center provides academic, personal, and vocational counseling. The student experiencing academic difficulties may request evaluation of math, reading and study skills. Professional assistance is available in dealing with test anxiety or stress management on an individual basis or in group format.

Personal counseling for aid in adjustment to college life (homesickness, roommates, personal relations, anxiety, depression, eating problems, drug and alcohol abuse and sexual victimization) is provided. Short- and long-term confidential counseling is provided by a licensed professional. Workshops and support groups are held throughout the academic year for Time and Stress Management, Test Anxiety, College Survival Skills, Eating Disorders, Adult Children of Alcoholics, Sexual Victimization, and others upon request.

Testing and counseling are provided for choosing an occupation, investigating career aptitudes, investigating academic strengths or difficulties. A counselor assists the student seeking vocational guidance in systematically exploring and discovering his/her interests and abilities through testing and individual counseling. Students learn how their interests and abilities relate to the world of work and education. They receive help in clarifying occupational goals and in choosing an academic program suitable to those goals.

Information about the applications for national qualification examinations (CLEP, MAT, GRE, NTE, LSAT, GMAT, SAT, etc.) are also available.

The Counseling and Testing Center staff provides 24-hour emergency psychological services. In addition, the Student Assistance Program and the Academic Intervention Program provide special assistance for students who are experiencing academic problems. Please contact the Office of Counseling and Testing at 396-6204 for any additional information.

HEALTH SERVICE

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

• Allergy injections are given when ordered by a physician. Students must provide serum and instructions.

• Health counseling and referrals to medical, social, welfare agencies are needed.
• Routine screening physcals are provided for driver's license, teacher certification, premarital, pre-employment. Normal fee.
• Routine gynecological assessment and treatment.

Health Education
The Health Service provides numerous quality health education programs for the University community. These programs promote good health, safety and the early detection of illness, thereby preventing consequences of disease, injury and accidents.

Staff
The medical/nursing professional staff consists of all Registered Nurses and Board Certified Physicians affiliated with Mercy Hospital.

Immunization
Duquesne University has established a Pre-Matriculation Immunization Policy. All incoming undergraduate students (Freshmen, Transfers, Fellows, Second-Degree) are required to provide documentation of immunization. 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 396-1650/1652.

Eligibility
All undergraduate students are prepaid.

By electing to join the Health Service program, all non-resident graduate and part-time students are eligible for first aid and referral services as well as all the benefits of living primary care such as physician visits and allergy injections. A nominal fee of $25 per semester is required.

Treatment or diagnostic procedures by non-University physicians, clinics or hospitals must be paid by students, their family or their medical insurance. This includes laboratory work performed in the Health Service and gynecological laboratory services such as PAP smears.

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

INSURANCE
• It is strongly recommended that each student obtain some form of health insurance. The University provides a Student Health Insurance Plan designed to meet the needs of students and is priced lower than individual health insurance policies. Inquires about health insurance should be directed to the Risk Manager (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 illness, injury, Psychological Problems.
• Call Campus Security 396-6002. 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 continuously reviewed, refined and improved in an effort to meet the legitimate needs of students consistent with the missions and goals of the University.

ARCHIVES
The University Archives exists to collect, appraise, organize, describe, make available, and preserve records of historical value to the University. From this, the Archives seeks to provide knowledge and understanding of the origins, aims, and programs of the University and their development through the years. Among the Archive's many holdings are departmental records, university and student publications, photos and memorabilia.

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

The University Archives are located on the 1st floor of the Library. Paul Demilio, Director Phone 396-6231

C. OTHER DEVELOPMENTAL SERVICES

OFFICE OF INTERNATIONAL EDUCATION
The Office of International Education (OIE) 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 US Immigration and Naturalization Service (INS) requirements, assisting in academic and cross-cultural adjustment through initial arrival and extended orientation programs, promoting and supporting events, programs, and activities which foster deeper understanding, awareness, and understanding among US and international students at Duquesne, and providing on-going direct service and appropriate referral services to international students and scholars on campus in a personalized and professional manner. The OIE supports the University's strong commitment to international education as a valued component of the overall mission of the University.

LEARNING SKILLS CENTER
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 reading, writing, mathematics and science are offered to students who seek to upgrade their academic skills and advance their intellectual growth.

A free tutorial service provides students with competent tutors in numerous academic areas. In addition, a comprehensive skills program is available to enhance learning capabilities as well as to assist students experiencing academic difficulties.

THE PSYCHOLOGY COUNSELING CENTER
The Psychology Counseling Center, located in Rockwell Hall, is both the clinical training facility for graduate students in psychology and a counseling center for the Duquesne campus community and the general public. The Center specializes in individualized personal counseling and psychotherapy. These services are provided by advanced PhD candidates in clinical psychology under the supervision of licensed Faculty psychologists in the Department of Psychology. Working together with a trained counselor, the counseling interviews are designed to help students to reach their goals and to explore and find their own solutions to personal problems. Single conferences or a series of interviews in individual or group counseling can be arranged at the Center's office. This counseling is free of charge to the Duquesne community and, of course, completely confidential.

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
The Commuter Council is an officially recognized, funded student governmental organization open to all students at the University. The purpose of the Council is to identify commuter concerns and to provide educational, social and service-oriented programs for the University's large commuter population. To involve the entire community in its programs, the Council works closely with the Student Government Association, Residence Council, Duquesne Program Council and the administration.

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

The purpose 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 object of the Interfraternity Association is to develop and maintain fraternity life and interfraternity relations at a high level of accomplishment and, in so doing, to consider the goals and ideals of member groups as continually applicable to campus and personal life, promote superior scholarship as basic to intellectual achievement, cooperate with member fraternities and the University administration in concern for and maintenance of high social and moral standards, act in accordance with National Interfraternity Conference policies, and to act in accordance with such rules established by the Interfraternity Council.

The Interfraternity Council (IFC) serves as a clearing house for the Interfraternity Association and as a forum for airing constructive proposals for the improvement of the fraternity system. Membership in the IFC is composed of appointed representatives from each of the nine member fraternities.

PANHellenic ASSOCIATION
The object of the Panhellenic Association is to develop and maintain sorority life and inter-sorority relations at a high level of accomplishment and, in so doing, to consider the goals and ideals of member organizations that are applicable to campus and personal life, promote superior scholarship as basic to
intellectual achievement, cooperate with member fraternities and the University administration in concern for and maintenance of high social and moral standards, act in accordance with National Panhellenic Conference UNANIMOUS AGREEMENTS and policies, and to act in accordance with such rules established by the Panhellenic Council.

The Panhellenic Council (PHC) was established for the purpose of strengthening women's fraternities and sororities as organizations and for promoting cooperation among the groups through scholastic, athletic, and social activities. Membership in the PHC is composed of the elected representatives of each of the six women's fraternities and two women's sororities.

E. STUDENT ORGANIZATIONS

GENERAL

There are more than 100 student organizations at Duquesne Some serve the needs of specific interest groups, others relate directly to major areas of study. Some honor academic achievement. Many are formed to meet social, service or religious needs and interests. Whatever their purpose, these organizations and their activities comprise a major part of campus life.

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 and are members of the Association of College Honor Societies.

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 UNIVERSITY VOLUNTEERS

The Duquesne University Volunteers is the University's volunteer program which coordinates and monitors the volunteer activities of all individual students and all student organizations. Student volunteers provide a high standard of service to the campus and local community while, at the same time, fulfilling the University's Mission Statement, which seeks to "instill a spirit of service" in all students.

SOCIAL ORGANIZATIONS

Social organizations are composed of college men and women who have joined together for friendship, comradery, and activities. They sponsor and promote social, athletic, cultural, and academic events. Many of these organizations belong to Inter Fraternity Council or Panhellenic Council.

PERFORMANCE GROUPS

TAMBURITZANS

The Duquesne University Tamburitzans were founded in 1937 at the University and were 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 scholarship 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 folk music or dance. Performing experience in a band or orchestra, singing in a choir, or dancing 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. Auditions concerning auditions should be made in the fall prior to auditions which are held in February. For further information please contact the Tamburitzans office.

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. In line with these objectives, the Masquers' program offers a variety of stage entertainments—one-act plays, musicals, comedies, tragedies. Any Duquesne student is eligible for membership.

MEDIA ORGANIZATIONS

WDUS

WDUS (610AM) is the Duquesne Student Radio. It broadcasts approximately nineteen hours per day, seven days per week during the Fall and Spring Semesters. They offer experience and just plain fun in the following areas:

Management, Advertising, News, Music, Relations, Radio Personalities (DRs), Production, and Public Relations.

Students who have worked at WDUS in the past have gone on to work at CNN, KDKA, WTAE, 97.9 Rock, KKQV Radio News and SONY Records — just to mention a few.

PUBLICATIONS

The Duquesne University Code of Student Rights, Responsibilities and Conduct

The Student Code is the definitive statement of standards, policies and procedures regarding student rights and responsibilities, campus organizations, student governance, student records, student conduct and the University Judicial System. Copies are available at the Duquesne Union Information Center.

The Duquesne Duke, the University campus newspaper, is written and edited by the students for the students. It appears every Thursday during the academic year except during examination periods and holidays, and provides an array of campus news, student opinions, editorials and advertisements. The paper is geared to all members of the University community, faculty members, employees, and most of all students. Membership in the Duquesne Duke is open to all students.

The Duquesne Magazine is a literary publication, published each semester which affords students the opportunity to submit writing, artwork and photographs.

L'Esprit du Duc, the University yearbook, highlights the events of each year for students, faculty and staff. It is published in the fall of each year, and mailed to all seniors pictured in the book to remind them of their alma mater. This yearbook covers student life on campus, groups and organizations, athletic events on campus, and the year in review. Membership on the Yearbook staff is open to all students.

The Student Handbook contains information about the University which concerns the students. Copies are available at the Duquesne Union Information Center.

WDUQ RADIO — CAMPUS MINISTRY

The Campus Ministry sees itself as the service of all in a non-threatening relationship and invites the entire Duquesne Community to make use of its services.

The Campus Ministry's religious, social, and community outreach activities are announced by posters in residence halls, and almost all other campus buildings. The main office is Room 102 on the first floor of the Administration Building, with additional offices in Duquesne Towers, St. Ann's, and Assumption Hall.
Part VIII: University Programs and Courses

THE UNIVERSITY CORE CURRICULUM

Core Faculty
Madeline C. Archer, Ph.D., Art History
Dana E. Barbush, M.A., Mathematics
Bruce Beaver, Ph.D., Chemistry
G. Richard Benzinger, M.A., English
Bernard F. Beranek, Ph.D., English
Perry K. Blatz, Ph.D., History
Stanley Bober, Ph.D., Economics
Richard E. Bond, Ph.D., Economics
George R. Bradley, Ph.D., Mathematics
Anne Brannen, Ph.D., English
Michael Caball, Ph.D., History
Michael Cahall, Ph.D., Theology
Rebecca Carpenter, Ph.D., English
Anne N. Clifford, C.S.J., Ph.D., Theology
Donato A. DeFelice, M.S., Mathematics
Frederick Evans, Ph.D., Philosophy
Abhay Gaekwad, Ph.D., Mathematics
Edward L. Gelblum, M.A., Philosophy
Lee Glick, Ph.D., Economics
Frank R. Gorga, Ph.D., Chemistry
Louie Haas, Ph.D., History
John K. Hanes, M.A., English
James P. Harnigan, Ph.D., Theology
Jack W. Haussler, Ph.D., Chemistry
Samuel J. Hazo, Ph.D., English
J. Clifton Hill, C.S.P., Ph.D., Physics
Eleanor Wolfe, Ph.D., Philosophy
Susan Howard, Ph.D., English
Jean Hunter, Ph.D., History
Thomas Ivenshau, Ph.D., Chemistry
Chester A. Jucznak, Ph.D., Sociology
Thomas A. Keagy, Ph.D., Mathematics
Joseph J. Keenan, Ph.D., English
David F. Kelly, Ph.D., Theology
Charles D. Keyes, Ph.D., Philosophy
Linda Taylor Kunnah, Ph.D., English
Stuart M. Kurland, Ph.D., English
Albert C. Labrora, Ph.D., English
Rand Lewis, Ph.D.
Robert E. Madden, Ph.D., Philosophy
Patrick L. Malloy, Ph.D., Theology
Paul T. Mason, Ph.D., History
Holly A. Mayer, Ph.D., History
Mark S. Mazur, Ph.D., Mathematics
Monte McIntyre, Ph.D., Theology
Magali Michael, Ph.D., English
Kent Moors, Ph.D., Political Science
Frederick Newberry, Ph.D., English
Jerome L. Niedermeier, Ph.D., English
Ronald M. Polansky, Ph.D., Philosophy

J. Roland Ramirez, Ph.D., Philosophy
Kurt Rethwisch, Ph.D., Economics
Joseph F. Rubel, Ph.D., History
Tom Rockmore, Ph.D., Philosophy
Charles T. Ruben, Ph.D., Political Science
John D. Scanlon, Ph.D., Philosophy
Marilyn Schaub, Ph.D., Theology
Carolyn Shanks, M.M., Music
Michael S. Sluss, Ph.D., Theology
Carmen Stonge, M.A., Art History
Kathleen A. Taylor, Ph.D., Mathematics
William M. Thompson, Ph.D., Theology
Samuel J. Tendall, Ph.D., English
Steven B. Vardy, Ph.D., History
Daniel P. Watkins, Ph.D., English
Wallace S. Watson, Ph.D., English
Bernard J. Weiss, Ph.D., History
George S. Wogul, Ph.D., S.T.D., Theology
William S. Wurzler, Ph.D., Philosophy
Frank T. Zbozny, Ph.D., English

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 to prepare students to develop a sense of the common good, to foster a commitment to the common good, to prepare students to be effective citizens in our changing world, and to provide a foundation for professional studies. The core curriculum is designed to enable students to develop a sense of the common good, to foster a commitment to the common good, to prepare students to be effective citizens in our changing world, and to provide a foundation for professional studies.

Core courses encourage students to develop a sense of the common good, to foster a commitment to the common good, to prepare students to be effective citizens in our changing world, and to provide a foundation for professional studies. The core curriculum is designed to enable students to develop a sense of the common good, to foster a commitment to the common good, to prepare students to be effective citizens in our changing world, and to provide a foundation for professional studies.

101 Thinking and Writing Across the Curriculum
Practice in analysis and expression in many disciplines, as preparation for other work in the university-wide integrated Core Curriculum and for later courses throughout the university.

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

121 Problem Solving with Creative Mathematics
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), or Fundamentals of Statistics 125.

132 Basic Philosophical Questions
Philosophy, literally the "love of wisdom," is a discipline for discussing basic questions about human experience and the world. In this course, in addition to reading and evaluating several works written by major figures chosen from the history of philosophy, students are encouraged to think philosophically for themselves and to formulate their own answers to perennial philosophical questions.

141 Social, Political and Economic Systems
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
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 with the United States and its role in the world. The course addresses the moral, intellectual, and cultural dimensions of these traditions. This requirement may be fulfilled by any one of the following courses:

152 Europe and the World
The relationship between Europe and the world, and the role of Europe in shaping the modern world. The course specifically addresses economic, political, and legal issues as they relate to gender, age, race, and ethnicity.

161 The Arts and the Human Experience
The visual and musical arts are explored in light of the cultural experience. The course draws upon the rich traditions of art, music, and literature to examine the fundamental notions of the arts and as components of a broader historical and cultural experience.

162 Core Theology
The Core Theology courses expose students to the major religious traditions of humankind. The course specifically addresses economic, political, and legal issues as they relate to gender, age, race, and ethnicity.

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

172 Chemistry
The fundamental concepts of structure, bonding, properties, and chemical activity are presented through lecture and laboratory experimentation. A consideration of consumer chemicals and the role of the chemical industry emphasizes the importance of chemistry and related technologies in our everyday lives. The chemical dimensions of selected social issues are considered in the areas of environmental chemistry, energy technology, and food production.

173 Physics
Through lecture and laboratory 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. This course integrates the 20th Century experience with the United States and its role in the world. The course addresses the moral, intellectual, and cultural dimensions of these traditions. This requirement may be fulfilled by any one of the following courses:

174 Core Chemistry
The Core Chemistry courses expose students to the major religious traditions of humankind. The course specifically addresses economic, political, and legal issues as they relate to gender, age, race, and ethnicity.

182 Human Morality
An introduction to the basic questions and approaches of Christian ethics, emphasizing the formulation and formation of moral virtues, the sources and context of Christian ethics, its biblical and historical development, and including applications to some contemporary issues.

183 The Judeo-Christian Religious Tradition
A study of the fundamental beliefs, values and spirit of the Judeo-Christian tradition as expressed in its understanding of the scientific bases of selected problems facing humankind. (Students may also satisfy the Core Science requirement by one of the following courses: Biology 111 or 112, General Chemistry 121 or 122, General Physics 201 or 202.)
religious texts, worship, spirituality, moral codes, and intellectual tradition. The course includes an investigation of the Judeo-Christian faith in a personal context, the dignity of the human person, the importance of community, in the fundamental goodness of creation and the meaning and value of human existence.

184 Introduction to the Bible
An introduction to the methods of investigation necessary to understand the sacred books of Jews and Christians. 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
A study of some of the world's great religions which are thought to be particularly representative of humanity's religious experience, namely, archaic traditions, Hindu and Buddhist traditions, Chinese traditions, and the Islamic path.

186 Roman Catholic Heritage
An introduction to the fundamental beliefs of Roman Catholicism and their expression in literature and the visual arts. After a brief consideration of the interrelations of religion and culture, Roman Catholicism is studied in various historical periods: Origins of Christianity, the Patristic Age, the Middle Ages, Scholasticism and the Renaissance, the Reformation and the Counter-Reformation, the Modern and Contemporary Eras.

187 Christian Understanding of the Human Person
An introduction into the question of "What does it mean to be human?" according to Judaeo-Christian teaching. A discussion of the relationship of the human person to self, others, the world, and the Divine as the basis for humanness. A study of the issues involved in these four relationships: ego, freedom, grace, contemplation.

Note Approved alternate courses for Core 141 are available to students in the College and the School of Business Administration. In general, students will complete the Core requirements according to guidelines established by their respective schools and in consultation with the Advisement and Referral Center.

THE INTEGRATED HONORS PROGRAM
The Integrated Honors Program (IHP) is the honors track of the University Core Curriculum. It is intended for qualified students who wish to accept the challenge of an accelerated learning experience in the Core program. Acceptance is based on a review of credentials, including high school grades, SAT or ACT scores, high school class rank, and a letter of recommendation from the high school principal, counselor, or teacher. All students with exceptional high school records are encouraged to apply. Further information is available at the Office of Comprehensive Student Advisement.

IHP COURSES
The IHP curriculum consists of the following courses:

101 Logic and Rhetoric
Clear and disciplined thinking, reading, speaking, and writing

111 and 112 Civilizations
Great Issues I and II
An intensive study of key ideas and significant people and events of the great civilizations of West and East

114 The American Experience
The rise and significance of the U.S. as a democracy, industrial, affluent, and open society

203 Societal Structures
The objective and subjective societal framework within which the individual functions. This course will be offered by one or more faculty from Economics, Political Science, Psychology, and Sociology, and content will vary.

211 Cultural Perspectives
An inquiry into patterns of beliefs, values, ideologies, and norms of human society through studies of language, literature, religion, art, and history. This course will be offered by one or more faculty from Art History, Classics, Communication, English, History, Modern Languages, Modern Literatures, Philosophy, and Religion, and content will vary.

In addition to the above-listed courses, all IHP students must complete the following general requirements:

natural sciences 3 cr
mathematics (Problem Solving with Creative Mathematics, Calculus, Statistics) 3 cr
social sciences 3 cr
philosophy 3 cr
teology 3 cr
humanities 3 cr

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

ENGLISH AS A SECOND LANGUAGE PROGRAM
Duquesne University offers a comprehensive English as a Second Language Program (ESLP) open to international students admitted to academic degree programs as well as students admitted to the ESLP on a non-degree, certificate of completion basis.

The ESLP offers intensive, semi-intensive, and specialized instruction on basic, intermediate, and advanced levels. Intensive levels meet for twenty hours of instruction per week. Semi-intensive and specialized levels offer instruction for between four and sixteen hours per week, depending upon students' proficiency as determined by English Language Placement Tests.

Note: Qualified students at intermediate and advanced levels may combine coursework in their academic degree major with ESL study. Eligible international students accepted to undergraduate degree programs may be awarded academic credit for their ESL coursework.

The ESLP offers instruction throughout the academic year during three sessions: Fall (Late August to December), Spring (January to April), and Summer (May to July). ESL faculty advise each student in the selection of appropriate ESL courses in five major areas: grammar, reading, listening comprehension, note-taking, pronunciation/speaking, and writing. A full-semester orientation program is also available to assist new international students in adjusting to academic and cultural life in the university.

COURSE DESCRIPTIONS

Basic-Level Courses 0-2 cr

Basic ESL Grammar 4
Basic ESL Pronunciation/Oral Skills 4
Basic ESL Writing 4
Basic ESL Comprehension 4

Intermediate-Level Courses 0-2 cr

Intermediate ESL Grammar 4
Intermediate ESL Pronunciation/Oral Skills 4
Intermediate ESL Reading 4
Intermediate ESL Writing 4
Intermediate ESL Comprehension 4

A group of basic-level courses for students whose native language is other than English. Includes up to sixteen hours of classroom instruction and four hours of language laboratory instruction per week. Level and course assignment determined by placement testing.

Advanced-Level Courses 0-2 cr

Advanced ESL Grammar 4
Advanced ESL Pronunciation/Oral Skills 4
Advanced ESL Reading 4
Advanced ESL Writing 4
Advanced ESL Comprehension 4

Special Purpose Courses vari cr

135 ESL Special Topics 4
An ESL course designed to address specialized skill development in English as a Second Language Placement Testing.

140 ESL Special Purposes Reading 4
An English for Special Purposes course focusing on intensive and extensive reading skills offered through the use of instructional materials designed around specialized fields. Prerequisite Placement Testing.

141 ESL Special Purposes Writing 4
An English for Special Purposes course focusing on academic writing and research skills required to prepare research summaries, final reports, and term papers. Prerequisite Placement Testing.

142, 145-146 ESL Guided Study 4
A multi-level program of ESL language proficiency development offering supervised, continuously sequenced instruction in individually-prescribed learning modules. Prerequisite Placement Testing.
143 ESL Graduate Research Paper
An advanced writing course for graduate international students, offering intensive instruction in bibliographic and research methods as well as in the conventions of expository writing. Prerequisite: Placement Testing

144 Advanced ESL Reading—B
An advanced reading skills course, including literary selections and outside reading, especially designed to prepare for CORE 101 level reading. Prerequisite: Advanced ESL Reading—A

147 ESL Term Paper
An advanced writing course for undergraduate international students preparing especially for CORE 101. The course offers instruction in the conventions of expository writing and in working with and documenting sources. Prerequisite: Advanced ESL Writing

148 ESL Academic Discourse
An advanced, content-based series of excerpts from university texts, offering practice in analytical reading, note-taking, and synthesizing. Prerequisite: Placement Testing

149/150 New International Student Seminar
A series of discussions and activities designed to facilitate the transition and adjustment of new international students to U.S. academic life, the city of Pittsburgh, and Duquesne University.

Core 101 Thinking and Writing Across the Curriculum (ESL) 3 cr.
An introduction to and preparation for both the university-wide integrated Core Curriculum and the many general and specific aspects of the entire university curriculum. Prerequisite: Placement Testing

Core 102 Imaginative Literature and Critical Writing (ESL) 3 cr.
A college-level introduction to imaginative literature and critical techniques for interpreting imaginative literature, with special attention to self-editing skills and cultural contexts of literary interpretation.

EXTRA-DEPARTMENTAL COURSES
008 Study Skills 1 cr.
An examination of the academic problems most frequently encountered by college students. Practical exercises on a variety of topics, including time budgeting, stress management, note-taking techniques, and test preparation strategies.

015 University 101 1 cr.
An exploration of the college adjustment process as it occurs. Study and discussion center on the exploration of college expectations, academic skills, self-esteem, major and career choices, values, time management, social skills and activities, and university helping resources.

College of Liberal Arts

Administration
Interim Dean
Constance D. Ramirez, Ph.D.

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

PHILOSOPHY AND OBJECTIVES
Duquesne University believes that education is concerned with the human person as a whole—mind, body, and soul. It believes that each individual has the obligation to self, society, and God to develop potential to the fullest. In this commitment, the College of Liberal Arts sets its objectives and forms its curricula.

The objectives of the College are:

1. To provide a solid foundation for lifelong learning.
2. To develop an awareness of the methodologies and epistemologies of the major areas of knowledge so that evaluations and judgments may be valid.
3. To assist in both the growth of self-knowledge and the development of a philosophy of life.
4. To assist in the understanding of one’s relation to God, to society, and to nature.
5. To perfect that skill in the use of standard English necessary to clear, coherent expression of one’s thoughts, hopes, and ideals.
6. To cultivate a background for the learned professions and for scholarly pursuits.

DEGREES
The College confers two undergraduate degrees: Bachelor of Science and Bachelor of Arts. Students who complete the major in classics, communication, economics, English, history, modern languages and literatures, philosophy, political science, psychology, sociology, and theology receive the B.A. degree. Students majoring in mathematics or computer science can follow a curriculum leading to either a B.A. or B.S. degree.

GRADUATION REQUIREMENTS
To receive the Degrees 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
College General Requirements, as described below

Major program (minimum of 24 credits, see departmental listings)
Minor program (minimum of 12 credits, see departmental listings)

An overall minimum cumulative quality point average of 2.0. A 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 (on form SR1) 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 22 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 Languages proficiency at the 202 level 3 credits
Math/Science (mathematics, computer science, biology, chemistry, physics) 6 credits (two disciplines must be represented)
Social Sciences (Political Science, Psychology, Sociology) 6 credits

History/Literature 6 credits (must include literature)
Philosophy/Theology 6 credits (must include philosophy)

Communication 3 credits

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 on the best information available as of Spring 1994. 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. A schedule of more than five courses or 17 credits must be approved by the Dean's Office. Students on academic probation may not take more than 15 credits. Students who wish to carry more than 12 credits of courses in the summer sessions must consult with the Dean.

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.

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

Limits on Inter-School Electives
A maximum of 12 credits in Duquesne University courses outside the College of Liberal Arts may be applied to the B.A. or B.S. degree. However, if the student chooses the Certificate in Business Program (24 credits) or an inter-school minor (Education, 15, Music, 15), the maximum credits required will be applied to the degree, but all other courses must be selected from College offerings.

Major/Minor in Same Department
A student may not major and minor in the same department with the exception of language majors, who may minor in a second language, and majors in computer science or mathematics, who may major in the companion discipline.

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

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

CLEP and Advanced Placement
— See page 10

SPECIAL PROGRAMS

PROGRAM IN WORLD LITERATURE

The Departments of Classics, English, and Modern Languages jointly offer a World Literature program, with the exception of language majors.

For requirements, course descriptions, and further information, see World Literature Program in College Course Descriptions.

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 student will be expected to meet degree requirements in the major department, as well as admission requirements of the law school of their choice.

CERTIFICATE IN BUSINESS

This program enables students to preserve the benefits of a liberal education while also acquiring business skills. The program consists of 4 prerequisite courses (12-14 credits) in the College of Liberal Arts and 8 courses (24 credits) in the School of Business Administration. Specific requirements as follows:

Liberal Arts
109 College Algebra (3 cr) or
105 College Algebra and Trigonometry (4 cr)
111 Calculus for Non-science Students (3 cr) or
115 Calculus I (4 cr)
221 Principles of Economics I (3 cr)
222 Principles of Economics II (3 cr)

Business and Administration
182 Information Systems I (3 cr)
(Substitution of College computer courses may be allowed in consultation with the program advisor)
281-282 Quantitative Analysis (6 cr)
(Student may substitute 301-302 Introduction to Probability and Statistics (Prerequisite 116 Calculus)
214 Financial Accounting (3 cr)
215 Managerial Accounting (3 cr)

Business Emphasis — One of the following areas of concentration may be chosen. All courses listed in the School of Business and Administration and the College of Liberal Arts.

A. General Business Sequence
   Bus 361 Principles of Management (3 cr)
   Bus 371 Principles of Marketing (3 cr)
   Bus 331 Business Finance (3 cr)

B. Management Information Systems Sequence
   Business 381 Intro to Decision Sciences (3 cr)
   Two advanced management information courses (6 cr)

C. Management Sequence
   Bus 361 Principles of Management (3 cr)
   Two advanced management courses, general or human resource (6 cr)

D. Marketing Sequence
   Bus 371 Principles of Marketing (3 cr)
   Two advanced marketing courses (6 cr)

E. Finance Sequence
   Bus 331 Business Finance (3 cr)
   Two advanced finance courses (6 cr)

F. Accounting Sequence
   Bus 311 Intermediate Accounting I (3 cr)
   Bus 312 Intermediate Accounting II (3 cr)
   One advanced accounting course (3 cr)

G. Law Sequence
   Prerequisite: Substitute 251 Legal Process for 282 Probability and Statistics II) Plus 9 credits from
   Bus 353 Contracts (3 cr)
   Bus 354 Commercial Transactions (3 cr)
   Bus 335 Law of Business Organizations (3 cr)
   Bus 356 Legal Aspects of Human Resources Management (3 cr)

H. International Business Sequence
   Bus 341 International Business (3 cr)
   Two advanced international business courses (6 cr)

Appropriate Modern Language "for business" at 306 level (3 cr)

Suggested Additional College Electives
383 Writing for Business and Industry (3 cr)
385 Prof and Tech Writing Workshop (3 cr)
102 Techniques of Oral Communication (3 cr)
401 Cooperative Education (3 cr)

The student must complete the business emphasis as it is set up. There are no substitutions.

The student must achieve a minimum grade of C in each course.

Students with waivers for prerequisite courses (Introduction to Computers and Statistics I and II), especially math and computer science majors, will be permitted to take an additional 9 credits in Business and Administration.

Because in most cases it will take three years to complete the certificate, students are strongly urged to register for the program by the end of their freshman year. To register, students should file a completed application form in the College Office. This, along with a copy of their most recent transcript, will be sent to the advisement office in the School of Business Administration. A School of Business advisor will assist the candidate in planning the program.

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). Further information may be obtained from the appropriate department or from the Center.

INTER-SCHOOL MINORS

Inter-school minors are available in Education and Music. For complete details students should consult the advisor or the Dean of the College. If a student has an inter-school minor, all elective credits must be chosen from the Liberal Arts courses.

COOPERATIVE EDUCATION PROGRAM

The Cooperative Education program is a service to students seeking expanded education through work experience and to employers seeking temporary pre-professional staff with the ultimate objective of early identification of the best available college educated talent for permanent assignment.

Under this plan, students may be employed in business, government and other institutional settings. The program design provides for short-term work assignments, and it requires the regular rotation of students in each job and competitive referrals for each work period. Employment may be either full- or part-time for one academic term or its equivalent.

It is expected that the cooperative education student will be paid a salary commensurate with the work assigned. The actual job must be pre-professional, well-defined and fully supervised.

Sixty (60) or more earned credits and a cumulative quality point average of 2.5 or better are basic requirements for student qualification for the Program. Clearance from academic advisors is required of those studying in departments with other internship options.

When employed, and before starting work, a cooperative student must enroll in the course, "Cooperative Education," which is offered for a minimum of three to nine credits depending on the number of hours of work.

For further information about the Cooperative Education Program, interested parties should contact Director, Career Services Center.
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 credit hours and a maximum of 39 hours. Courses must be chosen from courses 200 and above. Further information is available from the Dean's Office.

BACHELOR-MASTER'S PROGRAM

A student who has completed all requirements and a total of 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.

BACHELOR/PROFESSIONAL SCHOOL

A student who has completed 90 credits with a 3.5 overall average and satisfied all undergraduate curricular requirements may apply for the bachelor's degree from the College of Liberal Arts and by meeting all departmental and College requirements if not already satisfied. The additional 30 credits must be completed at the University and may not be taken through cross-registration. Further information is available from the Dean's Office.

SECOND BACHELOR'S DEGREE

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

THREE-YEAR BACHELOR'S DEGREE

For more information contact the Office of Admissions or the Dean's Office.

MAJORS

Classics
Classical Civilization
Communication Studies
Computer Science
English
French
German
Greek
History
Journalism
Latin
Mathematics

MINORS

American Literature
History
Art History
Italian
Classical Civilization
Journalism
Classical Languages
Mathematics
Latin
Philosophy
Greek
Political Science
Communication Studied
Psychology
Studies
Sociology
Computer Science
Criminal Justice
Economics
Human Services
Latin
Gerontology/Human Services
French
World Literature
German
Writing

COURSE DESCRIPTIONS

COLLEGE OF LIBERAL ARTS

206 Greek Art
A study of the architecture, sculpture, vase painting, and minor arts of the Greek world from Mycenaean times to the Hellenistic period. The student is introduced to the extensive vocabulary of Greek art which has been a continuous formative force in Western art.

207 Roman Art
An introduction to Roman innovations in architecture, sculpture, and painting. The background of Roman art in Etruscan, Greek, and Egyptian civilizations is examined. The student is introduced to the impact of Roman art on contemporary art and Neo-Classicism is analyzed.

210 American Art
An overview of American architecture, painting, sculpture and decorative arts intended to acquaint the student with the major trends and contributions of American art from colonial to modern times.

211 History of Photography
A survey of photographic developments from the early 19th C to the present. Emphasis is placed on the United States and upon the interaction of and confrontation between artists and photographers.

312 Late Medieval Art
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
An investigation of the Renaissance spirit of the 15th century. Emphasis is placed upon the attitudes of man toward nature and social structure, and to materials, techniques, pictorial representation, and iconography.

331 Art of the Nineteenth Century
An assessment of the major movements of the nineteenth century in Europe and America, with special emphasis on the social, political, and economic aspects that determined Modernism in Europe from 1789 to 1914. The course also addresses the changing role of the avant-garde artist and the formation of the new patronage, the art market, museums, institutions, and exhibitions.

332 Art of the Twentieth Century
Examination of the major American and European artists and movements of the early twentieth century. Major emphasis is placed on the work of Cezanne and his impact on the formation of Cubism and Futurism, the contradictions and parallels in the various avant-garde practices from 1905-1945 are assessed and evaluated. The changing affiliations of artists, such as their political and aesthetic associations, are also considered.

370, 371, 372, 373, 375 Special Studies in Art History
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, Michelangelo's Art and His World, From Its Beginning to Its Conclusions amidst the Spiritual Turmoil of the Counter Reformation, Michelangelo's Career Spanned, and Generations of Italian Art and History.

376 Contemporary Art
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 twentieth century. Major movements included are Abstract Expressionism, Realism, Pop Art, Minimalism, Happenings, Performance Art, Conceptual Art, and the New Art of the Eighties.

431 Directed Readings
Permission of Department.

441 American Painting and Sculpture
Selected topics in 18th, 19th, and early 20th century American Art History are examined in the context of social, political, and cultural issues. Topics may include The Changing American Landscape in the 19th Century, American Portraiture, American Impressionism, American Women Artists, Reflections of American Art, Art Criticism, and Patronage, Exhibitions, and Museum Institutions.

442 American Architecture
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 architecture are emphasized. The course also includes an introduction to the theory and practice of historic preservation.

443 American Decorative Arts
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.
DEPARTMENT OF CLASSICS

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.

DEPARTMENT OF CLASSICS

Chairperson
Lawrence E. Guichas, Ph. D.

Professors
Jerry Clack, Ph. D.
Lawrence E. Guichas, Ph. D.
Stephen T. Newmyer, Ph. D.

Assistant Professor
Ann Thomas Wilkins, Ph. D.

Lecturers
Howard F. Burrell, M. A.
Gilbert Z. Puznakoski, M. A.
David Seward, Ph. D.

The study of Classics is a unique discipline. It is not the study of a 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 literature into the broad aspects of human existence set in a 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 MINOR

The Department offers a minor in Latin (a maximum of 12 credits above the 100 level), a minor in Greek (a maximum of 12 credits above the 100 level), and a minor in Classical Civilization with concentrations in Greek Civilization, Roman Civilization, Ancient History, and Ancient Art and Literature (12 credits above the 100 level) with approval of the Department and advisors.

REQUIREMENTS FOR THE MAJORS

The Department offers four major programs: Classical Latin, Classical Greek, Classical Languages (knowledge of 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 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 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 six credits of ancient history or ancient literature courses in English. The Survey of Sanskrit Literature (211-212) may be substituted for the credits of either Latin or Greek.

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

ORIGINAL LANGUAGE COURSES

101, 102 Basic Latin I and II 4 cr each
Study of the fundamentals of Latin grammar and syntax combined with occasional exercises in translation from Roman authors.

103, 104 Basic Greek I and II 4 cr each
Study of the fundamentals of Greek grammar and syntax combined with frequent exercises on translation from Greek authors.

111, 112 Basic Sanskrit 3 cr each
A study of the fundamentals of Sanskrit grammar and syntax combined with exercises in translation. Some previous foreign language experience is desirable.

113, 114 Elementary Ecclesiastical Latin 3 cr each
Study of the fundamentals of Latin grammar and syntax as represented in Scripture and Church Fathers.

115, 116 Biblical Greek I and II 3 cr each
This course is designed to help the student with little or no previous knowledge of Greek to learn the elements of KOINE Greek grammar, syntax, and vocabulary. Example tests will be drawn primarily from Biblical authors but will also include other Hellenistic authors such as Philo Alexandrinus.

201, 202 Introduction to Latin Readings I and II 3 cr each
Selections of major Latin author(s)

203, 204 Introduction to Greek Readings I and II 3 cr each
Selections of major classical Greek author(s)

207, 208 Biblical and Patristic Greek 3 cr each
Selections from biblical and Christian Greek literature.

211, 212 Survey of Sanskrit Literature 3 cr each
Selected readings from major Sanskrit texts including the Mahabharata, Hitopadesa, Kathasaritsagam, Manasasadhamsastra, Raghveda, and Meghaduta.

213, 214 Intermediate Ecclesiastical Latin 3 cr each
Selections from Biblical and Christian Latin literature.

The following will be taught as Latin or Greek courses or, for those students who are qualified as combination Latin and Greek courses.

301 Pre-Fifth Century 3 cr
The Iliad, the Odyssey, the Homeric Hymns, Hesiod, Pindar, and Greek lyric poetry.

302 Fifth Century 3 cr
Historians, Thucydides, Aeschyly, Sophocles, Euripides, and Aristophanes.

303 Fourth Century 3 cr
Greek orators, Plato, Aristotle, Xenophon, Menander.

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

305 Roman Republic 3 cr
Plutarch, 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 each
Post classical, medieval, renaissance and neo-Latin authors.

309 Studies in Genre 3 cr each
Selected genre of Greek and/or Latin literature.

400 Independent Readings and Research Var cr

500 Independent Readings and Research Var cr

CLASSICS COURSES IN ENGLISH (NO GREEK OR LATIN REQUIRED)

121 General Etymology 3 cr
A study of the Greek and Latin roots to facilitate the comprehension of modern English as it is written by our acknowledged modern masters.

122 Etymology of Scientific Terms 3 cr
Introduction to Greek and Latin elements of scientific terminology.

123 Classical Mythology 3 cr each
A presentation of the major myths of Greece and Rome with special attention to contemporary interpretations of myth and the influence of myth on art and literature.

206 Greek Art 3 cr
A study of the architecture, sculpture, vase painting, and minor arts of the Greek world from Minoan to Hellenistic times. The student is introduced to the extensive vocabulary of Greek art which has been a continuing formative force in Western art.

207 Roman Art 3 cr
An introduction to Roman innovations in architecture, sculpture, and painting. The background of Roman art in Etruscan, Greek, and Egyptian civilization is investigated, and the impact of Roman art in forming Christian, Renaissance Art, and Neo-Classicism is analyzed.

219 Computer Use in the Humanities 3 cr
A survey of non-scientific applications of computers in the humanities.

230 Ancient Theatre 3 cr
An examination of the origins and development of ancient tragedy and comedy. Readings from the works of Aeschylus, Sophocles, Euripides, Aristophanes, Menander, Plautus, Terence, and Seneca.

231 Ancient Epic 3 cr
A study of ancient epic literature with particular attention to the techniques of oral and literary composition. Readings from the works of Homer, Apollonius of Rhodes, Vergil, and Lucan.

232 Ancient Novel and Romance 3 cr
Survey of Greek and Roman prose fiction with special emphasis on the nature and development on narrative techniques. Readings from Homer, Herodotus, Xenophon, Apollonius of Rhodes, the Greek Romances, Lucan, Petronius, and Apuleius.

233 Ancient Satire 3 cr
Investigation of the satirical element in classical literature with special reference to the writings of Lucian, Lucilius, Horace, Persius, Martialis, and Juvenal.

242 Ancient Law 3 cr
An historical survey, including the contributions of the Babylonians and the Greeks and of the Romans to the development of law between c. 500 B.C. and A.D. 500.

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
An examination of the development of Greek history and culture from earliest times up to the death of Alexander of Macedon.

246 Hellenistic History 3 cr
A survey of Mediterranean history from the death of Alexander until the accession of Octavian and the establishment of the Roman Principate.
DEPARTMENT OF COMMUNICATION

DEPARTMENT OBJECTIVES

Major Our department is unique, a leader in a national trend toward "comprehensive" communication departments. All areas of Communication studies are represented within one department: personal/organizational communication, public relations, and media. This comprehensive communication program provides students with a wide arena of course options, taught by nationally known faculty.

Practical Experience An important characteristic of the Duquesne Communication program is the quality of internship opportunities. Nearly all job 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 provides 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. The Plan of Study form is available from faculty advisors and the Departmental Office.

"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 and Society
COMM 210: Mass Communication and Society
COMM 310: History of Communication
COMM 349: Intercultural Communication
COMM 494: 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

Department Core Courses — 15 Hours

COMM 103 Introduction to Interpersonal Communication
COMM 107 Public Speaking
COMM 201 Human Communication and Society
COMM 210 Mass Communication and Society
COMM 220 History of Communication
COMM 310 Intercultural Communication
COMM 494 Communication Ethics

II. Major in Media Studies

Department Core Courses — 15 Hours

COMM 201 Human Communication and Society
COMM 210 Mass Communication and Society
COMM 220 History of Communication
COMM 310 Intercultural Communication
COMM 320 Mass Communication and Society
COMM 494 Communication Ethics

DEPARTMENT OF COMMUNICATION

COLLEGE OF LIBERAL ARTS

MEDIA STUDIES

I. Minor in Journalism

Department Core Courses — 15 Hours

COMM 271 New Writing & Reporting I
COMM 272 New Writing & Reporting II
COMM 375 Editing for Print

A. Also Required

1. COMM 371 News Writing & Reporting II
2. COMM 201 Human Communication and Society
3. COMM 210 Mass Communication and Society
4. COMM 220 History of Communication
5. COMM 310 Intercultural Communication
6. COMM 320 Mass Communication and Society

II. Specialization Areas Developed in Advancement 6 Hours Minimum

A. Also Required

1. COMM 371 News Writing & Reporting II
2. COMM 375 Editing for Print

B. Specialization Areas Developed in Advancement 6 Hours Minimum

News Editorial
New Production and Management Advertising
Public Relations

REQUIREMENTS FOR THE MINOR

Required 18 Hours Minimum

COMM 201 Human Communication and Society
COMM 210 Mass Communication and Society
COMM 310 Intercultural Communication
COMM 320 Mass Communication and Society

MINOR CONCENTRATION

Nine hours dependent upon advising in the areas of Communication Studies
Media Studies
Journalism

UNDERGRADUATE CURRICULUM

I. Public Speaking

COMM 107 Public Speaking

II. Communication Skills

COMM 201 Human Communication and Society
COMM 210 Mass Communication and Society
COMM 310 Intercultural Communication
COMM 320 Mass Communication and Society

III. Media Institutions

COMM 346 Media Law & Regulation
COMM 349 Media Programming
COMM 348 Media Management & Economics
DEPARTMENT OF COMMUNICATION

103 Introduction to Interpersonal Communication 3 cr
Develops communication skills in a variety of relationships such as friendships, romantic relationships, work relationships, and family relationships. Topics include self-disclosure, nonverbal communication, conflict, listening, communication in relationship development and deterioration, and communication competence.

111 Introduction to Media Arts 3 cr
Familiarizes students with equipment applications and technology, and provides basic hands-on experience in media production. Theory and applications of EPP/ENG, studio video, radio-audio, and photography are explored.

120 Acquisition of Communicative Behavior 3 cr
Focuses on the acquisition of verbal and nonverbal communication from infancy through childhood with emphasis on the comparative analysis of theories of communication development. Examines physical, neurological, psychological, and social bases of "language." Discusses socio-linguistic differences with reference to racial and regional variations.

122 Phonetics 3 cr
Approaches the English language through the study and production of speech sounds as systematized by the International Phonetic Association. Coverage includes the origin and value of the international phonetic alphabet, basic principles of English intonation, English spelling, the human speech machine and corrected speech. The individual sounds of spoken English are isolated and classified.

145 Audio Production I 3 cr
Investigates the types of recording equipment, microphones, and sound systems needed for production plus the skills of recording, mixing, and editing. Small group recording projects, individual presentations, reading, assignments, lectures. Offered in conjunction with the School of Music.

146 Audio Production II 3 cr
Investigates advanced aspects of audio production. Taught in a professional multi-track studio. Offered in conjunction with the School of Music.

151 Voice and Diction 3 cr

177 Language for Journalists 0 cr
This course is designed to teach students the basic rules of English grammar, to stress the importance of using the English language correctly, and to help prepare students for the Language Skills Exam. By the end of the semester, students should be able to recognize grammatical errors, correct them, and avoid making such errors in their own writing.

212 Photojournalism 3 cr
Introduces students to the use of photography as a medium of communication. Teaches the fundamentals of camera work, light, filters, film development, and printing. Students must supply their own 35 mm adjustable camera, film, and printing paper.

212 Sheet Music Writing 1 cr
Teaches the fundamentals of news writing and reporting. Students practice in laboratory exercises and by covering campus news beats and special events outside the classroom. Computer-based writing only. Outside work assignments are a requirement. Course instruction includes determining deadlines, conducting interviews, using a beat, organizing and evaluating material, developing journalism techniques, using an analysis of articles and speeches.

212 Visual Communication 3 cr
Introduces students to the theories of visual perception, graphic communication and their practical applications. Examines nonverbal communication. Topics will include framing, dominance, gestalt theory, additive and subtractive theories of color, symmetry, etc.

212 Color Photography 3 cr
Investigates 35 mm slide photography and its application to audio-visual production. Each student will learn to develop and mount color slides as well as produce a slide show from initial proposal to final script. Each student will also be given an introduction to color printing. Prerequisite: 182.

212 Television Criticism 3 cr
This is a genre criticism course from both journalistic and close-textual approaches will be used. Genre will include soap operas, situation comedies, crime shows, religious television, etc. This course explores the history of television, its role in the creation of political and social boundaries, addresses the role of interpersonal perception in communicating with persons from various cultures, and the role of the audience in understanding of contemporary advertising and public relations.

212 Video Production Studio 3 cr
Introduces electronic news gathering and electronic field production as remote location video production techniques. Covers pre-production planning and design, on-location production, and post-production editing. Out-of-class production time required.

212 Radio and Television Directing 3 cr
Uses the study method to develop an understanding of the principles and practices of contemporary advertising and public relations.

212 Video Production Studio 3 cr
Introduces the history of communication surveys the ancient traditions of rhetoric and public communication through the rise of mediated and mass delivery systems. This course focuses on the thematic aspects of persuasive communication as developed in traditional and mediated systems. Course explores the relationships between knowledge and communication diffusion. The history of communication critically explores the relationships between communication and sociocultural development.

212 Persuasion 3 cr
Examines the influence of various forms of persuasion, including the influence of beliefs, attitudes, and behaviors. Topics may include ancient and modern techniques of persuasion.

212 College of Liberal Arts 55
bodily control, associative memory, etc. Scenes will be studied first in traditional live theatre approach, bodily control, associative memory, etc. Scenes will be studied first in traditional live theatre approach. Technical aspects will be covered in a lecture-laboratory course Prerequisite Z71

368 Media Management and Economics 3 cr
This course introduces students to the basic management operations of a contemporary electronic media facility and the economic parameters of the US media industries. Operating divisions including sales, programming, promotion, research, and finance will be covered. Current regulatory policies as they impact on day-to-day operations will be included. Considerable emphasis on decision-making.

369 Media Programming 3 cr
This course introduces the students to various programming strategies in the electronic media. Topics will include: role of the programmer, ratings research, television network-affiliate relations, independent production, public service, cable systems, commercial radio, public radio, syndication, "new" programming outlets (e.g., DBS, LPTV), etc.

370 Media Promotion 3 cr
Using marketing theory, media principles and promotion techniques, the student will develop the ability to write and produce effective on-air and external communications for an electronic media outlet. There will be an examination of standard promotion practices, unique strategies, and the rules and regulations of promotion campaigns. The student will prepare an entire campaign after assessment of an assigned outlet's image and goals. The student will utilize in-house, purchased, and/or traded radio, video, and television spots in conjunction with print and public relations devices to produce unique and creative listener and/or viewer/listener as to the attraction of the product. Prerequisite 366 or permission of the department.

371 News Writing & Reporting II 3 cr
Teaches advanced writing of news stories, such as business, government, and court stories, and introduces students to in-depth, analytical coverage of public issues. Practical experience in off-campus stories and laboratory exercises. Prerequisite Z71

As a result of this course you should know and be able to write complex news stories. It applies principles of news writing and lab exercises. This course is a vigorous introduction to public affairs reporting.

375 Editing for Print 3 cr
Teaches editing and presentation of the written word for the print news media in a lecture-laboratory course Style, headlines, page design and layout covered.

382 Advanced Photographic Journalism 3 cr
Investigates advanced black and white photography techniques. Includes a refinement of dark room skills with an introduction to high contrast materials and studio lighting techniques.

402 Argumentation and Debate 3 cr
Applies the principles and methods of critical thinking to a significant contemporary social issue. Emphasizes advocating, defending, and refuting a proposition of policy. Topics include evidence and reasoning, debate form, rebuttal, and types of debate. As a result of this course, you should be able to reason, use evidence, solve complicated problems, communicate effectively for contentions, prepare a brief, and debate both affirmative and negative sides of the proposition or policy.

417 Multicultural Communication 3 cr
Focuses on the similarities and differences in the way people from different nations think, act, and negotiate. Contrast between East and West, as they are presented, is an education model. Training exercises are acted out in many sessions.

419/519 Mass Communication & Everyday Life 3 cr
Course examines theories and research in the field of mass media (notably television and society). Topics include social learning theory and mass media, psychosocial television, cultivation theory, news, politics, and agenda setting, functions and effects of pornography, mass media depictions of women and minorities.

421/521 Sex Roles and Communication 3 cr
Examines research on differences in men's and women's communication patterns in a variety of contexts, including personal, social, and work relationships. This course will enable students to understand how men and women communicate differently in some situations and will increase students' ability to make informed judgments about these differences.

427 Communication Management 3 cr
Examines the role of communication in management. Topics include supervisory style, performance evaluation, interviewing, leadership, and organizational behavior.

429 Advertising Production 3 cr
Focuses on applying theories of sales and marketing to print media. Students learn to design special ads to be used to approach potential clients, to tailor ads for specific clients. Students learn to use desktop publishing software to design and produce ads. A substantial amount of assignments will be coordinated with students in 437 Media Sales.

432/532 Print Production & Graphic Design 3 cr
Examines the print production of advertising, public relations, and media, emphasizing the printing arts, and thePrint Production area of the industry. Emphasizes promotion area of the industry and provides practical applications.

433 Advertising Practices 3 cr
Teaches the selection, preparation, and placement of an advertising plan in a variety of forms. Emphasis on the fundamentals of advertising: writing, selling, and working with others. Topics covered include advertising planning, creative strategy and artistic execution.

436/536 Marketing Communication 3 cr
Examines the principles and practices of marketing communication. Emphasizes the promotion area of the marketing mix including advertising, sales promotion, public relations and personal selling.

437 Media Sales 3 cr
This course explains the multi-faceted dimension of sales in contemporary business environments— with special emphasis on the tools for media sales. Topics include researching and prospecting clients, phasing of the selling process, developing and maintaining rapport with clients, closing the deal, etc.

441 Interactive Video 3 cr
Investigates interactive video as a medium that goes beyond linear media. Examines its applicability in industrial and educational settings. This course introduces computer authoring systems and authoring language and by student newspaper.

453 Computer Graphic Design 3 cr
Examines the use of computer-generated images in visual communication. Students learn the use of desktop publishing software to create various forms of visual communication while weaving into overall class understanding, the theories of page design. The course focuses on the theoretical framework of visual communication and provides practical applications.

454/554 Interpersonal Communication 3 cr
Examines the role of interpersonal communication in organizations in order to provide students with an understanding of the concepts, theories, and methods needed to assess the nature of communication processes and the relationship between communication and organizational variables. Topics covered may include organizational theory, management styles, supervisor-subordinate communication patterns, informal communication networks, organizational climate and culture, motivation, satisfaction, and communication audits.

457/557 Communication, Science and Revolution 3 cr
Examines how communication as a discipline developed in the context of various interests, and the impact of communication on society. Prerequisite 456 or permission of the department.

467 Advanced Writing for Radio & Television 3 cr
Teaches new writing for radio and television in a lecture-laboratory course. Prerequisite 367. As a result of this course you should be able to write, format and have a working knowledge of news writing techniques.
471 Advanced Public Affairs Reporting 3 cr
teaches interpretive reporting of urban affairs in a
lecture-laboratory course. Analysis of major political,
economic and social developments that have local
interest and significance. Includes guest and
field trips. Prerequisites 271, 371

472 Writing Editorials, Critiques & Reviews 3 cr
Examines the basic principles of reviewing art forms
(literature, movies, theatre, etc.) and writing thoughtful,
informative editorials on local, national and world
affairs. This course is designed for the print or elec-
tronic communicator who wishes to develop a special-
ization, but is intended for generalists as well.

473/573 Feature Writing 3 cr
Teaches feature article writing for the general and
specialized press. Includes writing for internal and
external corporate publications, as well as
query writing and marketing for the free-lance
writer and feature writer for the print news reporter.
Helps students develop research, interviewing and
writing skills necessary to produce polished feature
writing. Team Meeting times will be used for critiques
and evidence, co-

474 International Mass Communication 3 cr
Studies world news systems and analyzes their roles
as instruments of world understanding. Compares
U.S.-foreign systems, including newspapers, broad-
casting, magazines, and wire services

475/575 Communication Research Methods 3 cr
This course provides training in gathering and
analyzing empirical data relevant to communication
phenomena. Topics may include qualitative and quantitative
research approaches (e.g., content analysis, sampling,
survey design and statistics), Hands-on computer
applications for statistical analyses are included.

476 Media Law and Regulation 3 cr
Examines the legal rights, privileges, ethical and
responsibilities of the mass media -- electronic and
print. Covered topics include the historical founda-
tions of media law, First Amendment, transporta-
tion/communications "tradeoffs," distinctions
between law, regulation, and policy, obscenity/inde-
cency, libel, copyright, and the impact of evolving
media technologies. The course may be repeated for
up to 6 credits, maximum of 3 credits toward the
degree in communication, up to 3 additional credits
can be used as electives. Note: Total credits for

480 + 481 +496 +498 cannot exceed 9 credits toward
the minimum 30 credits required for the major. A
student may take more than a total of 9 credits, but
the extra credits will count as electives.

481 Practicum In Debate 3 cr
Designed for all persons on the University Debate
Team. Meetings times will be used for practice of panel
analysis and oral argument. Prerequisite permission
of instructor may be repeated for up to 6 credits, maximum of 1 credit
derived from the field of communication, up to 3 additional credits
can be used as electives. Note: Total credits for

480 + 481 +496 +497 +498 cannot exceed 9 credits toward
the minimum 30 credits required for the major. A
student may take more than a total of 9 credits, but
the extra credits will count as electives.

482 Practicum In College Radio 3 cr
Designed for all persons working for a college radio
station. Conducts formal critiques of WQED and
related college media. Topics range from manage-
tment to technical to regulatory issues. Prerequisite
prerequisites for instruction. May be repeated for
up to 6 credits, maximum of 3 credits toward the
degree in communication, up to 3 additional credits
can be used as electives.

484 Health Communication 3 cr
Examines communication theory and research as it
relates to the health care context. Uses a systems
perspective to investigate such issues as interpe-
tional social dynamics, communication (e.g., health-care
practitioners, nurses, patients, doctors, nurse-practitioners),
patient satisfaction and con-

490/590 Special Topic 3 cr

491/591 Media Information and Technology 3 cr
An advanced examination of the societal impact and
the political economy of information and technol-
ogy. Students will explore a relevant topic in-depth through classroom presentation(s) and
the completion of a seminar paper. Examination of the instruction. Prerequisite: Consent of
departmental core or permission of instructor.

492 Seminar Current Issues In Communication 3 cr
Discusses professional problems and advancements in
the field of Communication. Specific topics vary.
Open to majors only. May be repeated for up to 3 credits,
maximum of 3 credits maximum of 3 credits toward the
degree in communication.

493 Multi-Media Production 3 cr
Provides practicum based experience in advanced
production, students. Topics and assignments may
provide professional-level production envir-

494 Communication Ethics (Core) 3 cr
Communication ethics explores theoretical and prac-
tical issues in the examination of ethical options and
decisions and in the field of communication. Students
will explore a relevant topic in-depth through classroom presentation(s) and
the completion of a seminar paper. Examination of the instruction. Prerequisite: Consent of
departmental core or permission of instructor.

496 Directed Readings* 1-6 cr
Offers the opportunity for students and faculty to
collaborate in-depth study of a topic not covered,
covered only briefly, in other departmental courses.
In order to enroll in Directed Readings, students must first secure approval from the faculty member
who will be the primary author of the study. Approval requires:
(1) discussing the topic with the faculty member; (2) the availability and interest of the student; (3) the
availability and interest of the faculty member; (4) the availability and interest of the faculty
member; (5) the availability and interest of the faculty member; (6) the availability and interest of the faculty
member; (7) the availability and interest of the faculty member; (8) the availability and interest of the faculty
member; (9) the availability and interest of the faculty member;

497 Special Projects 1-6 cr
Students in this course prepare print or electronic
products (e.g., brochures, slide shows, video
programs, etc.) commissioned by University or com-

497 Special Projects 1-6 cr
Students in this course prepare print or electronic
products (e.g., brochures, slide shows, video
programs, etc.) commissioned by University or com-

498 Internship 1-6 cr
Provides 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

REQUIREMENTS FOR THE MINOR
Eighteen credit hours are required for a minor in
Economics. These credits must include Principles
221 and 222.

470/570 Survey of Economic Institutions 3 cr
An introduction to microeconomic and macro-
economic principles. Introduces students to

471/571 Principles of Microeconomics 3 cr
Examines the behavior of individuals and firms
in competitive markets and the implications for

472/572 Principles of Macroeconomics 3 cr
Examines the behavior of individuals and firms
in competitive markets and the implications for

473/573 Economic Growth 3 cr
Examines the growth process and policies that

474/574 Money and Banking 3 cr
Provides an overview of the economic roles of
money and banking systems. Topics include

475/575 Economics of the Labor Market 3 cr
Examines the labor market and its implications for

476/576 Economics of the Public Sector 3 cr
Examines the role of government in the economy and
its implications for public policy.

477/577 Economic Development 3 cr
Examines the processes of economic development and
its implications for policy.

478/578 International Economics 3 cr
Examines the international economy and its
implications for policy.

479/579 Environmental Economics 3 cr
Examines the interaction of economic activity and the
environment and its implications for policy.

Additional courses at the 200 level or above may be
substituted with approval from the Department of Economics.

Required courses: Principles 221 and 222.

The purpose of the Economics program is to enable the
student to understand the workings of the U.S. and
international economy and to develop the student's
capacity to think analytically about a wide
range of economic and social problems. The ability
to think analytically and to write concisely is
required. The course is comprised of a core
sequence in the field of Economics. The core
sequence includes:

Principles 221 and 222:
These courses provide an introduction to
microeconomic and macroeconomic principles.

Principles 221 and 222:
These courses provide an introduction to
microeconomic and macroeconomic principles.

Economics 231:
This course provides an introduction to
microeconomic principles and their
applications.

Economics 232:
This course provides an introduction to
macroeconomic principles and their
applications.

Economics 233:
This course provides an introduction to
international economics and their
applications.

Economics 234:
This course provides an introduction to
environmental economics and their
applications.

Economics 235:
This course provides an introduction to
public economics and their
applications.

Economics 236:
This course provides an introduction to
economic growth and their
applications.

Economics 237:
This course provides an introduction to
economic development and their
applications.

Economics 238:
This course provides an introduction to
economic policy and their
applications.

Economics 239:
This course provides an introduction to
economic measurement and their
applications.

Economics 240:
This course provides an introduction to
economic modeling and their
applications.

Economics 241:
This course provides an introduction to
economic forecasting and their
applications.

Economics 242:
This course provides an introduction to
economic simulation and their
applications.

Economics 243:
This course provides an introduction to
economic optimization and their
applications.

Economics 244:
This course provides an introduction to
economic decision-making and their
applications.

Economics 245:
This course provides an introduction to
economic risk and their
applications.

Economics 246:
This course provides an introduction to
economic uncertainty and their
applications.

Economics 247:
This course provides an introduction to
economic complexity and their
applications.

Course Descriptions and faculty listing are pro-
vided in the School of Business Administration
Section of this Catalog on Pages 115-116.
DEPARTMENT OF ENGLISH

Chairperson
Joseph J. Keenan, Jr., Ph.D.

Instructor
Jerome L. Niedermeier, Ph.D.

Associate Professors
Wallace S. Watson, Ph.D.
Daniel P. Watkins, Ph.D.
Joseph J. Keenan, Jr., Ph.D.

Assistant Professors
Bernard F. Beranek, Ph.D.
Magath Michael, Ph.D.
Anne Brannen, Ph.D.
Frederick Newberry, Ph.D.
Constance Deucher Ramirez, Ph.D.
Distinguished University Professor
Magath Michael, Ph.D.

DEPARTMENT OF ENGLISH

COLLEGE OF LIBERAL ARTS

REQUIREMENTS FOR THE MAJOR

Thirty credit hours in English above the 100 level are required for the English major. No more than twelve hours in English may be taken at the 200 level. Additionally, English majors must fulfill the following minimum requirements:

a) Any two courses from the following English 201, 202, 205, 206, 210, 211

These courses are designed to introduce students to the literature of particular historical periods while emphasizing the development of analytical and writing skills essential to the study of literature. Under ordinary circumstances, this requirement must be fulfilled by the end of the sophomore year.

b) Five 400-level courses (which may include the Senior Seminar specified below) as follows:

1) Three courses in English literature, chosen from three of the following:
   a) Medieval
   b) Sixteenth/Seventeenth Century
   c) Restoration-Eighteenth/Nineteenth Century
   d) Twentieth-Century (English or American)

2) One course in American Literature
   If an American course is taken to fulfill the Twentieth-Century requirement above, this requirement must be fulfilled with a course in pre-Twentieth-Century American literature.

3) One course at the 400 level selected from a group of courses designated as theoretical.
   These courses will explore approaches to literary texts and other forms of cultural expression with specific reference to a body of theoretical discourse that is explored systematically and critically. At pre-registration each semester, the Department will post a list of courses that meet this requirement.
   a) A Senior Seminar (which may fulfill one of the 400-level requirements specified above)
   b) Three additional elective courses offered by the English Department

REQUIREMENTS FOR THE MINOR

Eighteen credit hours in English above the 100 level are 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: English and/or American Literature, Language and Film, or Writing. Additionally, English minors must fulfill the following minimum requirements:

a) Any two courses from the following: English 201, 202, 205, 206, 210, 211

b) Advanced courses offered by the English Department to make up the required number.

These courses are designed to introduce students to the literature of particular historical periods while emphasizing the development of analytical and writing skills essential to the study of literature. Under ordinary circumstances, this requirement must be fulfilled by the end of the sophomore year.

Note: English minors may elect to enroll in a Senior Seminar if space is available.

HONORS PROGRAM

Students interested in pursuing Honors in English should consult with the Department.

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
   Designed to build upon writing skills learned in Core 101 and 102 centered chiefly on development of style and accuracy.

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

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

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

208 Poetry
   3 cr
   Appreciation of British and American poetry, critical analysis of traditional and experimental poetic forms, consideration of philosophical and social concerns of poetry.

209 Drama
   3 cr
   A historical survey of major dramatic forms through a selection of representative works by major playwrights from the classical tradition of Greece and Rome to the Theatre of the Absurd.

210 Readings in Western Literature I
   3 cr
   A survey of major literary works of the Western world from ancient times through the Renaissance, with emphasis on continental traditions. The course explores both the thematic preoccupations of Western writers and the development and evolution of literary forms.

211 Readings in Western Literature II
   3 cr
   A survey of major literary works of the Western world from the Enlightenment to the present, with emphasis on continental traditions. The course explores both the thematic preoccupations of Western writers and the development and evolution of literary forms.

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 each
   Two or three courses in this sequence are offered every semester by the English Department to meet the current interests of both students and faculty. Examples of courses regularly offered include Science Fiction, Introduction to Film, Southern Literature, The Literature of Mystery and Detection, Christian Literature and Art, Women Writers and the Novel, Modern Short Story, and The English Bible and Literature.

380, 381, 382, 383, 384, 385, 386, 387, 388, 389 Writing Workshops
   3 cr
   Courses in this sequence are offered each semester in a workshop format designed to develop students' creative and/or technical writing skills. Examples of courses regularly offered include Playwriting, Poetry Workshop, Fiction Workshop, Writing for Business and Industry, Professional and Technical Writing. Admission by instructor's permission only.
The remainder of the English courses are divided into areas of emphasis. During a four-year period, each course from each area will be offered at least once.

**Medieval Studies**

400 Senior Seminar
Medieval English Literature 3 cr
For specific topics and schedule, consult English Department. Open only to English Majors and Minors (if space is available)

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

410 Medieval Special Topics 3 cr
Studies in the ideas and attitudes of the medieval period approached through one of its dominant genres such as the romance, the drama, the lyric, etc. or through some of its major writers other than Chaucer or through international readins in Old and Middle English, Old Iceland, Medieval French and German (all read in English translation)

**Sixteenth/Seventeenth Century Studies**

411 Senior Seminar Sixteenth/Seventeenth Century English Literature 3 cr
For specific topics and schedule, consult English Department. Open only to English Majors and Minors (if space is available)

413 Sixteenth Century English Literature 3 cr
Survey of non-dramatic English literature of the Sixteenth Century through the end of the Elizabethan age includes works by authors such as 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
Studies in Sixteenth/Seventeenth Century literature focusing on the works of one or more of its major figures — e.g. Sidney, Spenser, Shakespeare, Donne, Jonson — or on one of its dominant genres such as the drama, the epic, lyric poetry, etc. Examples of courses regularly offered include "Shakespeare on Film" and "English Renaissance Drama"

**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
For specific topics and schedule, consult English Department. Open only to English Majors and Minors (if space is available)

422 Restoration Literature, 1660-1700 3 cr
Dryden and his contemporaries. Particular emphasis on satire, drama, and criticism

424 English Classicism 3 cr
Developments of neo-classical literature from the Restoration to the death of Pope. Particular attention given to 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
Studies in Eighteenth Century thought and aesthetics. In the works of one or more of its major writers: Aesthetics, Burney, Johnson, Pope, Richardisches, Swift, etc. or through the ideas and attitudes conveyed in one of the dominant genres of the Eighteenth Century: the drama, the essay, the novel, poetry, etc.

**Nineteenth Century Studies**

430 Senior Seminar Nineteenth Century English Literature 3 cr
For specific topics and schedule, consult English Department. Open only to English Majors and Minors (if space is available)

433 English Romantic Literature 3 cr
A study of the aesthetic, moral, and literary aspects of English romanticism approached through the writings of Wordsworth, Coleridge, Byron, Shelley, Keats

436 Victorian Literature 3 cr
A study of the poetry of Tennyson, Browning, Arnold, and the prose of Arnold, Carlyle and Ruskin. Attention also given to the poetry of Morris, Rossetti and Fitzgerald

439 Nineteenth Century Special Topics 3 cr
Studies in Nineteenth Century thought and aesthetic in the works of one or more of its great writers such as Wordsworth, Tennyson, Browning, Dickens, Hardy, or through the ideas and attitudes conveyed in one of the dominant genres of the Nineteenth Century

**American Studies**

440 Senior Seminar Earlier American Literature 3 cr
For specific topics and schedule, consult English Department. Open only to English Majors and Minors (if space is available)

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

442 American Literature of the National Period 3 cr
Post-revolutionary literature of the emerging nation, including Irving, Brown, Cooper, Smits, 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
Studies designed to reflect current interests of faculty and students alike. Topics can be drawn from such areas as historical background, women's and ethnic studies, regional literature, special themes, major authors, and literary genres

**Twentieth Century Studies**

450 Senior Seminar Twentieth Century English/American Literature 3 cr
For specific topics and schedule, consult English Department. Open only to English Majors and Minors (if space is available)

452 English Literature from 1890 to 1945 3 cr
Focuses on the interaction between tradition and innovation, in the context of international "Modernism," including work by such writers as Conrad, Yeats, Eliot, Rhys, Woolf, Joyce, and the war poets

453 English Literature Since 1945 3 cr
Focuses on the literary innovations in post-1945 texts which reflect the century's radical cultural and philosophical shifts

456 American Literature from 1900 to 1945 3 cr
American poetry, fiction, and non-fiction prose of the first half of the twentieth century, focusing on such literary movements as Modernism, the Harlem Renaissance, and the Southern Renaissance, on regional writing, and on the literature produced by diverse racial, ethnic, gender, and class groups within American culture

457 American Literature since 1945 3 cr
American poetry, fiction, and non-fiction prose, representing various literary styles and movements and exploring diverse issues of cultural identity in contemporary America

458 Twentieth Century Special Topics 3 cr
Study of one or more authors, genres, and/or themes

**Studies in Language, Criticism, and Theory**

460 The English Language 3 cr
An introduction to linguistic analysis with primary emphasis on the history of the structure of English from old to modern English

461 Senior Seminar Language/Criticism/Theory 3 cr
For specific topics and schedule, consult English Department. Open only to English Majors and Minors (if space is available)

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
Basic principles of phrase-structure (generative-transformational) grammar and its application to the study and solution of problems in writing

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

466 Literary Theory 3 cr
A study of the principal developments in twentieth-century literary theory and criticism, with emphasis on New Criticism, structuralism, post-structuralism, Marxism, and feminism

468 Special Studies Language/Criticism/Theory 3 cr
Studies designed to reflect current interests of faculty and students. Topics chosen explore in depth a particular figure, movement, or idea. An example of a course regularly offered is "Postmodern Theory/Cultural Studies"

490 Topics in World Literature 3 cr
Exploration of selected themes through the study of literary texts from various national traditions, addressing theoretical and critical issues involved in the comparative study of literature. May be cross-listed with one or more courses in the other world-literature sponsoring departments. (Classic and Modern Languages)

**DEPARTMENT OF HISTORY**

Chairperson
Bernard J. Weiss, Ph.D.

Professor
Jean E. Hunter, Ph.D.
Paul T. Mason, Ph.D.
Steven B. Vardy, Ph.D.
Michael P. Weber, D.A.
Bernard J. Weiss, Ph.D.

Associate Professor
Madeline C. Archer, Ph.D.
Perry K. Blatz, Ph.D.
Joseph F. Rushel, Ph.D.
**DEPARTMENT OF HISTORY**

**COLLEGE OF LIBERAL ARTS**

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### Area Courses

- **212 Europe in the Feudal Age**
  - The world of the Middle Ages—a survey of medieval man, political, social, and cultural activities

- **213, 214 Western Civilization**
  - An introductory survey of the origins and characteristics of European Civilization, emphasizing the personalities and events and institutions that have shaped the West

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### Introductory Surveys

- **103 History of the United States to 1877**
  - The historical development of American institutions, ideals, and society from earliest times to 1877

- **104 History of the United States since 1877**
  - The historical development of American institutions, ideals, and society since 1877

### Area Courses

- **217 History of Ancient Greece and Rome**
  - The rise of the Greek city-state, the development of Greek democracy, the rise of Rome, and the fall of the Roman Empire

- **220 East-Central Europe**
  - The medieval and modern history of the small nations situated between Russia and Germany on the east and west, and the Baltic and Mediterranean seas on the north and the south

- **226 Modern Britain**
  - 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

### Art History Courses

- **246 History of Ancient Medicine**
  - Examination of the most significant medical theories and practices in the period from the Egyptian temple physicians to the doctors of the Roman Empire

- **247 Hellenistic History**
  - A survey of Mediterranean history from the death of Alexander until the accession of Octavian and the establishment of the Roman principate

- **248 History of the Roman Empire**
  - Study of the consolidation of the Roman imperial structure from Augustus to the death of Commodus

- **249 Egyptian Civilization**
  - A survey of Egyptian history and culture from the pre-dynastic period to the establishment of Roman rule

- **254 The History of the Modern Middle East**
  - A study of the modern Near East with concentration upon the conflict between imperialism and nationalism, traditionalism and Western influence, in the area

- **255 History of Asia**
  - A survey of Asian civilization from ancient times to the present day, western colonialism, the rise of nationalism, and the establishment of modern states

- **257, 258 Russian History**
  - Development of society and state in Russia from their origins to the twentieth century

- **259, 260 East-Central Europe**
  - The medieval and modern history of the small nations situated between Russia and Germany on the east and west, and the Baltic and Mediterranean seas on the north and the south

- **265 England to 1715**
  - The foundations of England, emphasizing the origins of the common law, the rise of parliament, and the development of English society, and England's contributions to Western thought

- **266 Modern Britain**
  - 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

### History of the United States

- **267 History of the United States 1865 to 1985**
  - A study of the events and movements in American history from 1865 to 1985

### History of the U.S.

- **268 History of the United States 1783 to 1865**
  - A study of the events and movements in American history from 1783 to 1865

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### REQUIREMENTS FOR THE MAJOR

A minimum of thirty credits must be taken including:

- **Area Courses**
- **Introductory Surveys**
- **Art History Courses**
- **History of the United States Courses**

A maximum of twelve transfer credits in History courses may be applied to the major requirement, at least nine must be taken in Art History courses above the 100 level.

A maximum of twelve transfer credits in History courses may be applied to the major requirement, at least nine must be taken in Art History courses above the 100 level.

### REQUIREMENTS FOR THE MINOR

Students who wish to minor in History may consult with a department undergraduate advisor. The student is required to take fifteen hours including:

- **Introductory Surveys**
- **Area Courses**
- **History of the United States Courses**

A maximum of twelve transfer credits in History courses may be applied to the major requirement, at least nine must be taken in Art History courses above the 100 level.

A maximum of twelve transfer credits in History courses may be applied to the major requirement, at least nine must be taken in Art History courses above the 100 level.

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### Topical Surveys

#### History of Science

- **305 History of Science**
  - A survey of the development of science in the Western World in terms of medicine as an art and as a science. The latter part of the course will focus on the social and institutional aspects in the development of American medicine

- **306 History of Science**
  - An examination of the significance of scientific developments within the historical and social context of Western culture

#### World History and the Historian

- **311 World History and the Historian**
  - The course will trace the main events of world history in relation to the most important theories of world history and in the context of an inquiry into the nature of historical understanding. The first semester treats prehistory, the emergence of civilization, and the development of the major classical civilizations. The second semester is an inquiry into the nature of modernity

#### Archaeological History of the Ancient Greek World

- **315 Archaeological History of the Ancient Greek World**
  - A survey of the archaeology of Greece from pre-history to the Roman period. Some discussion of excavation techniques as well as the development of Greek archaeology

#### Archaeological History of Athens

- **316 Archaeological History of Athens**
  - A detailed examination into the topography and monuments of Athens and Attica, from the prehistoric to the Roman period

#### Archaeological History of the Ancient Roman World

- **317 Archaeological History of the Ancient Roman World**
  - A survey of the archaeology of Italy from pre-history to the 5th century A.D. Some discussion of excavation techniques and the history of discipline

#### Archaeological History of Rome

- **318 Archaeological History of Rome**
  - A detailed examination into the topography and monuments of Rome from pre-history through Constantine

#### Archaeological History Seminar

- **319 Archaeological History Seminar**
  - Possible topics include The Bronze Age Aegean, The Development of Vase Paintings, The Etruscans, etc.

#### Colonial America

- **320 Colonial America**
  - The exploration and settlement of the British North American Colonies to 1763

#### American Revolution

- **321 American Revolution**
  - A survey of the major events, persons and movements in American history from 1763 to 1790

#### Contemporary Latin America

- **322 Contemporary Latin America**
  - An examination of the causes of revolution, as well as the major social, economic, and political crises confronting the Latin American region

#### History of Western Law

- **340 History of Western Law**
  - Primary emphasis will be placed on the rise of customary law, especially its development in England and America

#### Church History

- **343 Church History**
  - 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

#### American Church History

- **345 American Church History**
  - Emphasizes the historical development of major religious traditions in America, both Catholic and Protestant, and in the process will deal with the "life of the mind" of Christianity in America, the frontier expansion of religion, the often-controversial interaction between the Church and American culture, the place of religion in the creation of the American character, and the unique separation of church and state

#### War in Modern Society

- **347 War in Modern Society**
  - A study and analysis of the phenomenon of war in the Western World from the Age of Napoleon to the present, with special emphasis placed upon the interrelationship between international conflict and social, political, and technological change

#### Family and Society in History

- **348 Family and Society in History**
  - Interaction between the family, the traditional basic unit of society, and the larger world in modern times. Working through family histories, the course will investigate the changing nature of the family in an effort to better understand the modern institution

#### History of the American Presidency

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

#### Constitutional History of the United States

- **360 Constitutional History of the United States**
  - An analysis of the Supreme Court and constitutional development, stressing the major controversies in the field

#### History of the United States' Political Parties Since 1868

- **362 History of the United States' Political Parties Since 1868**
  - A detailed examination and analysis of the origins, leadership, and operation of the major political parties since 1868

#### The American Mind

- **364 The American Mind**
  - The origins, development and contemporary modes of thought, including major "cultures of opinion," diverse movements, and selected scientific, political, religious, social, and artistic topics
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 nineteenth and twentieth centuries

Current History 3 cr
What are the major forces affecting our lives today? Where do they come from? Where will they lead to? Resources will be current media such as newspapers, TV, etc.

History of Inner Asia 3 cr
The history of Inner Asia from Genghis Khan's Mongol Empire to Mikhail Gorbatchev's Soviet Empire

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

Psychology 3 cr
Examines the inter-relationships between psychology—especially psychoanalysis—and history. Psychology leadership of group behavior, or war, etc.

Women in History 3 cr
A survey of the historical experience of women, from ancient times, with emphasis on the forces that have led to the modern changes in women's status

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

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

Pittsburgh and the American City 3 cr
The rise of Urban America, using Pittsburgh as a case study of city growth and change, industrialization, immigration, and renewal in the twentieth century

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

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

History of U S Immigration 3 cr
An examination of the dynamics of immigration to the United States with emphasis on the new immigration at the turn of the century

American Science and Technology 3 cr
The development of science and technology in America from colonial times to the twentieth century

American Urbanization in Historical Perspective 3 cr
The course examines the development of the American city with special focus upon changes in land use patterns, social class arrangements, political organizations, mobility and migration, ecological patterns, industrial and commercial developments, transformation of the built environment, and the creation of a national urban policy

U S Labor and Capital 3 cr
An analysis of the forces which have shaped American industrialization, focusing on the impact of unionization and the development of big business on the everyday lives of Americans from pre-industrial craftsmen to industrial workers

Diplomatic History of United States Since 1898 3 cr
Emphasis is upon involvement of the United States in both World Wars and its role as an imperial power

The Modern Historian 3 cr
The development of modern historical thinking and scholarship as it is related to the major intellectual and social currents of modern times

Employee Honors Seminar I 3 cr
Employee Honors Seminar II 3 cr
Directed Reading, Selected Historical Topics 3 cr

DEPARTMENT OF HISTORY

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE
Chairperson
Thomas Keagy, Ph D

Professors
Thomas Keagy, Ph D
Kathleen A Taylor, Ph D

Associate Professors
George R Bradley, Ph D
Frank D'Amico, Ph D
Donato DeFelice, M S
Adam Drozdek, Ph D
Abhay Gaur, Ph D
Charles Loch, M A
Mark S Mazur, Ph D
Lili Shashaani, Ph D

Assistant Professors
Daniel Barbush, M A
Bret Largent, Ph D
Hershel Sacks, Ph D
Donald Sumon, Ph D

Adjunct Professor
Robert Hill, Ph D

Lecturers
Timothy Kelly, M A, M S
Philip Lunney, M S
Edward Markoff, M A

MATHMATICS PROGRAM

The major objectives of the mathematics program are to provide knowledge of the theoretical basis of the field, as well as for the mental development of the student, skill in interpreting the concepts underlying quantitative procedures, and ability to apply modern mathematical techniques and tools to practical problems. Courses in the curriculum give students an opportunity to develop the basis for critical and logical analysis of problems and to design and implement creative solutions. In addition, to comprehensive programs leading to a major or minor in mathematics, offerings are designed to serve the locally educated person in support of other disciplines

REQUIREMENTS FOR A MAJOR

The student may choose to pursue a major in mathematics with a program leading to a Bachelor of Arts (B A ) or a Bachelor of Science (B S ) degree. The B A program, which requires a minimum of 33 semester hours of mathematics, allows a great deal of flexibility for persons interested in combining the major program with a strong minor or double major in a non-science 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, 300, 306, 402, and 415 A grade of C or better must be achieved in all mathematics core courses. Remaining courses must be taken at the 200 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 403, 420, and 416

Additional B S Extra-disciplinary Requirements

General Analytical Physics 211-212

APPLICATIONS
If an appropriate program of support work is planned, the mathematics major may chose a
careers from fields including actuarial science, astronomy, biomathematics, operations research, computer science, economics, electronics, engineering, geophysics, operations research, physics, statistical surveying for industry and governmental agencies, and teaching. Elective courses in the major program which have a particular connection to an application area include:

- Business 301-302, 308, 325, and 425
- Computer Science 235, 301-302, and 308
- Education 301-302, 311, and 330
- Natural Sciences 301-302, 308, and 420
- Social Sciences 301-302, 325, and 425
- Statistics 301-302, 325, and 425

**REQUIREMENTS FOR A MINOR**

The minimum requirements for a minor in mathematics are 115-116 and 9 additional hours in courses numbered 200 or above including at least one course numbered 301 or above. Suggested concentrations include:

- Computer applications 235, 300, 301, 306, and 308
- Logic and foundations 300, 311, and 330
- Scientific applications 215, 216, 306, 308, and 425
- Statistics 301-302, 325, and 425

### 102 Trigonometry

1 CR Trigonometric functions and their inverses, identities, graphs, and other properties. Credit is not allowed for both 102 and 105.

### 105 College Algebra and Trigonometry

4 CR Algebraic expressions, solution of equations and inequalities, algebraic functions and graphs, trigonometric functions, solutions of simultaneous equations and inequalities. Credit is not allowed for both 102 and 105 or for both 105 and 109.

### 110 College Algebra

3 CR Factoring, radical expressions, equations, inequalities, functions and their graphs, exponential and logarithmic functions, systems of equations and inequalities. Credit is not allowed for both 105 and 109.

### 111 Calculus for Non-Science Students

3 CR Limits, continuity, differentiation, implicit differentiation, applications of the derivative, exponential and logarithmic functions and their derivatives, integration, and applications of integration. Credit is not allowed for both 111 and 115, and 111 and 115 Prerequisite is 109 or equivalent.

### 115 Calculus I

4 CR Functions and their graphs, limits and rates of change, derivatives, the mean value theorem and its applications, integrals, and logarithmic and exponential functions. Credit is not allowed for both 111 and 115. Prerequisite is 109 or equivalent.

### 116 Calculus II

4 CR Transcendental functions, techniques of integration, indeterminate forms, improper integrals, Taylor's formula, analytic geometry, plane curves, and polar coordinates. Prerequisite is 115 or equivalent.

### 125 Fundamentals of Statistics

3 CR An introduction to descriptive and inferential statistics including random variables, probability and sampling distributions, and hypothesis testing.

### 215 Calculus III

4 CR Vectors and surfaces, vector valued functions, partial differentiation, multiple integrals, vector calculus, sequences, and series. Prerequisite is 116.

### 216 Ordinary Differential Equations

3 CR Solutions of first order equations, linear equations, differential operators, Laplace transforms, power series techniques, and elementary applications. Prerequisite is 215.

### 235 Discrete Mathematics

3 CR Mathematical logic, sets, relations, functions, graphs, trees, Boolean algebra, algebraic structures, algorithm development, and languages. Prerequisite is 111 or 115.

### 300 Foundations of Higher Mathematics

3 CR Mathematical logic, mathematical induction and other proof techniques, sets, relations, functions, number systems, countability, and history of mathematics. Prerequisite is 116.

### 301 Introduction to Probability and Statistics I

3 CR An introduction to probability theory and mathematical statistics including probability distributions of discrete and continuous random variables and their mathematical expectation and variability and multivariate probability distributions. Prerequisite is 116.

### 302 Introduction to Probability and Statistics II

3 CR A continuation of 301 including probability and sampling distributions of random variables and hypothesis testing. Prerequisite is 301.

### 306 Linear Algebra

3 CR Systems of linear equations, vectors and matrices, determinants, vector spaces, linear transformations, innerproducts, eigenvalues, and eigenvectors. Prerequisite is 116.

### 308 Numerical Analysis

3 CR Numerical techniques for solving problems involving linear systems, interpolation, functional approximation, numeric differentiation and integration, and solutions to non-linear equations. Prerequisite is 116 and either Fortran (251) or Computer Programming I (150).

### 311 Number Theory

3 CR Divisibility, congruences, quadratic residues, diophantine equations, and arithmetic functions. Prerequisite is 300.

### 325 Applications of Statistics

3 CR Applications and techniques of procedures in inferential statistics, analysis of variance and covariances, comparisons, random and fixed effects models, multiple regression, and correlation. Prerequisite is 301 or permission of instructor.

### 330 Fundamentals of Geometry

3 CR Euclidean and non-Euclidean geometry from both the synthetic and metric axiomatic approach. Prerequisite is 300.

### 402 Abstract Algebra

3 CR Cyclic, abelian, and factor groups. Isomorphisms, subgroups, group actions, permutation groups, and their applications. Prerequisite is 306.

### 403 Topology

3 CR Topological spaces, homeomorphisms, connectedness, compactness, regular and normal spaces, metric spaces, convergence, and separation axioms. Prerequisite is 215, 300, and 306.

### 415 Advanced Calculus I

3 CR Functions, convergence of sequences and series, limits, continuity and uniform continuity, derivatives, the mean value theorem, and Taylor's formula. Prerequisite is 215, 300, and 306.

### 416 Advanced Calculus II

3 CR A continuation of 415 including integration theory and advanced topics in analysis. Prerequisite is 415.

### 420 Introduction to Complex Variables

3 CR The complex number plane, analytic functions, integration of complex functions, sequences and series, and conformal mappings. Prerequisite is 215, 300, and 306.

### 425 Experimental Design

3 CR Analysis of variance, multiple analysis of variance problems, Latin square designs, factorial designs, crossover designs, split plot designs, analysis of unbalanced data. Prerequisite is 325.

### COMPUTER SCIENCE PROGRAM

The major objectives of the computer science program are to provide the student with a knowledge of the theoretical basis of computing, an appreciation for the relationship between the various components of the field, skills in applying the subject to practical problems, and an ability to adapt to new technologies and advancements. Courses in the curriculum give the student appropriate tools to identify problems best solved by means of a computer and to design and implement effective, economical, and creative solutions for them. Typically students gain practical exposure to a number of programming languages including Ada, Assembly, C, FORTRAN, LISP, MODULA-2, Pascal, Prolog, and operating systems, including Unix, VMS, and Dos. Offerings provide opportunities for students seeking courses supporting other disciplines as well as comprehensive programs leading to a major or a minor in computer science.

**REQUIREMENTS FOR THE 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 32 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 39 semester hours in computer science, is recommended for students interested in scientific applications for further study in computer science at the graduate level. Requirements for all majors are as follows:

- Computer Science Core 100, 120, 215, 220, 250, 300, 325, and 350 (each with a grade of "C" or better).

- Additional B.A. Computer Science Requirements:
  - At least 9 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:
  - At least 15 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.):
  - Calculus I & II (115-116) and Discrete Mathematics (215, 220, 250, 300, 325, and 350).

- Additional B.S. Support Courses (Physics 419 (Intro to Microcomputers) and at least two mathematics courses selected from Foundation of Higher Mathematics, 301 (Intro to Probability and Statistics), or 306 Linear Algebra)

### COMMERCIAL APPLICATIONS

Majors who choose an emphasis in commercial applications complete a certificate program in business or complete a minor in a field related to business or commercial applications. Possible professional positions include business applications programmer, systems analyst, data base administrator, and information systems analyst. Suggested electives include 410, 415, 425, 435, and 445.

### SCIENTIFIC APPLICATIONS

Majors who choose an emphasis in scientific applications should minor in one of the laboratory sciences, mathematics, or another field related to scientific applications. Possible professional positions include scientific applications programmer, engineering analyst, and software engineer. Suggested electives include 308, 410, 418, and 425.
REQUIREMENTS FOR A MINOR

A minimum of 16 hours in computer science and three hours of discrete mathematics are required for a minor. All programs must include Math 235 and Computer Science 100, 120, 150, 220, 300, and three additional hours numbered 300 and above. Suggested computer science courses related to commercial applications include 325, 401, 410, 425, 435, and 445. Suggested computer science courses related to scientific applications include 308, 325, 410, 418, and 425.

100 Elements of Computer Science 2 cr
An introductory course for students in other disciplines. Includes a survey of computer organization, the theory of computer languages, computer components, data representation, data storage, operating systems, networks, artificial intelligence, and graphics. The history of computers and issues relating to ethics, security, and privacy. Corequisite 110 or 120.

101 Introduction to Programming 3 cr
A first programming course. Microcomputer programming in Basic, algorithms, data representation. Credit not given to computer science majors or minors.

110 Computer Applications 1 cr
A laboratory complement to COSC 100. Includes basic computer skills, word processing, spreadsheets, databases, networks, analog to digital conversions, and commercial data bases. Corequisite 100.

120 Problem Solving with Computers 2 cr
A laboratory complement to COSC 100 for persons interested in further study in computer science. Algorithm development, program structure, top-down design, and an introduction to programming in Pascal. Corequisite 100.

150 Computer Programming I 3 cr
Structured programming in Pascal. Data types and representations, arithmetic and logical operations, input/output control structures, subroutines, arrays, records, and an introduction to file processing, recursion, stacks, searching, and sorting. Prerequisites 100 and 120.

210 Computer Programming II 3 cr
Dynamic allocation, stacks, queues, linked lists, trees, string processing, advanced searching, and sorting. Prerequisites 150.

220 Computer Organization and Assembly Language 3 cr
The organization and operation of a conventional computer including principal instruction types, data representation, addressing modes, program control, and I/O. Assembly language programming. Prerequisite 210.

250 Programming Languages C 1 cr
Concepts of the C programming language. Prerequisite 150 or equivalent.

251 Programming Languages
Fortran 1 cr
Concepts of the Fortran programming language, including formatted I/O, arrays, looping techniques, and subroutines with an emphasis on scientific applications. Prerequisite 101 or 150 or equivalent.

252 Programming Languages C++ 1 cr
Concepts of the C++ programming language. Prerequisite 250 or equivalent.

253 Programming Languages Modula-2 1 cr
Concepts of the Modula-2 programming language. Prerequisite 250 or equivalent.

300 Data Structures 3 cr
Methods for organizing data and an introduction to the relationship between the design of algorithms and the efficient implementation and manipulation of data structures. Abstract data types, trees, and graphs. Prerequisites Discrete Mathematics (235) and 210.

308 Numerical Analysis 3 cr
Numerical techniques for solving problems involving linear systems, interpolation, functional approximation, numeric differentiation, and integration, and solutions to non-linear equations. Suitable course for Math 308. May be counted as either mathematics or computer science, but not both. Prerequisite 150 or 251, and Calculus II.

311 System Programming and Design 3 cr
An introduction to the interaction between software and hardware components in an integrated system. Deals with program translation issues including assemblers, linkers, loaders, and initial processing in compilers. Prerequisites 220 and 250.

325 Operating Systems and Computer Architecture 3 cr
An introduction to the organization of various types of operating systems and to basic computer architecture. Areas of concentration are implementing multi-programming, memory management, communication with input/output devices, concurrency, synchronization, file systems, and scheduling. Prerequisite 220 and Discrete Mathematics.

350 Computers and Humanity 3 cr
An exploration of the impact of computing on present and future society— including freedom, the position of humans in the world of technology, the status of women, and ethical issues of privacy, secrecy, and honesty. Philosophical issues in computer science, especially in artificial intelligence, such as the difference between man and nature, the special position of man in the universe, and the problem of thinking, creativity, and emotions in machines. Prerequisite At least one course in computer science or permission of instructor.

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

410 Artificial Intelligence 3 cr
Knowledge representation and natural language processing, search strategies, design and applications of heuristics, and applications to practical problems in areas such as psychology, medicine, science, and architecture. Prerequisite 300.

418 Formal Languages and Automata 3 cr

425 Computer Graphics 3 cr
Introduction to the theory and methodology of computer graphics. The course will develop the mathematical basis of the representation of objects and surfaces with computers. Topics include geometric transformations, fractals, windowing and clipping, illumination, and two-dimensional graphics. Prerequisite 300.

435 Theory of Programming Languages 3 cr
Syntactic and semantic problems in defining programming languages. Problems of language implementation. Global properties of algorithmic languages including scope of declaration, storage allocation, grouping of statements, and efficiency of processing. Subroutines, coroutines, and tasks. Comparison of several languages. Prerequisite 300.

445 Systems Analysis and Software Design 3 cr
Introduction to the analysis, design, and implementation of large software systems. Topics include methods and tools for the structuring and modular design of large systems, organization and techniques of team programming, design evaluation, and validation. Prerequisite 300.

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

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

COLLEGE OF LIBERAL ARTS

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES
Chairperson
Carla E. Lucente, Ph.D.

Professors
Francesca Colechca, Ph.D.
Carla E. Lucente, Ph.D.
Gregory C. Martin, Ph.D.

Associate Professors
Mark Frisch, Ph.D.
Margaret R. Hicks, Ph.D.
Brent Peterson, Ph.D.

Assistant Professors
Donald H. Kellander, M.A.
Jean-Michel Lanski, Ph.D.
Anna Marie Martin, M.D.
Marc Snyder, Ph.D.

Instructor
Marie Ciccone Sakmar, M.A.

Professor Emeritus
Primitivo Colombo, Ph.D.

The Department of Modern Languages and Literatures offers courses in French, German, Italian, Japanese, and Spanish. The four language skills (reading, writing, speaking, and oral comprehension) are emphasized at all levels beginning with the elementary courses. Fluency in the active use of the language is emphasized. Courses beyond conversation and composition stress primarily literary studies in which the student is systematically introduced to the literature and is given a working acquaintance with the culture of the countries whose language he/she is studying. Choice of courses dealing with specific works, authors, and auxiliary subjects is also presented. Courses are also offered in Linguistics, Language for Business, and Language for Musicians. All courses at the 300- and 400-levels are conducted in the target language. Incoming students with previous language background are required to take the language placement test. Student participation is required in the language laboratory at the elementary and intermediate language levels and strongly encouraged at the advanced levels. It is recommended that students who must fulfill language requirements begin these courses in their freshman year.

Majors and minors are advised to spend a summer, a semester, or a year abroad in the university programs or those approved in advance by the department. Further information may be obtained in the department office. It is also recommended that majors in the department include a course in their major of the country of the language in which they specialize as well as one course of literature in translation into the literature of a country other than that of 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 major programs in French, German, and Spanish. In addition, it offers a minor program in Italian, as well as non-major courses in Japanese.

Elementary and intermediate courses must be taken in sequence. Credit toward the major or minor will not be given for 101, 102, 201, 202, or 309, 320. 301 and 302 or 306 is the prerequisite to all courses numbered 312 and above.

The major program in Modern Languages and Literatures consists of a minimum of 27 semester hours at the 300 level and above. Required courses are:

- French: 301 and 302 or 306, 462, 463 Majors will discuss their courses with their advisors.
- German: 301 and 302 or 306, 460, 461 Majors will discuss their courses with their advisors.
- Spanish: 301 and 302 or 306, 401, 402, 453, 460 Majors will discuss their courses with their advisor.

REQUIREMENTS FOR THE MINOR

The minor program consists of a minimum of 12 semester hours at the 300 level and above.

490 Independent Field Study (All Languages) Var cr

The student will participate, under the supervision and guidance of the instructor, in selected tours to various foreign countries to undertake independent study on selected and approved projects involving the exploration and study of history, life, work, arts and culture. Prerequisite: Prior permission of the instructor and Department Chairman.

495 Professional Language Internship 3 cr

An unpaid internship consisting of 100-120 hours of supervised work for which the student will receive three credits. See Department for particulars.

French

101 Elementary French I 4 cr Fundamentals of oral and written French. Three hours of class and one hour laboratory per week.

202 Intermediate French II 4 cr Fundamentals of oral and written French. Utilizes a different approach allowing the student to complete one year’s work in one semester. Six lecture hours and one-hour laboratory each week.

203 Intermediate French II 4 cr Emphasis on the written and oral aspects of the language prerequisite French 102.

210 Intensive French 6 cr Fundamentals of oral and written French. Utilizes a different approach allowing the student to complete one-year’s work in one semester. Six lecture hours and one-hour laboratory each week.

300 Intermediate French Composition I 3 cr Prerequisite: 202

305 Intermediate French Composition II 3 cr Prerequisite: 301

306 Intensive French Conversation and Composition 6 cr Prerequisite: French 202

This course is the equivalent of 301 and 302. It could fulfill the prerequisite for all courses above this level. 302 is the prerequisite for all courses above this level.

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

321 Phonetics 3 cr Mechanics of phonation with comparative English.

322 Theatre de L’Avant-Garde 3 cr The “avant-garde” theatre since 1950 such as Ionesco, Beckett, Genet, Schachse, Van, Pinnet.

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

326 The Literature of the Existentialist Movement 3 cr Analysis and discussion of selected works of A. Camus, J. P. Sartre, and G. Marcel.

327 The Symbolist Movement in French Poetry 3 cr A basic introduction to the Symbolist movement. Emphasis on hermetic poetry of Mallarme and Rimbaud.

French Poetry: Middle Ages to 20th Century

328 French Poetry Middle Ages to 20th Century 3 cr Study of mechanics of prosody, various genres, periods, movements in French poetry.

329 17th Century French Literature 3 cr Emphasis on 17th Century French prose and poetry. Will also include a play of Corneille, Racine, and Moliere.


331 18th Century French Literature 3 cr An overview of the Siecle des Lumières, with emphasis on the literary works of the four major “philosophers” Montesquieu, Voltaire, Diderot, and Rousseau.

332 Voltaire and His Age 3 cr In-depth work on Voltaire, plus one other writer of the period, such as Prevost, Beaumarchais, Bernardin de Saint-Pierre, etc.

360 French for Business 3 cr Spoken and written language of business French. Conventions of letter writing, import, export, and commercial transactions.

460 French Cultural Studies 3 cr A study of the major cultural and socio-political movements of France through its literary works.

461 Chanson de Roland through 18th Century 3 cr Literary Survey I: Main authors and movements of the Middle Ages, 16th, 17th and 18th Centuries.

462 19th Century to Modern Period 3 cr Literary Survey II: Main authors and movements of the 19th and 20th Centuries.

464 17th Century French Theatre 3 cr An overview of the theatre of le grand siècle. Emphasis on Corneille, Moliere, and Racine.

465 18th Century French Theatre 3 cr An overview of the major dramatists of the century, including Marivaux, Voltaire, and Beaumarchais.

466 19th Century French Poetry 3 cr The major poetic movements of the 19th Century. Emphasis works written for the stage and currents in criticism and directing.


468 19th Century French Theatre 3 cr Beginning with the influence of the Revolution on French literature, through the literary movements of the century. Emphasizes works written for the stage and currents in criticism and directing.

469 20th Century French Poetry 3 cr Ambivalence of modern French poetry after Baudelaire. Will consider Apollinaire, Valéry, Breton, Aragon, Eliard, Cocteau, Supervieille, Saint-Jean Perse.

German

101 Elementary German I 4 cr Fundamentals of oral and written German. Three hours of class and one hour laboratory per week.

202 Intermediate German II 4 cr Fundamentals of oral and written German. Three hours of class and one hour laboratory per week.

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

492 German Conversation and Composition I 3 cr Prerequisite: 202.

493 German Conversation and Composition II 3 cr Prerequisite: 301.

306 Intensive German Conversation and Composition 6 cr Prerequisite: 202.

This course is the equivalent of 301 and 302. It could fulfill the prerequisite for all courses above this level. 302 is the prerequisite for all courses above this level.

320 German Culture and Civilization 3 cr An emphasis on the oral and written aspects of the language. Prerequisite: German 102.

329 Directed Readings 3 cr Readings of literary texts under close faculty supervision, for majors only and only with written permission of the Department. Variable credit.
330 Modern German Prose 3 cr
Individual's search for identity in the prose works of Thomas Mann, F Kafka, H Hesse, and H Boll

331 Modern German Theatre 3 cr
From the introduction of naturalism into German drama in the late 19th Century to the most recent movements since World War II. Will discuss Hauptmann, Brecht, Zuckmayer, Durrenmatt and Frisch

360 German for Business 3 cr
Spoken and written language of business German.

Conventions of letter writing, import, export, and commercial transactions

360 German Literature from the Middle Ages to the Baroque 3 cr
A survey of German literature from the Middle Ages through the 17th Century

461 German Literature from the 18th Century to the 20th Century 3 cr
A survey of German literature from Lessing to the present

462 Advanced German Stylistics 3 cr
Comparative study of style

464 German Romantic Literature 3 cr
The German Romantic movement following the Napoleon era. The role of the individual in the works of Novalis, Tieck, etc.

465 Modern German Prose 3 cr
The process of alienation in modern German narrative. Includes novels by H Hesse and T Mann

467 Age of Goethe 3 cr
Study of important works of Goethe and other major writers of this period

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

470 Literature of the Enlightenment 3 cr
A study of literary works of major writers of this era such as Klopstock, Lessing, and Kant

471 Sturm und Drang 3 cr
"Storm and Stress" as Germany's literary revolution against the despotic tyrants of the 18th Century, including Goethe's The Sorrows of Young Werther and Schiller's The Robbers

480 Directed Readings 3 cr
Reading of such texts under close faculty supervision, for majors only and only with written permission of the Department. Variable credit.

Italian

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

201 Intermediate Italian I 3 cr
An intensified review of grammar and major emphasis on oral skills. Prerequisite: Italian 102

202 Intermediate Italian II 3 cr
Emphasis on the oral and written aspects of the language. Prerequisite: Italian 201

306 Advanced Italian Conversation and Composition 3 cr
Prerequisite: 202 or equivalent. Prerequisite for all courses above 306

314, 315 Individual Study 3 cr
With written permission of the department. Prerequisite 202

321 Modern Italian Novel 3 cr
A study of the works of significant representatives of neorealism, analyzed within the framework of the social and political atmosphere of pre- and post World War II Italy

322 Commercial Italian 3 cr
Spoken and written language of business Italian. Conventions of letter writing, import, export, and commercial transactions

323 Pirandello, Svevo, Pavese 3 cr
Analysis and stylistic comparison of these three writers representative of the literary evolution after return to the psychological novel and drama, and to neorealism

324 Introduction to Italian Poetry 3 cr
A study of the works of the most important modern Italian poets

326 Italian Culture and Civilization 3 cr
A study of the major cultural and socio-political movements of Italy through its literary works

Japanese

101 Elementary Japanese I 3 cr
Fundamentals of oral and written Japanese. Three hours of class and one hour laboratory per week

102 Elementary Japanese II 3 cr
Fundamentals of oral and written Japanese. Three hours of class and one hour laboratory per week. Prerequisite: Italian 101

201 Intermediate Japanese I 3 cr
An intensified continuation of oral and written Japanese. Prerequisite: Japanese 102 or equivalent

202 Intermediate Japanese II 3 cr
An intensified continuation of oral and written Japanese. Prerequisite: Japanese 201 or equivalent

Spanish

101 Elementary Spanish I 4 cr
Fundamentals of oral and written Spanish. Three hours of class and one hour laboratory per week

102 Elementary Spanish II 4 cr
Fundamentals of oral and written Spanish. Three hours of class and one hour laboratory per week. Prerequisite: Spanish 101

120 Intensive Spanish 6 cr
A study of oral and written Spanish utilizing a different approach allowing the student to complete one-year's work in one semester. Six lecture hours and one-hour laboratory each week

121 Intermediate Spanish II 4 cr
Emphasis on the oral and written aspects of the language. Prerequisite: Spanish 102

201 Advanced Spanish Conversation and Composition I 3 cr
Prerequisite: 202 or equivalent

202 Advanced Spanish Conversation and Composition II 3 cr
Prerequisite: 201

210 Intensive Spanish 6 cr
Review and extension of 120. Utilizes techniques allowing the student to complete one-year's work in one semester. Prerequisite: 120 or equivalent

220 Intensive Spanish 6 cr
Prerequisite: 202 or equivalent

299 Readings in Modern Spanish Authors 3 cr
Selection from modern works of literature. Does not carry credit toward major or minor. Prerequisite: 202 or equivalent

301 Spanish Conversation and Composition I 3 cr
Prerequisite: 202

302 Spanish Conversation and Composition II 3 cr
Prerequisite: 301

306 Intensive Spanish Conversation and Composition 6 cr
Prerequisite: Spanish 202

This course is the equivalent of 301 and 302. It could fulfill the prerequisite for all courses above this level. 302 is the prerequisite for all courses above this level

322 The Nineteenth Century Novel 3 cr
Examines the realist, naturalist, and regionalist novel in the works of Galdos, Ciann, Pardo Bazan, Pereda, and Valera

323 Don Juan as a World Literary Figure 3 cr
Principal plays and narrative poems dealing with the theme from its origins in Seventeenth Century Spain through modern times. Authors include Tirso de Molina, Moliere, Mozart, Byrom, Zorrilla, and G. B. Shaw

324 The Generation of 98 3 cr
Major works of the turn of the century authors in their aesthetic and historical contexts. Includes Unamuno, Azorin, A Machado, Pio Baroja, J R Jimenez and Valle Iclan

325 Contemporary Spanish Novel 3 cr
The Spanish Novel since the Civil War. From Cela to the present

326 Contemporary Spanish-American Fiction 3 cr
Most recent developments in the novel in historical perspective. From Asturias through Garcia Marquez and Sarduy

327 Spanish Culture and Civilization 3 cr
A study of the major cultural and socio-political movements of Spain through its literary works

328 Modern Spanish Theatre 3 cr
From Buero Vallejo to the present, including the "Underground Theatre"

391 Revolt and Change 3 cr
The Spanish American Novel 3 cr
Nature and types of protest expressed in modern Spanish-American Literature. Major works of "protest literature".

330 Theatre of the Golden Age 3 cr
Reading and discussion of works of the major dramatists of the period selected plays by Lope de Vega, Calderon and Tirso de Molina

360 Spanish for Business 3 cr
Spoken and written language of business Spanish. Conventions of letter writing, import, export, and commercial transactions

401 Spanish Literature from the Cid through the Siglo de Oro 3 cr
Survey of major works from the Medieval Period through the 17th Century

402 Spanish Literature from the 18th Century to the Present 3 cr
Survey of works representative of the major literary movements of the 18th, 19th, and 20th Century

453 Trends in Latin American Literature 3 cr
Major movements and representative works from Pre-Columbian period to the present

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 as mirrored in this literature. Its relationship to contemporaneous literary expression in other countries. From Hernandez through Goytisolo and Sastre

462 Avant-Garde Spanish-American Theatre 3 cr
An introduction to the avant-garde theatre in Spanish America. Historical perspective. Influence of European avant-garde

463 Lorca and the Generation of 1927 3 cr
Major poets of the "Lorca-Gui/en 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


DEPARTMENT OF PHILOSOPHY

Chairperson
Eleanor Holbeck, Ph D

Professors
Charles D Keyes, Ph D
Ronald Polansky, Ph D
J Roland E Ramirez, Ph D
Tom Rockmore, Ph D
John Scanlon, Ph D
Wilhelm S Wurzer, Ph D

Associate Professors
Fredrick Evans, Ph D
Eleanor Holbeck, Ph D
Robert Madden, Ph D

Assistant Professors
Thérèse Bonin, Ph D
Edward Gelblum, M A

Professors Emeriti
André Schwyzer, Ph D
Michael Strasser, Ph D

The program offered by the Department of Philosophy is designed to be a basic part of the student's liberal education. It is intended to introduce students to philosophical thinking, past and present, to provide a discipline for asking the basic questions of life, and to help students to begin relating their other academic subjects to one another and to human experience. The Department of Philosophy contributes to the mission of Duquesne University by encouraging faculty and students to seek the truth and to examine the moral foundations of their thought and action.

The Department of Philosophy is one of the world's leading centers for the study of contemporary continental philosophy. The Department also encourages a concentration on original, major philosophical texts from Plato through the medieval and modern periods to the present. The Department, made up of professors who have different philosophical interests, attempts to develop the capacity for independent thinking on all issues. Because it fosters the ability to read with understanding, to think logically, to argue rationally, and to evaluate critically, philosophy is an excellent preparation for many careers. Majors have distinguished themselves in graduate schools in philosophy and in careers in law, medicine, business, and in the priesthood.

REQUIREMENTS FOR THE MAJOR

A total of 30 credits
- 24 credits above the 100 level
- at least 9 credits chosen from courses 300-305
- at least 6 credits at the 400 level

REQUIREMENTS FOR THE MINOR

A total of 15 credits
- no more than 6 credits at the 100 level
- at least 6 credits at the 300-400 level

Introductory Courses

Core Courses

132 Basic Philosophical Questions 3 cr
Philosophy, literally the love of wisdom, is a discipline for discussing basic questions about ourselves and our world. In this course, in addition to reading and evaluating several works written by major figures chosen from the history of philosophy, students are encouraged to think philosophically for themselves and to formulate their own answers to perennial philosophical questions. This course is required for all students in the University, counts for the major and minor in philosophy.

105 Ethics 3 cr
This course provides an introduction to important ethical theories of past and present times. This course is taught at least once a year.

106 Introductory Logic 3 cr
Analysis of the requirements for valid reasoning, logical fallacies, types of definitions, and important informal aspects of arguments in ordinary discourse will be studied, in addition to the formal logic of inferences involving simple and compound statements. This course is taught at least once a year.

107 Medical Ethics 3 cr
Ethical questions that arise in medical care and research will be examined. Topics might include the doctor/patient relation, informed consent, euthanasia, the definitions of health, person, and death.

109 Contemporary Moral Problems 3 cr
This course includes a discussion of several moral theories, which are then applied to concrete case studies from various fields.

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DEPARTMENT OF POLITICAL SCIENCE

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

492 Simone de Beauvoir 3 cr
This course attempts to elucidate the philosophy of Simone de Beauvoir, which might be called a situated phenomenological existentialism, by a careful analysis of selected essays, novels, and autobiographical accounts. The class concentrates on The Ethics of Ambiguity, The Second Sex, and She Came to Stay.

496 Symbolic Logic 3 cr
This course emphasizes the procedures and philosophical presuppositions of symbolic logic.

497 Aesthetics 3 cr
This course examines theories of art and explores such questions as the beautiful, the creative, the imaginative, and the role of art in life. Readings may include selections from Aristotle, Lessing, Kant, Hegel, Nietzsche, and Heidegger.

498 Philosophy of God 3 cr
This course introduces students to selected texts and basic themes in types of religious experience such as Babylonian, Greek, and Judeo-Christian. It emphasizes such questions as: What is the Holy? What is the status of arguments for the existence of God and the immortality of the soul? Why is the human suffering if God is good and all-powerful? Attention is given to both traditional and contemporary philosophical texts.

499 Advanced Seminar 3 cr
A small group of students will prepare and present papers on selected philosophical topics.

DEPARTMENT OF POLITICAL SCIENCE

Chairperson
Patricia Dunham, Ph D
Professor
Kent F Moors, Ph D
Associate Professors
Patricia Dunham, Ph D
Charles T Rubin, Ph D
Assistant Professors
Steven Majstorovic, Ph D
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.

Requirements for the Major
Thirty semester hours are required, not more than thirteen 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 from Duquesne and the College or University may receive a maximum of 12 transfer credits applied to their major requirements.

Requirements for the Minor
Fifteen credits are required, not more than three of which can be at the 100 level. A maximum of six transfer credits can be applied to the minor.

205 American National Government 3 cr
This institutional structure and policy-making processes of national government are examined as reflections of the assumptions of liberal democracy and of the American social and economic systems.

110 Current Problems in International Politics 3 cr
A survey of the various issues that states currently face in international politics, including disputes over territory, use of force, access to global resources, the environment, trade, technology transfer, health issues, and the role of international organizations.

115 Human Being and Citizen 3 cr
An introduction to the perennial conflicts of political life, using literature, plays, music, and works of political thought.

202 State and Local Government 3 cr
A study of the role of state and local government in the Federal Union.

208 Comparative Political Systems 3 cr
A comparative analysis of political systems of Western Europe and Japan. Emphasis is on the political history, institutions, parties, and major policy issues facing these countries.

209 Comparative Political Systems Developing States 3 cr
An examination of democratization, economic development, political conflicts, and regional relations in developing states such as India, Malaysia, Nigeria, and Mexico.

245 International Relations 3 cr
A study of the major factors involved in international relations, including sovereignty, nationalism, balance of power, and international law and organization.

290 American Political Thought 3 cr
An analysis of diverse perspectives on key issues, such as equality, rights, race, or religion, that define the distinctive character of American politics.

292 Public Policy 3 cr
An examination of how government responds to perceived social and political problems, with emphasis on how those problems are defined, and why programs succeed or fail.

294 The American Presidency 3 cr
A study of the role of the President at the center of the decision making process in the American political system.

295 War and Peace in the Nuclear Age 3 cr
An examination of the interaction between politics and the use of force in the nuclear age. Emphasis is upon an analysis of the major causes of war and the influence of technological developments.

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

321 Government and Politics of Eastern Europe 3 cr
An overview of major political developments in selected Eastern European countries since 1945, with emphasis on the difficulties of making a transition to post-communist governments.

322 Government and Politics of Russia and the Independent States 3 cr
With the demise of Marxism-Leninism as a backdrop, this course studies the cultural and economic issues that will mold the shape of reconstruction in the Post-Soviet era.

323 Constitutional Law and Federalism 3 cr
A detailed examination of Supreme Court cases concerning the nature of federalism, federal power, state power, judicial review, commerce clause, due process and apportionment. Students read and brief court decisions.
The undergraduate program of the Department of Psychology is designed to introduce and familiarize students with the fundamental content, issues, and interests of various areas of psychology and critically evaluate and reformulate these in the context of psychology as a human science. It also fosters intellectual and personal freedom and critical thinking as essential to the humanizing process. The major program consists of 103: Introduction to Psychology, and 280, 328, 361, 390 credits in psychology exclusively at Duquesne University for the minor.

The Department of Psychology offers a variety of courses designed to meet the needs of students pursuing different career paths. These courses are taught by experienced faculty members who bring their expertise to the classroom. The department is committed to providing a strong foundation in psychological principles and theories, as well as practical skills necessary for success in a variety of fields. Whether you are interested in pursuing a career in mental health, education, business, or another area, the Department of Psychology is here to support your academic and professional goals.
223 Introduction to Existential Phenomenological Psychology 3 cr
Introduction to a human-science alternative to psychology as a natural science. Prerequisite: 356 and 410, required for majors and minors. Writing-intensive course

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., individual 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 communication, 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. Prerequisite: 220, 223, permission of department head for non-majors

361 Psychology of Identity and Fulfillment 3 cr
The ways in which identity is lived individually and collectively. Designed to be personally relevant to the life of the student. Open to juniors and seniors only

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

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

391 Applied Psychology Practicum 3 cr
An applied psychology setting provides opportunities for working directly with professionals. Settings have included psychiatric hospitals and community centers. Majors only, permission of Department Head. Repeatable once

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

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

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

410 Advanced Existential-Phenomenological Psychology 3 cr
Detailed investigation of selected works in existential-phenomenological philosophy and psychology. Prerequisite: 223, permission of department head for non-majors

432 Gestalt Psychology 3 cr
Contributions of Gestalt psychology (especially the works of Koffka, Kohler, and Goldstein) to tradition and humanistic psychology. Permission of department head for non-majors

450 Contemporary Issues in Clinical Psychology 3 cr
A human-science examination of the approach, methods, data, and current issues of clinical psychology. Permission of department head for non-majors

453 Psychology of Gender 3 cr
This course explores men's and women's existence as gendered beings. The theoretical as well as existential dimensions of gender are thematized, and the biological, social, and personal contexts will be discussed

457 Independent Studies 3 cr
A tutorial course for an exceptional student who wishes to pursue a particular study with a faculty member. For majors only, usually those intending graduate study. Advanced coursework completed. Permission of faculty member and department head required

490 Special Topic 3 cr
A visiting professor presents his/her specialty, or a regular faculty member presents highly specialized studies or an experimental course. Repeatable. Prerequisites vary with the instructor. Permission of department head for non-majors

DEPARTMENT OF PSYCHOLOGY

COLLEGE OF LIBERAL ARTS

DEPARTMENT OF SOCIOLOGY

Chairperson
Charles F. Hanna, Ph.D.

Professor
Norma Feinberg, Ph.D.

Associate Professors
Charles E. Hanna, Ph.D.
Joseph D. Yerexall, Ph.D.

Assistant Professors
Mary Frances Antolini, Ph.D.
Richard A. Colgion, Ph.D.
Timothy F. O'Donoghue, Ph.D.
Matthew Schneirov, Ph.D.
Gail Flint Stevens, Ph.D.

Professor Emeritus
Eleanor V. Fails, Ph.D.
Chester A. Jurczak, Ph.D.

The Sociology Department offers an intellectually liberating education and professional preparation for its students. Majors and other students, regardless of major, learn the discipline, build critical thinking skills and develop intellectual and social values such as those articulated in the Mission and Goals Statement of the University. Our curriculum allows majors to strive for excellence in either of two areas: Social Change and Social Structure or Criminal Justice.

REQUIREMENTS FOR THE MAJOR

A minimum of 15 semester hours is required for the major. This must include 101 Survey of Sociology. The Sociology Department offers an intellectually liberating education and professional preparation for its students. Majors and other students, regardless of major, learn the discipline, build critical thinking skills and develop intellectual and social values such as those articulated in the Mission and Goals Statement of the University. Our curriculum allows majors to strive for excellence in either of two areas: Social Change and Social Structure or Criminal Justice.

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DEPARTMENT OF SOCIOLOGY

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 introduction to a major subfield of Anthropology which explores the origins, development and diversity of human cultures.

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 the construction and application of techniques for data analysis in social research. Specific attention is given to computer use in the social sciences. Prerequisites: 101 and 201. It is highly recommended that the corequisite of 125 Fundamentals of Statistics be completed before taking this course. Required for ALL Sociology Majors.

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 declines.

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.

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: 103.

300 History of Social Thought 3 cr
An introduction to the ideas of Western thought which predates the formal discipline of Sociology and an examination of the social context which led to the development of these ideas. Prerequisite: 101 or permission of the Department. This course OR 301 is required of ALL Sociology Majors.

301 Contemporary Sociological Theory 3 cr
A study of selected contemporary theories and schools of thought. Prerequisites: 101 and 200. This course OR 303 is required of ALL Sociology Majors.

302 Special Topics Institutions 3 cr
An in-depth examination of the structure and consequences of enduring cultural patterns and social relationships which comprise specific institutions such as religion, the economy, political order, education, and medicine and health. Prerequisite: 101.

303 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 Defender 3 cr
A survey of the aspects of the legal system that relate to the identification, processing, and rehabilitation of the juvenile offender. Prerequisite: 103.

311 The Law and the Adult Offender 3 cr
The legal process for arrest through sentencing emphasizing applicable state statutes and U.S. Supreme Court cases. Prerequisite: 103.

314 The American Judicial System 3 cr
Development of local, state and federal court systems, the operation of these courts, and issues in administration and case law. Prerequisite: 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 Population and the Environment 3 cr
An analysis of population dynamics and theories and the impact of demographic structures on the earth's ecology and natural resources. Prerequisite: 101.

318 Sociology of the City 3 cr
An analysis of urban life and its impact on social relations. Prerequisite: 101.

366 Police Organization and Management 3 cr
Principles of organization, management, and supervisory techniques applied to law enforcement agencies. Prerequisite: 103.

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 as employees of the criminal justice system. Prerequisite: 103.

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

401/501 Complex Organizations 3 cr
The arm 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 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.

409/509 Punishment and Corrections 3 cr
This course covers the corrections system 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 criminal 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.

416/516 Minorities and Public Policy 3 cr
The historical evolution of American public policy toward minorities is examined. This includes the legal/constitutional changes, migratory patterns, social institutions and political mobilization. Contemporary problems and issues are evaluated within this context. Prerequisites: 101 and senior standing.

NOTE: The courses listed below are NOT cross-listed with the Graduate Center for Social and Public Policy:

450/451 Fieldwork I, II 6 cr each
Internship in a number of different settings. 225 hours in placement are required for 6 credits. Seniors
DEPARTMENT OF THEOLOGY

College of Liberal Arts

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. It acknowledges the fact of the universal search for religious meaning and experience, and seeks not only to offer the possibility of a study of the varying approaches to religious witness in history, but also to place Catholic Theology in communion with that quest. It aspires to a fruitful encounter with other university disciplines, so the department is convinced that theology's concerns are related to all vital human issues. In this way, the Department of Theology seeks to realize Duquesne University's mission with special attention to moral and spiritual values.

Requirements for the Major

The major program consists of a minimum of 27 credits taken at the 200 level or above. These credits will include 205, 213, 214, 220, 250, 230 or 331, 98, the remaining credits will be electives chosen in consultation with the undergraduate advisor of the theology department.

Requirements for the Minor

A minor consists of 12 credits taken at the 200 level or above. Students should consult the undergraduate advisor 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.

213 The Old Testament: A presentation of the Old Testament writings in their dynamic context of culture, politics, and geography as well as an introduction to their literary modes, theologies, and themes.

The topics will change regularly and will be published within the department.

210 Field Experience: A supervised reading. Seniors and majors only.

Independent study. Seniors and majors only. Prerequisite 21 completed credits in the major.

The numbering of the courses indicates the level of the approach:

100 — These are courses in the University core curriculum

200 — These are courses introducing students to particular areas or questions in theology

300 — These courses explore subject matter in greater depth and specificity than do courses at the 200 level.

400 — In these courses selected topics are dealt with at a more advanced level, independent research is required.

Biblical Studies

213 The Old Testament

3 cr

A presentation of the Old Testament writings in their dynamic context of culture, politics, and geography as well as an introduction to their literary modes, theologies, and themes.

REQUIREMENTS FOR THE MAJOR

The major program consists of a minimum of 27 credits taken at the 200 level or above. These credits will include 205, 213, 214, 220, 250, 230 or 331, 98, the remaining credits will be electives chosen in consultation with the undergraduate advisor of the theology department.

210 Field Experience: A supervised reading. Seniors and majors only.

Independent study. Seniors and majors only. Prerequisite 21 completed credits in the major.

The numbering of the courses indicates the level of the approach:

100 — These are courses in the University core curriculum

200 — These are courses introducing students to particular areas or questions in theology

300 — These courses explore subject matter in greater depth and specificity than do courses at the 200 level.

400 — In these courses selected topics are dealt with at a more advanced level, independent research is required.

Biblical Studies

213 The Old Testament

3 cr

A presentation of the Old Testament writings in their dynamic context of culture, politics, and geography as well as an introduction to their literary modes, theologies, and themes.
275 Church History II 3 cr
Selected topics in Catholic and Protestant development from 1500 to the present day, special emphasis on the crises, revolutions, and reforms that were central to this development.

280 Religious Experience 3 cr
An examination of the dimensions of mankind's religious experience, e.g., mystical, ritual, mythical, ethical, and scriptural. An analysis of the likeness and differences of how the Divine is sensed and responded to in varied geographical, cultural, and chronological contexts.

283, 284 Judaism People and Faith 3 cr each
A survey of modern Jewish history to discover roots and traditions of the Jewish people in America, Israel, and the Soviet Union. The view of the Holocaust and its effects on world Jewry. The faith, beliefs and practices of Jewish life today. (This course is sponsored by the Chautauqua Society.)

301 Marriage 3 cr
A personally-oriented and practical treatment of the marital union as seen in its Christian theological, psychological, and sexual aspects, a discussion of Christian marriage as a bond of love, as a sacrament, and as a way of human fulfillment.

311 The Church in the Modern World 3 cr
An analysis of the Church's role in human development today and in offering solutions to present problems of humanity in light of Vatican II's "Pastoral Constitution on the Church in the Modern World" and other related documents.

335 Theology of the Sacraments 3 cr
A practical treatment of the seven sacraments in relation to their significance for the Christian's daily spiritual growth and fulfillment, consideration of human needs for ritual and symbol, discussion of recent revisions and developments in sacramental theology.

340 Studies in Black Theology 3 cr
An examination of the dimensions of the religious experience of Black Americans, e.g., its history, its relationship to African origins, to slavery, to racism, to Christian denominations, an analysis of special elements in that experience, e.g., Black Churches, preaching, music and the "American Way of Life."

345 Women and Christianity 3 cr
Survey of the Old and New Testament views of women and a history of the status of women in the Roman Catholic and major Protestant traditions with emphasis on the contemporary role and spirituality of women in Christianity.

348 Religion in America 3 cr
A study of Judaism and Christianity in the U.S. with a focus on their historical developments and contemporary trends, an exploration of the role religion plays in American society and culture.

372 Religious Themes in Literature and Film 3 cr
An exploration of religious experience and religious concepts as expressed in significant works of literature and film, including themes concerning human person's relationship to self, others, and to God.

470 Christian Mysticism 3 cr
A study of the manifold Christian experience of mysticism, i.e., of the experiential contact with God, as seen in famous exemplars of mystical experience, e.g., Jesus Christ, Paul, Ignatius of Antioch, Augustine, John of the Cross, Teresa of Avila, John the Baptist, Vanessa Liberwoman.

475 Theology and Theological Ethics 3 cr
An examination of the principal theological and philosophical themes of modern religious education, and of the place of theology in the ministry of the Church, a presentation of the historical background of the contemporary theological renewal.

491 Experience in the Teaching of Religion 6 cr
One semester of supervised experience in teaching religion in a high school environment in conjunction with a cooperating high school teacher and University Department coordinator. This course is open only to majors in Religion upon approval of the Chairperson of the Department.

494 Directed Readings in Religious and Theological Topics 1-3 cr
The topics will change regularly and will be published within the department.

498 Seminar in Theology 3 cr
A critical analysis of selected topics in theology or of selected works by outstanding theologians, open only to juniors and seniors with a major or minor in theology.

ETHICAL STUDIES

243 Religion and Social Issues 3 cr
A study of the influence of religious convictions confronting major social issues of today's world, e.g., population growth, famine, ecology, liberation and revolution, truth as a social issue, wealth, tax, ation, and stewardship.

250 Christian Faith and the Moral Life 3 cr
A theological exploration of the relationship between religious beliefs and moral convictions, paying particular attention to the sources and methods of moral theology, to the relationship between community authority and the authority of conscience, and to the means for overcoming sin and growing in virtue.

351 Sexuality, Sex, and Sexuality 3 cr
An analysis of the nature of sex and sexuality according to the sources and developments of Christian thought, the integration of these concepts into a contemporary moral and ethical system.

362 Human Life and Morality 3 cr
An exploration of the fundamental moral principles involved in any of the "life decisions," the problem of the definition of life, a survey of the varied moral approaches to the issues of war and peace, the capital punishment, abortion, birth control, genetics, and the new embryology.

363 Health Care Ethics 3 cr
A study of practical and theoretical issues in the ethics of health care. Issues include life and death questions, professional-patient relationships, and moral aspects of the health care professions.

511 War and Peace in Christian Perspectives 3 cr
An analysis of Christian teaching of the moral permissibility of using violence and participation in war from biblical times to the present, including an evaluation of the varieties of pacifism, of nonviolent resistance, and of just war theories.

495 Directed Readings in Christian Ethics 1-3 cr
The topics will change regularly and will be published within the department.

WORLD LITERATURE PROGRAM

This program is offered jointly by the Departments of Classics, English, and Modern Languages and Literatures. It is designed to give the student an awareness of the historical and cultural frameworks in which the literatures of classical Greece and Rome, Europe (both Great Britain and the continent), Asia, Africa, and the Americas have evolved, their influences upon each other, and an in-depth understanding of selected major literary works from these cultures.

For additional information and advising, contact one of the sponsoring departments.

REQUIREMENTS FOR THE MINOR

15 credits These must include 6 credits from the Core and 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 survey of major literary works of the Western world from ancient times through the Renaissance, in English Translation, with emphasis on continental traditions. The course explores both the thematic preoccupations of Western writers and the development and evolution of literary forms.

211 Readings in Western Literature II 3 cr
A survey of major literary works of the Western world from the Enlightenment to the present in English Translation, with emphasis on continental traditions. The course explores both the thematic preoccupations of Western writers and the development and evolution of literary forms.

215 Non-Western Literature 3 cr
Study of representative texts (in English translation) outside the European-American tradition, particularly from Asia and Africa. Cross-listed with English 215.

490 Topics in World Literature 3 cr
Exploration of selected themes through the study of literary texts from various national traditions, addressing theoretical and critical issues involved in the comparative study of literature. May be cross-listed with one or more courses in the sponsoring departments.

QUALIFYING DEPARTMENT COURSES

Classics Any literature course, either 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.
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. The School offers undergraduate and graduate programs and includes the Center for Environmental Science and Management.

DEGREES
The School confers the Bachelor of Science degree for students who complete the major in biology, biochemistry, microbiology or physics.

GRADUATION REQUIREMENTS
To receive the Degree of Bachelor of Science in the School of Natural and Environmental Sciences, 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 College General Requirements, as described below.
- Major program (minimum of 24 credits; see departmental listings).
- Minor program (minimum of 12 credits; see departmental listings).

An overall minimum cumulative quality point average of 2.0 in the major and in the minor.

Removal of I and F grades both in the major department and in required courses.

Submission of Pre-Graduation Review Form (available in School Office) to the Dean's Office, no later than ten weeks before pre-registration for the final semester.

Academic Load
Students must have earned at least a 2.0 cumulative quality point average of 2.0 both in the major and in the minor.

- Minor program (minimum of 12 credits; see departmental listings).
- An overall minimum cumulative quality 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.

- Submission of Pre-Graduation Review Form (available in School Office) to the Dean's Office, no later than ten weeks before pre-registration for the final semester.

- Pre-registration (on form SR1) for 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.

GENERAL REQUIREMENTS
Students enrolled in the School of Natural and Environmental Sciences for the 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 School of Natural and Environmental Sciences are required to fulfill the following area requirements:

- Modern or Classical Language Proficiency at the 202 level.
- Social Sciences (Political Science, Psychology, Sociology) 6 credits (two disciplines must be represented).
- History/Literature 6 credits (must include literature).
- Philosophy/Theology 6 credits (must include philosophy).
- Communication 3 credits.

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

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. The catalog has been prepared on the best information available as of Spring 1994. 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 considered full-time study, students may normally carry five courses (15-17 credits) in one semester. The schedule of more than five courses or 17 credits may be approved by the Dean's Office. Students in academic probation may not take more than six credits. Students who wish to carry more than 16 credits of courses in the summer sessions must consult the Dean.

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

Limits on Inter-School Electives
A maximum of 12 credits in Duquesne University courses outside the School of Natural and Environmental Sciences may be applied to the B.S. degree. However, if the student chooses the Certificate of Business Program (24 credits) or an inter-major minor (Education, 15, Music 15), the maximum credits required will be applied to the degree, but all other courses must be selected from School offerings.

Major/Minor in Same Department
A student may not major and minor in the same department.

SECOND BACHELOR'S DEGREE
For more information contact the Office of Admissions of the Dean's Office.

MAJORS
- Biochemistry
- Biology
- Microbiology
- Physics
- Chemistry

MINORS
- Advertising
- American Literature
- Art History
- Biochemistry
- Biology — Professional Minor
- Biology — Academic Minor
- Broadband Journalism
- Chemistry
- Classical Civilization
- Classical Languages
- Latin
- Greek
- Communication

BACHELOR-MASTER'S PROGRAM IN CHEMISTRY AND ENVIRONMENTAL SCIENCE AND MANAGEMENT
For students planning on careers as environmental professionals, the School offers a unique, five-year program providing a bachelor of science degree in 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 chemistry majors in the School of Natural and Environmental Sciences. They may begin course work in the environmental sciences in the third year. The bachelor of science in chemistry will be awarded at the end of the fourth year if all University and College Core requirements have been met. Students must have earned a cumulative GPA of 3.0 or better to be permitted to continue graduate course work in the Environmental Science and Management (ESM) program during the fifth year.

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

ACADEMIC POLICIES
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 on the best information available as of Spring 1994. Major requirements are those stipulated in the catalog of the year in which a student matriculates. Students may begin course work in the environmental sciences in the third year. The bachelor of science in chemistry will be awarded at the end of the fourth year if all University and College Core requirements have been met. Students must have earned a cumulative GPA of 3.0 or better to be permitted to continue graduate course work in the Environmental Science and Management (ESM) program during the fifth year.

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 School of Natural and Environmental Sciences 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 Dean's Office.

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 student will be expected to meet degree requirements in the major department, as well as admission requirements of the professional school of their choice. The Pre-Law Professions advisor assists the medically-oriented student.

- Pre-Health Professions
Students who intend to prepare for a career in medicine, dentistry, veterinary medicine, or related fields may major in the subject area of their choice and select a major as soon as possible. They may meet degree requirements of the major department, as well as admission requirements of the professional school of their choice. The Pre-Health Professions advisor assists the medically-oriented student.
MINORS (Continued)

Media Production  Print Journalism
Microbiology  Psychology
Organizational Communication  Sociology
Philosophy  Spanish
Physics  Theology
Political Science  World Literature
Preliquity Formation  Writing

DEPARTMENT OF BIOLOGICAL SCIENCES

Chairperson: H. Bernard Hartman, Ph.D.

Professors: Peter Caslin, Ph.D.
H. Bernard Hartman, Ph.D.
I I. Sadkowski, Ph D.
Steven Thomas, Ph.D.

Associate Professor: Kenneth Boyd, Ph.D.

Assistant Professors:
Olushola Adeyeye, Ph.D.
John Doktor, Ph.D.
James R. Carey, Ph.D.
John J. Maurer, Ph.D.
Melissa A. Melan, Ph.D.
Kyle W. Selter, Ph.D.
John F. Stelz, Ph.D.

Research Assistant Professor:
Mary Alleman, Ph.D.

Adjunct Faculty:
Jagdish P. Bhattacharja, Sc.D.
Michael Delp, Ph.D.
Author K. Aooh, Ph.D.
Spyros D. Kommos, Sc.L.
John Kuchta, Ph.D.
Shivendra B. Singh, Ph.D.

Biologists are needed in industry, government, or universities, as Sciences Major advisors.

Sciences Major advisors should be concerned with developing a curriculum that is diverse bio-technological research career opportunities. Course selections of students should be guided by Microbiology Major and Biological Sciences Major advisors.

REQUIREMENTS FOR THE MAJOR

The Department of Biological Sciences offers a Bachelor of Sciences in Biological Sciences and a Bachelor of Science in Microbiology. The major required for graduation from Duquesne University.

A Bachelor of Science in Biological Sciences is required to complete the 27 credit hour core course, 10 credit hours of electives in either Option I (pre-health professions emphasis) or Option II (zooology/graduate emphasis), and 29 corequisite science/math courses.

Students majoring in biological sciences are encouraged to become involved in undergraduate research projects with faculty mentors.

REQUIREMENTS FOR THE B.S. IN BIOLOGICAL SCIENCES

All students must complete a 27 credit hour core consisting of the following courses:

FRESHMAN YEAR

Biol 121 Biology I 3 cr
Biol 122 Biology II Lab 1 cr
Biol 123 Biology II 3 cr
Biol 124 Biology II Lab 1 cr

Sophomore Year

Biol 211 Cell Chemistry 3 cr
Biol 213 Cell Biology 3 cr
Biol 214 Cell Biology Lab 1 cr

Junior/Senior Year

Biol 311 Genetics 3 cr
Biol 312 Genetics Lab 1 cr
Biol 313 Developmental Biology 3 cr
Biol 314 Developmental Biology Lab 1 cr
Biol 315 Mammalian Physiology 3 cr
Biol 316 Mammalian Physiology Lab 1 cr

Additional Requirements

Ten credit hours should be selected from the following program options. Options are available in students who wish to concentrate their efforts in a particular career specialty.

Option I: For students pursuing a career in medicine, dentistry, or veterinary medicine. Select 10 credit hours from the list:

- Pre-Health Professions Emphasis
- Introductory Microbiology 3 cr
- Introductory Microbiology Lab 1 cr
- Cell Chemistry Lab 1 cr
- Vertebrate Microstructure 1 cr
- Vertebrate Microstructure Lab 1 cr
- Introduction to Entomology 4 cr
- Undergraduate Research 2 cr
- Comparative Animal Physiology 3 cr
- Cardiovascular and Respiratory Physiology 3 cr
- Cardiovascular and Respiratory Physiology Lab 1 cr
- General and Comparative Endocrinology 4 cr
- Reproductive Physiology 4 cr
- Signal Transduction 3 cr
- Neurophysiology 3 cr
- Neurophysiology Lab 1 cr
- Comparative Animal Physiology 3 cr
- Cardiovascular and Respiratory Physiology 3 cr
- Cardiovascular and Respiratory Physiology Lab 1 cr
- General and Comparative Endocrinology 4 cr
- Reproductive Physiology 4 cr
- Signal Transduction 3 cr
- Neurophysiology 3 cr
- Neurophysiology Lab 1 cr

School of Natural and Environmental Sciences

480 Readings in Cell and Molecular Biology 1 cr
481 Readings in Ecology and Evolution 1 cr
482 Readings in Microbiology 1 cr
483 Readings in Physiology 1 cr
484 Readings in Developmental Biology 1 cr

BIOL 490 Seminar 1 cr
CHEM 401 Biochemistry 4 cr
MATH 125 Fundamentals of Statistics - Biostatistics 3 cr

PHYTH 407 Anatomy 5 cr

Corequisites for the B.S. in Biological Sciences are:

CHEM 121 General Chemistry I 4 cr
CHEM 122 General Chemistry II 5 cr
CHEM 205 Organic Chemistry I 4 cr
CHEM 206 Organic Chemistry II 4 cr
MATH 115 Calculus I 4 cr
PHYS 201 General Physics I 4 cr
PHYS 202 General Physics II 4 cr

REQUIREMENTS FOR THE B.S. IN MICROBIOLOGY

All students must complete an 18 credit hour core, choosing at least one course from each category listed below:

- CATEGORY A
  - BIOL 405 Microbial Genetics 3 cr
  - BIOL 424 Immunology 3 cr
  - BIOL 400 Biotechnology Laboratory Techniques 3 cr
  - BIOL 403 Techniques in Light and Electron Microscopy 3 cr
  - BIOL 407 Recombinant DNA Techniques 4 cr
  - BIOL 334 Medical Microbiology 3 cr
  - BIOL 395 Water Microbiology (Special Topics) 3 cr
  - BIOL 427 Microbial Ecology 3 cr
  - BIOL 428 Microbial Ecology Lab 2 cr
  - BIOL 432 Environmental Microbiology 3 cr

- CATEGORY B
  - BIOL 396 Clinical Mycology and Parasitology (Special Topics) 3 cr
  - BIOL 398 Undergraduate Research 2 cr
  - BIOL 399 Undergraduate Research 2 cr
  - BIOL 420 Natural History of Animal Viruses 3 cr
  - BIOL 422 Molecular Virology 3 cr
  - BIOL 425 Pathogenic Microbiology 3 cr
  - BIOL 433 Molecular Pathogenesis 3 cr

- CATEGORY C
  - BIOL 436 Environmental Microbiology 3 cr

- CATEGORY D
  - BIOL 436 Environmental Microbiology 3 cr

- CATEGORY E
  - BIOL 436 Environmental Microbiology 3 cr

- CATEGORY F
  - BIOL 436 Environmental Microbiology 3 cr
Science/Math corequisites for the B S in Microbiology are:

- **Biol 121 Biology I** 3 cr
- **Biol 122 Biology II** 3 cr
- **Biol 123 Biology I Lab** 1 cr
- **Biol 124 Biology II Lab** 1 cr
- **Biol 203 Introductory Microbiology** 3 cr
- **Biol 204 Introductory Microbiology Lab** 1 cr
- **Biol 429 Microbial Physiology** 3 cr
- **Chem 121 General Chemistry I** 4 cr
- **Chem 122 General Chemistry II** 5 cr
- **Chem 205 Organic Chemistry I** 4 cr
- **Chem 206 Organic Chemistry II** 4 cr
- **Chem 401 Biochemistry** 4 cr
- **Cosc 100 Elements of Computer Science** 3 cr
- **Math 115 Calculus I** 4 cr
- **Phys 201 General Physics I** 4 cr
- **Phys 202 General Physics II** 4 cr

**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 200-395 (courses which are open to either majors or non-majors may be selected). 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 (not for Biology major credit)**

- **101 Introduction to Life Processes** 2 cr
- **201 Biology of Microbes** 2 cr
- **202 Biology of Microbes Laboratory** 1 cr
- **207 Anatomy and Physiology** 3 cr
- **208 Anatomy and Physiology Laboratory I** 1 cr
- **209 Anatomy and Physiology II** 3 cr
- **210 Anatomy and Physiology Laboratory II** 1 cr
- **220 Sex and Sexuality** 3 cr
- **301 Eukaryotic Molecular Biology** 3 cr
- **305 Mammalian Physiology** 3 cr
- **311 Genetics** 3 cr
- **312 Genetics Laboratory** 1 cr

**MAJOR COURSES**

All courses for majors are also open to non-majors, providing that individual course prerequisites/back ground expectations are satisfied:

- **121 Biology I Diversity, Ecology, Evolution** 3 cr
- **122 Biology II Cells, Genetics, Development** 3 cr
- **123 Biology I Laboratory** 1 cr
- **124 Biology II Laboratory** 1 cr
- **211 Cell Chemistry** 3 cr
- **212 Cell Chemistry Laboratory** 1 cr
- **214 Cell Biology Laboratory** 1 cr
- **238 Vertebrate Microstructure** 3 cr
- **239 Vertebrate Microstructure Laboratory** 1 cr
- **301 Eukaryotic Molecular Biology** 3 cr
- **311 Genetics** 3 cr

**SCHOOL OF NATURAL AND ENVIRONMENTAL SCIENCES**

- **330 General Ecology** 3 cr
- **331 General Ecology Laboratory** 1 cr
- **334 Medical Microbiology** 3 cr
- **335 Mammalian Physiology** 3 cr
- **340 Evolution** 3 cr
- **353 Invertebrate Zoology** 4 cr

The laboratory emphasizes analysis of eukaryotic Mendelian inheritance and modern methods of molecular genetics. Prerequisites: 211, 213

**311 Genetics** 3 cr

**312 Genetics Laboratory** 1 cr

This course explores the developmental biological processes of morphogenesis, growth, differentiation, pattern formation, and reproduction in a variety of organisms. These processes are examined at the molecular, cellular, and organismal levels with the student with a current overview of the rapidly advancing field. Prerequisites: 211, 213, 214

**314 Developmental Biology Laboratory** 1 cr

**315 Mammalian Physiology** 3 cr

Examination of the molecular and cellular mechanisms of mammalian body function, including consideration of the basic components of biological control systems and the manner in which various tissues and organ systems contribute toward the maintenance of physiological homeostasis in health and disease. Lecture Prerequisites: 211, 213 or permission of the instructor.

**316 Mammalian Physiology Laboratory** 1 cr

**330 General Ecology** 3 cr

A survey of basic ecological principles with emphasis on population, communities, and ecosystems. Selected topics will include population dynamics, life history strategies, competition, niche theory, foraging theory, species diversity, and succession. Students will learn basic statistical techniques to analyze ecological data. Lecture Prerequisites: 211, 212, 123, and a comfortable relationship with mathematics.

**331 General Ecology Laboratory** 1 cr

**334 Medical Microbiology** 3 cr

A systematic coverage of medical microbiology and its role in clinical medicine. Emphasis is based on current concepts of infectious disease and microbial genetics as they pertain to pathogenicity. Special attention is given to host-parasite interactions and to the interpretation and significance of laboratory findings in the diagnosis and treatment of human microbial disease. Prerequisites: 121, 122, 123, 124, and 203 or equivalent or permission of the instructor Lecture.

**340 Evolution** 3 cr

This course will discuss the origin of life, introduce classical prokaryote and eukaryote evolution, and then concentrate on the study of evolution by modern molecular methods using prokaryote and eukaryote models. This course will include reading assignments from current literature and several field trips. Prerequisite: 311

**353 Invertebrate Zoology** 4 cr
427 Microbial Ecology 3 cr
In this course the interaction of microorganisms, plants, and animals 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. Prerequisite: a course in microbiology or permission of the instructor.

429 Microbial Physiology 3 cr
A course examining microbial energy metabolism including organotrophy (aerobic and anaerobic respiration, fermentation), chemo- and phototrophy. Selected topics of microbial biosynthesis, including cell envelope biosynthesis and structure, 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: Organic Chemistry and a course in microbiology or permission of the instructor.

432 Environmental Microbiology 3 cr
An in-depth look at how microbes, both prokaryotic and eukaryotic, effect the environment. Microbial pathogens involved in biogeochemical cycles and biomineralization are examined in detail. Prerequisites: Organic Chemistry and a course in microbiology or permission of the instructor.

443 Molecular Pathogenesis 3 cr
The vulnerability of man to infectious diseases, even with the latest advances in modern medicine, is quite evident. Today, we see the emergence of new diseases including AIDS, Lyme disease, toxic shock syndrome and chronic fatigue syndrome, as well as the reemergence of old diseases like tuberculosis and rheumatic fever. This course is designed to introduce the complex interaction between a pathogenic microorganism and the host (e.g., man). The focus will be on model systems that demonstrate different strategies infectious agents have adopted for life within the host. We will also examine the host's response (inflammation, immunity, etc.) to infection. Prerequisites: 203, 311 Lecture.

450 Comparative Animal Physiology 3 cr
This course focuses on the diversity of physiological mechanisms which different animals employ, including the high level of physiological and biochemical adaptation and specialization found in animals which live in challenging environments, on which possess other exceptional physiological abilities. Prerequisite: an animal-based physiology course, or permission of the instructor.
460 General and Comparative Endocrinology 3 cr
A survey of endocrine and neuroendocrine integration in vertebrate and invertebrate animals. Prerequisites: 211, 213

461 General and Comparative Endocrinology Laboratory 1 cr

468 Reproductive Physiology 4 cr
A study of reproductive processes at the organellar, cellular, and molecular levels. Major emphasis will be on mammalian reproduction, but other groups will be included for comparison. Laboratory will focus on modern cellular and molecular techniques for studying reproductive mechanisms. Prerequisite: 315, or permission of the instructor.

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, chain-linked receptors, G-protein-linked receptors, catalytic receptors, second messengers, cAMP, calcium, calmodulin, nitric oxide, phospohatase, and polypeptide hormone action. The laboratory portion of the course will focus on molecular and cellular techniques in the areas of signal transduction and molecular biology. Students must have instructor approval.

472 Neurophysiology 3 cr
Study of the cellular and molecular properties of neurons including excitation, conduction, transmission, integration, sensory mechanisms, and neural processing using vertebrate and invertebrate examples. Prerequisite: Undergraduate students must have instructor approval.

473 Neurophysiology Laboratory Techniques 2 cr
An introductory laboratory course with emphasis on techniques employed to gather data from invertebrate and vertebrate sensory cells, interneurons, motor neurons, and muscle fibers. Students will learn intra- and extracellular recording methodology, neuron culture, and histochemical methods. Data acquisition is MacLab hardware and Apple Macintosh computer-based. Completion of or concurrent registration in 472 is required. Laboratory.

480 Readings in Cell and Molecular Biology 1 cr
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature.

481 Readings in Ecology and Evolution 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.

483 Readings in Physiology 1 cr
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature.

484 Readings in Developmental Biology 1 cr
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature.

490 Seminar 1 cr
Students attend and participate in weekly departmental research presentations and demonstrations by biological scientists from the Department of Biological Sciences, and from other universities.

491 Readings in Cell and Molecular Biology 1 cr
The Chemistry program is designed to provide the student with a fundamental background in chemistry and an understanding of the relationship of chemistry to other sciences and disciplines. Elective courses and the opportunity to do undergraduate research allow the chemistry major to develop an interest in a specialized area of chemistry, such as analytical, inorganic, organic, physical chemistry, and biochemistry.

Because of the fundamental nature of chemistry as a science, numerous opportunities for advanced study, as well as employment, are open to chemistry and biochemistry majors. A large percentage of students elect to continue their study in graduate programs in chemistry and related fields. Chemists and biochemists provide a core of personnel in pure and applied research, technical sales, technical 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

Thirty-two semester hours are required. All students must take 121, 122, 211, 212, 321, 322, 421, and 422. Mathematics 115, 116, Physics 201, 202 or 211, 212, Biology 111, 112.

If a student takes 111, 112 and 121, 122 chemistry courses, the credits for the 111, 112 will not apply to the total required for the degree.

Chemistry Major All students must take 322, 324, 422 and Mathematics 215.

Biochemistry Major All students must take 401, 524. Students planning to enter a graduate chemistry department should take 322, 324.

To meet the American Chemical Society's requirements for Professional Certification, the Chemistry Major must elect two additional courses from the following: 401, 523, 524, 537, 538, 545, 546, 547, 548, 572, Mathematics 216 or 308, Biology 505, Pharmacy Sciences 539 and Physics 306, one of these must be a laboratory course. 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 consists of 12 credit hours beyond 121, 122. A minor in Biochemistry consists of 12 credits beyond 121, 122. Normally 205, 206 or 221, 222, along with 401, will constitute the chemistry minor.

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 are developed with particular reference to the simple molecules of manmade 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, 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.

120 Basic Concepts of Chemistry 3 cr
This course introduces students to the basic concepts of chemistry and reviews the applications of mathematics pertinent to General Chemistry Lecture, three hours.

121, 122 General Chemistry
The fundamental principles and concepts of chemistry are presented from the standpoint of atom and molecular structure with illustrative examples from descriptive chemistry. The basic concepts of thermodynamics, chemical kinetics and equilibrium are introduced. The laboratory portion of the first semester illustrates physical and chemical properties in a broad, sensitive manner, and in the laboratory portion of the second semester illustrates the principle of some equilibria including qualitative inorganic analysis. Prerequisites: High school algebra or the equivalent for 121, 122.

121 Lecture, three hours, Recitation, one hour, Laboratory, three hours.

122 Lecture, three hours, Recitation, one hour, Laboratory, six hours.

205, 206, 221, 222 Organic Chemistry 4 cr each
The theoretical background is developed from the standpoint of the electronic structure of molecules and the accompanying energy considerations. The preparation and the chemical and physical (including spectral) properties of representative organic compounds are discussed in detail. Prerequisites: 121, 122. For 205, 206, Lecture, four hours, Laboratory, three hours, and for 221, 222, Lecture, four hours, Laboratory, eight hours.

321, 322 Physical Chemistry 3 cr each
A study of the structure and properties of the various states of matter, thermodynamics, thermochromism, 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 321, 322, four hours.
DEPARTMENT OF PHYSICS

401 Biochemistry I  4 cr
An introduction to modern biochemistry at the molecular level. The course includes discussion of the structure and function of proteins, the mechanisms and regulation of enzyme catalysis, biomembrane structure and function, the structure and metabolism of carbohydrates, and the bioenergetics of ATP synthesis and utilization. Prerequisite: CHEM 206 or 222. Lecture, four hours, Laboratory, four hours.

421 Analytical Chemistry  4 cr
Theoretical and practical training in modern methods in chemical analysis with emphasis on instrumental methods. Prerequisite: CHEM 321. Lecture, three hours, Laboratory, eight hours.

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

524 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 pyrimidines. The second half of the course offers a discussion of the molecular basis of genetics, including DNA and RNA metabolism, protein biosynthesis, and an introduction to the biochemical basis of recombinant DNA methodology. Prerequisite: CHEM 401.

DEPARTMENT OF PHYSICS

Chairperson
K. Thomas Davies, Ph.D.

Professors
Shih-Chung Chang, Ph. D.
K. Thomas Davies, Ph.D.
Rev J. Clifton Hill, Ph.D.

Assistant Professor
Mark J. Comella, Ph.D.
Barbara M. Manner, Ph.D.
Reginald A. Nye, M.Sc.

Instructor
Anna D'Avanzo, 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 the relationships between other sciences and disciplines. The Department is also aware that in a fundamental background in traditional Physics is also essential to both the physical and pharmaceutical sciences. Prerequisite: Mathematics 115. Lecture four hours, laboratory/research, two hours. (Note: Students preparing for a medical degree program must take Physics 201, 202 or Physics 211, 212. Pharmacy 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. The completion of this course, the student should have attained a working knowledge of physics, its techniques and reasoning such that the knowledge of physics gained may be applied to future work in the sciences or other fields of endeavor. Prerequisite: 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 celestial sphere, the solar system, past present and beyond, astronomical tools, properties of stars and starlight, the life cycle of stars, black holes, and neutron stars, and the origin, evolution and properties of galaxies. The question of life on other worlds may also be examined. This course presumes no scientific background, and is open to all students within the University. It is also suitable for completion of non-core science requirements for students in the College of Liberal Arts and Sciences, 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. Mechanists and electro-
systems, dynamics of many particles and rigid bodies and Lagrangian mechanics Prerequisites 212, Mathematics 215

372 Electromagnetism 4 cr
An intermediate course for the science and engineering students. The following topics will usually be discussed: electrodynamics, energy relations in electromagnetic fields, dielectrics, currents and their interaction, magnetic properties of matter, AC circuits, Maxwell’s equations, and electronic radiation Prerequisites 212, Mathematics 215

402 Optics 3 cr
This course introduces the student to the principles of geometrical and physical optics. Topics may include reflection, refraction, diffraction, polarization, matrix techniques in lens system design, basic quantum optics and the laser Prerequisites 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 setting. It is open to all interested science students and it is mandatory for all physics majors. Some experiments to be performed are: Laser assembly, the characteristics, polarization, shapes, and the transmission spectrum of a laser beam, the reflection, diffraction, interference and spectra of lasers and holography. More advanced experiments could be assigned as special projects Prerequisite 402 or consent of the instructor

419 Introduction to Micro and Mini Computers 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 applied to microprocessor data acquisition from and control of real world sensors and other electronic devices Prerequisites Computer Science 200, Computer Organization and Assembly Language, and Computer Science 325, Operating Systems and Computer Architecture. Some electronic background is useful and completion of Physics 202 or 212 is encouraged

425 Microcomputer Laboratory 3 cr
A “hands-on” laboratory course in the use of single 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 microcomputer 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 conversion techniques, motor speed control, and process control Prerequisites Physics 419, or consent of the instructor

426 Problems in Microcomputers 1-4 cr
Special topics and problems in microcomputers, microcomputer interfacing creativity and related subjects suitable for independent work Prerequisites Physics 419, or consent of the instructor

427 Robotics 3 cr
This is an introductory course that deals with robots, controllers, programming, operational aids, drive systems, interfacing, end effectors, sensors and robotic applications Prerequisites 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 present results of his work at a department seminar or an appropriate scientific meeting if deemed advisable. A research topic is selected from those suggested 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

473 Atomic Physics 3 cr
This course provides an introduction to special relativity and quantum theory with applications drawn mainly from modern theories of the atom. Topics usually included are: quantum theory of heat radiation, the uncertainty principle, quantum theory of the hydrogen atom, many-electron atoms, atomic spectroscopy. Prerequisites Physics 212, Mathematics 215

483 Nuclear Physics 3 cr
Experimental and theoretical aspects of the atomic nucleus are discussed. The topics presented may include: two-nucleon systems, radioactivity and nuclear decay, nuclear structures and reactions, nuclear fission, and an introduction to elementary particles. Prerequisites Physics 212 or 202 and consent of the instructor

474, 480, 484, 485, 486 Special Topic Courses 1-3 cr each
These courses are designed to allow the Physic student flexibility in designing his/her program. These courses are offered irregularly and at times when there is sufficient student demand to justify the offering of the course

The courses offered include: 474 Quantum Mechanics (please note that for the departmental requirement, you must complete both 453 and 457, Quantum Chemistry, in lieu of the Quantum Mechanics Course). 484 Introductory Solid State Physics, 485 Relativistic Mechanics and 486 Shop Techniques. Descriptions of these courses follow

475 Quantum Mechanics 3 cr
A basic introduction to the dynamics of quantum phenomena. Some of the topics covered are: Schroedinger Equation, oscillators, hydrogen atom, linear operators, Hermitian Matrices, observables, conservation theorem, spin, angular momentum, and perturbation theory. The course will emphasize application to simple systems Prerequisites 212, Mathematics 215

480 Nonlinear Dynamics (Chaos) 3 cr
This course provides an introduction to the theory and applications of chaos. The topics may include characterizations of maps and flows, studies of periodic orbits and bifurcations in simple one- and two-dimensional maps, sensitivity to initial conditions and the Lyapunov exponents, universal scaling laws, and the Feigenbaum constant, fractals, the Julia and Mandelbrot sets, the Lorenz attractor, fractal sections, Hamiltonian Chaos, and the KAM theorem

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, atomic arrangement in lattices, crystal chemistry, the free electron model, band theory, superconductivity, magnetic properties and magnetic resonance Prerequisites 212, Mathematics 215

485 Relativistic Mechanics 3 cr
This course is an introduction to the Special and General Theories of Relativity. A list of topics which may be discussed are: absolute space, Einsteinian Kinematics, Einsteinian 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 experimentalist 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 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 High-Energy Physics 1-4 cr
Special topics and problems in high-energy physics and related subjects suitable for independent work

492 Health Physics 2 cr
The objectives of this course are 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

495 Field Studies 1 cr
Earth Science Courses

PHYS 101 Physical Geology 3 cr
Comprehensive survey of minerals, rocks, structures and geologic processes of the solid earth. Topics covered may include earthquakes, plate tectonics, volcanism, surface and groundwater, glaciers, and mountain formation. This course presumes little or no geologic or scientific background, etc.

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 physical 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. Evolution of local features may also be discussed along with their relationships to plate tectonics. This course presumes no geologic or scientific background, etc. This course presumes little or no geologic or scientific background, etc.

PHYS 232 Geology of the National Parks 3 cr
The national parks provide accessible and protected examples of important geologic processes. Volcanism, mountain building tectonic activity, glaciation, groundwater and geothermal activity, and river erosion are represented. Geologic history and features of each of the parks will be presented using slides, supplementary reading material, and maps. This course presumes little or no geologic or scientific background, etc.

PHYS 304 Environmental Earth Science 3 cr
Analysis of geologic aspects of man’s environment with emphasis on geologic hazards and environmental impact of society’s demand for water, minerals, and energy. Topics covered may include coastal processes, earthquakes, volcanic eruptions, river alternative energy sources, and environmental law. This course presumes little or no geologic or scientific background, etc.

PHYS 491 Environmental Hydrogeology 2 cr
The course introduces students to the fundamentals of geologic materials and soils and deals with ground and surface water and hazardous earth processes, such as flooding and earth movements. Geologic issues of solid waste disposal, hazardous waste management, ground water and surface water, and hazardous earth processes. This course will include case histories, field trips, and a research paper
A.J. Palumbo School Of Business Administration

Administration
Dean
Thomas J. Marrin, B.S., D.M.S.
Associate Dean and Director
of Undergraduate Studies
Thomas A. Pollicac, Ph.D.
Associate Dean and Director
of Graduate Studies
William D. Presutti, Ph.D.

Admissions
Linda Ginnm, M.Ed
President of Communications and Budget
Linda Ginnm, M.Ed

HISTORY
The A.J. Palumbo School of Business Administration was established in 1913 as the School of Accounts and Finance. The rapid growth of the School necessitated a constant broadening of the curriculum to encompass all business subjects of fundamental importance.

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 four decades, new degree programs were added to enhance the scope of the curriculum and help prepare students for careers in all types of organizations. In 1971, the School became known as the A.J. Palumbo School of Business Administration.

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 that Business School which under stands clearly the crucially 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 academic, business, government and labor;

- Become leading practitioners of continuous world-class quality and productivity improvement by outstanding offerings and expert lecturers, resources-effective processes throughout the School, and innovative pedagogical improvements in the classroom utilizing the most state-of-art resources available;

- Provide insightful training in international business incorporating challenges from such countries as Japan and Germany and outstanding opportunities in such areas as Central and Eastern Europe. Introduce leading-edge knowhow 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, employees, 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 Dean’s Student Advisory Council 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 Office of Admissions. The regular University requirements can be found on page 7.

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 undergraduate 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) or better. For other students including those transferring from another school within the University, a quality point average of 2.5 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 27 of those credits may consist of business courses. Exceptions will be made if the student is enrolled in an established articulation agreement with Duquesne University. If extending articulation agreements, the student must be approved by the School's Standing Committee. For further information, the student should consult an academic advisor.

If the student wishes to transfer credit for course work taken in business taken elsewhere at the lower level (freshman and sophomore) when that work is offered at the upper level (junior and senior) in the School of Business Administration, the student must first validate such course work by testing. For information about validation by qualifying examinations, the student should consult an advisor.

DEGREE
The School of Business Administration grants the degree of Bachelor of Science in Business Administration. This degree may be awarded to those who satisfy the entrance requirements and successfully complete the School's degree program.

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 fulfill 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 curricular requirements may apply for the 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 the sophomore year to plan their program of study.

EARLY ADMISSION TO MBA PROGRAM
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 the senior year. Dean’s List students interested in this program should consult their advisors early in the junior year.

EARLY ADMISSION TO MBA PROGRAM-B.S. PHARMACY/MBA
The School of Business Administration and the 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.

BUSINESS CERTIFICATE PROGRAM WITH COLLEGE OF LIBERAL ARTS AND SCHOOL OF EDUCATION
The School of Business Administration and the College of Liberal Arts and School of Education have developed a certificate program in business for liberal arts and education students. Students in the College of Liberal Arts and School of Education may apply to take certain MBA courses during the senior year. Students interested in this program should consult their advisors.

HEALTH MANAGEMENT SYSTEMS JOINT PROGRAM WITH SCHOOL OF HEALTH SCIENCES
The A.J. Palumbo School of Business Administration, in conjunction with the 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 systems. The Health Management Systems program offers specialization tracks in Systems and Administration.
SCHOOL CENTERS
Activity complementing direct instruction takes place in the School's ancillary units. All function 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.

Center for Economic Education
The Center for Economic Education is charged with the responsibility of instilling and promoting economic education in the society at large. More specifically, it develops and coordinates economic education within the Western Pennsylvania area and the In-State area primarily to upgrade the public's literacy and teaching competency in the school system. The Center also conducts economic education programs for clergy, media professionals, and other opinion leaders.

Center for Labor-Management Cooperation
The mission of the Center for Labor-Management Cooperation is twofold. First, it is to serve as a communications vehicle for the Pittsburgh region reporting on what firms are doing to promote labor-management cooperation as a fundamental philosophy of how they do business. The second is to serve as a promotional tool to help overcome the perception of the region as one with a poor labor-management relations climate. The Center regularly publishes a newsletter that highlights the positive, innovative labor-management cooperation activities with which Pittsburgh area companies are involved.

The Beard Center for Leadership in Ethics
The mission of the Center for Leadership in Ethics is to accentuate issues of ethical concern by promoting public discussion in an attempt to develop an overall awareness of ethical conduct and an increase in leadership standards for the organization. An important initiative in this mission is the Distinguished Speaker Series on Ethics. At these programs, prominent executives from the business community share their experiences and philosophy on ethical conduct. The Center also sponsors regular, roundtable discussions during which business leaders, faculty, and students express their views and answer questions.

Center for International Management
The objective of the Center for International Management is to develop a better understanding of the American involvement in international affairs and business abroad through teaching and research. It is achieved by an interdisciplinary approach. The areas of current research focus are:
1. Trade expansion between the USA and Eastern Europe
2. Management in foreign nations
3. Problems in international business
4. International economic development with emphasis on interaction among developed countries and on the relationship of developed and less developed countries
5. International political and legal issues

Center for Quality and Competitiveness
The mission of the Center for Quality and Competitiveness is to help organizations in the Pittsburgh region, especially those who lack the required in-house resources and expertise, implement total quality management as a business philosophy. The Center does this by offering programs that heighten awareness about the total quality philosophy and provide knowledge and skills in using the tools of analysis necessary to improve organization performance The Center strives to serve as a resource to organizations that may use to boost their competitive positions.

Center for Real Estate Studies
The objective of the Center for Real Estate Studies is to serve as a regional education center and to provide students with the necessary background so that they may obtain various professional designations in the field of real estate.

Center for Technology Management
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 conducts research in technology 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 John E. Connelly Center for Entrepreneurship and Emerging Enterprise
The John E. Connelly Center for Entrepreneurship and Emerging Enterprise was designed to nurture and support the entrepreneurial spirit and emerging new enterprises in the Pittsburgh region. The Center is committed to providing world-class training to help prepare entrepreneurs and others to contribute to the survival, competitiveness and long-term success of their organizations. Through seminars sponsored by the Connelly Center, client organizations receive training in such areas as leadership, communications, program planning, feasibility studies, marketing strategies, financial planning, total quality management, international strategy and the management of technology.

SCHOOL OF BUSINESS ADMINISTRATION
COMPUTER FACILITIES
The A J Palumbo School of Business Administration operates three large computer laboratories in Rockwell Hall. One laboratory is dedicated to personal computers and their applications across the business curriculum. Another laboratory consists of terminals which provide on-line access to software and applications associated with the University's mainframe computer system. The third laboratory is a teaching laboratory dedicated to multi-media applications. These laboratories provide state-of-the-art hardware and software support to students in the School of Business Administration.

STUDENT ORGANIZATIONS
These student organizations in the A J Palumbo School of Business Administration exist for the promotion of the scholarly and professional interests of members.

The American Marketing Association members at Duquesne University interact with the Pittsburgh professional chapter to organize seminars featuring successful marketing executives, workshops, career forums, and networking events. The AMA is dedicated to furthering the profession and developing students' careers.

Beta Alpha Phi is the honorary scholarship society of the school. Its membership is limited to juniors and seniors in the Business School who have attained Q P A's of 3.25 or better.

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 highest five percent of their class and to seniors in the highest ten 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 Kappa chapter. The fraternity makes substantial contributions to the University community through its many service activities.

The Financial Management Association, is a student organization for those interested in careers in finance.

The International Business Association, is a student organization for those with interest in careers in the area of international business.

Phi Chi Theta, a national professional business fraternity, organized to promote the cause of higher business education and training for all individuals, is represented by the Gamma Upsilon Collegiate Chapter.

ADVISORY BOARDS
Advisory Board for Accounting
Teresa Ananna, CPA, Algor
John W. Bittner, CPA, Ernst & Young
John G. Borman, CPA, Echlehay, Inc
Joseph Canny, CPA, Mellon Bank N.A
Mark M. Chan, CPA, Deloitte & Touche
Anthony J. Cruatto, CPA, Cinema World Inc
Charles R. Curran Jr., CPA, Westinghouse Electronics Corp (Retired)
Joan Ellenbogen, CPA, Crawford & Ellenbogen
Melvin G. Henniger, CPA, Miles, Inc
David E. Kolan, CPA, Schneider Downs & Co., Inc
Francis J. Lison, CPA, KPMG Peat Marwick
Joseph R. Lucot, CPA, Coopers & Lybrand
William Lyons, CPA, Consol, Inc.
John R. McMurtry, CPA, Ferraro, Krebs & McMurtry
Stephen F. Piskorsch, CPA, Equitable Resource Inc
Suzanne Quattro, Servestor Corp
John Radacky III, CPA, The Acacia Group
Robert J. Reddy, CPA, AMPCO Pittsburgh
Robert J. Schuler, Blue Cross of Western Pennsylvania
Joe D. Selz, CPA, Arthur Anderson & Co
Timothy G. Sheedy, CPA, NVR Mortgage
Dmitry D. Shury, CPA, Price Waterhouse & Co
Robert Sladack, CPA, Internal Revenue Service (Retired)
Sam Stephenson, CPA, Terry & Stephenson, PC
Samuel A. Vitkosski, CPA, BDO Seidman
Deborah Wills, CPA, Alpern Rosenthal & Company
Paul Venable, Esq., CPA, Eckert, Seamans, Chernin & Mellott
Advisory Board for Finance

Anthony C Barna, Kelly-Reilly Associates, Inc
Daniel J Bevevino, Respronsics, Inc
Donald A Brozick, Alcoa
Michael A Bryson, Mellon Bank, N A
Anthony Burlando, The Hillman Company
Deborah A Cunningham, Federated Investors
Donna R Curran, PNC Mortgage Corporation
Francis W Daily, H J Hennz Company
Henry Dyker, Bunker & Co
Charles Gomulka, RRZ & G Holdings
Gretchen R Haggerty, USX Corporation
Randall King, PNC Bank Corporation
Thomas V Kondrat, PNC Securities Corporation
Michael F Nemser, CONSOL Inc
William G Nichols, Alcoa
Frederick S Potter, DQE
Kevin P Prykull, PNC Lease, Inc
Richard A Rua, Mellon Bank, N A
Charles E Yago, Westinghouse Electric Corporation

Advisory Board for Human Resources

Michael Adamczyk, The Hillman Company
Richard Antonelli, Esq, Buchanan Ingersoll
Ann R Blaskovich, ARB Associates
John Bremkus, PNC Bank Corporation
Carol A Churan, Community Savings
Theresa Curtin-Kelly, Federated Investors
Phyllis Hartman, Society of Automotive Engineers
Aaron Herbrick, Reed, Smith, Shaw & McClay
Ronald Hiserodt, Alcoa
Jeff Holst, Miles, Inc
Douglas J Kaiser, PPG Industries
Joseph G Kecskemethy, Independent Consultant
Donald Lodge, Mercy Hospital of Pittsburgh
Rhonda Mangieu, Action Industries, Inc
Ronald Mathick, Westinghouse Electric Corp
Holly Maurer-Klein, Pittsburgh High Technology Council
Patricia Nigro, Limbach Holdings, Inc
Daniel W O'Malley, TIP & RE
Robert R Perkoski, University of Pittsburgh
David Reese, PNC Bank, N A
Mitzie Slagel, North Hills Passavant Hospital
Jane Tabbott, Consolidated Natural Gas Co
John M Wilds, University of Pittsburgh
Richard Williamson, Duquesne University

Advisory Board for International Business

Fred Angelone, Mitsubishi International Corporation
Joseph P Backes, Miles, Inc
H Kento Hiru, University International Inc
Mary McKinney, Duquesne University
Mark V Santo, Bailey Controls Company
Rev Thomas Schaefer, Duquesne University
Charles A Schluels, Jones, Day, Reavis and Pogue
Judith Watts, Davy McKee Corporation
Prescott Wintersteen, Respronsics, Inc

Advisory Board for Management

Linda Dickerson, Riverview Publications
Richard DeClaudio, The Hillman Company
Raymond P D'Imuzco, CPA, Deloitte & Touche
Dona Hotopp, Goal/QPC
William Huller, Fostin Capital Corporation
Thomas Garbe, Consolidated Natural Gas Company
Phil Kerr, Pittsburgh Tag Company
Philip W Keys, Intell-RX, Inc
William Lowry, Blue Cross of Western PA
Henz Machatver, Duquesne University
John Mawhinney, Eaton Cutler/Hammer
Jerry McGinnis, Respronsics
Arthur (Ned) Uber, Medrad
Dan Zebrynski, AEG Transportation Systems, Inc

Advisory Board for Management Information Systems

Steve Adams, Mercy Pittsburgh Health Systems
William Buckley, ALCOA (Retired)
Cynthia Carbine, Carnegie Works, Inc
Jerry Havemann, Hennz, N A
Wesley H Hutchinson, Allegheny Health, Education and Research Foundation
Estelle Kemeter, Medical Center of Beaver
Dain Madden, Consolidated Natural Gas
Donald Maue, Hillman Company
Wayne Maue, Western PA
Bob McAfee, USX Corporation
Donald McMahon, Allegheny Ludlum
Dave Moore, Mellon Bank N A
Ed Hess, Westinghouse Electric Corp
Steven J Schmitt, City of Pittsburgh
Jay Shook, Miles Inc
Frank Skowron, Computer Science Corporation
Charles Southworth, Keichun Communications Inc
Dennison Upton, Mine Safety Appliance Co
Russ Zembas, Consol Inc

Advisory Board for Marketing

David Ball, USX Corporation
James Bezula, Roehl
Carl Borntraeger, Personal Consultant
Kathy Bynums, Bynums Advertising Service
Eric Christian, Glaxo Pharmaceuticals
Michelle Cooper, Mercy Hospital
Donna Covelli, St Francis Health Systems
Nick Delaney, Components International
Thomas V Doyle, Westinghouse Electric Corp
Gary K Eders, PPG Industries, Inc
George Harris, Susquehanna Management Associates
Kenneth Holes, XEROX
Bruce Karger, IBM - Pittsburgh
Robert Longo, Algor Interactive Systems
David Peck, Fisher Scientific
Alan Ridley, Vesuvius International Corporation
Laurence F Sargent, PPG Industries, Inc
F J Sarkans, Matthews International Trading Company

DIVISIONS AND ACADEMIC PROGRAMS

The A J Palumbo School of Business Administration is comprised of three Divisions: Accounting and Finance, Behavioral, and Economics and MIS.

Programs and Services

Success in business requires an ability to communicate effectively in oral and written form. The Communications Center is a comprehensive program designed to make the mastery of writing and presentation skills a priority for all School of Business students.

The Center presents opportunities for all students to achieve competency through workshop, seminar and tutorial sessions. The programs of the Center are designed to interact cooperatively with the Lecture Series and Reading Program.

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 "advocate organizer" 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 per-
nal relationships and to become acquainted with the organization of the School and the resources available. Participation in this program is required for graduation.

Junior/Senior Lecture Series
The purpose of this series of colloquia is to offer students the opportunity to meet and interact with government officials, corporate leaders and authors during the completion of the students' upper level courses. Students are exposed to current themes and critical topics in business. This series is coordinated with the Reading Program.

Attendance at these programs is required and students will participate in writing exercises pertaining to the lectures.

Reading Program
In order to broaden the students' knowledge of the business world, a comprehensive bibliography has been compiled by the faculty. Students are expected to complete outside readings in a variety of areas to complement their in-class studies. Completion of this program is required for graduation.

Foreign Language/Culture Requirement
Business organizations are becoming more global in scope, yet business students graduating from many American educational institutions still maintain a parochial perspective.

To bring an international cultural awareness to business education and to provide a valuable skill for our students, the School of Business Administration requires six (6) credits of study in a conversational foreign language and culture. This requirement may be fulfilled at any time during the student's program of study.

FOUR YEAR SAMPLE PLAN (Effective September 1993)

**Freshman Year**
- University Core
- 101 Thinking and Writing Across the Curriculum 3cr
- 102 Imaginative Literature and Critical Writing 3cr
- 103 College Algebra 3cr
- 111 Calculus 3cr
- 112 Basic Philosophical Questions 3cr
- 141 Social, Political, and Economic Trends 3cr
- 151 The Shaping of the Modern World 3cr
- 161 The Arts and the Human Experience 3cr
- 302 Information Systems I 3cr
- 303 Information Systems II 3cr

**Sophomore Year**
- University Core
- Core Theology Requirement 3cr
- Core Science Requirement 3cr
- Core Business Core 3cr
- 281 Quantitative Analysis I 3cr
- 284 Quantitative Analysis II 3cr
- 291 Principles of Economics I 3cr
- 292 Principles of Economics II 3cr
- 293 Principles of Economics II 3cr
- 294 Principles of Economics III 3cr
- 296 Business Law 3cr
- 233 Global Economics 3cr
- 234 Pre Business Experience 3cr
- 302 Outside Reading Program 3cr

**TOTAL Credits** 30cr

**Junior Year**
- Business Core 3cr
- 331 Business Finance 3cr
- 361 Introduction to Management 3cr
- 371 Junior Outside Reading 3cr
- 367 Total Quality and Operations Management 3cr
- 368 Business Ethics 3cr
- 369 Total Credits 30cr

**Senior Year**
- Business Core 3cr
- 494 Strategic Management 3cr
- 495 Total Quality and Operations Management 3cr
- 405 Senior Seminar Series 3cr
- 406 Business Ethics 3cr
- 407 Total Credits 30cr

**TOTAL Credits** 36cr

ACADEMIC REGULATIONS

ACADEMIC LOAD
Students may normally carry fifteen 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 a week, i.e., six credits in the six-week session. A 12-credit schedule in a regular semester is considered a full-time study. Students on academic probation may not take more than 12 credits.

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 on the best information available as of February 1994.

CLASS ATTENDANCE
Regular class attendance in the School of Business Administration is normally required for maximum educational advantage. The responsibility for all course material rests wholly with the student. It is the prerogative of each instructor to establish specific policies for attendance at examinations, class lectures, deadlines for reports, and other specific school or course requirements.

A student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstances is responsible for notifying the student's advisor. The student should supply a written verification as soon as possible. A student who is absent for cause is expected to complete all of the work in all courses. It is the student's responsibility to make up all assignments in all courses and to be familiar with any instructions which may have been given during the absence.

HANDICAPPED STUDENTS
Handicapped students requiring special assistance are urged to notify the class instructor or the student's 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 are welcome to take business courses provided they meet all prerequisites. Under no circumstances, however, may a student in another school take more than 27 credit hours in business courses. Students in the College of Liberal Arts, the School of Natural and Environmental Sciences and the School of Education, who wish to take business courses, must follow the business certificate program established by the individual schools. 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 sophomores required business courses must be completed before the student may enroll for upper level business courses, that is, those business courses numbered in the 300's and 400's. The student must also have completed 60 credits or more. Upper level courses may not be taken by students accepted to the School of Business or enrolled in an approved certificate program. Exceptions must be approved by the Academic Advisors.

Frequency of Course Offerings
The frequency of course offerings included in each course description is a guide only. Changes can occur as student demand warrants.

GENERAL BUSINESS COURSES
The following courses, with the exception of BUADM 401 — Business Administration Internship, are required for all students enrolled in the School of Business Administration.

202 Sophomore Outside Reading Program Not for credit

This is a sophomore level professional development program designed to augment the students' knowledge of contemporary business issues and enhance their communication skills. Selected readings on general business topics will be assigned throughout the academic year. Students will be responsible for reporting on the content of the readings through examination and/or short papers. Prerequisite: Sophomore standing.

203 Pre-Business Experience Not for credit

This orientation program is designed to introduce business students to the broad context of a business education. Students are exposed to the concept of total quality management, the importance of ethical decision making, the philosophy of cooperative learning, and the realities of the global marketplace. Students meet with the A.J. Palumbo School of Business faculty and administrative staff to develop personal relationships and to become acquainted with the resources available. Prerequisite: Sophomore standing.

301 Junior Outside Reading Program Not for credit

This Junior Outside Reading Program attempts to broaden the students' knowledge of specific business topics. Students are expected to complete outside readings in a variety of areas to complement their in-class studies and to expand their understanding of topics covered in the lecture series. Prerequisites: BUADM 202 and Junior standing.

303 Junior Lecture Series Not for credit

The lecture series is designed to familiarize students with current themes and critical concerns in business. Speakers from specific disciplines discuss corporate policies and business issues in a regularly scheduled lecture series. Students are required to submit written reports on lecture topics and corresponding outside readings. Prerequisite: Junior standing.

401 Business Administration Internship
This internship provides the student with professional work experience in an organizational environment. It is an extension of the curriculum and provides meaningful experience related to the student's area of concentration. Internship responsibilities must be approved in advance by a faculty sponsor. The student is supervised within the work setting.
and also by a faculty member from the School of Business Administration. Internships are available to students in all business concentrations. Grading is Pass-Fail. Prerequisites: Junior standing and an overall GPA of 2.5 or better, completion of at least 15 credits at Duquesne University. Offered every semester.

402 Senior Outside Reading Program Not for credit From a comprehensive bibliography compiled by the Business School faculty, students are assigned outside readings to complement the Senior Lecture Series and expand their awareness of contemporary business issues. Students are expected to participate in group discussions and writing exercises on topics included in this program. Prerequisites: BUADM 302 and Senior standing.

403 Senior Lecture Series Not for credit This four-lecture series focuses on controversial and thought-provoking issues that affect the business community. The series features corporate leaders from top administrative posts and distinguished professionals from government and academia. Students are evaluated on the basis of written assignments. Prerequisites BUADM 303 and Senior standing.

ACCOUNTING AND FINANCE DIVISION

ACCOUNTING CURRICULUM

The accounting faculty requires that students concentrating in accounting take Accounting 216, 311, 312, 314, 315, 411, 412, and 414, as well as at least one of the following: Accounting 485 and/or Law 333, 354, 355, or 454. It is required that the student achieve a 2.5 average in Accounting 214, 215 before attempting Accounting 216 and 311. A minimum grade of C in 311 must be obtained before attempting 312.

Management information systems courses recommended for accounting students are 481 and 485. Finance 333 is also recommended for accounting students.

For further information, the student should consult an academic advisor.

CPA REQUIREMENTS

Students who desire to become certified public accountants in Pennsylvania and who have graduated from a four-year program in a college approved by the State Board of Education may sit for the CPA examination. The degree program of the University is so approved.

Graduates may sit for the CPA examination in other states, among which are New Jersey and New York.

COURSE PREREQUISITES - see p 111

214 Financial Accounting 3 cr

This course is designed to provide an introduction to the language 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. The course will cover both generally accepted accounting principles (GAAP) and the significance and implications of alternative GAAP in the measurement and reporting of assets and equities. Prerequisite QSMIS 182. Offered every semester.

215/313 Managerial Accounting 3 cr

The purpose of this course is to provide an introduction to cost concepts, product costing systems, budgeting systems, and the development of accounting data for internal managerial decisions. The student will develop a basic understanding of the relationships between accounting data and management's information needs, appreciate why different cost assignments are made for different types of management decisions, and understand the significance and implications of alternative product costing systems and budgeting systems. Prerequisites: Accounting 214 and QSMIS 182. Offered every semester.

216 Accounting Practice and Systems 3 cr

This course is designed to develop a sound understanding of the practices and procedures used to process accounting information. Emphasis is placed on both manual and automatic data processing systems. The accounting cycle is reinforced along with the processing of selected specialized accounting transactions. Prerequisite Accounting 214.

311/312 Intermediate Accounting 3 cr each

These courses are primarily concerned with 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 as they apply in a corporate environment. Financial statements, their form, content, and use, detailed analysis of the balance sheet accounts, income determination and presentation. Prerequisites: Accounting 214, 215, 216. Offered every semester.

314 Advanced Accounting 3 cr

This course applies fundamental accounting theory to a number of important activities in business. Activities studied include partnerships, consolidations, foreign exchange, governmental and nonprofit accounting. Prerequisite: Accounting 311. Offered every semester.

315 Cost Accounting 3 cr

This course addresses the use of accounting information for purposes of cost determination, cost control, and cost analysis. Topics include cost terminology, cost behavior, job order costing, process costing, joint and by-product costing, cost allocations, standard costing, inventory management and managerial control systems are also stressed along with the use of cost information for non-routine decision making. Prerequisites: Accounting 214, 215. Offered every semester.

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. Emphasis is placed on the theory and philosophy of auditing. Case problems are used to demonstrate the application of the principles studied. Prerequisite: Accounting 311. Offered every semester.

412 Introductory Income Tax Accounting 3 cr

This course is a study of basic tax regulations and procedures affecting individuals, partnerships, and small business units. Prerequisite: Accounting 214. Offered every semester.

413 Accounting Information Systems 3 cr

This course presents materials relevant to an understanding of the basic principles of accounting systems and the technical and organizational resources that operate information systems. Topics include system flowcharts, hardware concepts, file design, batch and online data processing, database design and management, EDP auditing, and system development life cycle. Prerequisites: Accounting 214, 215. Offered every semester.

414 Corporate and Partnership Taxation 3 cr

This course will acquaint the student with the principles of taxation as applied to corporations, partnerships, and estates and trusts. Emphasis is placed on preparing students to make reasoned and sound decisions regarding the tax consequences of business transactions. Prerequisite: Accounting 412. Offered every semester.

419 Seminar in Accounting 3 cr

This course is designed to develop a student's ability to speak with polished speech. Emphasis is placed on developing the student's ability to communicate effectively. Prerequisites: Accounting 311. Offered every semester.

FINANCE CURRICULUM

Students who look forward to careers in finance may select a program of courses in any one of these areas: securities and 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 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, several electives are offered in these areas.

Finance students are required to take Accounting 216, 312, and 314 are strongly recommended.

COURSE PREREQUISITES - see p 111

331 Business Finance 3 cr

This course is concerned with maximizing the value of the firm in reference to the risk-return relationship. To achieve this understanding the student is introduced to financial statement analysis. Time value of money concepts are discussed with an emphasis on capital budgeting issues. Attention is given to working capital management, cost of capital, and the impact of leverage on the value of the firm. Secondary emphasis is given to the securities markets and organizational form. Prerequisites: Accounting 214 and 215. QSMIS 281. Offered every semester.

332 Money and Financial Institutions 3 cr

This course examines the influence of monetary policy on variables such as the nominal interest rate, the level of income, the inflation rate, and the foreign exchange rate, etc. Specific topics include bank portfolio management, interest rate risk, the yield curve, real versus nominal interest rates, the Savings and Loan crisis, financial intermediation, etc. Offered every year.

333 Financial Management 3 cr

The course is designed to provide a theoretical or conceptual framework that a financial manager can use to make decisions. Material is presented with the purpose of involving the student in the fundamental decisions and compromises of the financial manager as choices between risk and return are made. Readings, cases, computer analysis of financial problems, and a research project are used. Prerequisite: Finance 331. Offered every year.
334 Risk Management 3 cr
A study of the broad spectrum of risk exposures in business enterprises, with special attention to the need for identifying these in terms of nature and magnitude. Emphasis is on techniques available to aid the decision-maker in making decisions under conditions of uncertainty. Methods of alleviation, avoidance, and insurance are studied. Attention is given not only to the traditional forms of insurable hazards, but also to implicit risks such as those of loss in market values of assets, capital budgeting decisions, new product development techniques, and hedge strategies and other areas where risk is present in the decision process. Prerequisite Finance 331. Offered every year.

335 Business Financial Problems 3 cr
The aim of this course is to provide a vehicle in which the student can take material from previous courses and through its utilization solve problems of a financial nature. It also provides the student with an opportunity to learn to write and deliver professional opinions on how to solve business problems. While the course is taught primarily through the case technique, other methods are also used. The student is expected to be able to identify problems, reach conclusions, recommend solutions, identify techniques on how they might be implemented. Prerequisites Finance 331 and 333. Offered every year.

336 Security Analysis 3 cr
An intensive study of the analytic techniques applicable to the selection of the various securities of private as well as public entities. Consideration is given to the markets in which these securities are traded and the types of information necessary to the decision-making process of the investor as the attempt is made to measure the value of a particular security. Several models are examined in seeking appropriateness in establishing the relative worth of a security. Prerequisite Finance 331. Offered every semester.

337 Investment Analysis 3 cr
This course develops an understanding of the various types of investments available for a portfolio. Discussion of the risks to which a portfolio may be subject and the impact of these risks to various types of portfolio builders is undertaken. Quantitative and descriptive approaches used in portfolio development are considered. Techniques for measuring the effectiveness of the portfolio are illustrated. Prerequisites Finance 331 and 336. Offered every year.

338 Futures and Options 3 cr
The course is designed to develop an understanding of futures and options, and other derivative financial instruments. While these contracts may be used for speculative purposes, the main emphasis is on the reduction of asset and liability risk for business and financial institutions through hedging operations in debt and equity instruments, commodities, and currencies. Methods of analysis such as Black-Scholes model and arbitrage pricing theory are essential part of the course. Students will have the opportunity to study actual market behavior through project analysis. Prerequisites Finance 331 and 336. Offered every year.

339 Fundamentals of Real Estate 3 cr
A study of the problems involved in financing residential, commercial, and industrial real estate from the points of view of both owner and lender. Methods of financing covered include use of individual and business equity, loans secured by mortgages, land contracts, sale-and-lease-back arrangements, and cooperatives, syndicates, and real estate trusts. Attention is given to procedures for originating, servicing and foreclosing loans and mortgage arrangements by principals, agents, and mortgage bankers. Prerequisite Finance 331. Offered every semester.

431 Real Estate Investment Analysis 3 cr
In this course the student learns the application of investment principles and analytical techniques to real property. Emphasis is on the estimation and revenues/expenses and risk/return relationships in investment valuation of real estate and the effects of financing, income taxes, and entity selection upon investment profitability. Prerequisite Real Estate 339. Offered every semester.

432 Credit Management 3 cr
This course gives the student an understanding of the function of credit management. Cases, problems, and field experience may be assigned. The student will have the opportunity to integrate knowledge gained from text material and other financial sources with that of other disciplines to arrive at a logical, sound credit decision. Prerequisite Finance 331. Offered every third semester.

433 Financial Markets 3 cr
An extensive and intensive study of the markets in which the financing of needs takes place. Study is made of the markets for borrowing and lending of capital, both short-term and long-term. Financial institutional structures are given emphasis as they interact and act when serving as sources or intermediaries and users of funds. A research project provides the opportunity to concentrate upon an individual financial market. Prerequisite Finance 331. Offered every third semester.

434 Life Insurance 3 cr
A study is made of the risks of death and longevity and their effect upon personal and business situations. Analyses are made of various forms of life insurance and annuity contracts, with emphasis upon their functions as instruments of estate creation and administration. Uses of insurance in connection with bank loans, partners and key persons are explored. Attention is given to accident and health coverage, group plans, pensions, and regulation of the industry. Prerequisite Finance 331.

435 Property and Liability Insurance 3 cr
A study of business and personal applications of casualty, fire, and liability coverages in the form of both direct and indirect bonding, including the fields of workers' compensation, landlords' and tenants' liabilities, burglary, robbery and theft, automobile, credit and title insurance, fire and related lines, fidelity and surety bonding, as well as the concepts of inland and ocean marine insurance. Prerequisite Finance 331. Offered every third semester.

436 Real Estate Valuation 3 cr
The principles and techniques of appraising single-family homes, including analysis of region, neighborhood, site and improvements. The market approach, cost approach and income-multiplier approach are presented. Income Property Valuation forecasting and computation of gross income, expenses, and net operating income. Theory and mechanisms of deriving alternative capitalization rates, applications of compound interest theory, residual approaches and mortgage equity analysis. Prerequisites: Real Estate 339. Offered every year.

437 International Financial Management 3 cr
This course provides a conceptual framework within which many financial decisions of the multinational firm can be analyzed. Emphasis is placed on decision elements which are unique to multinational firms. All the traditional areas of corporate finance are explored, including working capital management, capital budgeting, cost of capital and financial structure, and evaluation and control of operations. In addition, exchange risks and political risks are examined extensively. Prerequisite Finance 331. Recommended prerequisite Economics 442. Offered every year.

438 Property Management 3 cr
A survey course intended to provide an introduction to effective management, marketing and leasing of real estate. The course is applied to commercial real estate. Examination of both the physical and fiscal management functions and how they impact upon the financial performance of property. Prerequisites Finance 339 and Management 361.

439 Seminar in Finance 3 cr
Concentration upon selected contemporary topics and distinguished visiting professors or resident faculty. Open only to senior students. Prerequisite Finance 331.

328 Urban Land Economics 3 cr
See Economics Curriculum.

357 Real Estate Law 3 cr
See Pre-Law Curriculum.

ECONOMICS AND MIS DIVISION

ECONOMIC CURRICULUM

The Economic curriculum is designed to give a broad understanding of the United States and international economies and to develop in students a capacity to think systematically about a wide range of social and economic problems. An ability to think analytically and to write concisely is stressed in courses in Economics.

COURSE PREREQUISITES - see p. 111.

121 Elements of Economics 3 cr
Economics 121 is an introductory course in economics intended to afford an understanding of how our economic system works, of forces which affect the level, composition, and distribution of the output of the economy, and the issues behind current economic problems. The course content will define concepts, provide background materials, and develop economic ideas necessary to understand the policy issues constantly before a complex dynamic economy. Not counted toward a degree in the School of Business Administration. Offered every year.

221 Principles of Economics I 3 cr
This course seeks to acquaint the student with conceptual and the logical basis to economic reasoning. Emphasis is placed on understanding the behavior of households and firms under competitive and monopoly competition, and the factors that impinge on both output and resource markets. Offered every semester.

222 Principles of Economics II 3 cr
Macroeconomics is concerned 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. Offered every semester.

223 Global Economic Perspectives 3 cr
The purpose of this course is to provide students with an understanding of how geographic factors influence the location and history of trade and the relative competitive advantage of nations. The course covers contemporary global geographic features, basic geographic concepts and analytical techniques, and examines in detail selected current or historical business/economic case studies from a geographical perspective. Prerequisite: Sophomore standing.

321 National Income Analysis 3 cr
A conceptual analysis of national income theory, its tools, its basic principles and its social and economic significance. The course explores macroeconomic
methods of economic analysis and the determination of aggregate output and income. Specific areas of analysis include unemployment, inflation, and the U.S. economy in a global setting. Prerequisites Economics 221 and 222.

322 Price and Production Economics 3 cr
An intensive study of the theory of demand, production, and distribution. In addition, recent developments in the theory of imperfect competition and oligopoly are carefully examined. Prerequisites Economics 221 and 222.

323 Public Finance 3 cr
A study of the organization and management of government revenues and expenditures with emphasis on American practices and policies at the various levels of government. Benefit-cost and cost-effectiveness analysis with their implications for program and capital budgeting receive heavy consideration. The economic consequences of various tax structures and alternative social choice mechanisms are studied. 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.

328 Urban Land Economics 3 cr
A study of the economic forces that influence the location of business and residential location in a metropolitan area. Specific areas of study include transportation, housing, poverty, and the urban public sector. Prerequisites Economics 221 or 222.

420 Labor Economics 3 cr
Analysis of the principles of wage and employment determination in the U.S. economy under nonunion conditions as well as under collective bargaining arrangements. The factors underlying labor demand and supply are studied with an emphasis on a human capital approach to relative earnings differentials. Issues of labor market discrimination are also analyzed. Prerequisites Economics 221 or 222.

421 History of Economic Thought 3 cr
This course shows the development of economic thought from the age of Mercantilism to the present. Major emphasis is placed on the works of Mun, Quesnay, Smith, Ricardo, Malthus, Marx, Jevons, Keynes and recent contributors to economic ideas. It offers a study of the fundamental concepts of the writers and the influence of institutional conditions upon their philosophy. Prerequisites Economics 221 or 222.

423 Business Cycles and Forecasting 3 cr
This course is designed to study the process of economic change. Analyses of Seasonal, Cyclical, and Secular movements will be undertaken.

Theoretical and empirical aspects will be covered. Forecasting techniques will also be studied. Prerequisites Economics 221 and 222.

424 Business and Public Policy 3 cr
A study of the regulatory techniques used by government to influence and modify business behavior. This course also includes an analysis of market structure, conduct and performance considerations pertaining to the firm and the industry. Emphasis is given the anti-trust laws and special regulatory problems. Prerequisites Economics 221 and 222.

425 Current Economic Issues 3 cr
The purpose of the course is to learn about specific current economic issues. The course and its content will vary depending on the issue or issues being addressed. For example, topics might include the federal budget deficit, economics and politics, or the economic changes in central Europe and the former Union. Prerequisites Economics 221, 222, 222 or Core 141.

426 Monetary Theory and Policy 3 cr
This course deals with the theories and empirical contributions to monetary policy along with their policy implications. Specific topics include market operations, the growth rate of money, money demand and supply, and policy issues such as open market operations. Prerequisites Economics 221 and 222.

427 Theory of Economic Development 3 cr
This course is designed to acquaint students with the area of economic development. The subject matter of this course conveniently divides itself into five major categories: the nature of development and problems of measurement, theories of development factors and forces affecting economic growth, different approaches to a higher standard of living, and problems of domestic and international stability. Approach to this course encompasses detailed study as well as strong emphasis on theoretical and critical analysis. Prerequisites Economics 221 or 222.

429 Seminar in Economics 3 cr
The purpose of the seminar is to provide a vehicle for the advanced student to investigate separate subject areas in the field of Economics Theory. The seminar procedure will stress written and oral reports. Prerequisites Permission of the instructor.

442 International Economics 3 cr
This course examines international trade and international monetary economics. Topics discussed include the classical and neoclassical theories of comparative advantage, balance of trade, balance of payments, customary union theory, common commercial policy theory, exchange rates, and international monetary system, fixed versus flexible exchange rates. Prerequisites Economics 221 and 222.

383 File Processing with COBOL 3 cr
Structured programming techniques are covered as they pertain to business applications in COBOL. Multiple level control block reports, sorting, and table handling methods are covered. File processing and file maintenance concepts are presented as they relate to sequential, indexed sequential, and relative file organizations. Methodology and theory for creating, accessing, and updating files are discussed. Utility programs and subprograms are addressed. Other topics such as the structured programming framework are also covered. Prerequisites QSMIS 183.

384 Expert Systems in Business 3 cr
The potential role of expert systems to support management decision-making is analyzed. Expert systems are defined, their development is discussed, and areas of business applications are surveyed. The artificial intelligence software environment is also explored and evaluated. The student will apply the concepts of knowledge engineering to expert systems development through a commercial expert system software tool. Problems in installing and maintaining an expert system are also discussed. Prerequisites QSMIS 183.

385 Computer Systems 3 cr
Provides detailed coverage of computer hardware and operating systems. Topics such as number theory, internal coding schemes, central processing unit functions and technologies, memory management, internal and external buses, disk drives and storage schemes, BIOS, display, video and multimedia standards and hardware, and operating systems, including networking are covered. Other topics such as computer graphics and artificial intelligence software environment are also covered. Prerequisites QSMIS 183.

386 Computer Simulation 3 cr
Provides an orientation to the design and implementation of simulation models as a means of studying the behavior of a system. The student is required to validate models and their results for the purpose of management decision making. Popular simulation languages are used to construct general purpose simulation models as well as financial system models. Other topics such as computer graphics applications using personal computers are also presented. Prerequisites QSMIS 183.

481 Systems Analysis and Design 3 cr
A detailed study of all phases of the systems life cycle with emphasis on structured analysis and design techniques. Case studies are used to generate detailed data flow diagrams. The student is required to analyze needs and organize and design files with corresponding inputs and outputs. The issues involving conversion, testing, training, documentation, maintaining and managing a system are also addressed. Prerequisites QSMIS 183.
QUANTITATIVE METHODS CURRICULUM

Students in the undergraduate School of Business Administration complete a basic sequence in Quantitative Methods. This sequence is concerned with the application of mathematics, statistics, and electronic data processing to the analysis of business and economic problems. The objective of the program is to increase the student's knowledge and understanding of the uses of mathematics, statistics, and computers as aids in decision-making. The basic sequence is comprised of these courses QSIMS 182, 183, 281 and 284 followed by Management 367. Prior to entry into the sequence, Mathematics 109 and 111 in the College of Liberal Arts and Sciences or their equivalent are required.

**Course Prerequisites** - see p. 111

182 Information Systems 1 3 cr
See Management Information Systems Curriculum

183 Information Systems 2 3 cr
See Management Information Systems Curriculum

281 Quantitative Analysis I 3 cr
This course is an introduction to probability and the more commonly used statistical techniques for analyzing data from one population, with an emphasis on their application to decision making and quality management. Coverage includes basic descriptive statistics, the concepts of probability and specific distributions, and inferential statistics for one population. Prerequisites: QSIMS 182 and Mathematics 111

284 Quantitative Analysis II 3 cr
This course continues with the introduction to statistics for decision making and quality management, focusing on analyzing data from two populations and regression and correlation. In addition, there is an introduction to management science. The focus is on the application of mathematical models to management, stressing the basic underlying structure of situations where the models are appropriate, their benefits and limitations, the development of models in relatively simple situations (word problems and cases), and the interpretation and use of computerized solutions. Prerequisite: QSIMS 281. Offered every semester

367 Total Quality and Operations Management 3 cr
See Management Curriculum

381 Introduction to Decision Sciences 3 cr
The course covers the application of quantitative models to solving organizational decision problems. The models covered include linear programming, simulation, and decision analysis. The use of library/computer programs will be emphasized. Prerequisites: QSIMS 281, 282. This course will not be offered after the 1994-95 academic year.

**Behavorial Division**

**Program Guide**

Programs of study offered through the Behavioral Division include the following:
- Human Resource Management
- International Business
- Logistics
- Management
- Marketing
- Pre-Law

**Course Prerequisites** - see p. 111

**Human Resource Management Curriculum**

The objective of the Human Resource Management curriculum is to provide students with the opportunity to acquire specialized knowledge and applicable skills necessary to function as professionals in Human Resources, Personnel, Labor Relations, Training, and/or Compensation and Benefits.

For concentrations in Human Resource management, students will take HRM 364, 365, 461, 466 or 468, and Law 456, plus three of the following: HRM 443, 445, 446, 447, 462, 463, Internship 401, Field Study 404, and/or Economics 420. Non-business electives recommended for this concentration are English 383 or 385, History 472, Communications 101, 102, 203, 208, 304, 306, 402, 404, 421, Psychology 103, 223, 226, 230, 328, 340, 361, 392, or 432, Sociology 101, 205, 212, or 236, Philosophy 105, 106, 107, 108, or 109, Theology 353.

**Course Prerequisites** - see p. 111

364 Human Resource Management 3 cr
This course includes the technical functions and services provided by an organization's Personnel/Human Resources Department. Among the topics covered are human resource planning and systems, job analysis, job evaluation, recruiting, selection, performance appraisal, compensation, benefits, training and development, career planning, attitude surveys, occupational safety and health, employees' rights, labor unions, international personnel relations, and equal employment opportunity. Prerequisite: Management 361. Offered every year.

365 Industrial Relations 3 cr
This course developed to present the student historical knowledge of the labor movement, current status of labor governing the actions of management in a myriad of ways. Presents the role of labor, management and government in collective bargaining and current industrial relations policies and practices. Prerequisite: Management 361. Offered every year.

445 Multinational Human Resource Management 3 cr
This course provides the opportunity for the student to develop fundamental knowledge about the global corporation's problems and policies of human resource management in multiple foreign environments. In addition, students develop the special skills of human resource management as they apply to the particular situations arising from cross-national operations of the global corporation. Finally, students develop knowledge in an area or topic of multinational human resource management and skill in conducting cross-national research in the field of human resource management. Prerequisites: Management 361, Senior standing. Offered as Needed.

456 Legal Aspects of Human Resource Management 3 cr
See Pre-Law Curriculum

461 Human Relations and Teamwork 3 cr
This is a senior-level advanced Organizational Behavior course designed to aid the student in developing practical skills in managing interpersonal relationships in the workplace. The course is experiential in nature and requires active student participation in various group exercises including role plays, games, simulation, and discussion groups in addition to more traditional instructional methods such as lectures and case analysis. Topics covered include organizational socialization, learning styles, group dynamics, interviewing, listening skills, performance appraisal, group problem solving, team effectiveness, managing conflict, supervision, and the management of change. Prerequisite: Management 361. Offered every year.

463 Collective Bargaining 3 cr
Studies the legal and practical aspects of federal and state legislation, and administrative aspects of collective agreements, specific provisions including adjustment of grievances, conciliation, mediation and arbitration, collective bargaining and public policy. Prerequisites: Management 361. Offered as needed.

466 Compensation and Benefits 3 cr
This is an advanced course for Human Resource or Management majors, focusing on pay and benefits issues. Coverage includes relating compensation to strategy, internal equity, job analysis, job evaluation, externally competitive compensation, market pay surveys, developing a pay structure, performance-based (variable) pay, incentive systems, gain sharing, executive compensation, pay equity, types of benefits including social security, workers' and unemployment compensation, medical, retirement, and cost containment. Prerequisites: Management 361 and 364. Offered every year.

467 Human Resource Planning 3 cr
This course provides the linkage between human resources and the strategic direction of an organization. Topics covered include the environment and implementation of human resource planning, needs
INTERNATIONAL BUSINESS CURRICULUM

The objectives of the International Business Curriculum are as follows:

1. To provide students with the opportunity to develop an understanding of the internationalization of business.
2. To provide students with the basic skills in dealing with the international dimension of business functions.
3. To increase students' 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, 447. 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.

For a concentration in Logistics, students will take Strategic Logistics Management 469, Marketing 375, 472 and 494, plus four of the following: International Business 341, Law 353, 354, and 355, and Management Internship 401.

COURSE PREREQUISITES - see p. 111

MGT 380, 125, 373, 374, 417, 420, and 473

MGT 380, 125, 373, 374, 417, 420, and 473

MANAGEMENT CURRICULUM

In accord with the objectives of the University and of the School, the Management Curriculum aims to:

1. To introduce students to fundamental concepts of management in organizations, public and private, profit and non-profit.
2. To provide students with knowledge of the major organizational functions.
3. To develop communication skills necessary for effective managerial performance.
4. To install an awareness and understanding of the issues facing managers and leaders.

For a concentration in management, students will take Management 361, Marketing 472, and QSMIS 464, plus four of the following: Management 465, 466, 493 and 494, International Business 341, Human Resource Management 364, 365, 461, 463 and 466.

COURSE PREREQUISITES - see p. 111.

MGT 380, 125, 373, 374, 417, 420, and 473

LOGISTICS MANAGEMENT CURRICULUM

The Logistics Management concentration prepares students to enter the field as Logistics professionals in both profit making 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 principles of management, operations management, and physical distribution management dimensions of the field of Logistics.

For a concentration in Logistics, students will take Strategic Logistics Management 469, Marketing 375, 472 and 494, plus four of the following: International Business 341, Law 353, 354, and 355, and Management Internship 401.

COURSE PREREQUISITES - see p. 111.

MGT 380, 125, 373, 374, 417, 420, and 473

LOGISTICS MANAGEMENT CURRICULUM
493 Independent Scholarly Study 3 cr
Student 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: Student must qualify as a University Scholar. Offered every year.

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. Offered every year.

499 Strategic Management 3 cr
Strategic Management, the “capstone” course of the undergraduate business curriculum, utilizes top-level, comprehensive organizational case studies as the primary tool to provide an interactive educational experience. This course is a comprehensive examination of the students’ entire business education, requiring the utilization and integration of the important concepts studied in all other business courses. This course 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 appropriately, (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, (5) Strengthen the persuasive skills needed to communicate effectively and successfully defend their decisions in both oral and written forms. Prerequisites: Senior standing (90 credit hours), Accounting 215, Finance 331, Marketing 371 and Management 361. Offered every semester.

MARKETING CURRICULUM

In accord with the objectives of the University and of the School, the Marketing Curriculum aims are:

1. To provide an understanding of the role of marketing in organizations, private and public, profit and nonprofit.
2. To develop skills in dealing with and applying fundamental marketing concepts.
3. To develop communication skills necessary for effective performance in the field of marketing.

For a concentration in Marketing, students will take the following courses: Marketing 373, 374, 375, 476, 477, and three of the following: Marketing 443, 472, 474, 475 and 478.

COURSE PREREQUISITES - see p. 111

371 Introduction to Marketing 3 cr
This course will provide an understanding of the dynamic role marketing plays in the economy and in the firm. Students build a knowledge base with regard to strategic marketing, market segmentation, marketing decisions, selection of target markets, and market analysis. This course will develop some of the skills necessary to take a full range of marketing courses. Marketing 281, 284, and 374. Offered every year.

375 Business Logistics 3 cr
This course analyzes the physical distribution concept in its various components including its internal and external interfaces. Cost, governmental regulations, and international aspects of physical distribution are also covered in detail. Prerequisites: Marketing 361, Marketing 371 and Transportation 472 (for Logistics majors). Offered every year.

433 International Marketing 3 cr
This course examines methods and tools leading to successful international marketing, including how it differs from domestic marketing. It will help students develop skills in analyzing economic and non-economic factors, understanding and evaluating foreign market opportunities, and developing appropriate marketing strategies. This course will allow students to become familiar with the different approaches for segmenting international markets, and to consider how students can use these approaches in the context of business outside the United States. This course will help students develop skills in undertaking international strategic marketing planning. Prerequisite: Marketing 371. Offered every year.

472 Transportation 3 cr
This course is a detailed and comprehensive examination of the historical evolution, operation, development, and growth of modern transportation systems. This course will reflect current trends in transportation and the use of transportation in the marketing process. Prerequisites: Marketing 371 or 374. Offered every year.

474 Purchasing Management 3 cr
This course is an introductory course to the principles of purchasing and materials management. The scope of the course ranges from understanding how effective purchasing management contributes to an organization’s performance to the specifics of sound purchasing practice associated with that performance. Topics covered include the role of purchasing, how and why purchasing is used, the purchasing process, and purchase requisition. Prerequisites: Marketing 371 or 374. Offered every year.

475 Consumer Behavior 3 cr
This course encourages the student to develop an understanding of the factors that influence the consumer from the perspective of the marketing manager. Just as the marketing manager must understand the consumer, the student must understand the consumer. This course will provide an understanding of the consumer from a macro level (the impact of the physical and social environment on the consumer) to a micro level (knowledge, attitudes, actions and opinions of the individual consumer). Segmentation, positioning, and marketing mix strategies are discussed in relation to consumer behavior theories. Marketing 371. Offered every year.

476 Product Management 3 cr
This course 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. Prerequisite: Marketing 361 and Marketing 371. Offered every year.

477 Strategic Marketing Planning 3 cr
This course is designed to enable the student to apply acquired marketing knowledge and expertise to real world opportunities. The case method is employed using marketing situations that illustrate opportunity analysis, marketing environments, product management, communication planning, pricing and distribution strategies, and global planning. Students demonstrate decision making skills through learning to identify and define a marketing problem, analyze and evaluate it, and prepare recommendations concerning implementation for the organization and its environment. Students gain insight with regard to marketing management by vicariously taking on the role of a marketing manager. Students also develop writing skills, public speaking skills, and positive group interaction techniques. Prerequisites: Minimum of 12 credits in Marketing (including 371). This course is recommended as a fall offering for graduating seniors.

478 Industrial Marketing 3 cr
This course focuses on business-to-business marketing. It will demonstrate the differences between industrial and consumer marketing, how industrial marketers evaluate their marketing environment, and develop strategies and plans for industrial marketing. Prerequisites: Marketing 361 and Marketing 371. Offered every year.

479 Retail Management 3 cr
This course focuses on retail management from a strategic perspective while emphasizing the similarities and differences between the retail and industrial sector. Empphasis will be placed on consumer behavior, retail marketing research, store location, and the retail environment. This course is designed to enable the student to apply theoretical concepts to real-world experiences. Marketing 361. Offered every year.

A1 PALUMBO SCHOOL OF BUSINESS ADMINISTRATION

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PRE-LAW CURRICULUM

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.
2. To provide solid preparation for the professional study of law.

The curriculum of the A. J. Palumbo School of Business Administration meets the requirements for registration and general purposes of the State Board of Law Examiners in Pennsylvania and the State Education Department of New York.

For a concentration in Pre-Law Studies, the student will take Law 353, 354, and 355 as well as electives offered in this concentration.

COURSE PREREQUISITES - see p 111

251 Business Law 3 cr
An introductory course exploring the nature of law, its sources, and its relation to society, government, and business. The course focuses on the traditional business law topics - property, contracts, torts, agency, business organizations, and government regulation - as well as the process by which the law is made, the factors that influence it, and the international legal environment. Offered every semester.

353 Contracts 3 cr
The fundamental concepts of the law of contracts are examined to provide the student with an understanding of the common law system regarding formation, performance, third party rights, ethics, discharge, and remedies. The student will become literate in using the personal computer to generate search strings to solve problems assigned in class. Prerequisite Law 251 Offered every semester.

354 Commercial Transactions 3 cr
Study of the provisions of the Uniform Commercial Code (UCC) with reference to the nature and legality of the sale of goods, the formation of sales contracts, transfer of title of goods, warranties, nature and kinds of commercial paper, requisites and meaning of negotiability, methods of transfer and secured transactions. Prerequisite Law 251 Offered every semester.

355 Law of Business Organizations 3 cr
A course which focuses on various laws pertaining to the creation and termination of corporations, franchises, partnerships, agency and other business entities. Emphasis on the legal and ethical duties of managers and presented to address investor rights and liabilities, anti-trust, international business and bankruptcy laws. Prerequisite Law 251 Offered every semester.

357 Real Estate Law 3 cr
The principles of real property law and their application to the transfer of property rights. Topics include real estate, applications of contract and agency law, and the legal relationships among buyers and sellers, landlords and tenants and borrowers and lenders. Familiarity with the appropriate documentation (sales agreements, deeds, mortgages, and leases) and elements of real estate brokerage, fair housing statutes and environmental regulation. Prerequisite Law 251 Offered as needed.

453 Administration of Legal Systems 3 cr
Study of the legal system and the procedures by which legal rights and duties are effectuated and enforced, current problems and issues related to the system and the attainment of its objectives, administrative problems in the legal system. Prerequisite Law 251 Offered as needed.

454 The Law of International Commercial Transactions 3 cr
This course provides the student with an overall perspective of the basic legal problems involved in doing business with and in other countries. Topics covered include an introduction to foreign legal systems, study of various forms of business organization, and legal problems related to the operation of a business person. Study of basic legal problems in real estate and property law. Prerequisites: Law 351 Offered every year.

456 Legal Aspects of Human Resource Management 3 cr
A survey course of states and federal laws that influence the employment relationship of personnel and human resource management. Study of the Civil Rights Act, Immigration Reform Law, Privacy Laws involving Drug, Alcohol and AIDS testing in the workplace. Equal Pay Act, Pregnancy Disability Act, Polygraph Testing Laws, Age Discrimination, Sexual Harassment, and other laws and guidelines to provide the administrator with an understanding of legal developments in and against foreign countries. Prerequisite Law 251 Offered every year.

HISTORY

The School of Education was founded in 1929. In that year the newly organized School of Education granted one year's professional education and beginning course work in the teaching profession through study of the principles and techniques of education and the learning process. The program requirements for professional education 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 techniques of education and the learning process. The program requires preparation in teaching techniques and methods required for specific fields of concentration — elementary, secondary, special (mentally and/or physically handicapped), or early childhood education.

Professional Laboratory Experiences: The School has developed broad and diversified professional laboratory experiences designed to develop 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 agencies.

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>
</tr>
</thead>
<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>
</tbody>
</table>
SCHOOL OF EDUCATION

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:

- Biographical Data Sheet on file
- Placement Preference Sheet on file
- Two faculty recommendations
- Tuberculosis test on file
- ART 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 QPA of 2.5 in major concentration
- Minimum QPA of 2.5 in General Education course work
- Minimum QPA of 2.5 in Undergraduate Teacher Education Core
- Minimum QPA of 2.5 in Professional Preparation courses
- Minimum overall QPA of 2.5
- Successful completion of the General Knowledge and Communication tests of the National Teacher Examinations
- Completion of all General Education requirements

EARLY CHILDHOOD EDUCATION
This is a cooperative program, approved by the Pennsylvania Department of Education, with Carlow College. Some of the professional courses are offered only on the Carlow campus. These 43 credits (semester hours), in addition to 42 specified under General Education, 25 credits in the Teacher Education Core Curriculum, and 12 credits in electives, are required for the degree.

PROFESSIONAL PREPARATION

Required Courses — Carlow College

<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>
<tr>
<td>203 Child Development</td>
<td>3</td>
</tr>
<tr>
<td>307 Curriculum &amp; Methods for Early Childhood Education with Practicum</td>
<td>4</td>
</tr>
<tr>
<td>309 Special Needs Practicum</td>
<td>1</td>
</tr>
<tr>
<td>311 Infant and Toddler Programming</td>
<td>3</td>
</tr>
<tr>
<td>404 EC Nursery School Student Teaching &amp; Seminar</td>
<td>6</td>
</tr>
<tr>
<td>406 EC Primary Student Teaching &amp; Seminar</td>
<td>6</td>
</tr>
</tbody>
</table>

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 the 42 credits (semester hours) in General Education and 27 in the Teacher Education Core, a student must complete the following courses, in addition to 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>479 Reading in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>Specific Methods Course</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>
</tbody>
</table>

Prohibits continued registration in course work during the student teaching semester without permission.

SPECIAL EDUCATION (MENTALLY AND/OR PHYSICALLY HANDICAPPED)
This program is designed to prepare students for teaching persons with mental and/or physical disabilities, including Autism/pervasive developmental disorder, serious emotional disturbance, neurological impairment, specific learning disability, mental retardation, multidiscap, 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.

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<td>335 Teaching Mathematics in Grades K-4</td>
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<td>336 Teaching Mathematics in Grades 5-8</td>
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</tr>
<tr>
<td>484 Children's Literature</td>
<td>3</td>
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<tr>
<td>4919 Student Teaching</td>
<td>12</td>
</tr>
</tbody>
</table>

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Recommended Elective

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>485 Problems in Teaching Reading</td>
<td>3 CR</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
</table>

Notes on Certificates

- Students take 327 and/or 328, depending on the area of certification.
- The 42 credits in General Education and 27 in the Teacher Education Core are required.
- The 49 credits required for the degree are completed in Professional Preparation.
- Electives and Professional Preparation are required.
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DUAL DEGREE PROGRAM FOR MATHEMATICS AND EDUCATION

The School of Education and the College of Arts and Sciences (Department of Mathematics) has approved a program of studies leading to a B.S. in Education and a B.A. 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 2.5 in general education courses, 2.5 in mathematics courses, and a 2.5 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 of Arts and Sciences and would 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.

Required Courses

<table>
<thead>
<tr>
<th>Class</th>
<th>Code</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRESHMAN</td>
<td></td>
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</tr>
<tr>
<td>Fall</td>
<td>101</td>
<td>Thinking &amp; Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>131</td>
<td>Basic Phil Questions</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>141</td>
<td>Soc, Pol, Econ Sys</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>101</td>
<td>Intro to Education I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Fall

1. Complete General Education course work with a minimum grade point average of 2.5
2. Completion of the Teacher Education Core with a 2.5 grade point average. Note that students with a concentration in a secondary school area must have a 2.5 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 2.5
4. Completion of all course work with a cumulative grade point average of 2.5
5. Successful completion of student teaching. Note that students may not register for student teaching unless they have satisfied the grade point requirements in all areas
6. Completion of all requirements for the Bachelor of Science in Education degree
7. Completion of the application for certification
8. Recommendation of the Dean of the School of Education

DUAL CERTIFICATION

Through advisement, a student may complete requirements in two certification areas, such as elementary/early childhood, elementary/secondary, elementary/special education. Such programs require additional course work beyond the 120 semester hours for a degree. Student teaching in both areas is offered during the student's final semester.

DUAL DEGREE 

Mathematics and Education

<table>
<thead>
<tr>
<th>Class</th>
<th>Code</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>102</td>
<td>Imag Lit &amp; Crit Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>116</td>
<td>Calculus II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>151</td>
<td>Shaping Modern World</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>101</td>
<td>Intro to Education II</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Class</th>
<th>Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>215</td>
<td>Calculus III</td>
<td>3</td>
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<tr>
<td></td>
<td>201</td>
<td>Educational Psych I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>290</td>
<td>Prof Dev Sem I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Spring

1. Complete General Education course work with a minimum grade point average of 2.5
2. Completion of the Teacher Education Core with a 2.5 grade point average. Note that students with a concentration in a secondary school area must have a 2.5 grade point average in course work in the area of concentration
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DUAL CERTIFICATION

Mathematics and Education

<table>
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<tr>
<th>Class</th>
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<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Spring</td>
<td>300</td>
<td>Found Higher Math</td>
<td>3</td>
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<td></td>
<td>216</td>
<td>Diff Equations</td>
<td>3</td>
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<td></td>
<td>202</td>
<td>Educational Psych II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>211</td>
<td>Instr Plan &amp; Assess</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>291</td>
<td>Prof Dev Sem II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

SUMMER

1. Complete General Education course work with a minimum grade point average of 2.5
2. Completion of the Teacher Education Core with a 2.5 grade point average. Note that students with a concentration in a secondary school area must have a 2.5 grade point average in course work in the area of concentration
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Through advisement, a student may complete requirements in two certification areas, such as elementary/early childhood, elementary/secondary, elementary/special education. Such programs require additional course work beyond the 120 semester hours for a degree. Student teaching in both areas is offered during the student's final semester.

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Mathematics and Education

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<tbody>
<tr>
<td>Spring</td>
<td>402</td>
<td>Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>324</td>
<td>Cultural Diversity in Ed</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>329</td>
<td>Soc, Pol &amp; Teaching</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>391</td>
<td>Prof Dev Sem IV</td>
<td>3</td>
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<tr>
<td>Fall</td>
<td>415</td>
<td>Adv Calculus I</td>
<td>3</td>
</tr>
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<td></td>
<td>330</td>
<td>Geometry</td>
<td>3</td>
</tr>
<tr>
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<td>341</td>
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SOLOMON H. PREWITT, Director

HONOR AWARDS

These awards, presented at the annual Honors Day 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 Eyles Sullivan Award to a junior who demonstrates exceptional promise in special education
Council for Exceptional Children Award for outstanding work in the organization

COURSE DESCRIPTIONS

TEACHER EDUCATION CORE

<table>
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<th>Class</th>
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<td>102</td>
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<td></td>
<td>Introduces students to the profession of teaching for the purpose of self-assessment and career exploration. Orients the student to teacher certification issues. Includes field experiences</td>
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201, 202 Educational Psychology I, II 3 cr
Surveys theory and research which demonstrate how psychological principles contribute to the classroom practice of teachers. The principles are derived from human development, learning, motivation, instructional planning, classroom management, and evaluation (201 is a prerequisite for 202).

211 Instructional Planning and Assessment 3 cr
Examinations, course, unit, and lesson planning, issues in the selection of materials and delivery system, and the evaluation of learning experiences. Focuses on the planning, delivery, and evaluation functions required of all teachers (Prerequisite 201).

290, 291 Professional Development Seminar I, II 1, 1 cr
Provides an opportunity for students to reflect critically on their developing knowledge base and their practical experiences. The seminar is designed to foster personal as well as professional growth.

322 Instructional Media 2 cr
Examines the use of computers and other electronic technologies as tools for planning, delivering, and evaluating instruction. The goal of the course is to enhance the integration of technology into classroom practice.

324 Cultural Diversity in Education 2 cr
Examines how the cultural differences among students influence the nature and extent of their progress in school. Understanding of the cultural background of students is sought in order to determine effective teaching practice.

326 Teaching Students with Special Learning Needs 3 cr
This course is designed to provide an overview of critical issues and strategies related to educating students with special learning needs. The course content focuses on historical and legal foundations of special and inclusive education, diverse developmental characteristics of students with disabilities, and strategies for accommodating in the general education environment.

327 Developmental Issues in the Management of Elementary Classrooms 2 cr
Investigates closely the psychological characteristics of children from preschool-junior high grades and the developmental issues they face. The course focuses on how to manage learning environments in developmentally appropriate ways.

328 Developmental Issues in the Management of Secondary Classrooms 2 cr
Investigates closely the psychological characteristics of students from junior high-school grades and the developmental issues they face. The course focuses on how to manage learning environments in developmentally appropriate ways.

329 Society, Politics, and the Teaching Profession 3 cr
Focuses on the history of schooling as a function of society, the political interests of the state in the educating of its citizens, and the legal dimensions of education. The intention is for aspiring teachers to understand the organizational culture of their chosen profession.

390, 391 Professional Development Seminar III, IV 1, 1 cr
Continues the opportunities for students to reflect critically on their developing knowledge base and their practical experiences. The seminar is designed to foster personal as well as professional growth. Anticipation of student teaching and entry into the profession.

480, 481 Independent Study 3-5 cr
With permission of an instructor and approval of the Dean, seniors may pursue in-depth study of subject area or engage in individual projects related to their professional goals.

EARLY CHILDHOOD EDUCATION

201 Orientation to Early Childhood Education 3 cr
Examination of the history of childhood development and practices of early education, culminating in an overview of theoretical issues influencing practice in the field today. Development of the student's observational skills, completion of on-site observations in early educational settings, definition of the role of the Early Childhood Educator, and developing a personal philosophy (Fall semester only).

203 Child Development 3 cr
In-depth examination of the development of the child from birth through eight years in physical, intellectual, social, and emotional areas of growth. Methods of recording and assessing growth of young children will be examined and utilized and a term project based on readings and observations will be required (Spring semester only).

307 Curriculum and Methods for Early Childhood Education with Practicum 4 cr
Study of curriculum methodologies and implementation in nursery, kindergarten, and primary settings. Students will design environments and enact activities for language development and reading, art, music, play, social studies, science, and mathematics for children birth to eight years. Weekly practicum in an education classroom is an integral part of this course. Prerequisite EC 201 and 203 (Fall semester only).

311 Infant/Toddler Programming 3 cr
Examination of social needs, program designs, and curriculum implementation of day care services for children birth to eight years. Topics covered include research on working families, program design, environmental design and assessment, comprehensive curriculum planning, staffing strategies, parent communication, and research on impact of day care on young children and their families. Weekly practicum required in a child care classroom. Prerequisite EC 201 and 203 (Spring semester only).

309 Special Needs Practicum 1 cr
Classroom or other school experience as an aide, observer, or with special needs populations.

310 Nursery School Student Teaching and Seminar 6 cr
The student teaching experience involves the prospective teacher in a Nursery School setting and in a primary classroom for eight weeks each, the student assumes teaching responsibilities, applies and implements the various early childhood programs in which students teaching is completed. Pertinent topics related to ongoing professional development will be included. No other credits may be taken while the student is involved in 404 and 406 without special permission of the Director of Early Childhood Education.

ELEMENTARY EDUCATION

211 Teaching Physical Education in Elementary Classroom 1 cr
For students majoring in elementary education.

223, 224 Teaching Health in Elementary Classroom 1 cr
For students majoring in elementary education.

237 Teaching Art in Elementary Classroom 1 cr
For students majoring in elementary education.

238 Teaching Music in Elementary Classroom 1 cr
For students majoring in elementary education.

240 Arts and Reading 3 cr
Presents psychological principles and historical perspectives on the 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.

241 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.

243 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.

245 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.

246 Teaching Mathematics in Grades 5-8 3 cr
Examines mathematical concepts and skills taught in grades 5-8, teaching strategies and methods that are developmentally appropriate for early grades.

250 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 in young children and their relationship to the beginning reading program. In addition, theory/practice 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.

260 Elementary School Student Teaching and Seminar 6 cr
During the student teaching experience involves the prospective teacher in various elementary school teaching programs as an aide, observer, or with special needs populations. A focus 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.

261 Teaching Middle School Social Studies 3 cr
Major emphasis is on teaching reading and study skills to middle school students. Developing strategies for individualization of instruction, evaluation, and reporting of pupil progress.

262 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.

264 Teaching Mathematics in Grades 5-8 3 cr
Examines mathematical concepts and skills taught in grades 5-8, teaching strategies and methods that are developmentally appropriate for early grades.

266 Teaching Science in Grades K-4 3 cr
Examines scientific concepts and skills taught in grades K-4, teaching strategies and methods that are developmentally appropriate for early grades.

267 Teaching Science in Grades 5-8 3 cr
Examines scientific concepts and skills taught in grades 5-8, teaching strategies and methods that are developmentally appropriate for early grades.

270 Teaching Multicultural Classrooms 3 cr
A capstone experience in which seniors engage in a hands-on investigation or pursue a special project related to their area of specialization. Requires supervisory by an instructor and approval of the Dean.

284 Children's Literature 3 cr
A general survey of books and other printed materials for children. Criteria for the evaluation and analysis of children's books, types of books available, considered in terms of interest, needs, and abilities of children.
490, 491 Student Teaching — Secondary 9,12 cr
Student teaching in an approved secondary school under the direct supervision of a cooperating teacher Prerequisites Senior status, good academic standing, completion of required professional courses, and recommendation of faculty

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 — Elementary 6 cr
Student teaching in elementary education for students who wish to complete requirements in two certification areas Registration is concurrent with Ed 490-Secondary or Ed 490-Special Education

SECONDARY EDUCATION

341 Teaching Secondary Mathematics
Explores methods, strategies, and content of secondary mathematics with emphasis on problem solving and technology

342 Teaching Secondary Science
Explores methods, strategies, and content of secondary science, with emphasis on discovery, inquiry, technology

343 Teaching Secondary English
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
Explores a variety of approaches for teaching foreign languages (K-12), grammar, structure, verbal exercises, and literature germane to the specific language to be taught will be discussed

346 Teaching Secondary Social Studies
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

490, 491 Student Teaching — Secondary 9,12 cr
Student teaching in an approved secondary 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 two certification areas Registration is concurrent with Ed 490-Elementary or Ed 490-Special Education

347 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)

SPECIAL EDUCATION

These courses are designed to prepare students for teaching pupils with mental and/or physical disabilities, including Autism/pervasive development disorder, serious emotional disturbance, learning disability, specific learning disability, mental retardation, multiphysical handicap, other health impairment, physical disability

276 Assessment in Special Education 3 cr
This course is designed to prepare prospective special education teachers to participate in all stages of assessment for students with disabilities screening and referral, comprehensive evaluation, and individual program planning Theoretical and legal foundations related to assessment of students with disabilities will be discussed Course content focuses on basis measurement concepts, a variety of formal and informal assessment procedures, and the use of assessment information for instructional planning Prerequisite 326

326 Teaching Students with Special Learning Needs 3 cr
This course is designed to provide an overview of critical issues and strategies related to educating students with special learning needs The course content focuses on historical and legal foundations of special and inclusive education, diverse developmental characteristics of students with disabilities, and strategies for accommodating in the general education environment

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, teaming, specific behavior analysis and a wide range of programming options within the guidelines of the standards and regulations for Special Education Prerequisites 326, 276

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, a pre-student teaching self-evaluation, and specific career issues

490, 491 Student Teaching — Special Education 9,12 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

493 Student Teaching — Special Education 6 cr
Student teaching in special education for students who wish to complete requirements in two certification areas Registration is concurrent with Ed 490 Elementary or Ed 490 Secondary Education
SCHOOL OF MUSIC

ADMSSION

Students who wish to major in music should apply through the Office of Admissions following the admission interview and audition should be scheduled through the Administrator of Music Enrollment. Specific audition requirements are mailed to the student at the time of the interview. The audition consists of solo performance or recital, a written theory exam, and an individual aural test. Students requesting scholarship 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 aural skills prior to entrance. If deficiencies exist in any of these areas, prerequisite courses may be required at the discretion of the audition committee. Visits to classes and personal interviews with the applied music staff are encouraged strongly and may be arranged by calling (412) 396-5064.

DEGREES

Undergraduate music students enroll in one of 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 theory, concert, opera, media arts or studio recording enroll in the Bachelor of Music program. Students interested in teaching in a private studio situation or at the college level, as well as preparing for a career in music ministry, also enroll in this program. Students anticipating a career in school music teaching enroll in the Bachelor of Science in Music Education program, prospective music therapists enroll in the Bachelor of Science in Music Therapy program. Students enrolled in other schools and colleges in the University also study in the School of Music in recognition of the importance of arts education to the full development of each individual, music courses designed for general students are 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 is a factor in the annual ranking as America's "most livable city." The proximity of the city to the cultural centers of the metropolitan area frequently brings cultural events to the campus.

Workshops, masterclasses, and special performances are often presented by visiting artists who have included Bergit Nilsson, Wynton 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, Sherri- nildus, Renata Scotto, Maureen Forrester, Carlo Bergonzi, Regine Crespin, and Isabel Penagos. Applied faculty 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 junior Mendelssohn Choir, and the Pittsburgh New Music Ensemble. Other faculty are recognized in the academic and cultural communities for their activity as performers, conductors, composers, church musicians, ducanians, and music scholars. Interaction with these outstanding professional musicians is available in the education of the developing professional musician.

Duquesne students also take advantage of the many performance opportunities afforded them by local music organizations. Students perform in the Pittsburgh Youth Symphony, the Pittsburgh Civic Orchestra, the Westmoreland Symphony, the McKeensport Symphony, and others.

HISTORY

Founded in 1926, the School of Music recently celebrated its sixty-fifth anniversary. The earliest degree offered was the Bachelor of Music degree, the Bachelor of Science in Music Education program was added four years later. On April 29, 1967 the present music building was dedicated. On this occasion Van Cliburn was awarded an Honorary Doctorate of Music degree. The School of Music has been fully accredited by the National Association of Schools of Music since 1966.

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 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 and the sensitive musicianship founded upon studies in music theory and history. Music studies at Duquesne are enriched by the core curriculum, a sequence of courses which place music studies within a broader cultural context.

Duquesne maintains a commitment to the new and innovative — to the proposition that music is ever alive and always changing, that the musician of the future must be versatile and adaptable. This philosophy is evidenced in the various programs and offerings available to students, from traditional studies in music 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...

SCHOOL OF MUSIC

THE MUSIC TECHNOLOGY FACILITIES


Synthesizer Performance Room consisting of a complete Sunn Stereo MIDI controlled Sound Reinforcement System, Performance Controllers (2) Zeta Violins, Zeta Viola, Zeta Cello, (1) Roland GR-1 Guitar to MIDI Converters, GR-50 Guitar Synth, (3) Yamaha G-III Guitar Controllers, Roland TD-7 Compact Drum System, Yamaha W7X & E11T Wind Controllers, Roland Octopus and SPD8 Percussion Controllers, KAT MIDI Mallet Controller, and (2) Roland PC200 Keyboard Controllers.

Courses in this area emphasize the synergy between traditional musicianship and new technological skills. All students are introduced to state-of-the-art MIDI and synthesis equipment and its use in performance, composition, and commercial applications. Students in composition and in audio techniques courses make extensive use of these resources, which are contained in the Music Technology Lab.

Students in piano class receive individual assistance and evaluation through connections to the instructor provided by a Kawai electronic piano system. Electronic pianos are available to students for practice outside of piano class.

STUDENT ORGANIZATIONS

A Chapter of the national music organization Mu Phi Epsilon contributes substantially to the students' professional and social development. The Music Educators National Conference has an active student chapter which sponsors professional programs and attends and participates in the state, regional, and national activities of the association. There are active chapters of the American Guild of Organists, the National Association for Music Therapy, and the...
American Choral Directors Association A chapter of Pi Kappa Lambda, the national music honor society, was installed in March, 1988

HONOR AWARDS
The Seibert Medal is presented to a senior for excellence in violin or piano upon recommendation of department committee
Andre Marchal Award is presented to the graduating organ student with the highest academic standing in performance
Joan Langlass Award is presented to the graduating organ student with the highest academic standing in Sacred Music
J. Cormetti Tucci Piano Performance Award is presented annually to an outstanding piano student
Mu Phi Epsilon Sterling Achievement Award is presented by Mu Phi Epsilon to an outstanding senior music student
Robert Egan Award for Academic Excellence, Richard Gray Award for Outstanding Service are presented by the Music Therapy department to graduating senior students

MUSIC EDUCATION/CERTIFICATION
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 National Teachers Exam with scores acceptable to the state Department of Education. Upon department faculty recommendation, a student may apply for admission to either the choral or instrumental certification track. After completing four semesters with a minimum 2.75 GPA, students undergo commutative performance evaluations which determine their suitability for the student teacher 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 National Teachers Exam.

Certification
Students who successfully complete the entire baccalaureate program and achieve satisfactory scores on the National Teachers Exam may apply for Pennsylvania teachers certification, Instructional Level I, Music, K-12. The teacher training curriculum offered by Duquesne prepares students to teach both vocal and instrumental music at all age levels. Permanent certification is awarded after completion of 24 postgraduate 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 musicianship classes include Theory, Solfege, Eurythmics, and Counterpoint. Computer literacy, Applied Music and Ensemble are 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 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), and 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. The program culminates the instruction and/or course work with a unique exchange program with the American School in London. This offers an opportunity to student teach for a semester abroad.

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, several 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 Kodaly Solfege, Dalcroze Eurhythmics, Orff Percussion, and Suzuki Strings are standard elements of every students curriculum. General Music Ed methods classes emphasize training in guitar, recorder, inclusive education, and computer assisted instruction.

Successful students are required to take a prescribed number and sequence of courses in Music Education, and give evidence of competency in the field, as determined by the Music Therapy Department in accordance with the National Association for Music Therapy.

Upon completion of the academic requirements, a six-month internship is required, which culminates in registration and eligibility for board examination. The Bachelor of Science in Music Therapy degree leads to certification as a registered music therapist upon completion of the 6 month internship from one of the National Association for Music Therapy (NAMT) approved clinical training sites. It consists of 1,040 hours of clinical work supervised by a registered, board certified music therapist. Upon completion of the internship, application for certification with the NAMT takes place. This qualifies the therapist to sit for the board certification examination.
### BACHELOR OF MUSIC PERFORMANCE — CLASSICAL GUITAR

#### Courses

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#### Credits

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SCHOOL OF MUSIC

146

SCHOOL OF MUSIC

147
# Bachelor of Music in Performance with Emphasis in Sound Recording Technology

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**Total Credits:** 132

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# Bachelor of Music in Music Technology — Performance Track

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| **Mus** 341 Analyse             | 2       | 2    |        |
| **Mus** 301 MIDI Controller Techniques | 2 | 2 | |
| **Mus** 118 118 Video & Film Music Prod I & II | 1 | 1 | |
| **Mus** Internship             | 3       | 3    |        |
| **Mus** 400 Final Project in Music Technology | 3 | 3 | |
| **Gen** Core                   | 6       | 6    |        |
| **Gen** Elective               | 16      | 16   |        |
| **Total Credits**              | 16      | 16   |        |
| **Total Credits**              | 132     |      |        |

### COURSE DESCRIPTIONS

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</tr>
<tr>
<td><strong>This course is designed for the undergraduate with the purpose of affording the student instruction in the art of piano accompanying</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Vocal Coaching</strong></td>
<td>1-3 cr</td>
</tr>
<tr>
<td><strong>Individual work with pianist as a supplement to Opera Workshop and/or Applied Music</strong></td>
<td></td>
</tr>
<tr>
<td><strong>French, Italian, German for Singers</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Rudiments of each foreign language offered on a strong basis in the fall semester in preparation for the appropriate Diction and Repertoire course offered in the following spring</strong></td>
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#### THEORY

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<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Diction and Repertory</strong></td>
<td>2 cr each</td>
</tr>
<tr>
<td><strong>Italian, German, French and English offered on a strong basis each Spring Semester. All except English preceded by an introductory course in the fall, as the appropriate language.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Harpsichord Class</strong></td>
<td>1-3 cr</td>
</tr>
<tr>
<td><strong>An introduction to the harpsichord, including history, design, and mechanics. Techniques and performance practice included, with an equal emphasis on solo repertoire and continuo playing.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Piano Pedagogy I</strong></td>
<td>2 cr</td>
</tr>
<tr>
<td><strong>Students will become acquainted with the techniques and materials for teaching piano at the elementary level.</strong></td>
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<tr>
<td><strong>Piano Pedagogy II</strong></td>
<td>2 cr</td>
</tr>
<tr>
<td><strong>A continuation of 131 concentrating on the techniques and materials for teaching piano at the intermediate and advanced levels.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Junior Recital</strong></td>
<td>0 cr</td>
</tr>
<tr>
<td><strong>The candidate for the Bachelor of Music degree must give a recital during the junior year.</strong></td>
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</tr>
<tr>
<td><strong>Recital</strong></td>
<td>1 cr</td>
</tr>
<tr>
<td><strong>The candidate for the Bachelor of Music degree must give a recital during the senior year. The recital will be presented to a faculty committee for approval at least one month prior to the date of the performance.</strong></td>
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#### MUSICIANSHIP

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td><strong>121, 122 Dalcroze Eurhythmics I &amp; II</strong></td>
<td>2 cr each</td>
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<tr>
<td><strong>2 cr each</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Expanding, analyzing, and creatively manipulating the metric/structural and the expressive/interpretive components of music through rhythmic movement, ear-training, and improvisation.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>131, 132 Theory I and II</strong></td>
<td>2 cr each</td>
</tr>
<tr>
<td><strong>2 cr each</strong></td>
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<tr>
<td><strong>These sequential courses are designed to acquaint the student with the harmonic materials of art music of the Western Civilization.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>For basic knowledge the Baroque-Classical idiom is explored.</strong></td>
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</tr>
<tr>
<td><strong>Harmony is examined in full, but formal and textural aspects are also discussed.</strong></td>
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</tr>
<tr>
<td><strong>Class contents include part writing, analysis, keyboard work, dictation, harmonic and intervallic ear training, and drills with computers.</strong></td>
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</tr>
<tr>
<td><strong>The classes meet twice a week for lectures, and once a week for an in-depth laboratory session.</strong></td>
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<tr>
<td><strong>The scope of the first two semesters includes diatonic harmony, secondary dominants and simple modulation.</strong></td>
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<tr>
<td><strong>Prerequisite: passing the entrance examination to the School of Music.</strong></td>
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</tr>
<tr>
<td><strong>133, 134 Solfege I &amp; II</strong></td>
<td>2 cr each</td>
</tr>
<tr>
<td><strong>2 cr each</strong></td>
<td></td>
</tr>
<tr>
<td><strong>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.</strong></td>
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</tr>
<tr>
<td><strong>Prerequisite: passing the entrance exam to the School of Music.</strong></td>
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<tr>
<td><strong>231 Theory III</strong></td>
<td>2 cr</td>
</tr>
<tr>
<td><strong>This semester completes the study of materials of the Baroque and Classical style with emphasis on harmonic and advanced modulation, then presents some of the most important elements of the Romantic and 20th Century idioms.</strong></td>
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</tr>
<tr>
<td><strong>Course meetings and the elements of teaching are the same as in 131 and 132.</strong></td>
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</tr>
<tr>
<td><strong>Prerequisites: 131 and 132.</strong></td>
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#### ENSEMBLE/CHAMBER MUSIC

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>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.</strong></td>
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<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Large Ensembles</strong></td>
<td>0-1 cr each</td>
</tr>
<tr>
<td><strong>The Large Ensembles include Wind Symphony, Orchestra, Concert Choir, Chamber Singers, and Jazz Band.</strong></td>
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</tr>
<tr>
<td><strong>Small Ensembles</strong></td>
<td>0-1 cr each</td>
</tr>
<tr>
<td><strong>The Small Ensembles include Trombone Choir, Brass Ensemble, Guitar Ensemble, Jazz Band, Percussion Ensemble, various woodwind ensembles, and Electronic Ensemble.</strong></td>
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<tr>
<td><strong>116 Opera Workshop</strong></td>
<td>0-1 cr</td>
</tr>
<tr>
<td><strong>A performing class in which students learn standard and other opera repertory in the original languages.</strong></td>
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<tr>
<td><strong>141 Chamber Music</strong></td>
<td>2 cr</td>
</tr>
<tr>
<td><strong>Study and performance of all types of chamber music for various instrumental combinations.</strong></td>
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</table>
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 clef reading and sight singing in nontraditional tonalities and meters. Prerequisite: completion of Solfege 233 is successful completion of Solfege 134.

236 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
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 clearly seen, along with surveys and analyses of representative literature.

335 16th Century Counterpoint 2 cr
The course is devoted to a study of the polyphonic technique of the sixteenth 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 16th Century Counterpoint 2 cr
A course study concerned with the contrapuntal technique of the period of J. S. Bach. Contents include 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, performing, and listening.

351, 352 Composition 2-3 cr each
A course in original creative writing. Open to all students with the approval of the teacher. Prerequisite: at least one course in counterpoint.

MUSIC EDUCATION

010, 011 Fundamentals of Piano I & II 2 cr each
This course introduces students to basic piano skills including scales, arpeggios, sight-reading, and improvisation. The course is intended for students preparing for piano for Music Education I but is also open to non-music majors.

010, 102 Piano for Music Education I & II 2 cr each
This class provides students with functional competencies in piano which meet the certification requirements for the PA Dept of Education. It is required of all music education majors. Entrance to the class is based on placement testing.

Advanced Piano Class
For students who wish to focus on vocal or instrumental accompanying and open score reading. Required of non-piano majors in the vocal track. Prerequisite: completion of Piano for Music Education I. Also open to piano majors.

105 Voice for Music Education 2 cr
For all vocal and instrumental track majors for fundamental techniques of singing, including posture, breath support, tone, diction, interpretation, and repertoire.

374 Instrumental Conducting II 2 cr
A continuation of Instrumental Conducting I with emphasis on score analysis and the development of a refined and expressive technique.

375 Choral Conducting I 2 cr
An introduction to basic choral techniques with emphasis on proper conducting posture, the preparatory gesture, the release, basic beat pattern, and styles, use of the baton, and development of the left hand. Course will also 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 experiences in a laboratory setting.

376 Choral Conducting II 2 cr
Instruction and application of intermediate and advanced conducting techniques with emphases on subdivision, accent and syncopation, syncopation, dynamic change, tempo alteration, fermata, asymmetrical meters, semimecord, and specialized techniques for conducting recitative, contemporary music, and musical theater. Course will include score analysis and preparation, and choral techniques and methods while focusing on the standard choral literature. Class time will be divided equally between lecture-demonstrations and practical conducting experiences in a laboratory setting.

CONDUCTING

373 Instrumental Conducting I 2 cr
An introduction to basic technique with emphasis on basic patterns, cueing, and expression using the left hand. Students enrolled will form a laboratory ensemble allowing for conducting experience.

492 Student Teaching — Vocal 6 cr
For the senior music education student who has completed all required music and professional education classes satisfactorily and has been recommended for student teaching. Placement is with the K-12 vocal or choral music program in a selected school with a qualified cooperating teacher. Daily 7 weeks.

493 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 4-12 instrumental music program in a selected school with a cooperating teacher. Daily, 7 weeks.

495 Student Teaching Abroad 12 cr
PA State requirements for student teaching are met by teaching for a full semester at a select school at an international site.

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, conventional forms and chord progressions, employing idiomatic jazz and articulations, major and modal scales, altered scales and chords, extended forms, practical applications to standard and jazz literature.

333 Ear Training for Jazz Musicians 2 cr
The course is designed to train the student to recognize the melodic, harmonic, and bebop elements of contemporary jazz. The devices used are sight-singing, keyboard work and extended dictation. Emphasis is placed on the ears of students, and the administration of the band and orchestra program on the elementary, intermediate, and secondary levels.

341, 342 Jazz Composition 2-3 cr each
A course in original creative writing in the jazz idiom. Open to all students with the approval of the teacher.

430 Jazz Arranging 2 cr
A study of the basic techniques of scoring for individual instruments and jazz ensembles of various sizes, from small groups to studio orchestras. Analysis of scores by contemporary big band arrangers.

122 Woodwind Techniques, I, II 1 cr each, 2 cr total
Introduction to techniques of clarinet, saxophone, flute, clarinet, and trumpet techniques.

123 Brass Techniques, I, II 1 cr each, 2 cr total
Introduction to techniques of trumpet, french horn, trombone, and tuba with an emphasis on development of teaching skills.

132 Percussion Techniques 2 cr
Introduction to techniques of percussion instruments with an emphasis on development of teaching skills.

135 String Techniques 2 cr
Introduction to techniques of violin, viola, cello, and bass with an emphasis on development of teaching skills.

415 Marching Band Methods 1 cr
An overview of band methods with an emphasis on marching band styles.

1 Music Education Methods I 2 cr
A multifaceted course leading to competencies in music, recorder, classroom instruments, multicultural music, and mainstreaming. Field experiences included.

2 Music Education Methods II 2 cr
A continuation of Music Education Methods I with the addition of Computer Assisted Instruction techniques and materials, plus an overview of contemporary methodologies including Kodaly, Dalcroze, and Suzuki, music technology.

1 Music Education Methods Lab 2 cr
Clinical experience for 252 Teaching and observing general music lessons.

1 Teaching Vocal Music Lab 1 cr
Clinical experience for 101 Teaching vocal music lessons in school systems.

499 Teaching Vocal Music Lab 1 cr
Clinical experience for 301 Teaching vocal music lessons in school systems.

2 Choral Lab 1 cr
Weekly field observations and clinical experience with Children's Festival Chorus. Required with 301.

504 Teaching Instrumental Music Lab 2 cr
Survey of methodology necessary for the development of, and the administration of, the band and orchestra program on the elementary, intermediate, and secondary levels.

1 Teaching Instrumental Music Lab 1 cr
Clinical experience in area schools, required with 301.

506 Student Teacher Seminar 1 cr
Professional seminar for pre-service teachers for the advanced music education student.
MUSIC THERAPY

107 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 as therapy, the relationship of theory to practice. Intensive class participation will be required to prove qualification for further, in-depth study of the profession.

108 Music in Therapy 3 cr
An introduction to music methods utilized in therapy settings. Assessment, planning, implementation, and evaluation of sessions which will be designed for a variety of populations will be emphasized.

124 Practicum 2 cr
Field placement in a clinical setting for a minimum of 15 hours per semester. Certified music therapists and other specially trained staff who work within the settings assist in the development and growth of the prospective music therapist.

307 Psychology of Music Teaching and Learning 3 cr
A study of physiological, psychological, and sociological aspects of music teaching and learning. Emphasis on current research.

308 Influence of Music on Behavior 2 cr
Reviews different treatment theories and their relationship to music therapy. Emphasizes the effects of music on behavior and total health. Develops a philosophy of music therapy with a background in holistic health.

325 Directed Study in Music Therapy 2 cr
Study topics from areas of music therapy, psychology of music, brain research, and other expressive therapies are reviewed and discussed.

310 Recreational Music in Therapy 1 cr
Planning, demonstrating, and evaluating music activities for patient populations served by music therapists. Skills in leading group music activities, circle and square dances. Music Therapy Majors only. Competency in accompanying with guitar and/or piano is emphasized.

315 Piano Improvisation for Music Therapy 2 cr
Development of functional keyboard skills in improvisation on rhythms and dissonant chords as an aid in non-verbal communication with the handicapped client.

374 Music and Movement for the Exceptional Person 2 cr
A course of study and experience to train the student to use music and movement as a tool to promote therapeutic and educational growth. Focus on the developmental needs correlated with appropriate materials and methods.

SACRED MUSIC

322 Sacred Choral and Solo Literature 2 cr
A survey of choral and sacred literature for the church, with emphasis on practical materials for choirs, soloists, and congregations.

403 Service Playing 2 cr
The objective of this course is to develop the service playing skills necessary to play for church services of all denominations through a study of applied harmony, counterpoint, hymnody, and other accompaniments and conducting from the pulpit. Students unable to enroll for this course will study materials in their applied music lesson.

410 Church Music Practicum 3 cr
Seminar in practical aspects of church music, emphasizing the music program in a church, graded choirs, systems, children's choirs, instruments in worship, contracts, cantor systems, worship commissions, etc.

420 Hymnody 2 cr
A study of the church's heritage of song, the psalms, the great hymns of the Medieval Church, the heritage of Luther, Calvin, and their followers, English hymnody, American contributions, twentieth-century hymnody with special emphasis on the theological framework for each major development, in the history of hymns.

421 Gregorian Chant 2 cr
The history, notation, and modal system of Gregorian chant. Class participation in the singing of chant. Chant as prayer and current liturgical application.

431, 432 Organ Improvisation 2, 4 cr
A practical application of the basic tools of improvisation including harmonization of melodies at the organ, two and three part counterpoint, short all forms and chorale preludes with emphasis on the liturgical application.

451, 452 Organ Literature 2, 4 cr
A survey of organ literature and organ buildings related to organ registration. The first semester treats organ music from the Renaissance through J.S. Bach. The second semester deals with the literature from 1750 to the present. Outside listening assignments are required.

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.

RECORDING ARTS & SCIENCES

MUSR 101 Introduction to Audio 2 cr
Introduction to basic concepts of audio propagation both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio.

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.

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 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 engaged on their own performance. Prerequisite: Audio III.

MUSR 201 Electronics for Audio 3 cr
A study of the fundamentals of electronics dealing specifically with theory and terminology as pertaining to audio. Prerequisite: Introduction to Audio.

MUSR 202 Maintenance 1 cr
A hands-on overview of daily studio maintenance from both a theoretical and practical standpoint. Topics include machine alignment and preventive 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 2 cr
Students gain experience in CEDAR (Computer Enhanced Digital Audio Restoration) techniques for the purpose of soundtrack restoration. Advanced digital techniques and digital signal processing are covered. Prerequisite: Post Production.

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. Scoby operation and mastering is covered. Prerequisite: Audio IV.

MUSR 201 Electronics for Audio 2 cr
A study of the fundamentals of electronics dealing specifically with theory and terminology as pertaining to audio. Prerequisite: Intro to Audio.

MUSR 191 Digital Class 3 cr
Foundations in digital theory for application in digital audio recording. The study of Analog to Digital and Digital to Analog conversion are covered as well as storage mediums. Digital terminology is explained.

MUSR 131 Applied Audio 1 cr
Directed individual study in Audio.

MUSR 146 Recording Studio Arranging 2 cr
Musical skills needed for recording studio arranging, conducting and composition. Focus on the various idiomatic styles (Jazz, Pop, Electronic, and Classical) for musical flexibility. Prerequisites: Music and Technology. Audio I and Audios.

MUSIC TECHNOLOGY

MUTK 110 Introduction to Music Technology 0 cr
An introductory music technology course that develops basic proficiency in music notation software on the Macintosh.

MUTK 101 Music Technology I 2 cr
An introduction to music technology. Includes MIDI theory, computer notation and sequencing, and the history of electronic music (the early years).

MUTK 105 Music Technology II 2 cr
A continuation of Music Technology I, with more advanced applications of MIDI theory, computer notation and sequencing, and the history of electronic music (1945 to the present).

MUTK 201 Music Synthesis I 2 cr
Synthesis and sound design, advanced sequencing techniques on complex workstations, and SMPTE synchronization. Prerequisites: Music Technology I & II.

MUTK 205 Music Synthesis II 2 cr
Advanced sound design, hard disk recording techniques, and introduction to multi-media production.

MUTK Music Synthesis III 2 cr
Sampling, digital sound design and editing, multimedia production, and advanced sound notation.

MUTK Music Synthesis IV 2 cr
Advanced project in music technology which demonstrates expertise in a variety of music technology skills, includes the creation of a professional portfolio.

MUTK 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 Technology I

MUTK 311 MIDI Controller Techniques

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. Prerequisite: Music Technology I.

MUTK 355 Introduction to Composition (Class format)

GENERAL

105 Seminar 0 cr

Registration for Seminar is required of all undergraduate Music majors during most semesters of full-time enrollment. Course matriculation guarantees availability for master classes, student club meetings, and guest lectures held during the Tuesday and Thursday "common hour" periods.

170 Enjoyment of Music 3 cr

This course leads to an understanding of how music's basic elements, melody, harmony, rhythm, and form, are used to communicate the composer's expressive intent. Designed for majors and non-music majors. No prerequisites.

MUTK 311 MIDI Controller Techniques 1 cr

HISTORY

Since it is the policy of the University to establish schools under control of an already established school, the School of Nursing was originally organized in 1935 as a unit in the College of Liberal Arts and Sciences. On March 15, 1937, the Department of Nursing Education was given the status of a separate school with a Dean in charge.

On December 3, 1937, the State Board of Education of the Commonwealth of Pennsylvania approved the school and authorized Duquesne University to confer the degree of Bachelor of Science in Nursing and the degree of Bachelor of Science in Nursing Education upon graduates according to the appropriate curriculum. The program leading to the degree of Bachelor of Science in Nursing Education was designed to meet the specific needs of the registered nurse while the basic program leading to the degree of Bachelor of Science in Nursing, the first in Pennsylvania, was designed for the high school graduate. The School of Nursing continued to offer two separate degrees until 1964. In September of that year, a single revised professional nursing program was implemented for admission of both basic and registered nurse students leading to the degree of Bachelor of Science in Nursing.

In the Fall of 1982, a new baccalaureate nursing program, also leading to the degree of Bachelor of Science in Nursing, was instituted and was specifically designed to meet the educational and professional needs of the registered nurse. More recently, a second degree option was instituted in August 1991, this program opened and is designed for students who hold a baccalaureate degree in a discipline other than nursing.

In 1986, the Graduate Nursing Program was opened to offer the Master of Science in Nursing. The areas of specialization offered are: Nursing Administration, with business options including the dual MSN/MBA degree, Nursing Education and Gerontology Clinical Nurse Specialist.

In Fall, 1994 the Graduate Nursing Program expanded to include study for the Doctor of Philosophy 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. This 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 (Senior college or university). 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 excellent 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.

Man is a unique creation of God. Man's defining characteristics are rationality (the capacity to think), sentence (the ability to perceive and feel), and volition (the freedom to choose). Man is a complex, unitary being of multiple dimensions which dynamically interrelate creating a unified whole. Man is inclusive of individual, family, and group. Man's movement through life is unidirectional, always moving forward with his history increasing in complexity. Man is holistic and shares a mutually open existence with his environment.

Environment is all that is external to Man. Environment and Man are in continuous, simultaneous, and mutual interaction.

Health is dynamic, contextual, and a personal process experienced by Man in all aspects of living. Man chooses his way of living his health and thereby creates the potential for a productive and meaningful life. Man expresses his health through patterns. Health promotion is the term used by this faculty to encompass all health care, which includes all activities directed toward increasing the well-being.
of individuals, families, and groups. Health promotion occurs through the utilization of the nursing process as nurses exercise leadership in caregiving and health education.

Nursing is a human science concerned with the promotion of Man's health through the diagnosis and treatment of human responses to actual or potential health problems throughout the life continuum. Nursing focuses on helping Man to enhance the quality of living through the promotion of health.

The nurse interrelates with individuals, families, and groups in helping them in describing their health, evaluating alternatives, and mobilizing their resources for planning change. Central to the practice of nursing is the nursing process a deliberate, systematic method of inquiry that assists the nurse with problem-solving and decision-making. The interrelated disciplines of the nurse are based on the theory of Man. The nursing process involves shared decision-making which is focused on Man's freedom of choice within the context of the situation.

The professional nurse is an independent and interdependent practitioner who collaborates with other health professionals to assist Man in achieving maximum health potential. The purpose of the Duquesne University School of Nursing Baccalaureate Program is 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. The Baccalaureate Program provides a foundation for graduate study.

The faculty believes that specialization in nursing occurs at the graduate level and that special preparation is needed to carry out the work and responsibilities of the nurse in advanced nursing practice. 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 of other related disciplines. The purpose of the School of Nursing is to prepare specialists 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. The Baccalaureate Program provides a foundation for graduate study.

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, 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:
1. Promotes the rights, responsibilities, and dignity of man in health care.
2. Synthesizes knowledge from the related sciences, the humanities, and nursing theories in applying the nursing process.
3. Utilizes political, cultural, and social processes in promoting the health of individuals within their environment.
4. Utilizes the nursing process in the promotion of health with the individual/family/group along the life continuum in a variety of settings.
5. Initiates health care from the perspective of the individual/family/group's value system.
6. Utilizes knowledge of ethical and legal dimensions in making nursing practice decisions.
7. Utilizes the process of inquiry and research in planning nursing care with individual/family/group.
8. Accepts responsibility and accountability for nursing practice.
9. Assumes the role of advocate in participating with other health care providers and consumers in the promotion of health.
10. Utilizes leadership skills for the improvement of health care systems through the recurring needs of consumers in a changing society.
11. Strives to enhance the profession of nursing.
12. Enhances own effectiveness in professional nursing roles through on-going evaluation and continuous self-growth.
13. Synthesizes principles of the teaching and learning process to promote the health of individuals/families/groups.

DEGREE

The School of Nursing undergraduate program leads to the degree of Bachelor of Science in Nursing.

PROGRAM OF STUDY

The School of Nursing offers a program with a major in nursing leading to a baccalaureate degree in Nursing. The program prepares students to be professional nurses that prepare graduates for roles in advanced nursing practice.

ADMISSION REQUIREMENTS

ADMISSION OF HIGH SCHOOL GRADUATES

Students who are interested in applying for admission to the Duquesne University School of Nursing should request an application from the Office of Admissions. 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):
   - English: 4 years required
   - Social Studies: 3-4 years recommended
   - Language: 2 years recommended
   - Math & Science: 4 years required
   - Science: 4 years required
   - Math: 4 years required
   - Physics, Algebra, Computers: 1 year

2. A candidate must have graduated from an approved secondary school in the upper two-fifths of the class, and must have demonstrated exemplary personal conduct in the institution.

3. The primary consideration for admission is the secondary school academic record. This is considered to be the most important criterion of success at Duquesne University. It is the desire of the Admissions Committee to admit those candidates who possess qualities of character and intellect and who show promise of development into useful and contributing citizens.

4. As of January 1986, a felons act prohibits licensure in Pennsylvania. A person convicted of any act may be prohibited from licensure by the State Board of Nursing. At the time of application to the School of Nursing, an individual who is currently under charge or who has incurred a felony conviction must notify the Dean of Nursing in writing of the fact and nature of the felony charge/conviction.

5. A candidate must present satisfactory scores on the required College Entrance Examination Board Scholastic Aptitude Test in accordance with the standards set by the University.

6. Letters of reference are occasionally requested if necessary.
Other additional School of Nursing requirements include evidence of physical and emotional health adequate to meet the demands of the program and compliance with the standards of personal conduct as outlined in the School of Nursing Standards of Personal Conduct policy. Following notification of acceptance to the University by the Office of Admissions, the School of Nursing candidate must:

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 Statements.

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 precise requirements. All applicants are evaluated based on individual potential and total profile with variances permitted as necessary and desirable.

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, and two letters of reference.
4. Felony conviction notification and compliance with the Standards of Personal Conduct Policy as indicated above.
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 specific instances.

REGISTERED NURSE STUDENTS

Duquesne University School of Nursing also offers the registered nurse an opportunity to obtain the baccalaureate in nursing degree. 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 experiences 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 /B S N Program Chairman within the School of Nursing.

Admission Requirements — R N /B S N Program:

Students who are interested in applying for admission to the R N /B S N Program should request an application from the Division of Continuing Education, Duquesne University, Pittsburgh, PA 15282.

- High school diploma or equivalent
- Graduation from an accredited associate degree or diploma nursing program (2.5 QPA minimum)
- Verification of current licensure as a registered professional nurse
- Graduate nurses must verify their status by submission of an Associate Degree transcript or a diploma from a nursing program
- Personal interview with the R N /B S N Program Chairman within the School of Nursing
- Felony conviction notification and compliance with the Standards of Personal Conduct Policy
- Evidence of physical and emotional health adequate to meet the demands of the program as indicated above

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 which include challenge examinations and CLEP testing for University credit affirm a commitment to the adult learner. The 63 credits are allocated portion of the curriculum comprising the nursing major are considered a F.B. in the nursing profession, and the completion of the program entails the requirement for the completion of the course. Credit can only be given once for courses that are repeated.

ADDITIONAL EXPENSES* AND REQUIREMENTS

- Student Liability Insurance (Professional) (annually) $2,500
- Uniforms, nurse's cap, nurse's shoes, identification pin $1200
- Transportation to and from clinical agencies (weekly) $1000
- School of Nursing pin, upon graduation (if desired) cost varies
- Physical examinations, diagnostic procedures, and immunizations
  - 1st year $2000
  - 2nd-4th year $1500
- Physical Assessment Kit $400
- Senior Assessment Examination $300
- All expenses are approximate

Training in Cardio-Pulmonary Resuscitation (CPR) is a prerequisite to all nursing clinical courses. Students must show evidence of current CPR training prior to entering the clinical area.

An annual physical examination and certain immunizations and health tests are required for all students in the School of Nursing. Preclinical students complete specific health requirements by the designated deadline date of March 15 in order to register for the following semester courses before proceeding to the clinical practicum. The School of Nursing provides information on required school uniforms to students prior to entering 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 transporting himself or herself to and from hospital and other clinical agencies. Each student will be expected to have access to an automobile to perform 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.

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: The Student Nurses Association of Pennsylvania (SNAP) is a constituent of the National Student Nurses Association, Inc. (NSNA). The purpose of SNAP is to assume responsibility for contributing to nursing education, to provide programs representative of fundamental and current professional interest and concerns, and to aid in the development of the whole person. Active membership is open to undergraduate students enrolled in state approved programs of nursing leading to licensure as a registered nurse and to graduates of other institutions. The SNAP of Duquesne University is a constituent of the National Student Nurses Association (NSNA).
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 and his second Dean.

Four new awards were presented for the first time in 1983. The first award on behalf of Miles, Inc is awarded annually to the outstanding graduating senior in the area of acute care nursing. The award is called the Miles 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 (in general), contributions to the nursing program and/or class, and evidence of community service and commitment to the profession. The fourth award is for excellence in scholarship, leadership and professional commitment, and is awarded to a graduating senior. This award is sponsored by Sigma Theta Tau International — Epsilon Phi Chapter.

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. Sigma Theta Tau International, Epsilon Phi Chapter, presents four awards, one each to a Basic, R.N./B.S.N., Second Degree and Graduate Program student for excellence in scholarship, leadership, and professional commitment.

SENIOR DIAGNOSTIC ASSESSMENT EXAMINATION

A senior diagnostic assessment examination is required of all seniors. The purpose of this battery of tests is to provide a mechanism for feedback to students to help in identifying strengths and weaknesses in preparation for the NCLEX-RN licensing examination.

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 overall quality point average of 2.0
3. Successful completion of all clinical practicum 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.

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

<table>
<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
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<tbody>
<tr>
<td><strong>FRESHMAN</strong></td>
<td><strong>COURSES</strong></td>
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<tr>
<td><strong>Credits</strong></td>
<td><strong>Courses</strong></td>
</tr>
<tr>
<td><strong>1</strong></td>
<td>Think/Writ Across/Curr*</td>
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<tr>
<td><strong>3</strong></td>
<td>102 Imag Lit/Crit Writing*</td>
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<tr>
<td><strong>3</strong></td>
<td><strong>151 Shaping of the Mod World</strong>*</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td><strong>103 Theology Core</strong>*</td>
</tr>
<tr>
<td><strong>15</strong></td>
<td><strong>111 Principles of Chemistry</strong></td>
</tr>
<tr>
<td><strong>3</strong></td>
<td><strong>201 Biology of Microbes</strong></td>
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</tbody>
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| **Sophomore** | **COURSES** |
| **Credits** | **Courses** |
| **4** | 209/10 Anatomy & Physiology I |
| **3** | N215 Basic Pharmacology |
| **4** | N234 Intro to Inquiry in Nursing |
| **2** | N253 Nutrition for Hlth Prom |
| **2** | N254 Therapeutic Nutrition |
| **15** | N262 Health Prom/Nsg Process |

| **Junior** | **COURSES** |
| **Credits** | **Courses** |
| **4** | 125 Fund of Statistics |
| **7** | N360 Nsg Care Adult Client II |
| **4** | N370 Psych/Mental Health Nsg |
| **3** | Care Adult |
| **2** | Elective Nsg/General |

| **Senior** | **COURSES** |
| **Credits** | **Courses** |
| **5** | N475 Promotion of Health with |
| **3** | Individuals/Families/Groups |
| **3** | in the Community |
| **3** | N485 Trends and Issues in Nsg |
| **16** | N495 Advanced Concepts in |
| **3** | Clinical Nsg |
| **3** | Elective Nsg/General |

**TOTAL = 125 credits**

*University Core Courses
School of Nursing

Grievance Procedure

Grievance procedures must be initiated within 30 calendar days of the occurrence which gave rise to the grievance. With the knowledge of the involved parties, either party may request that another person be present during the discussions. If difficulty arises between student and faculty, the student should first discuss the difficulty with the person directly involved.

If the matter is not satisfactorily resolved, the appropriate Department Chairman should be consulted. If the problem persists, the course instructor will convene the academic committee. If the Provost findings determine that a legitimate grievance exists, he will convene the academic due process committee. In all cases, the decision of the academic due process committee is final. If the Provost finds that a legitimate grievance does not exist, he will inform the student within 30 days of his/her determination.

Student Rights

Bill of Rights—A statement of the student Bill of Rights is available to all students in a book entitled Student Rights. A Handbook can be acquired in the student government office located in the school union.

REGULATIONS

Students in the School of Nursing are preparing themselves for entry into a respected health profession where the highest degree of character and sense of responsibility 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. Class 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.

2. Health Requirements—All School of Nursing students are required to conform to the health requirements of the School of Nursing.

3. Mathematics Competency—All School of Nursing students must demonstrate mathematics competency by means of a written examination prior to progression to Junior level clinical courses.

Curriculum Standards

To progress to the upper division nursing practice courses, a minimum cumulative GPA of 2.0 is required. A minimum grade of C is required in the natural and applied sciences (Chemistry, Biology of Microbes, Anatomy and Physiology I and II, Nutrition for Health Promotion, Basic Pharmacology and Pathology) and all Freshman and Sophomore level required nursing courses. Providing a minimum grade of C is required in the related science laboratory course.

Students must repeat the theory and clinical components of any nursing course that is repeated regardless of their final theory or clinical grade for the original course.

Students will not be allowed to repeat any nursing course failure or to progress without the approval of the Undergraduate Student Standing Committee.

An authorized “Request to Repeat a Course” form must be obtained from the appropriate academic advisor before registering in the repeat course in accordance with the University’s written intensive requirement for all students admitted to Duquesne University. The School of Nursing faculty has identified two required courses (N430 The Research Process in Nursing and N485 Trends and Issues in Nursing) as primarily meeting these condition.

While most, if not all of the required undergraduate nursing courses have some written components, a course requirement, students who are determined to need further assistance with their writing skills will be advised to select such courses if electives.

The student is cautioned to seek regular advice from the faculty and to keep a record of credits earned and the calculated averages. The School assumes no responsibility for such errors appearing in students’ records which may prevent the student from being graduated.

The School of Nursing faculty reserves the right to withdraw any student from the nursing major who, in its opinion, has not progressed satisfactorily in nursing practice even though the quality point average meets required standards.

The faculty of the School of Nursing also reserves the right to mandate changes in curriculum that seem necessary or desirable.

NURSING COURSE DESCRIPTIONS

100 Orientation to Professional Nursing

215 Basic Pharmacology

220 Human Development Through the Life Continuum

229 Toward Healthy Aging

234 Introduction to Inquiry in Nursing

235 Nutrition for Health Promotion

299 Therapeutics

392 Health Promotion Through the Nursing Process

499 Advanced Concepts in Clinical Nursing

101 Orientation to Professional Nursing 3 cr

125 Basic Pharmacology 3 cr

128 Human Development Through the Life Continuum 4 cr

129 Toward Healthy Aging 2 cr

134 Introduction to Inquiry in Nursing 1 cr

135 Nutrition for Health Promotion 3 cr

144 Therapeutics 1 cr

182 Health Promotion Through the Nursing Process 5 cr

188 Basic Communications in Nursing 2 cr

191 Pathology 4 cr

299 Nursing Care of the Adult Client I 7 cr

325 Psychopathological Alterations in Health 4 cr

330 Physical Assessment of the Adult 2 cr

331 Nursing Care of the Adult Client II 7 cr

340 Psychiatric-Mental Health Nursing 3 cr

342 Care of the Adult 3 cr

343 Nursing Care of the Childbearing Family 5 cr

230 Nursing Care of the Childbearing Family 3 cr

345 Nursing Care of the Adult Client I 7 cr

346 Psychopathological Alterations in Health 4 cr

350 Physical Assessment of the Adult 2 cr

351 Nursing Care of the Adult Client II 7 cr

360 Psychiatric-Mental Health Nursing 3 cr

361 Care of the Adult 3 cr

362 Nursing Care of the Childbearing Family 5 cr

2420 Nursing Care of the Child and Family 5 cr

320 Research Process in Nursing 3 cr

345 Nursing Leadership and Management of Client Care 4 cr

375 Promoting Health with Individuals/Garnering Personal and Community 3 cr

485 Trends and Issues in Nursing 3 cr

499 Advanced Concepts in Clinical Nursing 3 cr

100 Orientation to Professional Nursing 3 cr

215 Basic Pharmacology 3 cr

220 Human Development Through the Life Continuum 4 cr

229 Toward Healthy Aging 2 cr

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191 Pathology 4 cr

299 Nursing Care of the Adult Client I 7 cr

325 Psychopathological Alterations in Health 4 cr

330 Physical Assessment of the Adult 2 cr

331 Nursing Care of the Adult Client II 7 cr

340 Psychiatric-Mental Health Nursing 3 cr

342 Care of the Adult 3 cr

343 Nursing Care of the Childbearing Family 5 cr
314 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.

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 considered for the promotion of health. Prerequisites: Principles of Chemistry 111 and 112.

254 Therapeutic Nutrition
1 cr
This course focuses on nutrition in nursing practice for the restoration of health. Emphasis is placed on nutrition assessment and interventions for persons with short or long term disruptions of health status in relation to current research in therapeutic nutrition.

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 man's individual health patterns and includes an introduction to alterations in health patterns. Students 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 interrelationship of these theoretical components in man's experience of health. The professional role is explored within the framework of the nursing process. Prerequisites: CPR Certification, Orientation to Professional Nursing, Anatomy & Physiology I, Anatomy & Physiology II (concurrent), Human Development Throughout the Life Continuum (concurrent), Foundations of Gerontic Nursing.

272 Basic Communications in Nursing
2 cr
This 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 pattern of relating. This course is foundational to nursing practice as interaction is essential to the nursing 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. Prerequisite: Orientation to Professional Nursing.

316 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 considered for the promotion of health. Prerequisites: Principles of Chemistry 111 and 112.

320 Nursing Care of the Adult Client I
7 cr
Nursing Care of the Adult Client I is the first of a two-semester nursing course offered at the Junior level. This course builds on previously learned knowledge of 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 presented 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 experience of hospitalization. How these changes influence the adult client's unique experience of biological, psycho-social, spiritual and environmental patterns of health, well-being, and life style is integrated to provide wholistic 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
2 cr
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 students' understanding of the medical-mental interaction 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: Introduction to Psychopathology, Basic Communications in Nursing, Anatomy and Physiology I and II, Health Promotion Through the Nursing Process.

326 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 assessments in the laboratory setting and to utilize these skills with clients in Nursing Care of the Adult Client I which is taken concurrently.

This course enhances the student's ability to utilize knowledge of body systems for the purpose of planning a wholistic approach to nursing care. Prerequisites: Anatomy and Physiology II, Pathology I (concurrent).

326 Nursing Care of the Adult Client II
7 cr
This one credit 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 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, oncology and rehabilitation continue to be integrated 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 are encouraged to participate in supportive and rehabilitative care, and participate in the referral of clients for these health care services. Students integrate previously learned and more advanced knowledge of pathophysiology and physical assessment into nursing care. Prerequisites: Nursing Care of the Adult Client I, Physical Assessment of the Adult, and Pathology I, II, III.

370 Psychiatric-Mental Health Nursing Care of the Adult
3 cr
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 as a collaborator in 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, Psychopathological Alterations in Health and Nursing Care of the Adult Client I.

410 Nursing Care of the Childbearing Family
5 cr
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 pregnant client, newborn and family. Concepts of loss, grief, maternal and paternal roles, body image and self-esteem are explored relative to the childbearing family. Changing family belief systems related to health promotion for mothers and newborns 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 Client I, Childbearing Family.

420 Nursing Care of the Child and Family
5 cr
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 learn to foster a child's sense of well being and to 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 child's 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 3 cr
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 critique 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 II

455 Nursing Leadership and Management of Client Care 4 cr
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/Groups in the Community 3 cr
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 requiring greater attention to the highly complex and rehabilitative needs of individuals and families in the home are examined. 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 3 cr
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 3 cr
This preceptored clinical course provides students the opportunity to synthesize previous learning and develop additional knowledge and skills. Concepts of alteration in patterns and clinical decision-making form the foundation for nursing judgment and priority setting in complex care situations. Student performance as a beginning professional in the practice dimensions of client care is enhanced through advanced clinical knowledge, clinical judgment and technical skill development. Prerequisites: Nursing Care of the Childbearing Family, and Nursing Care of the Child and Family

NURSING ELECTIVES

104 Dosage and Solutions Computer Tutorial 1 cr
260 Ways of Healing 3 cr
299 Nursing and Spirituality 3 cr
397 Health Care of Women 3 cr
399 PT/Consumer Health Education 2-3 cr
459 Transcultural Nursing 3 cr
466 Choosing the Living in Dying 3 cr
499 Directed Study in Nursing 1-3 cr

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.

260 Ways of Healing 3 cr
This course is a non-clinical nursing elective. Ways of Healing explores many of the ways in which clients and families are involved in the process of healing which are not thought to be medically traditional. Belief systems are looked at and how they affect life with emphasis on the healing process. Students explore the mystery around unconventional or unexpected healing and look at this in relationship to man's belief systems which are a reflection of how man participates with his own health. Students study, in depth, two ways of healing, biofeedback and visual imagery techniques. The application of these techniques to the nursing process is explored. Seven other ways of healing are explored through group presentations: psychosurgery, hypnosis, spiritual healing, acupuncture, hypnotherapy, and laying on of hands. Prerequisite: Orientation to Professional Nursing

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 career 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.

466 Choosing the Living in Dying 3 cr
Choosing the Living in Dying is a non-clinical nursing elective. The focus of the course is on dying as an evolutionary life experience. Emphasis is placed on the quality of living throughout the dying process. The learners will expand their perspectives of the dying process and current issues in America related to that process. Meaning is enhanced through the sharing of thoughts, feelings, and perceptions within the group process. Prerequisite: None

499 Directed Study in Nursing 1-3 cr
This course which can be taken for variable credit (one to three credits) is designed to provide students with a unique opportunity to pursue an area of interest in nursing that enriches and expands upon basic knowledge provided in the required program of studies, or to achieve particular objectives that require individualized consideration. Students, in consultation with faculty, have the opportunity to generate objectives and behavioral outcomes, and to formulate and implement a plan of study to achieve these objectives. Prerequisites: Varies based on content area involved.

459 Transcultural Nursing 3 cr
Transcultural Nursing 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 Leininger's concepts of transcultural nursing and transcultural health care systems. Various issues related to the nurse'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 selected cultural diversities as related to nursing practice. Methods utilized in transcultural nursing research that foster culture-specific nursing care are included. Prerequisite: Health Promotion Through the Nursing Process.

499 Directed Study in Nursing 1-3 cr
This course which can be taken for variable credit (one to three credits) is designed to provide students with a unique opportunity to pursue an area of interest in nursing that enriches and expands upon basic knowledge provided in the required program of studies, or to achieve particular objectives that require individualized consideration. Students, in consultation with faculty, have the opportunity to generate objectives and behavioral outcomes, and to formulate and implement a plan of study to achieve these objectives. Prerequisites: Varies based on content area involved.
School of Pharmacy

PRE-PHARMACY CURRICULAR REQUIREMENTS

<table>
<thead>
<tr>
<th>Course</th>
<th>Sem</th>
<th>Hrs</th>
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<tbody>
<tr>
<td>Duquesne Pre-Pharmacy Biology I and II</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>General Chemistry I and II</td>
<td>9</td>
<td></td>
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<tr>
<td>Organic Chemistry I and II</td>
<td>9</td>
<td></td>
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<tr>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>Physics for Pharmacy</td>
<td>4</td>
<td></td>
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<tr>
<td>Thinking and Writing Across</td>
<td>3</td>
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<tr>
<td>(Curriculum 101)</td>
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<tr>
<td>Imaginative Literature and Critical</td>
<td>3</td>
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<tr>
<td>Writing</td>
<td></td>
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<tr>
<td>Theology (Core)</td>
<td>3</td>
<td></td>
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<tr>
<td>Basic Philosophical Questions</td>
<td>3</td>
<td></td>
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<tr>
<td>Shaping of the Modern World</td>
<td>3</td>
<td></td>
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<tr>
<td>Arts and the Human Experience</td>
<td>3</td>
<td></td>
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<tr>
<td>Elements of Economics</td>
<td>3</td>
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<tr>
<td>Computer Literacy</td>
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<tr>
<td>(COSC 100, 110 or QSMIS 182)</td>
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<tr>
<td>Public Speaking (102)</td>
<td>3</td>
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<tr>
<td>Psychology</td>
<td>3</td>
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<tr>
<td>General Sociology/Political Science</td>
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General Requirements

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<thead>
<tr>
<th>Course</th>
<th>Sem</th>
<th>Hrs</th>
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<tbody>
<tr>
<td>General Biology with Laboratory</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>General Chemistry with Laboratory</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Organic Chemistry with Laboratory</td>
<td>8</td>
<td></td>
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<tr>
<td>Calculus (for science or math majors)</td>
<td>4</td>
<td></td>
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<tr>
<td>General Physics with Laboratory</td>
<td>8</td>
<td></td>
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<tr>
<td>English Composition and Literature</td>
<td>3</td>
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<td>English Literature</td>
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<td>Religious Studies</td>
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<tr>
<td>Philosophy</td>
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<tr>
<td>Modern U.S., European or World History</td>
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<tr>
<td>Music or Art Appreciation</td>
<td>3</td>
<td></td>
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<tr>
<td>Economics</td>
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<td></td>
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<tr>
<td>Computer Literacy (Applications)</td>
<td>3</td>
<td></td>
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<tr>
<td>Speech (Interpersonal Communication)</td>
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<tr>
<td>Psychology</td>
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General Education

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<thead>
<tr>
<th>Course</th>
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<th>Hrs</th>
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<tbody>
<tr>
<td>Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>General Sociology/Political Science</td>
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</tbody>
</table>

The School of Pharmacy as an integral part of the University, embodies as its own, the mission and goals set forth by the University

The School of Pharmacy has many important missions, but the primary mission of the School is to prepare practitioners for life-long careers in pharmacy and allied health sciences. Academic training must build sufficient knowledge and skill to allow graduates to practice in the present environment and to grow and adapt as the practice environment changes.

The outcome competency-based curriculum in pharmacy represents a composite of educational experiences that results in a well-educated and well-trained professional. An important part of the School's curriculum is to provide undergraduate students with a well-rounded and broad education which will help them understand the professional and develop the skills necessary to succeed in their chosen careers.

In order to become a competent pharmacist, the student must become a therapeutic specialist who has knowledge of drugs and their actions and can apply this knowledge to improve patient care and well-being. Further, the pharmacist must possess skills and knowledge to manage a professional practice. The comprehensive and specialized nature of the curriculum offers the pharmacy graduate a choice of occupations within the profession and its closely allied fields, as well as an adequate foundation for a specialization of studies on a graduate level in many areas.

The School of Pharmacy directs the professional program leading to the degree of Doctor of Pharmacy. It is specifically designed to prepare graduates to assume the duties and responsibilities delineated by the clinical, educational and administrative facets of their respective positions. Upon program completion, the graduate practitioner will be prepared to enter the profession of pharmacy and the world of pharmacy practice. In addition, the individual will develop a mindset to participate in and promote the profession of pharmacy.

The School of Pharmacy aims to graduate students who are able to apply their knowledge and skills to solve problems, make decisions, and provide quality pharmaceutical care. The School of Pharmacy offers programs leading to the Doctor of Philosophy degree in pharmaceutical sciences, including pharmaceutical chemistry, medicinal chemistry, and pharmacology-toxicology, and the Master of Science degree in the fields of pharmaceutics, pharmaceutical sciences, and pharmacy practice. The School also offers a joint degree program in pharmaceutical sciences and business administration, and a Master of Science degree in industrial pharmacy.

The School of Pharmacy is committed to preparing students for a lifetime of professional growth and development. The School provides a wide range of opportunities for students to enhance their skills and knowledge, including participation in research, internships, and other experiential learning activities. The School of Pharmacy is dedicated to providing a high-quality education that prepares students for success in their chosen careers and prepares them for lifelong learning and professional development.
DEGREES

The School of Pharmacy offers a program leading to the undergraduate degree, Bachelor of Science in Pharmacy. Descriptions of advanced degrees offered by the faculty of the School of Pharmacy and the Graduate School of Pharmaceutical Sciences are found in other publications available from the School of Pharmacy office.

PROGRAMS

PHARMACY

Currently, the School of Pharmacy grants a Bachelor of Science in Pharmacy degree upon completion of the undergraduate professional program. The first two years encompass many courses offered by the College of Liberal Arts and the School of Natural and Environmental Sciences, in addition to several professional courses. The latter three years of study are taught mainly by the pharmacy faculty, with electives being available from both that faculty and other schools of the University. Students are enrolled in the School of Pharmacy for all years. Legal requirements of all states are met with regard to graduation from an accredited college of pharmacy. Licensure in the several states may be acquired by meeting specific additional requirements of each particular state.

Residency Requirements

The pharmacy curriculum has been designed to provide a sequence of courses leading to professional competence. The minimum time period in which this may be accomplished has been determined by the faculty to be three years of full-time residency. This residency requirement for the final years of the professional curriculum is in accordance with a policy statement ratified by the American Association of Colleges of Pharmacy and followed by all colleges of pharmacy in establishing minimum residency requirements, as well as guidelines for professional education. The residency requirement is applicable to all students regardless of advanced standing status.

Curriculum

A minimum of 30 credits in the combined general education areas of humanities and social sciences, in accordance with ACPE accreditation requirements, is required for graduation from the School of Pharmacy. Effective for the Class of 1992 (entering in Fall, 1987) and thereafter, Pharmacy students must meet the requirements of the University Core Curriculum. For Pharmacy students, seven required University Core courses satisfy 21 credits of the 30-credit ACPE General Education requirement for the B.S. in Pharmacy degree. The University Core courses and, where appropriate, the Social Science and Humanities designations, as determined by the faculty of the School of Pharmacy, follow.

<table>
<thead>
<tr>
<th>DEGREE OF ACHIEVEMENT</th>
<th>REQUIRED CREDITS</th>
</tr>
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<tbody>
<tr>
<td>Bachelor of Science in Pharmacy</td>
<td>120</td>
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SCHOOL OF PHARMACY

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
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</thead>
<tbody>
<tr>
<td>101 Thinking and Writing Across the Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>102 Imaginative Literature and Critical Writing</td>
<td>3</td>
</tr>
<tr>
<td>132 Basic Philosophical Questions</td>
<td>3 (Humanities)</td>
</tr>
<tr>
<td>141 Social, Political, and Economic Systems</td>
<td>3 (Social Science)</td>
</tr>
<tr>
<td>151 The Shaping of the Modern World</td>
<td>3 (Social Science)</td>
</tr>
<tr>
<td>161 The Arts and the Human Experience</td>
<td>3 (Humanities)</td>
</tr>
</tbody>
</table>

Residency Requirements

Pharmacy students must take an additional 9 credits of General Electives, chosen in consultation with their academic advisor, to meet the 30-credit graduation requirement. Course work is offered by the following departments in the College of Liberal Arts and Schools of the University as approved for meeting the additional 9-credit General Elective requirement:

- Theology
- Political Science
- Philosophy
- Computer Science
- English
- Communication
- Modern Languages
- ROTC Courses
- Classics
- School of Music Courses
- Sociology
- School of Business
- Psychology
- Administration Courses
- History
- Art

Effective with the Class of 1988 (entering in Fall 1987), one course (3 credits of the 9-credit requirement) must be a computer course, including computer software applications.

In adherence to ACPE accreditation requirements, the School of Pharmacy faculty has ruled that general electives must be non-science, non-math, non-professional course work.

PHARMACY CURRICULUM

For the Class of 1995 (entering Fall, 1990) and thereafter

First Year

- Fall Semester
  - 101 Thinking and Writing Across the Curriculum
  - 111 General Biology I
  - 121 General Chemistry I
  - 101 Thinking and Writing Across the Curriculum
- Spring Semester
  - 112 General Biology II
  - 122 General Chemistry II

Second Year

- Fall Semester
  - 102 Imaginative Literature and Critical Writing (University Core)
  - 132 Basic Philosophical Questions (University Core)
  - 141 Social, Political, and Economic Systems (University Core)
  - 151 The Shaping of the Modern World (University Core)
  - 161 The Arts and the Human Experience (Humanities)

- Spring Semester
  - 112 General Biology II
  - 122 General Chemistry II

Third Year

- Fall Semester
  - 115 Calculus I
  - 101 Pharmacy Orientation

- Spring Semester
  - 116 Calculus II
  - 101 Pharmacy Orientation

Fourth Year

- Fall Semester
  - 115 Calculus I
  - 116 Calculus II

- Spring Semester
  - 102 Independent Study in the School of Pharmacy

AREAS OF CONCENTRATION

Six credits in Professional Pharmacy Electives is the minimum requirement for graduation. During the fourth year (earlier if possible) each pharmacy student is urged to select an area of concentration from one of the following areas: Community Practice, Institutional Practice, Industrial Pharmacy, Nuclear Pharmacy, or Pre-Graduate Study.

Independent Study in the School of Pharmacy is considered professional elective course work and may be used in any of the areas of concentration. Students may make their own selection of courses in consultation with their advisors.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
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<tbody>
<tr>
<td>110 Pharmacy Administration</td>
<td>3</td>
</tr>
<tr>
<td>111 Pharmacy Law</td>
<td>3</td>
</tr>
<tr>
<td>112 Pharmacy Management</td>
<td>3</td>
</tr>
<tr>
<td>113 Public Health</td>
<td>3</td>
</tr>
<tr>
<td>114 Emergency Treatment</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>SPRING SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>115 Calculus II</td>
<td>115 Calculus II</td>
</tr>
<tr>
<td>101 Pharmacy Orientation</td>
<td>101 Pharmacy Orientation</td>
</tr>
</tbody>
</table>

Courses are to be completed in the designated sequence. Minimum credit for B.S. in Pharmacy degree: 164, sufficient elective hours must be taken to satisfy the minimum credit requirements.

Changes may be made in some parts of the curriculum as indicated as a result of continuing faculty evaluation of the Pharmacy curriculum.
The following courses are approved for the respective areas of concentration:

1. Community Practice
   - 471—Selected Topics in Prescription Drug Counseling
   - 481—Pharmacy Sales and Marketing
   - 482—Community Pharmacy Practice
   - 483—Aging and Health Care
   - 525—Advances in Drug Therapy
   - 561—General Toxicology
   - 566—Clinical Toxicology

2. Institutional Practice
   - 483—Aging and Health Care
   - 501—Manufacturing Pharmacy
   - 525—Advances in Drug Therapy
   - 539—Bionucleonics
   - 540—Advanced Bionucleonics and Radiopharmaceuticals
   - 561—General Toxicology
   - 566—Clinical Toxicology

3. Industrial Pharmacy
   - 501—Manufacturing Pharmacy
   - 502—Pharmaceutical Formulation and Development
   - 504—Regulatory Aspects of Industrial Practice
   - 505, 506—Cosmetic Science and Technology with Lab
   - 510—Advanced Pharmacokinetics I
   - 511—Advanced Pharmacokinetics II
   - 522—Spectral Methods
   - 523, 524—Advanced Medicinal Chemistry I and II
   - 525—Advances in Drug Therapy
   - 539—Bionucleonics
   - 540—Advanced Bionucleonics and Radiopharmaceuticals
   - 561—General Toxicology
   - 563—Pathology
   - 566—Clinical Toxicology
   - 569—Toxins and Venoms
   - 570—Drug Mechanisms
   - 572—Methods of Evaluation of Drug Action and Toxicity

Descriptions of these courses may be found in the Graduate School of Pharmaceutical Sciences Catalog.

Pharmacy students who select the Industrial Pharmacy area of concentration, may spend part of the required B S in Pharmacy practicum in an industrial setting.

4. Nuclear Pharmacy
   - 539—Bionucleonics
   - 540—Advanced Bionucleonics and Radiopharmaceuticals
   - 489—Problems in Health Physics (offered by Physics Department)

Students who satisfactorily complete the nine-credit requirement of the Nuclear Pharmacy area of concentration, are awarded a certificate. Also, Pharmacy students who select the Nuclear Pharmacy area of concentration, may spend part of the required B S in Pharmacy practicum in a nuclear pharmacy and/or nuclear medicine setting.

5. Pre-Graduate Study
   - Students who select this option must consult with the chairman of the department of their area of interest in order to select courses most adaptable to the program they desire to pursue. A combined B S in Pharmacy/M S in Pharmaceutical Sciences program is available to qualified students. The following courses offered by the Graduate School of Pharmaceutical Sciences are available to qualified upperclassmen in the School of Pharmacy:
     - 501—Manufacturing Pharmacy
     - 502—Pharmaceutical Formulation and Development
     - 504—Regulatory Aspects of Industrial Practice
     - 505, 506—Cosmetic Science and Technology with Lab
     - 510—Advanced Pharmacokinetics I
     - 511—Advanced Pharmacokinetics II
     - 522—Spectral Methods
     - 523, 524—Advanced Medicinal Chemistry I and II
     - 525—Advances in Drug Therapy
     - 539—Bionucleonics
     - 540—Advanced Bionucleonics and Radiopharmaceuticals
     - 561—General Toxicology
     - 563—Pathology
     - 566—Clinical Toxicology
     - 569—Toxins and Venoms
     - 570—Drug Mechanisms
     - 572—Methods of Evaluation of Drug Action and Toxicity

Any student designated by the Admissions Office as aChancellor's or Strub Mentor Award recipient upon entrance to the University and to the School of Pharmacy, or who has obtained a cumulative average of 3.50, is admitted to the School of Pharmacy Scholars Program. Selection is made annually on the basis of academic standing. No application is required. Scholars are recognized annually and encouraged to investigate Advanced Placement, CLEP, and Challenge Examination opportunities. Faculty research projects in which they may participate, and independent study and graduate-level course offerings are urged to notify the class instructor before or at the first class.

2. Advanced Standing Credit
   - Advanced standing credit for courses completed at other accredited institutions may be allowed for those courses which appear in the Duquesne University curriculum. No credit is allowed in any subject in which a grade lower than C was earned, or for a course not equivalent to one among the University curriculum. Any student enrolled at Duquesne, students may not pursue courses at other institutions for transfer credit without specific permission from the Office of Student Services of the School of Pharmacy.

3. Academic Standards
   - All students in the School of Pharmacy are required to remain in good standing, academically, throughout the five-year B S in Pharmacy program and to maintain "normal progress" toward completing the degree requirements within the minimum five-year period. Promotion to the next succeeding year in the B S in Pharmacy curriculum and the guarantee of a seat in each subsequent class (Pharmacy II, III, IV and V) is contingent upon:
     a. the successful completion of all required course work (pre-professional sciences and mathematics, professional, and elective) in the approved curricular sequence, and,
     b. the attainment and maintenance of the required minimum cumulative, science/mathematics and professional quality point averages of 2.0.

   (The cumulative QPA is the average of all courses taken at Duquesne University. The science/mathematics QPA is the average of all science and mathematics courses of the first two years of the five-year pharmacy curriculum.

   The professional QPA is the average of all required and elective professional pharmacy courses in the curriculum.)

   Any student who fails to maintain "normal progress" toward graduation as defined in the preceding paragraph, is subject to forfeit of the guaranteed seat in the class of his/her initial matriculation. Subsequent accommodation of that student's continuation in the Pharmacy program in a lower class must be on a space available basis, with no guarantee of availability due to capacity enrollment at all levels of the curriculum. In the event that a student failing to maintain "normal progress" cannot be accommodated in the next lower class, he/she will be required to transfer out of the School of Pharmacy into any other program in the University for which he/she is eligible, or withdraw from the University.

   A student entering Pharmacy I in Fall 1993 who fails to maintain "normal progress" will be required to transfer out of the School of Pharmacy into any other program in the University for which he/she is eligible, or withdraw from the University.

4. Required Programs
   - Pharmacy students in the fourth year of the curriculum are required to participate in one industrial visit arranged by the School.
   - The faculty of the School of Pharmacy may require Pharmacy student attendance at other seminars and special programs.

5. Health Requirements
   - Any School of Pharmacy student entering studies in a hospital or other institutional setting may be required to conform to the health requirements of that institution.
STUDENT ORGANIZATIONS

The Academy of Students of Pharmacy whose membership includes all pharmacy students registered in the last three years of the School of Pharmacy aims to promote their interests, academic, social and professional. Under its auspices, many worthwhile events are arranged during the school year. The Student Advisory Committee which consists of the officers of the AS and of other approved Pharmacy student organizations, meets regularly with the Dean and the faculty moderator to act as liaison between students and faculty. The annual membership fee includes one year's student membership in the American Pharmaceutical Association and a year's subscription to its journal. Interested pharmacy students enrolled in their first and second years at the University are eligible for membership and are encouraged to become actively involved in ASP.

The Alpha Beta Chapter of Rho Chi, national pharmacy honor society at Duquesne University, was organized to promote the advancement of the pharmaceutical sciences. Pharmacy students who have completed three years of work at the University level and have achieved a B average are eligible for membership. A maximum of 20 percent of the class enrollment may be admitted to membership. Faculty, graduate students in the pharmaceutical sciences, and Doctor of Pharmacy students may also be invited to join.

Eta Chapter of Phi Lambda Sigma, a national professional pharmaceutical society, was chartered at Duquesne University in 1932. The society recognizes and encourages leadership in the profession of pharmacy. The society selects members who have completed at least two and one half years in the pharmacy program and have demonstrated exemplary leadership qualities.

Tau Chapter of Lambda Kappa Sigma, an international pharmaceutical fraternity for women, was established at Duquesne University in 1932. The organization numbers among its members some of the most outstanding women in pharmacy. Its purpose is to promote the profession of pharmacy and to create a center of culture and enjoyment for its members.

The Beta Gamma Chapter of Phi Delta Chi, an international pharmaceutical fraternity for women, was established at Duquesne University in 1932. The organization numbers among its members some of the most outstanding women in pharmacy. Its purpose is to promote the profession of pharmacy and to create a center of culture and enjoyment for its members.

The Gamma Alpha Chapter of Phi Kappa Psi, national fraternity for men, was chartered at Duquesne University in 1932. The organization numbers among its members some of the most outstanding men in pharmacy. Its purpose is to promote the profession of pharmacy and to create a center of culture and enjoyment for its members.

Delta Epsilon Chapter of Kappa Psi Pharmaceutical Fraternity was chartered in 1932. The organization numbers among its members some of the most outstanding men in pharmacy. Its purpose is to promote the profession of pharmacy and to create a center of culture and enjoyment for its members.

NARD Student Chapter. A student chapter of the National Association of Retail Druggists, chartered in 1932, and open to all students enrolled in the School of Pharmacy. The purpose of the organization is to promote pharmacy as a profession and the role of the independent retail pharmacist in the American health care system, in furnishing students of the ideals and issues pertinent to retail pharmacy practice and the opportunities and personal satisfaction to be derived from independent ownership.

Student Chapter of Western Pennsylvania Society of Hospital Pharmacists. A student chapter of the Western Pennsylvania Society of Hospital Pharmacists, chartered in 1932, and open to all students enrolled in the School of Pharmacy. The organization is to foster increased student awareness and provide information on pharmacy careers in organized health care settings and encourage participation in the activities of the state society and the American Society of Hospital Pharmacists.

Class Organization. Each of the five classes is an officially recognized organization in the School of Pharmacy. Each class elects its own officers and conducts such programs and affairs as its members deem desirable toward achieving its goals. All students are included in these organizations.

HONOR AWARDS

American Institute of the History of Pharmacy Award. A recognition certificate and gift publications are awarded annually by the American Institute of the History of Pharmacy for superior achievement in pharmacological study or activity.

McKesson American Pharmaceutical Association Award. A plaque provided by the McKesson Company is presented annually to the graduate who has made the most significant contribution to the Academy of Students of Pharmacy at Duquesne University.

Sera C. Cong Award. A monetary award presented annually to a graduating Pharmacy student who has demonstrated considerable involvement in community professional programs.

Faculty Award. The faculty of the School of Pharmacy may present an appropriate award to an outstanding student of the graduating class who has displayed exceptional qualities of academic excellence and a GPA of 3.0 or better.

Maurice H. Finkelpaul Award. A monetary award is presented annually to a student who intends to practice Community Pharmacy.

Galen Pharmaceutical Society of Pittsburgh Award. The Galen Pharmaceutical Society of Pittsburgh annually offers two monetary awards to the two members of the graduating class who have achieved the highest standing in the departments of pharmacology and pharmaceutical chemistry.

McNiel Dean's Award. A replica of an Early American Mortar and Pestle is awarded annually to the outstanding student of Pharmacy Administration.

Lilly Achievement Award. A medal is presented annually to a member of the graduating class who has demonstrated excellence in pharmaceutical and professional achievement as well as qualities of leadership.

Merk, Sharp and Dohme Award. Each year Merck & Company, Rahway, New Jersey, offers a set of valuable reference books to members of the graduating class who attain the highest averages in pharmacology.

Rho Chi Award. Alpha Chapter of Rho Chi awards annually a suitable key to the student who earns the highest general average in all subjects during the first two years of the pharmacy program.

Roche Pharmacy Communications Award. A generalized plaque is awarded annually to the graduating student who has shown exceptional ability in patient communication through course work and application.

SmithKline Beecham Pharmaceuticals Award. A personalized plaque is presented annually by the SmithKline Beecham Pharmaceuticals, Philadelphia, Pennsylvania, for superior achievement in patient care by a graduating student.

Academy of Students of Pharmacy Award. Annually, a certificate of recognition is presented to the graduating student who has demonstrated thoroughness, reporting and activity, and avid interest in organization work.

Syntex Preceptor of the Year Award. An appropriately designed plaque is awarded annually by the Syntex Laboratories, Inc., of Palo Alto, California, to the preceptor who, in the opinion of the Pharmacy Interns, best exemplifies professionalism, ethics, and clinical practice.

Western Pennsylvania Society of Hospital Pharmacists Award. Annually a monetary award is presented to the graduating senior who demonstrates outstanding ability and interest in the area of Hospital Pharmacy.

Lemmon Company Award. A certificate and monetary award are presented to the graduating student who has completed the degree program through unusual and extraordinary perseverance and determination in the opinion of the grading class.

Pennsylvania Pharmaceutical Association Award. A certificate of recognition and one-year membership in the PPA is awarded annually to the graduate who has been most actively involved in pharmacy organizations.

J. Cornetti Tucci Award. A monetary award is presented to the graduating student who has demonstrated excellence in pharmacoeconomics.

Sandoz Doctor of Pharmacy Award. A commemorative plaque and monetary award is provided by Sandoz, Inc., East Hanover, N.J., is awarded annually to an outstanding Doctor of Pharmacy graduate.

Mylan Award for Excellence in Pharmacy. An award presented annually to an academically superior B S in Pharmacy graduate who has demonstrated the highest level of achievement in the provision of drug information services and of professional motivation and promise.

American Society of Hospital Pharmacists Award. Annually an award is presented to a fourth-year pharmacy student. Criteria for selection of the recipient are a demonstrated interest in institutional practice, involvement and leadership in professional pharmacy organizations, and academic ranking in the upper half of his/her class.

GRADUATION REQUIREMENTS

A committee of the faculty will review the academic record of each candidate for graduation to ascertain full compliance with specific School of Pharmacy curricular requirements and the general University Graduation Requirements, as stated in the Academic Policies section of this catalog. This committee will then recommend candidates for faculty certification for graduation or for remedial work to be fulfilled prior to the granting of the degree. Communications pertaining to this certification may be entered in the Office of the Dean.

STATE LICENSING PENNSYLVANIA

A candidate for licensure as a Registered Pharmacist in the Commonwealth of Pennsylvania must meet the following requirements before he/she may be admitted to the licensing examinations which are conducted by the Pennsylvania State Board of Pharmacy:

1. Character—be of good moral character and not have any criminal offense in connection with the practice of pharmacy or the abuse of any chemical substance.

2. Professional Training—possess a degree in Pharmacy granted by a School or College of Pharmacy, which is accredited by the American Council on Pharmaceutical Education.

3. Practical Experience and Internship—any person enrolled as a student of pharmacy in an accredited college may at the end of the second year of college file with the Pennsylvania State Board of Pharmacy an application for registration as a pharmacy intern.
To insure proficiency in the practical aspects of pharmacy, the State Board shall by regulation prescribe internship requirements which must be satisfactorily completed prior to sitting for the licensure exam and to issuance of a Pharmacist's License.

Specific information concerning practical experience requirements as well as all other requirements concerning licensure may be obtained from the State Board of Pharmacy, Department of State, Box 2649, Transportation and Safety Bldg, 6th Floor, Harrisburg, Pennsylvania 17120

STATES OTHER THAN PENNSYLVANIA

According to law, the licensing of an applicant seeking to become registered as a pharmacist is under the sole jurisdiction of the state in which he/she seeks to practice. Although the requirements for licensure in Pennsylvania are similar to those of other states, differences do exist. Space limitations preclude a complete listing of the requirements of other states and the District of Columbia. The candidate for licensure in another state is advised to consult the Board of Pharmacy in that particular state for complete and current information. Also internship requirements in other states differ from those in Pennsylvania.

CAREER GUIDANCE CENTER

The Office of Student Services of the School of Pharmacy keeps students informed about the latest career opportunities available to those possessing a pharmacy education and recruits high school students to the profession. School of Pharmacy faculty members and alumni pharmacy practitioners are available, upon request, to speak at career day programs and to provide information to high school counselors on all matters relating to a pharmacy education and career.

Pamphlets containing career information on Pharmacy are also available through the Office of Student Services and may be directed to the Office of Student Services, School of Pharmacy, Duquesne University, Pittsburgh, Pennsylvania 15282

RESEARCH FOUNDATION

The Hugh C. Muldoon and Pharmacy Alumni Foundation of Duquesne University, established in 1950 to celebrate the twenty-fifth anniversary of the founding of the School of Pharmacy, is an increasingly valuable aid in helping to achieve the aims of the University and of the School of Pharmacy. The foundation provides funds for improving the instructional and research facilities of the School, it assists the advancement of pharmacy by providing scholarship assistance to Pharmacy students and by supporting the training of undergraduate and graduate students in industrial and research procedures, it helps to extend the knowledge from research being conducted under the auspices of the School. Contributions are solicited from graduates and others interested in the work of the Foundation. They may be addressed in care of the School of Pharmacy.

COURSE DESCRIPTIONS

The courses of instruction are numbered in accord with a plan uniform throughout the University. University courses numbered 100 are freshman courses; 200, sophomore; 300, junior; 400, senior. Courses described in this section are required courses in the professional curriculum and those courses offered by the School of Pharmacy faculty as a University service. Courses numbered 500 are graduate level courses in which qualified graduate students may be enrolled with the permission of the instructor of the course. Credit for these courses cannot be used to satisfy requirements for a second degree. Most courses in the 800 series are generally restricted to Doctor of Pharmacy candidates. Descriptions of Pharm D courses (800-level) may be found in the Doctor of Pharmacy Catalog.

DEPARTMENT OF PHARMACEUTICAL CHEMISTRY AND PHARMACEUTICS

Chairman Lawrence H. Block, Ph.D.
Faculty Professors Block, Gangjee, Key, Associate Professors Adeyeye, Collins, Harrold, Assistant Professors Boni, Drennen, Li

101. Pharmacy Orientation 1 cr

Introduction to the profession of pharmacy. Discussion of various aspects of pharmacy education and professional practice. Pharmaceutical organizations are discussed and evaluated. The pharmaceutical literature is reviewed and a brief history of pharmacy is presented. Lecture, one hour

301. Basic Pharmaceutics—Pharmacy Math I 4 cr

A study of the basic physical principles applicable to an understanding of drugs and the pharmaceutical systems in which they are contained. Subject areas include solubility and solutions, pH, diffusion, osmosis, drug stability, packaging, storage, and administration, biological evaluation of pharmaceutical products. Principles of the design and manufacture of drug delivery systems, the clinical application of pharmaceutics. Mathematical methods (algebra and graphical) and biostatistical principles relevant to modern pharmaceutical practice are integrated into both the didactic and laboratory portions of the course. Laboratory emphasis is on practical and clinical application. Prequisites Calculus I, II Lecture, three hours, Recitation, conference, and laboratory, four hours

302. Basic Pharmaceutics I Preprerequisite (Pharmacy Math I). Lecture, two hours, Recitation, conference, and laboratory, four hours

305. Pharmaceutics-Biopharmaceutics III 3 cr

A study of the physio-chemical, biological, and pharmaceutical factors which affect absorption, distribution, metabolism, and excretion of drugs in man. Emphasis is placed on the utilization of bio-pharmaceutical factors in solving problems of bioavailability and bioequivalence of drug products and in the determination of appropriate drug dosage regimens. Prerequisite Basic Pharmaceutics I, II Lecture, three hours

306. Pharmaceutics-Pharmacokinetics IV 4 cr

Mathematical examination of the processes involved in the pharmacokinetics of drugs. Emphasis is placed on the determination of pharmacokinetic parameters, using several types of models, from biological and clinical data, and their use in predicting patient doses, dosage adjustments, and responses and the development of drug delivery systems to optimize drug delivery to the patient. The laboratory utilizes a pharmacokinetic simulation program to illustrate the origin of the pharmacokinetic models and test the application as a predictor in a variety of patients." Prerequisite Pharmaceutics III Lecture, three, Recitation, one hour, Laboratory, two hours.

309. Biochemistry—Nutrition 4 cr

A course designed to integrate basic biochemistry with the application to selected clinical cases. Emphasis is placed on studies of amino acids and proteins, structure and function, metabolism of carbohydrates, lipids and proteins as the source of energy derived from foods, certain aspects of nutrition. The function of enzymes, vitamins and hormones is presented in relation to their role in metabolism. Studies on DNA structure, replication, transcription and protein synthesis and its regulation are discussed. Prerequisite: Basic Organic Chemistry I I Lecture, three hours, Laboratory, three hours.

310. Analysis of Drug Substances 4 cr

A survey course covering the basic principles of analytical chemistry and statistics as applied to measurement, the analytical problem, process solving and interpretation. Examples used come from pharmacognosy, pharmaceuticals, organic chemistry, analytical chemistry, statistics as applied to measurement. Prerequisites: Basic Organic Chemistry I and II Lecture, three hours, Recitation, conference, four hours

311. Medicinal Chemistry—Natural Products I 4 cr

A continuation of Medicinal Chemistry I, Lecture, one hour

312. Medicinal Chemistry—Natural Products II 4 cr

A continuation of Medicinal Chemistry I, Lecture, four hours

DEPARTMENT OF PHARMACOLOGY-TOXICOLOGY

Chairman Frederick W. Rothenberg, Ph.D.
Faculty Professors Riley, Williams, Associate Professors Wilcox, Rothenberg, Pilewska, Assistant Professor Johnson, Long

2. Drug Abuse

A course designed to present the pharmacological and toxicological properties of substances of abuse. The major classes of drugs are described with direct reference to their effects and adverse effects. The myths and misconceptions commonly attributed to some substances of abuse are clarified. The philosophy of the course is to present an objective picture of the "drug abuse era" in this country. The course is intended for all students beginning their collegiate studies. Admission to this course for students who have completed Pharmacology—Drug Mechanisms I or its equivalent is by approval of the instructor. Lecture, one hour.

4. Social Diseases

A course offered to students who have completed Pharmacology—Drug Mechanisms I only with the permission of the instructor. Lecture, two hours.

130. History of Pharmacy 2 cr

A survey of the origins of science, medicine, and pharmacy from the earliest recorded events to the present with emphasis on the development of a professional role in the United States. Lecture, two hours.

220. Human Anatomy and Physiology I 4 cr

A lecture course dealing with the structure and function of the various tissues, cells and organs of the body. Emphasis is on the complex regulatory and integration of function of the organs and systems. Prerequisites: General Biology I, II Lecture, four hours.

317. Human Anatomy and Physiology II 4 cr

A continuation of the Human Anatomy and Physiology I lecture series, with laboratory. The laboratory portion of the course deals with gross anatomy.
a histological study of tissues, and the clinical appraisal of physiological functions Pre-requisite Human Anatomy and Physiology I Lecture, three hours, Laboratory, three hours

318 Pathophysiology 3 cr
A lecture presentation of the cellular, organ and systemic changes associated with the human disease process. Also discussed are the physiological responses of the body's organ systems to the disease process and the contribution these responses make to the production of signs and symptoms that are normally associated with each disease state. Pre-requisites Human Anatomy and Physiology I, II Lecture, three hours

319 Medical Microbiology—Immunology 4 cr
Covers the general characteristics and morphology of bacteria, the important staining techniques, methods of growing bacteria on artificial media, testing the effects of chemotherapeutic agents on pathogenic bacteria, and immunology. It includes discussions of the important bacterial, rickettsial, bordetella, viral, and protozoal diseases along with worm infections, their causes, symptoms, and treatment Lecture, three hours, Laboratory, three hours

321 Pharmacology—Drug Mechanisms I 4 cr
A course in the mechanisms and pharmacodynamic actions of drugs. Side effects, toxicity, drug interactions, and the rational use of therapeutic use in relation to disease mechanism and actions are stressed. Prerequisites: Human Anatomy and Physiology I, II and Pathophysiology. Lecture, four hours

322 Pharmacology—Drug Mechanisms II 4 cr
A continuation of Pharmacology—Drug Mechanisms I. Prerequisite: Pharmacology—Drug Mechanisms I. Lecture, four hours

323 OTC Drugs 2 cr
A course designed to familiarize students with the pharmacological and toxicological properties of over-the-counter drugs. The course will prepare the student to counsel the public on the appropriate use of OTC drugs, to select the proper nonprescription drug for a particular disease state, and to determine if treatment with a nonprescription drug is appropriate. Prerequisites: Pharmacology—Drug Mechanisms I, II. Lecture, two hours

324 Public Health—Emergency Treatment 3 cr
A discussion of public health measures such as immunization, water purification, sewage disposal, disinfection of individuals and objects, control of rodents and insects, and the relationship of these to the spread of disease. Health statistics, disaster preparedness, and the health effects of environmental pollutants are also discussed. In the laboratory component of the course, students are certified in American Red Cross Standard First Aid and CPR.

Special emphasis is placed on emergencies when the pharmacist is most likely to experience: epileptic seizures, heart attacks, fainting, diabetic coma, and others Lecture, three hours, Laboratory, one hour

375 Medicinal Plants 3 cr
A survey of the classic medicinal plants of the world and those plants which are currently available as herbs and “health foods.” When applicable, medicinal, poisonous, and edible plants of Pennsylvania are highlighted. The botanical source, origin of the plant name, chemistry of the main constituents, pharmacology/toxicology, and modern medical significance of the plants are discussed Lecture, demonstration, three hours

471 Selected Topics in Prescription Drug Counseling 3 cr
A course, with product discussions and demonstrations, intended to increase student knowledge of patient prescription drug counseling. The course will assist the student in organizing and presenting information to the patient based on an understanding of the similarities and dissimilarities between drug products of the same class, mechanism of action, clinical application, administration, need for compliance, storage directions, potential side effects and adverse reactions, and when and why the patient should contact a pharmacist on medication problems Lecture, with demonstrations, three hours

498, 499 Independent Study and Research 1-2 cr/sem
To stimulate interest in furthering a student's education, the School of Pharmacy uses this course as a vehicle to provide the means whereby those who wish to be involved in a programmed self-study educational experience may do so. To accomplish this aim, the student in cooperation with a specific instructor chosen by the student, will develop a course of study that will realistically be able to fill the learning objectives stated by the student. The student and instructor will meet at stipulated regular time intervals for guidance and evaluation of progress being made by the student. Contact School of Pharmacy Office of Student Services for restrictions on total credits allowed and on eligibility for registration.

SCHOOL OF PHARMACY

DEPARTMENT OF PHARMACEUTICAL ADMINISTRATION

Chairman Vincent J. Gannett, Ph.D
Faculty: Professor Gannetti, Associate Professor Harris, Kristofik, Assistant Professor Newton

230 Pharmacy Law 3 cr
A course designed to acquaint the student with the philosophy of law and its relationship to pharmacy practice. Legal and regulatory aspects of pharmacy practice and health care are discussed. Lecture, three hours

Legal aspects of pharmacy practice and health care are discussed. Lecture, three hours

433 Practical Pharmacy III—Hospital 3 cr
Required of all final-year pharmacy students and involving placement in an operating hospital pharmacy with a pharmacist-preceptor. Off-campus placement is necessary. Note: Calendar change for fifth-year Pharmacy students may be required.

434 Practical Pharmacy IV—Optional 3 cr
Required of all final-year Pharmacy students and involving placement in an operating pharmacy or related practice setting with a pharmacist-preceptor. Off-campus placement is necessary. Note: Calendar change for fifth-year Pharmacy students may be required.

450 Pharmacy Practice A Problem Solving Approach 2 cr
This course is specifically designed to provide the student with guided experience in the application of knowledge acquired in previous professional course work to the solution of simulated problems which occur frequently in community and hospital pharmacy practice settings. The lecture portion of the course will provide students with explanations of the application of the basic problem solving process to specific problem situations which arise in practice. The laboratory will involve students in the actual application of the problem solving process to simulated practice problems. Lecture, one hour, Laboratory, three hours

491 Pharmacy Sales and Marketing 2 cr
This course is specifically designed to provide the student with guided experience in the application of knowledge acquired in previous professional course work to the solution of simulated problems which occur frequently in community and hospital pharmacy practice settings. The lecture portion of the course will provide students with explanations of the application of the basic problem solving process to specific problem situations which arise in practice. The laboratory will involve students in the actual application of the problem solving process to simulated practice problems. Lecture, one hour, Laboratory, three hours

482 Community Pharmacy Practice 3 cr
This course explores selected topics in the organization and operation of a pharmacy. Topics include organizing and financing a pharmacy, examining the economic and political environment, evaluating a third-party program, marketing pharmacy services, assessing automating and computerizing a pharmacy, and other current issues. The goal is to provide the knowledge and managerial skills necessary to succeed in a competitive marketplace. Lecture, two hours, Practicum, one hour
SCHOOL OF PHARMACY

441 Practical Pharmacy I—Clinical Clerkship
An educational process designed to provide the student with clinical experiences necessary to demonstrate competency in the areas of providing patient education, ascertaining drug histories, participating in the selection and monitoring of therapeutic modalities, and other pharmacist-related functions. The fifth-year Pharmacy student will be assigned to a member of the clinical faculty and a given practice site. Note: Calendar change for fifth-year Pharmacy students may be required.

814 Parenteral Therapy
A lecture/laboratory course designed to present the principles of sterilization, aseptic processing and membrane filtration in the preparation of parenteral products and intravenous admixtures in pharmacy practice. Emphasis on the principles of fluid and electrolyte therapy, acid-base balance, nutrition support, home care and miscellaneous infusion therapy. Lecture, three hours, Pre-laboratory and laboratory demonstration

DEPARTMENT OF CLINICAL PHARMACY

Chairman: Bruce H. Livengood, Pharm D
Faculty: Professor Porner, Associate Professors Eder, Freedy, Guidici, Keys, Lech, Livengood, Mattei, Rihn, Assistant Professors Avila, Goetz, Laux, O’Neil, Schlicht, Instructor Karnack

333 Drug Literature Resources
This course is intended to acquaint the student with various drug information resources and how to appropriately utilize these references in responding to information requests. The course will review the primary and secondary literature, indexing and abstracting systems, the systematic search process, principles of literature evaluation, and the approach for answering common drug information questions. Lecture, one hour, Laboratory, one hour

440 Therapeutics
A course designed to provide the student with the information necessary to demonstrate competency related to the therapeutic principles of selected disease states. Students will participate in small-group recitation sessions using a case studies format in evaluating and recommending therapeutic plans. Prerequisites: Pharmacology—Drugs in evaluating and recommending therapeutic plans. Prerequisites: Pharmacology—Drugs, section recitation sessions using a case studies format in evaluating and recommending therapeutic plans.

SCHOOL OF HEALTH SCIENCES

John G. Rangos, Sr.

School of Health Sciences

John G. Rangos, Sr. School of Health Sciences

Dentistry:
Jane R. Martin, Ph.D.
Doctor of Student and Alumni Services:
Deborah L. Dunca
Director of Budget and Management:
Denise M. Wiens

DEMANDING PROFESSIONS

PROFESSIONS IN DEMAND

HISTORY

On January 29, 1990, Dr. John E. Murray, Jr., President of Duquesne University, announced that the John G. Rangos, Sr. School of Health Sciences was being created to “graduate professionals who will provide assistance to people in maintaining their physical well-being. It will make them more self-sufficient physically and provide great hope for their futures. It meets the overwhelming societal need, and it enhances opportunities for people at Duquesne. In serving the citizens of Western Pennsylvania and our students, this initiative is precisely in accordance with the purposes of Duquesne University.” The Rangos School of Health Sciences was Duquesne’s first new School since 1937. Duquesne University has an outstanding undergraduate science curriculum, an illustrious history of educating pharmacists and nurses, and an extensive pre-health curriculum. Based upon Duquesne University’s long standing commitment to excellence in its health education, the University plans to continue its commitment in these areas through the development of the Rangos School of Health Sciences.

On March 18, 1991, Mr. John G. Rangos, Sr (President and Chief Executive Officer of Chambers Development Company, Inc.), Pittsburgh-based Chambers Development Company, Inc., The John G. Rangos Charitable Foundation, and the Chambers Development Charitable Foundation, made a major gift to Duquesne University in support of the School of Health Sciences. In recognition of that gift, Dr. Murray announced the School would be named the John G. Rangos, Sr. School of Health Sciences (RSHS). The first freshmen were admitted September, 1991, to all of the programs which include athletic training, health information sciences, occupational therapy, perfusion technology, physical therapy, and physician assistant. Students were also admitted September, 1991 into the professional phase of the physical therapy program. In May, 1992 the professional phase of physician assistant was initiated, and in September, 1992 the professional phase of athletic training and occupational therapy were implemented. In September, 1993 the health information sciences professional phase was implemented. During 1993-1994 academic year, RSHS became fully operational with approximately 700 students enrolled from the freshman through the fifth year of the entry-level master’s degree programs.

Duquesne University is proud of its association with Allegheny General Hospital, The Mercy Hospital of Pittsburgh, St. Francis Medical Center, the South Hills Health System, Newswave Rehabilitation Center, Inc., and Forbes Health System, among others, which provide unique clinical experiences for health sciences students. In addition, many private practitioner groups, such as The pt Group Associates in Physical Therapy, have contributed significantly to the development of the RSHS.

These health professions provide respected, satisfying, rewarding careers for thousands of Americans. Yet, as their services come into increasingly greater demand, health care professionals are finding that their ranks number far too few. The U.S. Bureau of Labor Statistics predicts that by the turn of the century, some 200,000 vacancies will exist in the health care professions. These areas of occupational and physical therapy alone are expected to require over 80 percent more trained professionals by the close of the decade. The need for these highly qualified individuals is clearly not in dispute and projected changes in the health care system may actually further increase their need.

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. As with all academic programs at Duquesne University, moral and ethical values support the scientific underpinning of all academic programs. Curricula provide opportunities to develop comprehensive backgrounds for clinical practice and to support future work in advanced graduate education, research, and scholarship. Graduates are prepared for careers in athletic training, health information sciences, occupational therapy, perfusion technology, physical therapy, and physician assistant.

Health professionals who graduate from the Rangos School of Health Sciences possess the characteristics of leadership, expertise, initiative, responsiveness, and profound moral and ethical respect for their patients, professional colleagues, and the general public.
PHILOSOPHY
The Rangos School of Health Sciences was founded in accord with the educational philosophy and objectives of the University. Students in the Rangos School of Health Sciences will be exposed to a broad liberal arts education with an emphasis on understanding the scientific, theoretical and theological constructs of the world. The academic programs will focus on the scientific theories which support the practice of the various professions, coupled with a strong appreciation and understanding of human values and quality of life.

The education of medical practitioners in the United States has evolved from a system of apprentice learning to educational programs focused by advanced scientific technological development. A massive, complex health care system is undergoing reorganization and re-orientation of the programs and roles of health care practitioners. A new mixture of generalists and specialists will be needed to be organized to adapt to new delivery systems and the projected health care demands of our society.

To this end, the Rangos School of Health Sciences will provide students with in-depth scientific knowledge of medical practice with a rich infusion of the theoretical and ethical values necessary to be competent health care professionals. Through this preparation, students will become cognizant of the needs of the individuals with whom they work, and the health care systems in which they practice.

Students will also develop an understanding of the research procedures and protocols necessary to advance the body of knowledge in their respective professions. In all aspects of the students' education, prevention and health promotion will be coupled with an awareness and sensitivity of the human response leading to functional and social limitations. The ultimate goal of the educational programs in the Rangos School of Health Sciences at Duquesne University is to educate truly outstanding health care professionals capable of explaining, investigating and delivering the highest level of quality care with kindness, dignity and responsibility.

ACCREDITATION
The RSHS has been successful in working toward accreditation for each of its programs and does not expect any circumstance which would preclude accreditation. Currently, the occupational therapy, perfusion technology, physical therapy and physician assistant programs have achieved full accreditation status. All other programs are on schedule to complete the accreditation process as they prepare to graduate their first classes of students. Each program must be accredited in order for its students to be eligible to take the appropriate certification, licensure, or registration examinations upon graduation. Specific information regarding the status of accreditation can be obtained from the respective Department Chairman or the Dean.

Academic Programs and Degrees

General Information
Bachelor's Degree Programs
The RSHS offers four-year bachelor's degree programs in athletic training (BS in Athletic Training), health management systems (BS in Health Management Systems), and perfusion technology (BS 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 pursue a Master of Health Management Systems degree.

Entry-Level Master's Degree Programs
The RSHS offers five-year entry-level master's degree programs in occupational therapy (M.O.T.), physical therapy (M.P.T.) and physician assistant (M.P.A.) Health management systems students anticipating baccalaureate graduation through May 1998, 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-year model is unique for these professions and provides the RSHS faculty the opportunity to maximize the excellent core curriculum and science offerings at Duquesne as the basis for creative, professional curricula. All of the five-year entry-level master's degree programs 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 will 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's in Health Management Systems program is a 24-month, project-oriented, real-world, problem-based curriculum for executive-level health management systems professionals. 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.

Graduate course work is organized around three core disciplines, and interdisciplinary knowledge and skill. Part-time students may participate in many graduate courses in a distance-learning mode via the Internet. A flexible schedule is also available for students with work obligations.

For further information, please contact the Department of Health Information Sciences at (412) 396-4772.

J终端 Degree Programs
The RSHS offers joint degree programs to currently enrolled RSHS students. Students must formally apply for these programs. These joint degree programs are not offered to students seeking initial admission into the RSHS.

Majors in athletic training have the opportunity to complement their degree with a Master of Science in Education. With this degree opportunity, students may be eligible to participate in the Master's degree program as well. Majors in physical therapy have the opportunity to complement their degree with a Master of Science in Occupational Therapy. With this degree opportunity, students may be eligible to participate in the Master's degree program as well.

In addition, on a very limited basis, athletic training majors may enroll in the joint degree program with the Department of Physical Therapy, and physical therapy majors may enroll in the joint degree program with the Department of Athletic Training.

For further information, please contact the Department of Health Information Sciences at (412) 396-4772.

Academic and Program Requirements for Entry to the Professional Phase

IMPORTANT NOTE: Academic and program requirements for entry to the professional phase are subject to change at the discretion of the RSHS faculty.

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, as set forth by their respective departments, will be subject to dismissal, at the discretion of the Department.

All six programs within the RSHS guarantee entry into the professional phase to all students who meet all academic and program requirements while in their pre-professional phase. Students must First

1. They entered Duquesne University as freshmen.
2. They earned 60 or more credits at Duquesne University.

Those transfer students who earn less than 60 credits at Duquesne University and meet all academic and program requirements while in their pre-professional phase, will be reevaluated along with new applicants, for entry into the professional phase. Given comparable credentials, Duquesne University students will be reviewed favorably over outside candidates. Some program requirements vary. In order to progress from the pre-professional to the professional phase, all students must have completed all curricular requirements, including at least 2.5 cumulative QPA both at Duquesne University and within the RSHS, a “C” or better in all RSHS Science, Math and Humanities, Business (HMS), and Medical Sciences courses, and a “B” or better in ATHTR 201 Essential Concepts and Techniques in AT.

2. Documentation of current CPR Certification

3. Documentation of shadowing/mentoring, volunteer, or paid experience in the student's field of study. For athletic training students this must include documentation of observation and/or work completed. For health management systems, occupational therapy and physical therapy students, this must include documentation of shadowing, volunteer, or paid experience in their respective field. For occupational and physical therapy, a minimum of 250 hours in a minimum of two different clinical sites is required. For perfusion technology students, this must include documentation of observing an open-heart procedure or shadowing a perfusion technician. For physician assistant students, this must include documentation of current clinical mentoring/shadowing experiences in the company of a practicing physician assistant. Physician assistant applicants should have a minimum of 720 contacts totaling 24 shadowing hours. Students will receive a Shadowing/Protocol Packet from the Department prior to the PA interview.

Admissions Policies

GENERAL INFORMATION

Please note that admissions policies are subject to change at the discretion of the RSHS and the Office of Admissions.

Students will only be considered for admission into one specific program. Students are not able to apply to the RSHS as undecided. Students may apply to all RSHS programs for the fall semester, only. The student is responsible for the student to be entered directly into the professional phase of the occupational therapy or the physician assistant program, which both begin in the summer term.

Increased time required for international correspondence and the gathering of translated materials for further information, prospective international students should contact the Office of International Education at 412-396-6652 or by calling (412) 396-6652. The Office of International Education at 412-396-6652 or by e-mailing international.admissions@duquesne.edu. The Office of International Education at 412-396-6652.

All prospective international transfer students must schedule an appointment with the RSHS academic advisor to discuss their academic and professional performance requirements or skills. The student is responsible for determining whether or not the student is ready to pursue a professional degree.

All prospective international transfer students must submit an essay in English, the student will be enrolled in a given semester will also depend upon these results. Since English is the language of instruction at Duquesne University, students assigned to ESL courses are not permitted to withdraw from these courses without the student's permission. Such students may, however, make adjustments in any academic coursework that they have been cleared to carry together with ESL coursework. All course adjustments, ESL or academic, should be coordinated with the ESL Director, since they can affect both academic and immigration status.

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 regulation processes. 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.

Students are required to submit this information in writing, and provide official documentation of the disability, along with a list of helpful accommodations, so that future academic requirements can be planned in an effective manner. Information that is confidential will be shared ONLY with faculty (academic and clinical) or other instructors who guide and/or evaluate the student’s academic and clinical performance or who must work with accommodations initiated by the student. 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. RSHS students are encouraged to develop their
own self-advocacy skills regarding their disabilities and accommodation needs in order to prepare for productive engagement in their academic work and future professional roles.

**Waitlist Process**

Once spaces have been filled in a particular program, qualified students will be selected for placement on a waitlist if the 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 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 classes to provide them an opportunity to reactivate their applications for another year.

**Changes in Admissions/Enrollment Status**

An offer of acceptance into a particular RSHS program (i.e., athletic training), class level (i.e., as a third year student), or academic year (i.e., Fall 1995) is only valid for that respective program, class level or academic year. All students should be aware that, due to space restrictions, acceptance or enrollment into one program, class level or academic year does not ensure acceptance into another program, class level or academic year. Therefore, any student who wishes to change his/her status must contact the Office of Admissions to discuss their intentions as soon as possible, and the change should be requested to complete additional application materials.

Incoming freshmen seeking to make such a change should contact the Office of Admissions to discuss their intentions as soon as possible, and by July 1 of their senior year at the latest.

Internal transfer, transfer and second degree students, as well as current RSHS students seeking a program or class level change, should make their requests in writing to a RSHS academic advisor. The RSHS will only accept these written requests of any student who wishes to change his/her status.

1. The week of December 1
2. The week of April 15
3. The week of July 1
4. The week of August 15

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 applications to the occupational therapy and physical therapy programs must be completed and received by January 15. This is the only deadline for these two programs.
2. Admission to the athletic training, health management systems, perfusion technology and physician assistant programs is by EITHER Early Decision or Regular Decision. The student or the student's representative should complete all application materials, and apply for financial assistance in the event the student will later be offered a space.
3. All qualified students whose applications are submitted by January 15 will be reviewed for scholarship consideration.

**Admissions Criteria for Freshmen**

Freshmen admissions will be on a selective basis as long as space permits. Prospective freshmen should have graduated from an accredited secondary school and demonstrated exemplary personal conduct in that institution. Applicants who have not completed four years of high school must submit an official High School Equivalency Diploma issued by their state department of education.

The Office of Admissions will review all freshmen applications based on the following guidelines established by the RSHS:

**All candidates for physical therapy 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). 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.

b. A class rank in the top two-thirds of their graduating class.

c. A G.P.A. of at least a 3.0

d. A composite SAT score of at least 1000 or a composite ACT score of at least 24.

All candidates for programs other than physical therapy 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). 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.

b. A class rank in the top three-fifths of their graduating class.

c. A G.P.A. of at least a 2.5

d. A composite SAT score at least 1000 or a composite ACT score of at least 24.

Prospective freshmen who do not meet the above criteria will still be considered for admission, based on the quality of their overall application.

Although volunteer experience in the field to which they are applying is not required for the admission of freshmen applicants, it is highly recommended. By volunteer experience, the RSHS refers to any shadowing, observational, volunteer or paid experience, in any environment where students can work with a professional in their chosen field.

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**

Credit by examination and challenge examinations are one and the same. Both refer to examinations for recognition of proficiency and credit in a subject area. These examinations are available only to currently enrolled students who by previous experience or course have acquired mastery of the subject matter. The examinations should be taken at least one semester/term prior to the semester/term the student is expected to take the course.

Some departments do not offer courses through credit by examination. 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 course which can be challenged, and each Department is responsible for administering its own examinations.

It is the student's responsibility to contact the School or Department involved to determine the availability of these examinations. Applications for credit by examination may be obtained from the Registrar's Office. A minimal fee per credit is charged. Advanced standing credits will be awarded for successful completion.

**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 grade is "C" or better
3. The student has completed one semester/term at Duquesne with a "C+" average or better.

**Advanced Standing Freshmen**

Any student who indicates any past or current college credit (excluding advanced placement, CLEP credits or University-level courses taken while in high school) must follow the guidelines listed for transfer and second degree candidates in applying to the HSRS. Once his/her complete application has been submitted, an official transcript credit evaluation will be completed in order to determine the student's prospective class level. In general, only those candidates who will have earned 12 or fewer non-creditable 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 occupational therapy and physical therapy programs must be completed and received by December 1.
2. All applications to the athletic training, health management systems and perfusion technology programs must be completed and received by July 1.

Students may transfer into any program at any level, based on earned 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 are considerations.

Information regarding the materials needed for an application to be considered complete can be found in the "Admissions Criteria" sections which follow admission of the transfer level is extremely competitive due to severe space limitations in all programs. Therefore, all applicants are encouraged to complete the entire application process as early as possible.
Internal transfer, transfer and second degree candidates will be considered for admission on a selective and competitive basis as long as space permits in each program. The RSHS does not expect to review any applications received after July 1.

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/have the following by the application deadline:

1. The application form(s)
   a. Internal Transfers — Must contact a RSHS academic advisor in the RSHS Office of the Dean for an Internal Transfer Application. Internal transfer candidates for the occupational therapy, physical therapy, and physician assistant programs should meet with a RSHS academic advisor no later than the end of September or mid-October.
   b. Transfers and Second Degrees — Must contact the Office of Admissions for the standard undergraduate admissions application (excluding the personal statement on the back of the application and the letter of reference). Applicants to the advanced master's program in Health Management Systems should contact the Department of Health Information Sciences at (412) 396-4772.

2. The addendum
   a. A critical self-evaluation of their qualifications to enter their respective program.
   b. A complete summary of all health care experiences in the student's field of study indicating the specific number of hours spent in the facility, where, when, under whose supervision (including supervisor's signature and license number, if applicable), and the types of responsibilities or observations. For athletic training, students must include documentation of observation and/or work in athletic training.
   c. For health management systems, occupational therapy and physical therapy, students must include documentation of shadowing, volunteer or paid experience in their respective field. For occupational and physical therapy, a minimum of 250 hours in a minimum of two different clinical sites is required for perfusion technology students. For those students who have had a minimum of 240 hours of shadowing a perfusion technologist, this must include documentation of recent clinical experiences on the job site and/or shadowing a perfusion technologist. For physician assistant students, this may include documentation of recent clinical experiences. A "C" or better in all RSHS Science, Math, and Humanities (HMS), and Medical Sciences courses is required.
   d. GREs 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 GPA of at least a 3.0, have "A" and "B" grades in course work and have extensive volunteer/professional experience.

3. Prospective students who do not meet the above criteria may still be considered for admission, based upon the quality of their overall application.

Guidelines for the Evaluation of RSHS Transfer Credits

1. Only courses completed with a "C" or better will transfer. The University does honor "A" and "B" grades, with the exception of the "C" which is unacceptable according to University policy.

2. Only those courses and credits pertinent to the student's particular program will be transferred and considered toward the student's "RSHS Matriculation GPA." Some pre-professional courses (e.g., Anatomy, Kinesiology) may need to be completed through the RSHS program once the student has been accepted.

3. In accordance with University policy, once a prospective student has earned 60 or more college credits (regardless of where, or whether or not these credits are considered transferable to a RSHS program), he/she must transfer any additional credits from a four-year institution. If the course work beyond the 60 credits may not come from an accredited community or two-year college, exemptions from this policy may be considered by the appropriate Department Chairman once a student has completed his/her application.

4. According to University policy, no developmental or preparatory courses are considered transferable. Generally, these are courses below the 100 level which are intended to strengthen a student's background in preparation for college-level courses. In particular, students should be certain that any science courses are those for science majors, and not preparatory or non-science major courses.

5. Each Department has its own policy in regard to course waivers or challenges within the professional phase.

6. A ten-year statute of limitations has been established for all science courses which include laboratories. Students who have had the required laboratory science courses more than ten years prior to seeking admission to the RSHS, are normally required to retake these courses.

7. Some pre-professional courses may not be available at outside institutions. These may need to be completed through the RSHS.

8. Students with any transfer credits or previous degree are all considered transfer students and will be considered for admission as under graduates. These students should check with an academic advisor in the Office of Admissions before applying.

Special Notes To Transfer and Second Degree Students

1. Students with any transfer credits OR ANY PREVIOUS DEGREE, are all considered transfer students, and will be considered for admission as under graduates. These students should check with an academic advisor in the Office of Admissions before applying.

2. All transfer and second degree students must carefully investigate the financial implications of the transfer process, the possibility of losing credits due to lack of transferability, and the fact that, regardless previous credit level or degree earned, they are still seeking admission as under graduates.

3. Having the appropriate science course work within the appropriate sequence facilitates transferability in general, all RSHS freshmen complete all General Biology and General Chemistry requirements. All RSHS sophomores complete General Physics, Anatomy and Physiology I and II, and Introduction to Microbiology for physician assistant and physical therapy. If a transfer student hopes to transfer into a particular year of a RSHS program, he/she should make sure he/she has already completed the appropriate sciences for previous class levels.
ADMISSION

Students who are no longer enrolled, but had previously attended or graduated from Duquesne University, must fill out the "Application for Readmission" available through the Office of Admissions. Students who have completed 12 credits or less at another institution(s) since leaving Duquesne, are considered "straight readmits," their applications for readmission will be forwarded to, and handled by the RSHS as internal transfer candidates. These students should follow the guidelines listed under the section "Admission of Internal Transfer, Second Degree Candidates." Students who have completed more than 12 credits at another institution(s) since leaving Duquesne, are handled by the Office of Admissions. These students should follow the guidelines listed under the section "ADMISSION OF INTERNAL TRANSFER, TRANSFER AND SECOND DEGREE CANDIDATES." STUDENTS SHOULD REALIZE THAT THE POSSIBILITIES FOR READMISSION TO THE RSHS ARE VERY RESTRICTED DUE TO EXTREME COMPETITIVENESS AND SEVERE SPACE LIMITATIONS IN ALL PROGRAMS.

EDUCATIONAL EXPENSES AND FINANCIAL AID

ADDITIONAL EDUCATIONAL EXPENSES FOR RSHS STUDENTS

Pre-Professional Phase

In general, students in the pre-professional phase are expected to spend $500 - $600 per year for books and other school supplies. Students in their final year within the pre-professional phase will also need to meet the program requirements for entry into the professional phase (i.e., C P R, physical examination and immunizations).

Professional Phase

Students enrolled in the professional phase can expect to spend anywhere from $250 to $500 a semester for books, other school supplies, and research projects. Additional expenses for all programs may also include the purchase of a lab coat and lab clothes, medical instruments for laboratory work or professional practice, clinical education costs (i.e., travel and living expenses), and fees for certification, licensure and registration. Information on required supplies will be provided to all students 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 most financial aid and scholarship opportunities and athletic eligibility requirements require students to carry and earn specific credit loads and Q P A's. It is the student's responsibility to investigate these requirements and work with his/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 for subsequent years. In general, most students who are seeking financial assistance must successfully complete at least 12 credits each semester, and at least 24-30 credits over the course of the academic year (includes fall, spring, and summer). Students should consult the Office of Financial Aid for further information regarding their personal financial situation and the appropriate credit level for their financial needs.

The University makes the following distinctions in regard to undergraduate student classification for financial aid, all based on credit level: Freshman 0-29 credits completed Sophomore 30-59 credits completed Junior 60-89 credits completed Senior 90 or more credits completed

THE RSHS, HOWEVER, CLASSIFIES STUDENTS BY CLASS LEVEL, (i.e., as a second-year student), rather than credit level. In regard to financial eligibility, it is common for transfer and second degree students to financially be considered by the University under one classification (i.e., as a junior), but academically considered by the RSHS under another classification (i.e., as a second-year student within a RSHS program). For example, if a student has 64 credits completed upon matriculation to the RSHS, but has all her/his science courses left to complete, she/he may have been admitted into the second year of the program rather than the junior year. Her/his credit level might indicate Students should carefully investigate any financial implications involved in such a situation.

Summer Course Work

Students should be aware that while aid may be available for summer course work, use of aid during the summer may simply reduce aid that would normally be available during the fall and spring semesters. Students should carefully investigate any financial implications resulting from required or elected summer course work.

Internal Transfer, Transfer and Second Degree Students

Internal transfer and transfer students should be aware of the financial implications involved with any subsequent loss of credits and/or credit level as a result of transferring. Please refer to the previous section "FINANCIAL IMPLICATIONS OF STUDENT CLASSIFICATION AND ACADEMIC LOAD." Internal transfer students should also be aware that the tuition and fee rates for the RSHS are slightly higher than the general University rates and will therefore affect the calculation of students' financial aid packages.
Second degree candidates should carefully investigate the financial implications involved with matriculating to the RSHS. Students interested in any of the RSHS programs as undergraduates should contact the Office of Financial Aid regarding their eligibility for aid as graduate students, particularly in light of the high credit loads and summer course work involved in the final year of the professional phase.

ADDITIONAL FINANCIAL ASSISTANCE IN THE PROFESSIONAL PHASE

Students in the professional phase also may wish to take advantage of other financial aid opportunities such as grants and scholarships offered through professional associations, and institutional employment contracts available through individual health care providers. Students should be aware that many of these opportunities require the students’ respective academic programs to be fully accredited.

Grants and Scholarships

Students may be able to obtain grants or scholarships from corporations, community or civic groups, philanthropic and religious organizations, governmental, state, and federal organizations such as the Veteran’s Administration Health Professionals Educational Assistance Programs or the National Health Service Corps Scholarships Program. Information about these opportunities may be obtained by writing to the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314 or by calling (703) 684-2789.

Physician Assistant

The Physician Assistant Foundation (PAF) Scholarship Program assists physician assistant students with expenses related to their studies. The PAF Awards Committee reviews all applications and chooses scholarship recipients. Additionally, the American Academy of Physician Assistants (AAPA) and the Association of Physician Assistant Programs (APAP)’s President’s Scholarship Awards provide $1,000 scholarships to first-year professional phase physician assistant students. The Pennsylvania Society of Physician Assistants (PSPA) provides a $500 scholarship to one clinical year student. Applications are made directly through the Department Chairman. Students may contact the Department of Physician Assistant at (412) 396-5914 for more information.

Physical Therapy

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Asthmatic Training

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independent sports clubs all require the on-site ser-

tainers have been providing care and services for

er athletes and other physically active individuals for

The responsibilities of the athletic trainer are prevent-

tion, first aid and emergency care, evaluation of

injury, design and implementation of treat-

ment and rehabilitation programs, and preparation of

thletes for return to competition using flexibility,

strength, and cardiovascular programs designed

specifically for the individual athlete. Athletic

trainers work under the supervision of physicians

and have found employment in athletic programs,

schools, hospitals, sports medicine clinics, and

private industries.

The athletic training program at Duquesne Univer-

sity provides students with a comprehensive basic

science background, a general liberal arts core,

classes, and specific comprehensive course work in

athletic training which includes cadaver dissection,

exercise physiology, therapeutic modalities, ther-

apeutic exercise and reconditioning, as well as

advanced clinical skills and information. In this four-

year bachelor's degree program, students are

presented with opportunities to pursue clinical

experiences at the collegiate, secondary, profes-

sional, and clinical settings, as well as work with

athletes of the opposite gender and with varying

levels of skill.

A student enrolled in this program also has the

option to complement the bachelor's degree with a

Master of Science in Education. Through this joint

degree opportunity, students may become eligible

for professional teaching certification in the areas of

Mentally and Physically Handicapped, Ele-

mentary Education, Secondary General Science, and/or

Secondary Biology Education. Also, on a very

limited basis, athletic training students may enroll in

the joint degree program with the Department of

Physical Therapy, leading to a Bachelor of Science in

Athletic Training and a Master of Physical Therapy.

ATHLETIC TRAINING CURRICULUM

PRE-PROFESSIONAL PHASE SAMPLE

PROGRAM - 63 CREDITS

In most cases, courses listed in all caps must be

taken in the exact semester indicated, all other

classes are interchangeable.

Fall of First Year - 14 Credits

101 HEALTH SCIENCES ORIENTATION

101 THINKING & WRITING ACROSS THE CURRICULUM

121 GENERAL CHEMISTRY I

122 Basic Philosophical Questions

100 Elements of Computer Science

110 Computer Applications Lab

Fall of Second Year - 17 Credits

105/105L, 200/201, 202/203, 204/205, 207/208, 209/210, CHEM 305

Spring of Second Year - 16 Credits


Fall of Third Year - 16 Credits

111/111L, 211/212, 213/214, 215/216, 217/218, 219/220

Spring of Third Year - 16 Credits


Fall of Fourth Year - 16 Credits

113 PHYSIOLOGY OF EXERCISE

111 CURRENT ISSUES IN AT

114 PSYCHOLOGY OF SPORT

110 CLINICAL PRACTICUM IN AT III

112 ORGANIZATION & ADMINISTRATION IN AT

Spring of Fourth Year - 16 Credits

112 TOPICS IN PHARMACOLOGY

111 NUTRITION & WEIGHT MANAGEMENT IN SPORT

111 ADVANCED CLINICAL PRACTICUM IN AT

111 MEDICAL PERSPECTIVES IN AT

111 DEVELOPMENT OF FITNESS/PERFORMANCE

SCHOOL OF HEALTH SCIENCES

ATHTHR 201 Essential Concepts & Techniques in Athletic Training 3 crs

An introduction to the basic and essential elements of athletic training, including emergency manage-

ment, recognition, evaluation and follow-up care for

injury and illness. Environmental effects on the

body, treatment protocols, taping techniques, and

other fundamental concepts related to athletic

injury care are discussed as they relate to preven-

tion and management. Corequisite BIOL 207/208.

ATHTHR 302 Art & Science of Athletic Training 1 3 crs

This course provides students with opportunities
to learn evaluation techniques, and recognize special

problems and injuries of the lower extremity. Also

included is a review of initial management of sports

injuries of the lower extremity and the appropriate

selection of special equipment and devices. Prereq-

quisite ATHTHR 201.

ATHTHR 303 Art & Science of Athletic Training 2 3 crs

This second part of the course is designed to pro-

vide students with learning experiences in evalua-
tion techniques, recognition of special considerations

and injuries of the upper extremity. Injuries

management of the internal organs also are pre-

sented in this course. Prerequisite ATHTHR 302.

ATHTHR 305 Personal & Community Health 3 crs

This course presents a stimulating and realistic

approach to understanding contemporary health

problems in the areas of personal and community

health. Also stressed are the practical applications

of health principles to relevant personal and com-

munity settings.

ATHTHR 306 Therapeutic Exercise & Reconditioning in Athletic Training 4 crs

In this course, students are instructed in the basic

components needed to develop a comprehensive

rehabilitation program and to distinguish between

the rehabilitation and reconditioning needs of a

physically active individual. Topics include use of

functional testing equipment, manual muscle

testing, contemporary immobilization techniques,

ambulatory aids, exercise progressions and pro-

tocols. Prerequisites BIOL 207/208, 209/210, HLTS

305/307L. ATHTHR 302.

ATHTHR 307 Physiology of Exercise 3 crs

This course includes lectures, assigned readings,

and lab exercises to aid in scientific evaluation of

effects of muscular, cardiovascular and respi-

atory activity upon the human mechanism as a

whole. Applications are made specifically for pro-

blems encountered by the athletic trainer. Prereq-

quisites BIOL 122/124, 207/208, 209/210, CHEM 121.
ATHTR 311 Current Issues in Athletic Training 3 crs
This seminar course includes a review of topical literature, political issues, and other contemporary concerns in the athletic training community. Students discuss and debate issues germane to physically active special populations which include geriatric, adolescent, pediatric, and mentally and physically handicapped individuals. Prerequisite: ATHTR 303

ATHTR 315 Clinical Practicum in Athletic Training I 2 crs
This practicum incorporates "hands-on" basic athletic training with team assignments. Student responsibilities include coverage for practice and games, as well as experiences found only in the training room. Taping techniques, record keeping, as well as recognition and management of injuries, are intricate components of this clinical practicum. Prerequisite: ATHTR 201

ATHTR 316 Clinical Practicum in Athletic Training II 3 crs
This is a continuation of the previous practicum, however, students now are able to apply knowledge gained from previous course work to develop rehabilitation and reconditioning programs for their athletes. Students also are responsible for writing case studies on injured athletes. Prerequisites: ATHTR 302, 315

ATHTR 402 Nutrition & Weight Management in Sport 3 crs
This course covers the essential nutrients, their physiological effects on the body, and the role these nutrients can play in a physically active individual's performance. Information on eating disorders, weight management, special dietary considerations, and ergogenic aids also is discussed. Prerequisites: CHEM 121, ATHTR 307

ATHTR 404 Psychology of Sport 3 crs
This course incorporates basic psychological principles and relates them to areas of concern found in sport. Topics include mental imagery, psychology of injury, self-efficacy, stress management and burnout, pain tolerance, gender roles, performance enhancement, and interactions. Prerequisite: PSYCH 103

ATHTR 406 Research in Athletic Training 3 crs
Students are exposed to the basic components of scientific research and become particularly familiar with the current trends in research in Athletic Training and Sports Medicine. As part of this course, students conduct individual or small group semester-long projects on topics of their choice in the area of Sports Medicine. Prerequisites: MATH 125, ATHTR 302

ATHTR 410 Clinical Practicum in Athletic Training III 4 crs
Students are deemed Head Student Athletic Trainers and are responsible for the total care of the assigned sports teams, including the implementation of rehabilitation and reconditioning programs. Preparations for the National Athletic Trainers' Association Board of Certification examination are made during this semester. Prerequisites: HLTS 425, ATHTR 303, 306, 316

ATHTR 411 Advanced Clinical Practicum in Athletic Training 4 crs
During this practicum, students may choose to work in either a sports medicine clinic or with an assigned athletic team. Preparations for the National Athletic Trainers' Association Board of Certification examination are made during this semester. This practicum may be interchanged in rotation with ATHTR 410. Prerequisite: HLTS 425, ATHTR 303, 306, 316

ATHTR 412 Organization & Administration in Athletic Training 3 crs
This course is designed to provide the student with information that will enhance his/her ability to function effectively as a professional athletic trainer and to enhance his/her awareness of current administrative, professional, organizational, and legal issues pertaining to athletic training. Topics include budget management, facility design, record keeping, professional organizations, liability, 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 medical topics in areas such as orthopedics, OB/GYN, dentistry, family practice medicine, podiatry, physical therapy, dermatology, health records, 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

ATHTR 416 Development of Fitness/Performance 3 crs
Expanding upon the basic principles learned in ATHTR 306 and 307, students are presented with the basic concepts for evaluation, conditioning and strength training, and are asked to apply these concepts to develop programs which encompass the unique physical requirements of a variety of sports. Prerequisite: ATHTR 306, 307

DEPARTMENT OF HEALTH INFORMATION SCIENCES (HIS)

Chairman
Sean McLinden, M.D.

Innovative methods for managing health care information are critical to solving the challenging problems posed by our nation's health care system. The amount of information comprising billions of documents are processed daily in the routine processing of health care, in the processing of claims for payment, and in the strategic management and control of the health care business enterprise. This information must be more complete, more accessible, and more systematic than ever before. The role of the technical professional in many organizations, particularly in the rapidly evolving environment of health care delivery.

HEALTH MANAGEMENT SYSTEMS CURRICULUM —
BACHELOR'S DEGREE PROGRAM

PRE-PROFESSIONAL SAMPLE COURSE PLAN — 64 CREDITS

In most cases, courses listed in all caps must be taken in the exact semester indicated, all other classes are interchangeable.

Fall of First Year — 16 Credits

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>101 HEALTH SCIENCES ORIENTATION</td>
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<tr>
<td>102 THINKING &amp; WRITING ACROSS THE CURRICULUM</td>
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<tr>
<td>111 CALCULUS FOR NON-SCIENCE STUDENTS</td>
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<tr>
<td>182 INFORMATION SYSTEMS I</td>
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<tr>
<td>221 PRINCIPLES OF ECONOMICS I</td>
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<td>300 Basic Philosophical Questions</td>
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Spring of First Year — 16 Credits

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<tr>
<td>102 IMAGINATIVE LITERATURE &amp; CRITICAL WRITING</td>
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<tr>
<td>121 GENERAL CHEMISTRY I</td>
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<tr>
<td>182 INFORMATION SYSTEMS II</td>
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<tr>
<td>222 PRINCIPLES OF ECONOMICS II</td>
</tr>
<tr>
<td>411 Social, Political &amp; Economic Systems</td>
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Fall of Second Year — 16 Credits

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<th>Course</th>
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<tbody>
<tr>
<td>122 ETDYMOLOGY OF SCIENTIFIC TERMS</td>
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<tr>
<td>281 QUANTITATIVE ANALYSIS I</td>
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<tr>
<td>214 FINANCIAL ACCOUNTING</td>
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<tr>
<td>207 ANATOMY &amp; PHYSIOLOGY I</td>
</tr>
<tr>
<td>208 ANATOMY &amp; PHYSIOLOGY I LAB</td>
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<td>161 The Arts &amp; the Human Experience</td>
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Spring of Second Year — 16 Credits

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<th>Course</th>
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<tr>
<td>224 QUANTITATIVE ANALYSIS II</td>
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<tr>
<td>215 MANAGERIAL ACCOUNTING</td>
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<tr>
<td>209 ANATOMY &amp; PHYSIOLOGY II</td>
</tr>
<tr>
<td>210 ANATOMY &amp; PHYSIOLOGY II LAB</td>
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<tr>
<td>187 Christian Understanding of the Human Person</td>
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<tr>
<td>151 Shaping the Modern World</td>
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</tbody>
</table>
Professional Phase - 65 Credits

Fall of Third Year - 16 Credits
331 Business Finance 3
361 Introduction to Management 3
371 Introduction to Marketing 3
460 Computer Applications Development I 3
455 Health Care Delivery & Organizations Project I 3
445 Health Management Systems Seminar 1

Spring of Third Year - 14 Credits
251 Business Law 3
306 Physiology 4
461 Computer Applications Development II 3
570 Software Engineering/Project Management 3
446 Health Management Systems Seminar 1

Summer of Third Year - 5 Credits
418 Aspects of Community Health & Resources 2
313 Business Management for Health Professionals 2
447 Health Management Systems Seminar 1

Fall of Fourth Year - 15 Credits
470 Enterprise Wide Information Systems I 3
473 Comparative Health Care Systems 3
441 Medical Sciences I 3
501 Health Management Systems Project I 5
448 Health Management Systems Seminar 1

Spring of Fourth Year - 15 Credits
471 Enterprise Wide Information Systems II 3
368 Business Ethics/Communications 3
541 Medical Sciences II 3
502 Health Management Systems Project II 5
449 Health Management Systems Seminar 1

Electives - 9 Credits

In consultation with the Department of Health Information Sciences, and in accordance with their professional goals, students will choose three elective courses from those below.

Introduction to Total Quality Management 3
Business Ethics 3
Telecommunications 3
Decision-Making Heuristics & Expert Systems 3
Leadership 3
Modeling & Simulation 3
Health Care Legislation & Regulations 3
Health Care Financing 3
Comparative Health Care Systems 3
Enterprise Wide Information Systems I 3
Enterprise Wide Information Systems II 3

Completion of a minimum of 36 credits as indicated above will make a student eligible for a Master of Health Management Systems. Students may also opt to seek and be granted admission into the MBA program to complete the following additional coursework.

MBA Core I

504 Problem Analysis 3

MBA Core II

512 Accounting 2
513 Economics 2
514 Finance 2
371 Intro to Marketing 2
521 Environment of Business 2
524 Organizational Behavior 2

Core I

525 Business Problems 3

Core III (Electives)

4-3 credit courses 12

For further information, contact the Department of Health Information Sciences at (412) 396-4772.

Pre-requisites

Pre-requisite courses among those below will be selected by the Department of Health Information Sciences upon review of an individual student's background.

Information Systems I 3
Information Systems II 3
Financial Accounting 3
Managerial Accounting 3
Medical Sciences I 3
Medical Sciences II 3

Health Management Systems Core - 27 Credits

Computer Applications Development I 3
Computer Applications Development II 3
Legal Process & Reasoning 3
Health Care Administration 3
Information Systems Design/Software Engineering 3
Health Care Delivery & Organizations 3
Information Resource Management 3
Health Management Systems 3
Project I and II 6

Health Management Systems Electives - 9 Credits

In consultation with the Department of Health Information Sciences, and in accordance with their professional goals, students will choose three elective courses from those below.

Introduction to Total Quality Management 3
Business Ethics 3
Telecommunications 3
Decision-Making Heuristics & Expert Systems 3
Leadership 3
Modeling & Simulation 3
Health Care Legislation & Regulations 3
Health Care Financing 3
Comparative Health Care Systems 3
Enterprise Wide Information Systems I 3
Enterprise Wide Information Systems II 3

Completion of a minimum of 36 credits as indicated above will make a student eligible for a Master of Health Management Systems. Students may also opt to seek and be granted admission into the MBA program to complete the following additional coursework.

MBA Core I

504 Problem Analysis 3

MBA Core II

512 Accounting 2
513 Economics 2
514 Finance 2
371 Intro to Marketing 2
521 Environment of Business 2
524 Organizational Behavior 2

Core I

525 Business Problems 3

Core III (Electives)

4-3 credit courses 12

For further information, contact the Department of Health Information Sciences at (412) 396-4772.

School of Health Sciences
DEPARTMENT OF OCCUPATIONAL THERAPY (OT)

Chairman
Patricia A Crist, Ph D, OTR

Occupations are the essence of productive living. Occupational therapists focus on the occupations used by people to live full, independent, quality lives. Occupations or activities of daily living include work or education, self-care, play/leisure and the effect 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-determined balance of the three occupations from womb to tomb. Occupational competence is developed through the “whole person” including physical, psychological, emotional, social and cultural competencies as influenced by the person-environment-performance interaction. Occupational therapists promote self-determination by involving persons in choosing the activities which receive attention during service delivery. Removal of architectural barriers that hinder occupational performance, and provision of reasonable accommodations, such as rehabilitation technology or assistive living devices is addressed.

The variety of health care issues addressed by occupational therapists is exceedingly diverse and includes acute care, industrial rehabilitation, physical rehabilitation, mental health, long-term care, home care, community services, education, disease prevention and health promotion. Important concepts such as quality of life, productive function, independent living, full access, social integration, cultural identification and balanced lifestyles are central to the practice of occupational therapy.

As a result, graduates of this program must be able to evaluate emerging information, develop and share new knowledge, guide professional decisions, cooperate effectively with a variety of groups and serve as a professional leader and community advocate. These competencies are the essence of occupational therapy in the future and consequently, the principles guiding this curriculum.

The occupational therapy program at Duquesne University is a five-year entry-level master’s degree program. Transfer students are accepted on a space available basis. Graduates will be eligible to sit for the national certification examination administered by the American Occupational Therapy Certification Board and apply for state licensure, if required.

OCCUPATIONAL THERAPY CURRICULUM

PRE-PROFESSIONAL PHASE SAMPLE COURSE PLAN — 33 CREDITS

In most cases, courses listed in all caps must be taken in the exact semester indicated, all other classes are interchangeable.

Fall of First Year — 15 Credits

101 HEALTH SCIENCES ORIENTATION Cr
101 THINKING & WRITING ACROSS THE CURRICULUM 3
121 BIOLOGY I Diversity, Ecology, Evolution 3
122 BIOLOGY I LAB 1
121 GENERAL CHEMISTRY I 3
103 INTRODUCTION TO PSYCHOLOGY 3

Spring of First Year — 15 Credits

102 IMAGINATIVE LITERATURE & CRITICAL WRITING 3
122 BIOLOGY II Cells, Genetics, Development 3
124 BIOLOGY II LAB 1
122 GENERAL CHEMISTRY II 3
161 The Arts & the Human Experience 3

Fall of Second Year — 17 Credits

122 ETYMOLOGY OF SCIENTIFIC TERMS 3
207 ANATOMY & PHYSIOLOGY I 3
208 ANATOMY & PHYSIOLOGY I LAB 1
201 GENERAL PHYSICS I 3
225 DEVELOPMENTAL PSYCHOLOGY 3
151 Shaping of the Modern World 3

Spring of Second Year — 16 Credits

209 ANATOMY & PHYSIOLOGY II 3
210 ANATOMY & PHYSIOLOGY II LAB 1
125 FUNDAMENTALS OF STATISTICS 3
226 DEVELOPMENTAL PSYCHOLOGY II 3
141 Social, Political & Economic Systems 3
187 Christian Understanding of the Human Person 3

Fall of Third Year — 17 Credits

307 ANATOMY 3
305 OCCUPATIONAL THERAPY FOUNDATIONS 3
315 SOCIALIZATION & THE LIFE SPAN 3
352 Abnormal Psychology 3
132 Basic Philosophical Questions 3

Spring of Third Year — 13 Credits

306 PHYSIOLOGY 4
437 FUNCTIONAL KINESIOLOGY/ 438 BIOMECHANICS/LAB 2/1
353 HEALTH CARE ETHICS 3
100 Elements of Computer Science 2
110 Computer Applications Lab 1

SCHOOL OF HEALTH SCIENCES

PROFESSIONAL PHASE — 80 CREDITS

Summer of Fourth Year — 16 Credits

OCCTH 305 Clinical Education & Reasoning I 3

Fall of Fourth Year — 16 Credits

OCCTH 505 Clinical Education & Reasoning II 3

Spring of Fourth Year — 16 Credits

OCCTH 445 Activity Analysis and Adaptations 3

Summer of Fifth Year — 11 Credits

OCCTH 455 Clinical Education & Reasoning I 2

Fall of Fifth Year — 13 Credits

OCCTH 460 Sociocultural Diversity in Treatment 3

Spring of Fifth Year — 13 Credits

OCCTH 465 Clinical Education & Reasoning II 2

Fall of Sixth Year — 13 Credits

OCCTH 470 Research Project 2

OCCTH 475 Professional Performance 3

Spring of Sixth Year — 13 Credits

OCCTH 480 Research Project 2

OCCTH 485 Professional Performance 3

Summer of Seventh Year — 12 Credits

OCCTH 489 Supervised Practicum 3

Winter of Seventh Year — 12 Credits

OCCTH 490 Supervised Practicum 3

Spring of Seventh Year — 13 Credits

OCCTH 491 Supervised Practicum 3

Summer of Eighth Year — 12 Credits

OCCTH 500 Fieldwork 3

Winter of Eighth Year — 12 Credits

OCCTH 501 Fieldwork 3

Spring of Eighth Year — 13 Credits

OCCTH 502 Fieldwork 3

Course Descriptions for the Professional Phase

OCCTH 305 Occupational Therapy Foundations 3 Cr

Overview of the profession’s history, philosophies, organizations, roles and functions, standards, ethics, legal issues, and future directions. Introduction to basic library search processes and professional writing approaches. Prerequisite Junior in pre-professional occupational therapy program.

OCCTH 410 Life Span Occupational Performance 3 Cr

Occupational performance across the life span in activities of self-care, work/education, and play/leisure activities involving persons-environment-performance interaction will be explored. Personal performance components (psychological, physiological, sensory, neuromotor, and cognitive), and environmental components (cultural, physical and social) are included. Prerequisite OCCTH 305

OCCTH 435 Occupational Performance Assessment 3 Cr

Introduction to tests and measurements including theories, methods, scales, procedures, statistics, interpretation and evaluation. Assessment of occupational performance and the performance components will be presented. Prerequisite OCCTH 305

OCCTH 440 Interpersonal Communication/Group Dynamics 3 Cr

Analyzing and directing interaction activities for therapeutic and supervisory functions. Application of group theories, development, and processes. Prerequisite OCCTH 305

OCCTH 445 Activity Analysis and Adaptations 3 Cr

Introduction to activity analysis during occupational performance using a variety of therapeutic modalities specific to practice. Includes clinical teaching-learning processes. Prerequisites HLTSC 307/307L, 437/438, OCCTH 305

OCCTH 455 Clinical Education & Reasoning I 2 Cr

This seminar integrates previous curriculum information, explores clinical reasoning, and participates in clinical education. Focus will be on establishing therapeutic interactions, clinical observation, and case study methodology. Includes 40 hours of practicum. Prerequisites HLTSC 441 OCCTH 435, 445, 460

OCCTH 460 Sociocultural Diversity in Treatment 3 Cr

Therapeutic considerations in multicultural diversity and implications for health care service delivery. Diversity will include ethnicity, gender, cultural, socioeconomic, disability, and lifestyle aspects. Prerequisites OCCTH 305, 410, 440

OCCTH 505 Biomechanical Treatment 4 Cr

Biomechanical theories and intervention strategies in occupational therapy. Focus will be on the problems related to strength, endurance, joint function and voluntary control over movement. Orthotics, prosthetics, biofeedback, mobility equipment, ergonomics, and human factors will be introduced. Prerequisites HLTSC 306, 307/307L, 437/438, OCCTH 435, 445

OCCTH 510 Clinical Research Methods 3 Cr

Introduction to the research process in occupational therapy including design, data collection, ethics, and support resources. Prerequisites OCCTH 410, 435, 445

OCCTH 515 Clinical Education & Reasoning I 2 Cr

This seminar integrates previous curriculum information, explores clinical reasoning, and participates in clinical education. Focus will be on evaluation, treatment planning, and implementation, and documentation. Includes 40 hours of practicum. Prerequisites HLTSC 541, OCCTH 505
The last 6-week placement will provide a range of diagnoses and treatment in a variety of settings. Prerequisites: OCCTH 555, 556 & 557.

**OCCTH 550 Neuromotor & Sensory**

4 crs

Neuromotor and sensory theories and intervention strategies in occupational therapy. Focus will be on the application of sensory motor learning and movement, and specific developmental interventions such as neurodevelopmental treatment and sensory integration. Prerequisites: HTJSC 501, OCCTH 515.

**OCCTH 557 Cognitive Approaches**

3 crs

Cognitive and information processing theories and rehabilitation approaches in occupational therapy. Focus will be on development and re-learning of cognitive skills. Prerequisites: HTJSC 501, OCCTH 515.

**DEPARTMENT OF PERFUSION TECHNOLOGY (PERFT)**

Chairman:
Joyce A. D'Antonio, M.S., Ph.D.
Medical Director:
Ronald V. Pellegrini, M.D.
The Mercy Hospital of Pittsburgh

A perfusion technologist is a skilled health profession trained and educated specifically as a member of a healthcare 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. In addition to the operation of the heart-lung machine during surgery, perfusionists function in supportive roles in the medical situation where extracorporeal circulation is required.

The field of perfusion technology is regarded by many as a very demanding vocation, requiring maturity, dedication, integrity, discipline, and a mechanical aptitude. 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, students will receive a Bachelor of Science in Perfusion Technology and, after performing a required number of clinical perfusion cases under the supervision of a certified perfusionist, will be eligible to sit for the certification examination that is administered by the American Board of Cardiovascular Perfusion.

**PERFUSION TECHNOLOGY CURRICULUM**

**PRE-PROFESSIONAL PHASE SAMPLE COURSE PLAN — 60 CREDITS**

*Most courses listed in all caps must be taken in the exact semester indicated, all other courses are interchangeable.*

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PERFT 501 Introduction to Perfusion Technology</td>
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<tr>
<td>PERFT 502 Applied Perfusion Technology</td>
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**PERFUSION TECHNOLOGY COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE**

**PERFT 301 Introduction to Perfusion Technology**

This course introduces cardiopulmonary bypass practices and ethics. Emphasis will be placed on medical terminology, history of cardiac surgery, and introduction to Perfusion Technology.

**PERFT 302 Applied Perfusion Technology**

This course includes introduction to Perfusion Technology and the effects of artificial circulation on the body. Adequacy of perfusion will be discussed in relation to acid-base physiology, blood gas management, flow dynamics, hyperthermia, complement activation, and the use of mechanical assist devices. This course will provide detailed information on the principles of cardiopulmonary bypass and the pulmonary, renal, hematologic and autonomic nervous systems. Prerequisite: PERFT 301.

**PERFT 310 & 311 Observations in Perfusion Technology**

These mandatory experiences will provide opportunities for the student to observe cardiovascular surgical procedures at local clinical affiliation sites. Emphasis of the observations will be placed on the preparation and operation of extracorporeal devices. Co-requisites: PERFT 301, 302.

**PERFT 333 Business Management for Health Professionals**

Basic management skills including organization,
PERFT 300 Surgical Techniques 2 crs
Lectures and demonstrations relating to perfusion technology in the use of extracorporeal devices and monitoring instrumentation in controlled in vivo and in vitro laboratory environments will be presented. Technical writing and presentation skills, and computer literacy will be reinforced through completion of laboratory reports. Prerequisite: 301

PERFT 303 Cardiovascular Pathophysiology I 2 crs
Students will develop an understanding of pathologic conditions that exist in the cardiovascular system. Topics for discussion include normal cardiovascular physiology, acquired diseases and congenital anomalies as they pertain to adults. Specialized perfusion techniques and technical writing skills will be emphasized.

PERFT 302 Cardiovascular Pathophysiology II 2 crs
Students will develop an in-depth understanding of pathologic conditions that exist in the cardiovascular system. Topics for discussion include congenital anomalies, palliative, staged and total corrective procedures. Specialized perfusion techniques will be emphasized with relation to the cardiac and pulmonary pediatric patient, such as ECMO, cardiopulmonary bypass, cannulation, primes, transplantation, and ventricular assist devices. Prerequisite: 301

PERFT 401 Clinical Perfusion Technology 1 cr
This course provides the student with the opportunity to discuss and develop a strong understanding of the techniques employed during their clinical practicum, such as preparation of extracorporeal devices and monitoring instrumentation, in support of cardiovascular surgery. Lectures on care ethics will be included, and concepts related to the design and conduct of clinical research will be introduced. Technical writing skills will be emphasized through the completion of a research proposal. Prerequisites: MATH 125, 302, 303, 332

PERFT 402 Clinical Circulation Technology 2 crs
As a continuation of PERFT 401, this course is designed to further illustrate the applications of perfusion technology in cardio and extracorporeal operating room suite. Topics include cath lab procedures, dialysis, autotransfusion, transplantation (liver, heart, lung), and maintenance of implantable and external assist devices. Lectures on the analysis and interpretation of clinical research studies will be included. Technical writing and presentation skills will be reinforced through the completion of a research project. Prerequisite: 401

PERFT 410 Principles of Research I 2 crs
This course introduces students to the initial phases of the research process. Topics focus on concepts related to the design and conduct of clinical research including protocol development and methods of data collection. Technical writing and presentation of skills will be emphasized through the completion of a research proposal. Prerequisite: Math 125

PERFT 411 Principles of Research II 2 crs
This course introduces students to the final phases of the research process. Topics focus on concepts related to the analysis and interpretation of clinical research studies including computerized statistical analysis and communication of findings. Technical writing and presentation skills will be reinforced through the reporting of student research projects. Prerequisite: 410

PERFT 450 Clinical Practicum in Perfusion Technology 8 crs
Opportunity is given to acquire skills necessary for clinical perfusion technology. Students will perform clinical activities at several different affiliation sites under the direct supervision of a certified perfusionist. Major areas of experience will include applications of extracorporeal circulation for the adult and pediatric patients, emergency cardiopulmonary support, ventricular assist, and organ transplantation. Monitoring techniques will include hemodynamic measurements, temperature control, blood gas analysis, coagulation studies, and application of safety techniques. Students will be assigned to a clinical rotation schedule. Prerequisites: 401, 302, 303, 432, 501

DEPARTMENT OF PHYSICAL THERAPY (PT)
Chairman: Robert C. Morgan, Ph.D., PT

Physical therapy is the science and art of aiding the human body to maintain, recover, or improve its functional ability. 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.
SUMMER OF FOURTH YEAR - 13 CREDITS

PHYTH 432 Evaluation Methods II 3 crs
This course will serve to enhance and build upon the evaluation skills of Evaluation Methods I. Special emphasis will be placed on learning the evaluation and treatment skills for musculoskeletal dysfunction of the upper quarter. Specific joint examination procedures will be utilized. Prerequisite PHYTH 431.

PHYTH 447 PT Science I 4 crs
An introduction to basic procedures in physical therapy common to all areas of practice. Problem-solving techniques will be introduced to serve as the foundation for future course work. 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 460 Introduction to Research 1 cr
This course is the first in a four-part series of courses designed to introduce the principles of scientific inquiry. An overview of the basic elements of research will be reviewed especially as they pertain to research in physical therapy. The notion of a research hypothesis, its introduction, and the ethical aspects of research with human subjects will be discussed.

PHYTH 505 Exercise in Health & Disease 3 crs
An in-depth study of the body's physiological function during exercise and its capacities for exercise within the contexts of athletics, recreation, aging, disease prevention and rehabilitation. The role of the physical therapist in recognition, treatment, rehabilitation, prevention for cardiac and pulmonary pathologies from infancy through the older adult is emphasized. Prerequisite HLTSC 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. The student will continue to use problem-solving strategies to assess, set goals, plan and implement treatment for patients with musculoskeletal and neurological disorders under the supervision of physical therapy clinical faculty. Prerequisite PHYTH 441.

PHYTH 512 Clinical Education IIIA & IIIB 5 crs (each)
During this final phase of clinical education, the students will complete their professional training and become integral members of the health care team. This experience is designed to integrate the areas of didactic and laboratory education into clinical practice. Prerequisite PHYTH 511.

FALL OF FIFTH YEAR - 17 CREDITS

PHYTH 523 PT Seminar III 1 cr
The purpose of this course is to define the health care system, describe the current issues confronting the health care system, and to instill an awareness of the physical therapist about the need to understand and be able to function in the health care team. Prerequisite PHYTH 442.

PHYTH 524/525 PT Seminar IV & V 1 cr (each)
These seminars will be devoted to discussions relating to clinical and patient experiences which the students have encountered during their clinical affiliations. Prerequisite PHYTH 523.

PHYTH 533 Evaluation Methods III 3 crs
This course is a continuation of Evaluation Methods I. The major emphasis is on techniques to assess the lower quarter of the musculoskeletal system. Special emphasis will be given to gait evaluation, functional capacity evaluation, and specific joint evaluation procedures. Prerequisite PHYTH 432.

PHYTH 534 Evaluation Methods IV 3 crs
The major emphasis of this course is the evaluation of the neuromuscular system and analysis of movement dysfunction in normal and abnormal systems. The student will learn to select and perform appropriate evaluation techniques for patients with neurological dysfunction, interpret results of clinical findings, develop and prioritize priority lists, formulate treatment goals that are functional, and implement treatment plans. Prerequisites HLTSC 401, 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 or dysfunction. Special emphasis will be given to low-back pathology and its management. Work-hardening programs and life span changes will be included. Prerequisite PHYTH 448.

PHYTH 550 PT Science IV 4 crs
This course will cover theories of motor control, motor development, and motor learning, as these areas relate to the treatment of neurological dysfunction in all age groups. A problem-solving approach will be used as the students will make clinical decisions based on the integration of previous course work in basic and applied sciences. Approaches to therapeutic exercise will be examined and critically reviewed. Prerequisites HLTSC 501, PHYTH 549.

PHYTH 551 Special Topics in Clinical Neuroscience 4 crs
This course will provide the students with an in-depth understanding of the pathophysiology, clinical symptoms, and treatment of common neurologic disorders. Students will be expected to integrate the evaluation and treatment skills obtained in PHYTH 534 and 550 to make clinical decisions when presented with a wide range of signs and symptoms representing neurologic compromise. The student will be able to explore the issues of neuroplasticity, role of early intervention and other aspects relating to recovery of function.

PHYTH 561 Research Methods & Statistics 3 crs
This course is the second in a four-part series of courses designed to introduce the principles of scientific inquiry. These principles will be examined in lecture and then applied to the writing of an original research proposal. In addition, the course will examine experimental design and the appropriate statistics to use for the analysis of data. Prerequisite PHYTH 460.

PHYTH 562/563 Research Project I & II 2 crs (each)
These courses comprise the first two of a four-part series designed to introduce the principles of scientific inquiry. During these two courses the research proposed in the 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. Prerequisite PHYTH 561.

Summer of Fifth Year - 10 Credits

PHYTH 566 Clinical Education IIIB 5 crs

CARCOURSES DESCRIPITONS FOR THE PROFESSIONAL PHASE

PHYTH 411 Clinical Education I 2 crs
This is an introductory clinical experience, which will broaden the student's perception and understanding of the physical therapist's professional role. It is an early opportunity for the student to apply his/her current professional knowledge base using problem-solving strategies with assistance of physical therapy faculty. May attend these sessions.

PHYTH 421 PT Seminar I 1 cr
This course will be devoted to clinically-related discussion. The first part of the semester will be devoted to introducing the student to his/her professional and professional organizations. After mid-term the student is expected to raise relevant clinical issues for discussion. Other physical therapy faculty may attend and participate in the discussions.

PHYTH 422 PT Seminar II 1 cr
This course is a clinically-related seminar in which various topics will be discussed. The student should be prepared to raise issues of concern or interest in the clinical practice of physical therapy. Other physical therapy faculty may attend these sessions. Prerequisite PHYTH 421.

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, and ADL/Functional abilities. This course will consist of lecture and laboratory
COURSE PLAN —  THE PREPROFESSIONAL CURRICULUM (NCCPA)

A physician assistant is a skilled member of the health care team who practices medicine under the supervision and responsibility of a doctor of medicine or osteopathy, fulfilling a broad range of medical services which would otherwise be provided by a physician in accordance with state law. The physician assistant is qualified by academic and clinical training to perform initial and follow-up evaluations of the patient, elicit a detailed history, perform an appropriate physical examination, and record and present pertinent data including interpretive recommendations in a manner meaningful to the physician.

Additional tasks performed by the physician assistant include preparing patient summaries, collecting specimens, initiating requests for commonly-prescribed medications, performing an appropriate physical examination, and documenting associated with the traditional health history of the patient. This course addresses clinical skills and diagnostic modalities which will prepare the student for common professional responsibilities and practices in primary care. Prerequisite: PHYS 406

PHYS 413 Clinical Problem Solving I
3 crs

This course uses the teaching strategy of cooperative learning in analysis of primary care clinical case scenarios. Prerequisite: PHYS 401 Corequisite: PHYS 402

PHYS 415 Basic Pathology
4 crs

Principles of pathology beginning with cellular, organ, and systemic changes associated with the human disease process are introduced and discussed, as well as the mechanisms of the physiologic processes associated with the human disease processes. Prerequisites: HLTSC 305, 310, S10L, PHYS 406 Corequisite PHYS 401

PHYS 418 Aspects of Community Health & Resources
2 crs

Study of institutional and community-based primary care models is accomplished both in the classroom and by field experience.

PHYS 420 History & Physical Examination I
3 crs

A practical study of physical examination techniques of the adult patient combined with a systematic approach to history-taking, integration of examination systems, patient assessment, and documentation practices. Prerequisite PHYS 403 Corequisite PHYS 401

PHYS 421 History & Physical Examination II
3 crs

A practical study of physical examination techniques of the pediatric, geriatric, obstetric patient combined with a systematic approach to history-taking, integration of examination systems, patient assessment, and documentation practices. Prerequisites PHYS 401, 403 Corequisite PHYS 402

PHYS 425 Research Concepts & Skills
2 crs

This course introduces concepts and skills necessary for the conduct of a research project. Prerequisite: MATH 125

PHYS 505 Clinical Problem Solving II
3 crs

Students continue active learning in the cooperative teaching format engaging in analyses of surgical and primary care clinical case studies. Prerequisite: PHYS 413, 402 Corequisite: PHYS 520
SCHOOL OF HEALTH SCIENCES

PHYS 506 Clinical Problem Solving III 3 crs
The setting for this course is the clinical field site designated for supervised clinical practice and topics are based on actual patient care encounters. Prerequisite: PHYS 505, Corequisite: PHYS 530

PHYS 510 Health Policy and Preventive Medicine 2 crs
Course explores current trends, issues and public policies reflective of America's evolving health care system. Prerequisite: PHYS 418

PHYS 515 Fundamentals of Surgery 2 crs
Lecture series addresses preoperative, periparative and postoperative patient care and interventions. Prerequisites: HL/SC 305, 310/310L, PHYS 410, 411

PHYS 528-536 Clinical Externships I-IV 24 crs (total)
A series of supervised clinical externship assignments equal to 32 weeks in primary care, 12 weeks in non-primary care and an 8-week elective in either primary or non-primary care medicine. Prerequisite: Successful completion of didactic curriculum in the first professional year.

PHYS 540 Master's Independent Research Study 4 crs
The academic, independent research project conducted concurrently with supervised clinical externships also includes a series of preparatory workshops on perspectives of practice and professionalism. Prerequisite: PHYS 425

DEPARTMENT OF MILITARY SCIENCE ARMY OFFICERS' COMMISSIONING PROGRAM

Program
The Army Reserve Officers' Training Corps (ROTC) program has been a member of the Duquesne family since 1936. ROTC exists to train the future officer leadership of the United States Army. Over 60% of Army officers on active duty (55% of the generals) were commissioned through ROTC on college campuses.

The focus of ROTC is leadership training and evaluation. It provides students with the opportunity to earn commissions as officers in the U.S. Army, Army Reserve or Army National Guard. ROTC also provides students leadership skills that six out of ten civilian employers look for. The curriculum is structured to develop individual leadership in a variety of training environments and to evaluate the student's potential to command and lead soldiers.

The program is normally completed in four years, but a two-year option is available to sophomore students. Leadership training is continued throughout the year, emphasizing the transition from small group settings. Army uniforms may be issued for some training. Wear of the uniform is mandatory for Basic Course students. Those students who wear the uniform must conform to military grooming and appearance standards.

The basic course can be compressed into a one-year period if the student meets certain requirements:

Basic Course Curriculum

Freshmen (MSI)
Fall Semester
MS 101 Foundation of Leadership Skills 0-1 cr
Spring Semester
MS 102 Leadership Development Skills 0-1 cr

 Sophomores (MS II)
Fall Semester
MS 201 Basic Military Skills 0-1 cr
Spring Semester
MS 202 Small Unit Leadership Skills 0-1 cr

TWO-YEAR PROGRAM
The two-year program is designed primarily for transfer students and students who did not participate in ROTC as freshmen or sophomores. Any student with at least two academic years remaining (undergraduate or graduate) is eligible. Students may qualify for this program and enrollment in the Advanced Course by successfully completing a paid summer camp at Fort Knox, Kentucky. This training is completed during the summer preceding the student's last two academic years.

DIRECT ENTRY INTO THE ADVANCED COURSE
Students may receive placement credit for MS I and II and be granted direct entry into the Advanced Course. This placement credit may be granted for:

1. Completion of three or more years training in the Navy, Air Force, Coast Guard or Marine Corps
2. Attendance at a service academy for one or more years
3. Completion of equivalent level training in the Navy or Air Force ROTC
4. Completion of three or more years training in the Marine Corps during high school (any service) or NDCC

The Professor of Military Science must approve all requests for placement credit.

THE ADVANCED COURSE
After completing the Basic Course, students who have demonstrated officer potential and meet Army physical and medical standards are eligible to enroll in the Advanced Course. The Advanced Course is normally taken in the final two years of college. At the beginning of the junior year, students must decide whether they wish to become officers and must enter into a formal contract with the Army to

RESERVE OFFICERS' TRAINING CORPS

Fall Semester
MS 203 Advanced Military Skills 0-1 cr
Spring Semester
MS 204 Advanced Leadership Skills 0-1 cr

Spring Semester

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Spring Semester
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THE ADVANCED COURSE
After completing the Basic Course, students who have demonstrated officer potential and meet Army physical and medical standards are eligible to enroll in the Advanced Course. The Advanced Course is normally taken in the final two years of college. At the beginning of the junior year, students must decide whether they wish to become officers and must enter into a formal contract with the Army to
begin the advanced phase of the program. Students not wishing to enter into this contract may still participate in the Advanced Course as conditional or auditing students, but are ineligible for commissioning. Contracted students who enter the Advanced Course receive a tax-free subsistence allowance of $100 per month during the school year. The junior year is performance-oriented and prepares students for attendance at a six-week Advanced Camp in the summer following the end of the academic year. The senior year further prepares cadets to make the transition from student to officer. It covers such subjects as military law, administration, logistics, staff functions, professionalism, and ethics. Leadership development and evaluation are continuously emphasized throughout the Advanced Course.

Advanced Course Curriculum

Juniors (MS III)

Fall Semester
MS 301 Advanced Military Skills 0-2 cr

Spring Semester
MS 302 Advanced Tactics 0-2 cr

Summer Between Junior and Senior Year

All cadets must attend a six-week ROTC Advanced Camp in the summer following their junior year training. Nurses attend special medical training at MS 302 for attendance at a six-week Advanced Camp in the summer following their junior year is performance-oriented and prepares students for attendance at the six-week ROTC Advanced Camp during the summer immediately following this semester. Prerequisite MS 301

MS 302 — Advanced Tactics

This course continues the leadership development emphasized in MS 301. Cadets are trained in small unit (platoon and company-level) battle drills, focusing on the technical and tactical components of mission accomplishment. Administrative control of units is practiced through company-size reinforcement. This course includes the introduction to the Army's unique leadership development program, in which cadets are assigned to leadership positions in the Operating Force in the service of the United States Army. The objective of the course is to prepare the student for attendance at the six-week ROTC Advanced Camp during the summer immediately following this semester. Prerequisite MS 301

MS 401 — Applied Leadership

Cadets are assigned to evaluate command and staff positions as leaders of the cadet battalion (including the company, platoon, and company levels), planning and executing major missions and training activities. Coordination with cadets and cadre at California University and University of Pittsburgh is required to complete some tasks. Cadets run the physical training program, assist active-duty instructors in preparing and presenting instruction, and draft training plans, schedules, and outlines. In addition, they manage and complete the skilled training of students, manage extracurricular activities, and provide support for the transition from student to lieutenant. Prerequisite MS 402

MS 402 — Professional Development

Cadets receive command and staff assignments, continuing performance-oriented leadership training, and responsibilities including planning and presenting oral briefings, written plans, and staff studies, identifying and procuring equipment, funds, and other resources to support mission accomplishment. Instruction includes leadership and ethics, logistics, personnel management, and preparation for the transition to officer. Prerequisite MS 401

BLACK LION RANGERS

The Black Lion Rangers is an open enrollment for Duquesne students, men and women. The Rangers are an arm of the ROTC and are physically and mentally challenging extracurricular training. All Rangers are physically fit and possess the skills and qualities necessary to lead other Rangers in a variety of situations and events, including physical fitness, teamwork, service, leadership, cultural diversity, and community service. The training focuses on the development of leadership, teamwork, and military skills.

Some weekend or weekend activities are set aside for physical training, problem solving, and physical fitness training. The Rangers are a part of the ROTC and are physically fit and possess the skills and qualities necessary to lead other Rangers in a variety of situations and events, including physical fitness, teamwork, service, leadership, cultural diversity, and community service. The training focuses on the development of leadership, teamwork, and military skills.

The training includes a comprehensive exercise program, rappelling, rope climbing, tactical training, and orientation, including physical training, problem solving, and physical fitness training. The Rangers are a part of the ROTC and are physically fit and possess the skills and qualities necessary to lead other Rangers in a variety of situations and events, including physical fitness, teamwork, service, leadership, cultural diversity, and community service. The training focuses on the development of leadership, teamwork, and military skills.
CONTINUING EDUCATION

CREDIT PROGRAMS

I) The Saturday College

Saturday College provides the adult student the opportunity to earn a degree by attending classes only on Saturday. Five eight-week Saturday terms comprise the accelerated academic calendar. The student earns the Bachelor of Science in Professional Studies with concentrations in Organizational Leadership and Professional Communication.

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 curricula of Saturday College require the same level of achievement as that expected of students in a more traditional academic environment, but in an innovative, 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 one of the following sets of criteria:

a) Applicants with prior college course work must have a minimum cumulative GPA of 2.5 for full admission. Provisional admission is possible for students with a cumulative GPA less than 2.5, based upon 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) The Degree

Students in Saturday College earn a Bachelor of Science in Professional Studies (BSPS). Students are also provided the opportunity to customize plans of study 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.

University Core Curriculum — 30 Total Credits

The University Core provides undergraduates with a common intellectual experience as the foundation for their college careers. Core courses focus on those skills, values, and knowledge central to the tradition and mission of the University. These courses are not merely prerequisites for professional study but for lifelong learning.

General Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Thinking and Writing Across the Curriculum</td>
</tr>
<tr>
<td>02</td>
<td>Imaginative Literature and Critical Writing</td>
</tr>
<tr>
<td>09</td>
<td>College Algebra</td>
</tr>
<tr>
<td>10</td>
<td>Fundamentals of Statistics</td>
</tr>
<tr>
<td>12</td>
<td>Basic Philosophical Questions</td>
</tr>
<tr>
<td>14</td>
<td>Social, Political and Economic Systems</td>
</tr>
<tr>
<td>25</td>
<td>Shaping of the Modern World</td>
</tr>
<tr>
<td>151</td>
<td>The Arts and the Human Experience</td>
</tr>
</tbody>
</table>

Science Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>171</td>
<td>Biology</td>
</tr>
<tr>
<td>172</td>
<td>Chemistry</td>
</tr>
<tr>
<td>173</td>
<td>Physics (Higher level courses also satisfy requirement)</td>
</tr>
</tbody>
</table>

Theology Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>182</td>
<td>Human Morality</td>
</tr>
<tr>
<td>183</td>
<td>The Judeo-Christian Religious Tradition</td>
</tr>
</tbody>
</table>

The University Core requirements may be fulfilled by alternative courses. Students are advised to consult with their academic advisor to identify alternative courses where appropriate.

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.

Computer Applications for the Professional I

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>Accounting for the Professional I</td>
</tr>
<tr>
<td>302</td>
<td>Accounting for the Professional II</td>
</tr>
<tr>
<td>303</td>
<td>Microeconomics</td>
</tr>
<tr>
<td>304</td>
<td>Macroeconomics</td>
</tr>
<tr>
<td>305</td>
<td>Structure of the Legal Environment</td>
</tr>
<tr>
<td>306</td>
<td>Understanding the Marketplace and Competition</td>
</tr>
</tbody>
</table>

Concentration Areas — 36 Total Credits

There are two areas of interdisciplinary study, called Concentration Areas, comprise the backbone of the BSPS. Students are required to complete both concentration areas, in Organizational Leadership and Professional Communication.

Concentration Area I

Organizational Leadership — 18 Total Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>370</td>
<td>Principles of Organizational Leadership</td>
</tr>
<tr>
<td>456</td>
<td>Theory and Practice of Organizational Communication</td>
</tr>
<tr>
<td>471</td>
<td>Organizational Leadership</td>
</tr>
<tr>
<td>472</td>
<td>Organizational Leadership</td>
</tr>
<tr>
<td>473</td>
<td>Organizational Leadership</td>
</tr>
</tbody>
</table>

Concentration Area II

Professional Communication — 18 Total Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Process of Communication</td>
</tr>
<tr>
<td>171</td>
<td>Dynamics of Mass Communication</td>
</tr>
<tr>
<td>304</td>
<td>Persuasion</td>
</tr>
<tr>
<td>306</td>
<td>Business and Professional Communication</td>
</tr>
<tr>
<td>385</td>
<td>Writing for Business and Industry</td>
</tr>
<tr>
<td>427</td>
<td>Communication Management</td>
</tr>
</tbody>
</table>

Electives — 30 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.

II) 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 BSPPS in the traditional College consists of a prescribed series of courses, adult 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 BSPPS is the same as that for the BSPPS in Saturday College, outlined above on page 216.

Professional Core Curriculum — 24 Total Credits

The Professional Core Curriculum for this version of the BSPPS parallels that for the BSPPS in Saturday College. Since Saturday College courses are limited to Saturday College enrollees, courses from the A
In consultation with an academic advisor, students customize two concentrations consisting of integrated course work from the A J Palumbo School of Business Administration and/or the College of Liberal Arts. A wide range of business and liberal arts disciplines is available from which these concentrations may be designed. A minimum of 15 credits is required to complete a concentration, two-thirds of which must be above the 300 course level.

Concentrations — 30-42 Total Credits

The Professional Certificate is a free-standing program. Candidates for the professional certificates usually have an Associate’s or Bachelor’s degree and typically complete four (4) of the following courses:

- 214 Financial Accounting
- 215 Managerial Accounting
- 216 Accounting Practice and Systems
- 311 Intermediate Accounting I
- 312 Intermediate Accounting II

Select one (1) of the following:

- 315 Cost Accounting
- 411 Auditing

Accounting (Advanced)

This certificate is an eight-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 18 credits from the Basic Certificate program, plus nine (9) credits from the following:

- 251 Business Law
- 412 Intro Income Tax Accounting

Financial Analysis (Basic)

This certificate is a five-course, 15 credit program of the following courses:

- 331 Business Finance
- 332 Money & Financial Institutions
- 333 Financial Management
- 335 Business Financial Problems
- 432 Credit Management

Financial Analysis (Advanced in Securities Analysis)

This certificate is an eight-course, 24 credit program including the five courses from the Basic Certificate plus the following three courses:

- 336 Security Analysis
- 337 Investment Analysis
- 433 Financial Markets

Computer Science

This certificate is a two-course, 25-27 credit program of the following courses:

- 105 Computer Programming I
- 106 Computer Programming II
- 200 Computer Organization and Assembly
- 300 Data Structures

Accounting (Basic)

This certificate is a six-course, 18 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

Select one (1) of the following:

- 315 Cost Accounting
- 411 Auditing

Management Information Systems (MIS)

This certificate is an eight-course, 24 credit program of the following courses:

- 182 Microcomputer Software Applications
- 183 Management Information Systems
- 382 Information Processing with COBOL
- 383 File Processing with COBOL
- 385 Computer Systems
- 481 Systems Analysis and Design
- 482 Data Base Management
- 483 MIS in Organizations

Non-Credit Programs

The Paralegal Institute

As the need for legal services has increased over the past decade, the demand for paralegals has risen dramatically. Government studies show that the paralegal profession is the fastest growing profession in America today. Paralegals are employees of lawyers who do research, drafting, organizing, and complex litigation and a variety of other work including that formerly done by lawyers. They work for private law firms, for legal services projects, for banks and corporations, and for the government.

The Duquesne Benefits Institute is an educational institution associated with the Center for Continuing Education at Duquesne University. This program is designed to educate students who wish to develop the specialized skills necessary to enter the paralegal profession. A certificate in Paralegal Studies is awarded at the successful completion of five courses.

The Curriculum consists of five (5) courses and leads to the awarding of the Certificate in Benefit Plans, entitling the holder to use 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.

**Entry Requirements**

A college degree is normally required for admission to the Benefit Plan Certificate Program. In certain cases, the Admission Committee may waive this requirement and consider other related factors such as previous experience.

Call 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.

**The Nurse Management Institute**

The Nurse Management Institute is co-sponsored by Duquesne University's School of Nursing and the Center for Continuing Education. The Institute's program is a nine-session series that trains nurses to manage more effectively. The program emphasizes practical skills and methods that managers will be able to put to immediate use to improve their ability to manage and to increase their professional opportunities.

The Nurse Management Institute program runs annually beginning in October through April as an integrated series of one-day sessions.

Call 396-1642 for additional information.

**The Nursing Education Institute**

The Nursing Education Institute is co-sponsored by Duquesne University's School of Nursing and the Center for Continuing Education. This stimulating and practical 5-session series will help the nurse educator to improve the quality of nursing education theory and skills. Each session is designed to provide nurses with the skills they need to be successful educators.

Call 396-1642 for additional information.

**Gerontology Nursing Institute**

Nursing’s challenge in dealing with elderly people is oriented to achieving a workable and satisfying balance between the requirements of daily living and the functional ability, resources, and quality of life that may become severely compromised as people age.

**The stimulating and pragmatic 6-session series will help the nurse to understand and use state-of-the-art strategies to deal with the health and functioning of elderly people. In addition to presenting a nursing paradigm to organize and deliver care, the faculty will challenge participants to become involved in creative discussion with other healthcare providers about the role of the interdisciplinary team in planning, organizing, and delivering care for our aging citizens.

**Exam Preparation Courses**

Three review courses are offered for individuals interested in preparing to sit for examinations required for graduate school admittance.

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 members of the Duquesne 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.

**GMAT**

For applicants to graduate business school, register early and receive advance GMAT study and preparation materials. Note: mailed only if registration is received two weeks before review program begins.

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**Tentative Dates**

**Exam**  **Date**

**Review**  **Exam Date**

September 10, 1994  October 8, 1994
September 17, 1994  October 1, 1994
September 24, 1994
October 11, 1994
March 11, 1995
March 18, 1995
March 25, 1995
April 1, 1995

**GMAT**

**Review**  **Exam Date**

September 17, 1994  October 8, 1994
September 24, 1994  October 1, 1994
October 8, 1994  October 11, 1994
January 7, 1995  January 14, 1995
January 8, 1995  January 15, 1995
January 9, 1995  January 21, 1995
February 18, 1995  March 4, 1995
February 25, 1995  March 11, 1995
March 25, 1995  August 18, 1995

**Review**  **Exam Date**

May 13, 1995  June 1, 1995
May 20, 1995  June 3, 1995
June 10, 1995  August 18, 1995

**GMAT**

**Review**  **Exam Date**

September 17, 1994  October 8, 1994
September 24, 1994  October 1, 1994
October 8, 1994  October 11, 1994
January 7, 1995  January 14, 1995
January 8, 1995  January 15, 1995
January 9, 1995  January 21, 1995
February 18, 1995  March 4, 1995
February 25, 1995  March 11, 1995
March 25, 1995  August 18, 1995

**Review**  **Exam Date**

May 13, 1995  June 1, 1995
May 20, 1995  June 3, 1995
June 10, 1995  August 18, 1995

*Class held on Sunday.*

University reserves the right to cancel class based on enrollment.
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