DIRECTORY

ADDRESS—Duquesne University, 600 Forbes Avenue, Pittsburgh, Pa. 15282
Telephone Call specific number (see following)
for other offices, call 396-6000
ADMISSION—Dean of Domestic Admissions
and International Affairs
Administration Building, First Floor
Telephone (412) 396-5000
(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) 396-6277/702
School of Education, Carnegie Hall, Room 213
Telephone (412) 396-5713
Rango School of Health Sciences
Health Sciences Bldg., Room 302
Telephone (412) 396-6652
School of Music, Room 302
Telephone (412) 396-6680
School of Natural and Environmental Sciences
212/312 Bayer Learning Center
Telephone (412) 396-4921/4946
School of Nursing, College Hall, Sixth Floor
Telephone (412) 396-5046/6533
School of Pharmacy
Mellon Hall of Science, Room 4108
Telephone (412) 396-6308
Reserve Officers' Training Program (ROTC)
Rockwell Hall, Room 300C
Telephone (412) 396-6664/6665/6666
BOOKSTORE—Duquesne Union, Second Floor
Telephone (412) 343-6626
CAMPUS MINISTRY—
Administration Building, First Floor
Telephone (412) 396-6200/5045
CAREER SERVICES CENTER
Rockwell Hall
Telephone (412) 396-6644
School of Education Career Center
Telephone (412) 396-6647
CASHIER—Payment of Tuition and Fees,
Administration Building, Ground Floor
Telephone (412) 396-6656/6657/6688
COMMUTER AFFAIRS—
Duquesne Union, Third Floor
Telephone (412) 396-6660
COMPREHENSIVE STUDENT ADEVICEMENT
Administration Building, Third Floor
Telephone (412) 396-5099
CONTINUING EDUCATION—
Rockwell Hall, Second Floor
Telephone (412) 396-6034
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) 396-6651
GOVERNMENTAL AFFAIRS—
Administration Building, Fifth Floor
Telephone (412) 396-5080
HEALTH SERVICE—
Duquesne Towers, Second Floor
Telephone (412) 396-6650
IDENTIFICATION CARDS—
Duquesne Union, Room 301
Telephone (412) 396-6191
INFORMATION CENTER—For University Events,
Duquesne Union, Third Floor
Telephone (412) 396-6632/6633
INTERNATIONAL EDUCATION ADVISOR—
Sixth Floor, Duquesne Union
Telephone (412) 396-6113
LEARNING SKILLS PROGRAM—
Administration Building, Fourth Floor
Telephone (412) 396-6652
PSYCHOLOGY CLINIC—
Rockwell Hall, Ninth Floor
Telephone (412) 396-6562
PUBLIC AFFAIRS—
Administration Building, Fourth Floor
Telephone (412) 396-6501
PUBLIC SAFETY—Public Safety Building
Telephone (412) 396-6002
For Emergency, call (412) 396-6474
REGISTRAR—For Transcripts and Records,
Administration Building, Ground Floor
Telephone (412) 396-5046 (Transcripts)
396-6212 (General Office)
RESIDENCE LIFE—Assumption Hall, Ground Floor
Telephone (412) 396-6655/5028
STUDENT ACCOUNTS—
Administration Building, Room 208
Telephone (412) 396-6585
STUDENT HEALTH INSURANCE—
Administration Building, Room 212
Telephone (412) 396-6777
UNIVERSITY COUNSELING CENTER—
Administration Building, Third Floor
Telephone (412) 396-6204/6208
As the educational process from admission through graduation, requires continuing review and appropriate approval by University officials, the provisions of this catalog are to be considered directive in character. The University, therefore, reserves the right to change requirements and regulations contained herein, including fees, tuition, and board and room, and to determine whether an individual has satisfactorily met the requirements for admission or graduation.

NOTICE OF NONDISCRIMINATION AND NONHARASSMENT POLICY

Duquesne University, motivated by its Catholic identity, values equality of opportunity, human dignity, racial, cultural and ethnic diversity, both as an educational institution and as an employer. Accordingly, the University prohibits and does not engage in discrimination or harassment on the basis of race, color, religion, national origin, sex, age, disability or status as a veteran or disabled veteran.

SECURITY STATISTICS, POLICIES AND PROCEDURES

In accordance with the College and University Security Information Act (Pennsylvania Act 73 of 1988) and the U.S. Student Right to Know and Security Act (PC. 101-542), information regarding Duquesne University’s crime statistics, security policies and procedures is available in the Admissions Office.

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

Published annually by Duquesne University, 600 Forbes Avenue, Pittsburgh, PA 15282

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### All Degrees and Programs Offered by Duquesne University

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<td>Doctorate of Business Administration</td>
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Academic Calendars
Fall 1996 — Summer 1997

FALL SEMESTER — 1996
Classes Begin: August 26 (Monday)
Labor Day Holiday: September 2 (Monday)
All Saints Day: November 1 (Friday)
Thanksgiving Holiday: November 25-30 (Monday-Saturday)
Immaculate Conception Holy Day: December 8 (Sunday)
Friday Class Schedule Followed: December 10 (Tuesday)
Reading Day: December 11 (Wednesday)
Final Exams: December 12-18 (Thursday-Wednesday)
Commencement: December 20 (Friday)

SPRING SEMESTER — 1997
Classes Begin: January 9 (Thursday)
Martin Luther King Holiday: January 20 (Monday)
Spring Break: March 3-8 (Monday-Saturday)
Easter Holiday: March 27-31 (Thursday-Monday)
(Offices closed Thursday, March 27
Friday, March 28)
Monday Class Schedule Followed: April 1 (Tuesday)
Final Exams: May 1 - May 7 (Thursday-Wednesday)
Ascension Holy Day: May 8 (Thursday)
Commencement: May 10 (Saturday)

SUMMER SEMESTER — 1997
Summer Term Begins: May 12 (Monday)
Memorial Day Holiday: May 26 (Monday)
Independence Day Holiday: July 4 (Friday)
End of 12 week term: August 1 (Friday)
Assumption Holy Day: August 15 (Friday)

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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 1996.

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

Part I: General Information

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

Today Duquesne University is a progressive educational facility which has more than tripled from its early 12.5 acres to its present, self-enclosed 40-acre campus overlooking the city of Pittsburgh. 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, four parking garages, a multi-purposed recreation center, a Victorian campus thoroughway, a theatre/classroom complex, the new Arthur J. Rooney Football/Soccer Field in the center of campus, 28 new multimedia classrooms, and a state-of-the-art classroom building.

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

Duquesne's recent growth has been tremendous with more than 9,200 students in nine schools of study, including the College and Graduate School of Liberal Arts (1878), and the Schools of Law (1911), Business Administration (1913), Pharmacy (1925), Music (1926), Education (1929), Nursing (1937), Health Sciences (1990), School of Natural and Environmental Sciences (1994) and the Division of Continuing Education. Duquesne's nine schools offer degree programs on the baccalaureate, professional, master's and doctoral levels.

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

The motto of Duquesne University is Spiritus est quae 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 values of societies is an invaluable element in the educational process. In a world that is growing ever smaller, it is imperative that Duquesne reach out to peoples of different cultures to afford them the opportunity to acquire educational experiences not otherwise available to them.

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-contained setting.

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 of "City of Champions," to be the most accessible one of its kind in the city, with its vast public transportation system.

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

The world-renowned Pittsburgh Symphony Orchestra, Pittsburgh Opera, and Pittsburgh Ballet Theatre all perform regularly in the elegant Heinz Hall for the Performing Arts. The world-renowned Pittsburgh Symphony Orchestra, the Pittsburgh Symphony Orchestra, and Pittsburgh Opera, and Pittsburgh Ballet Theatre all perform regularly in the elegant Heinz Hall for the Performing Arts. The world-renowned Pittsburgh Symphony Orchestra, the Pittsburgh Symphony Orchestra, and Pittsburgh Opera, and Pittsburgh Ballet Theatre all perform regularly in the elegant Heinz Hall for the Performing Arts.

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ACCREDITATION AND AFFILIATION

Arthur J. Rooney Athletic Field is a multi-purpose field named in honor of Arthur J. Rooney, former owner of the Pittsburgh Steelers and Duquesne graduate. The facility provides a home for Duquesne University football, soccer and lacrosse. The field, which is equipped with lights and a special astroturf surface, also the site of numerous intramural activities.

St. Ann's Living-Learning Center, dedicated in 1964, is a seven floor coed residence hall which houses approximately 500 freshman students. The women and men are housed on separate floors of the building, allowing for privacy. The facility includes a front desk area equipped with security cameras and ID card readers, laundry machines, a recreational lounge, a chapel, computer labs, and vending machines. Each student room has access to the campus computer mainframe.

St. Martin's Living-Learning Center, is a 13 floor coed residence hall which houses approximately 500 freshmen and upperclass students. The women and men are housed on separate floors of the building, allowing for privacy. The facility includes a front desk area equipped with security cameras and ID card readers, laundry machines, a recreational lounge, computer labs, and vending machines. Each student room has access to the campus computer mainframe.

Trinity Hall, dedicated in 1952, is the residence of the Holy Cross Fathers who serve the University as administrators and teachers. The grounds of the hall include an attractive mall and garden.

GENERAL INFORMATION

Accreditation

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ACCREDITATION AND AFFILIATION

University Accreditation

Middle States Association of Colleges and Schools

State Board of Education of the Pennsylvania Department of Education

Membership

American Association of Collegiate Registrars and Admissions Officers

American Council on Education

Catholic College Coordinating Council

College Entrance Examination Board

Council for Advancement and Support of Education

Council of Independent Colleges and Universities

Middle States Association of Collegiate Registrars and Officers of Admission

National Association of College Admission Counselors

National Association of College and University Business Officers

National Association of Foreign Student Administrators

National Association of Student Personnel Administrators

National Association of Student Financial Aid Administrators

Pennsylvania Association of Catholic College Admissions Officers

Pennsylvania Association of Colleges and Universities

Pennsylvania Association of Student Financial Aid Administrators

Pittsburgh Council of Higher Education

College of Liberal Arts Membership

American Association for Higher Education

American Association for State and Local History

American Conference of Academic Deans

American Historical Association

American Society of Journalism School Administrators

Association of American Colleges and Universities

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

Membership

Middle States Association of Colleges and Schools

Pennsylvania Department of Education

American Association of Colleges for Teacher Education

Association of Independent Liberal Arts Colleges for Teacher Education

International Council on Education for Teaching

The Pennsylvania Association of Colleges and Teacher Educators

Rangos School of Health Sciences

Accreditation

The Commission on Accreditation of Allied Health Education Programs (CAHHEP) in collaboration with the American Health Information Management Association (AHIMA) Council on Accreditation. Select graduates will be eligible for the national certification examination to become a Registered Health Information Administrator (RHA).

The Accreditation Council for Occupational Therapy Education

The Commission on Accreditation of Allied Health Education Programs (CAHHEP) in collaboration with the Joint Review Committee on Perfusion Education

The Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association

The Commission on Accreditation of Allied Health Education Programs (CAHHEP) in collaboration with the American Academy of Family Physicians, the American Academy of Pediatrics, the American Academy of Physician Assistants, the American College of Physicians, the American College of Surgeons and the Association of Physician Assistant Programs.

Council on Academic Accreditation formerly the Educational Standards Board in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association (Initial review pending)

Membership

Association of Schools of Allied Health Professions

Association of University Programs in Health Administration (AUPHA)

School of Music

Accreditation

National Association of Schools of Music

National Association of Music Therapy

Pennsylvania Department of Education

Memberships

American Association for Music Therapy

American Association for Music Therapy

Pennsylvania Music Educators Association

Percussive Arts Society

American Bar Association

American Musical Instrument Manufacturers Association

American Federation of Musicians

American Federation of Musicians

Pennsylvania Federation of Music Clubs

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
National Academic Advising Association
National Association of Churches of Christ in the U.S.
American Association of Colleges of Pharmacy
Duquesne University offers evening classes for full and part-time students each semester and during the summer session. The following undergraduate degrees are able to be completed through evening study.

College of Liberal Arts
Bachelor of Science in Computer Science
Applications Corporate, Scientific
Bachelor of Arts in Corporate Communication
Bachelor of Arts in Business Administration
Concentrations Accounting, Management, Information Systems, Marketing

School of Business Administration
Bachelor of Science in Business Administration
Concentration Accounting, 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 adults 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, 210 Rockwell Hall, at 396-6232 or 1-800-283-3853

CENTER FOR COMMUNICATIONS AND INFORMATION TECHNOLOGY
The Center for Communications and Information Technology provides support for the computing and information technology needs of the University's instructional, research, academic and administrative programs. The Center reports to the Provost and Academic Vice President and consists of three functional units, Advanced Technology, Educational Technology and Institutional Technology.

The Advanced Technology group reports to the Executive Director of the Center. Its mission is to develop innovative uses of current and emerging technologies to improve the quality of education and administrative productivity at Duquesne. It is the responsibility of this group to assure that the university remains competitive by taking advantage of innovations created by rapidly changing information and technology markets. The group identifies potentially valuable new technologies and evaluates their applicability and compatibility within the university environment. High-potential pilot projects apply this new technology to meet specific needs of the university community. This group is also responsible for seeking funding sources to support technology demands. Some of the areas currently supported are campus network planning and direction setting, distance learning, and vendor partnership development.

The Educational Technology group has as its mission to provide technology and services in support of the academic and research needs of the faculty and students of Duquesne, and works closely with the University's Educational Technology Committee to develop campus plans and directions. Lead by the Director of Educational Technology, the group is responsible for services in several areas. General training on standard software and Internet services, as well as specialized training for faculty on use of technology, is regularly offered. Through the New Media Center, the group provides support for the University's World Wide Web campus information services and works closely with faculty on educational software development. The group also staffs and operates the Faculty Development Studio, located in Conover Hall, which houses consultants and high-end multimedia development hardware and software. The Media Distribution Center is another service operated by the Educational Technology group which allows faculty to schedule media presentations, including the scheduling of multimedia, and有毒 software and network support to the growing number of residence halls, offices, laboratories and classroom computers, including Macintosh, Windows and Unix systems. Operations and Systems Services operates the University's data center supporting central servers which include DEC Alpha systems, Unix and LAN servers. Help Desk Services is a single point of contact for calls from the campus community. Technology questions, scheduling of Installations and repairs, and request for training seminars are all handled by the Help Desk.

In 1995, CCIT was recognized by CAUSE with an Honorable Mention award for Excellence in Campus Networking and by the New Media Center by being selected as a New Media Center institution. More information on all CCIT services can be obtained by calling 396-HELP or by consulting the CCIT World Wide Web pages at http://www.duq.edu
Part II:
Admission and Financial Aid

Admission

OFFICE OF ADMISSIONS
The Office of Domestic Admissions is located on the first floor of the Administration Building. Telephone: (412) 396-6220, 396-6221, 396-6222 (800) 435-0990 (Outside of 412 Area Code). Fax: (412) 396-5664
Office hours: Monday through Friday from 8 30 A.M. to 4:30 P.M.
E-MAIL: admissions@duq.edu

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

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 mathematics, from the area of social studies, language, mathematics, and science, and four elective units for which the secondary school offers credit toward graduation. In specific instances, and at the discretion of the Committee on Admissions, the genuine equivalent of these requirements may be accepted in lieu of the precise requirements specified. (Note: Candidates planning to enroll in pharmacy or pre-health programs, or as science or mathematics majors, should have completed a minimum of seven units in mathematics and sciences.)

3. Scores in accordance with the standards adhered to by the University must be presented for the required College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT) (Note: for admission to the School of Music, an audition is required).

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

5. Early Decision Deadline (for students who have Duquesne as their first College choice) is November 25. Notification will be by December 15 if accepted under the Early Decision Plan. If a student is accepted under the Early Decision Plan, commuting students are asked to submit a non-refundable tuition deposit of $200 within two weeks, resident students are asked to submit a $500 non-refundable deposit, within two weeks.

6. 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.

7. 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.

ADMISSION AND FINANCIAL AID

APPLICATION—NEW FIRST-YEAR STUDENTS

Applications should be addressed to the Director of Domestic 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 complete application by January 15 of their senior year.

7. Early Decision Deadline (for students who have Duquesne as their first College choice) is November 15. Notification will be by December 15. If accepted under the Early Decision Plan, commuting students are asked to submit a non-refundable tuition deposit of $200 within two weeks, resident students are asked to submit a $500 non-refundable deposit, within two weeks.

8. Notification of decisions for regular admission begin once Early Decision applicants have been notified.

EARLY DECISION

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

5. Early Action Program

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

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 prior to the deadline dates.

ADMISSION OF UNDERGRADUATE INTERNATIONAL STUDENTS

Application Criteria

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

Eligibility criteria for application as a transfer student include

1. Graduation from a secondary school recognized as an acceptable equivalent to a U.S. high school.

2. A demonstrated record of acceptable academic success.

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

1. A U.S. high school diploma or GED equivalent.

2. Minimum standard scores of 500 on the SAT. Minimum composite standard scores of 20 on the ACT.

International applicants are required to submit the following items:

1. A completed application accompanied by the $50 non-refundable application fee.

2. Official high school transcripts from secondary schools in foreign countries must be submitted together with an official English translation.

3. Official college transcripts from postsecondary institutions.

4. A completed Duquesne University Affidavit of Support Form.

5. A completed Duquesne University Undergraduate International Application Form.

6. A certified English translation of all supporting credentials.

7. A copy of the fully completed and signed U.S. embassy visa petition.

8. A certified copy of the student's passport.

9. A minimum TOEFL score of 80.

To be eligible for admission, international students must submit the following items:

1. A completed application accompanied by the $50 non-refundable application fee.

2. Official high school transcripts from secondary schools in foreign countries must be submitted together with an official English translation.

3. Official college transcripts from postsecondary institutions.

4. A completed Duquesne University Affidavit of Support Form.

5. A completed Duquesne University Undergraduate International Application Form.

6. A certified English translation of all supporting credentials.

7. A copy of the fully completed and signed U.S. embassy visa petition.

8. A certified copy of the student's passport.

9. A minimum TOEFL score of 80.

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 resources, have been received. In order to complete on-campus arrival orientation, language proficiency testing, and registration, accepted international students must plan to arrive approximately one week before semester begins.

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 (ESL), 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 assistance with 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 or more of successful 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) which are current to within one year, may be conditionally accepted into degree programs at Duquesne University.

OFFICE OF ADMISSIONS
English as a Foreign Language (TOEFL) may qualify you 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 English as a Second Language Program (ESLP). The ESLP is open to qualified international students interested in studying only English on either a short- or long-term, non-degree, certificate of completion basis. A fuller description of the English as a Second Language Program is found on page 38.

Admissions and Financial Aid

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

Students from Other Institutions

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

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. Students who apply for Early Admission Honors Program must be in the top ten percent of their class with a grade point average of 3.5 or above. A minimum 1100 SAT score or 26 ACT score is necessary for admission. A personal and one interview view are also requested. Written approval from the student'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 prerequisites set forth by the Duquesne University Office of Admissions. Students must have no lower than a grade point average of 3.0. A letter of recommendation from a high school counselor must accompany their application.

Students enrolled in the program receive university credit for courses taken at reduced tuition rates. Students who maintain a grade point average of 3.0 or higher during the Spring Semester 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 (IB)

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 level subjects.

IB Higher Level scores of 5, 6, or 7 will be accepted to a maximum of 30 semester hours. IB Subsidiary level scores of 5, 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 awards 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.

Applications who hope to receive advanced placement credits must request that scores be sent to the university. Credit will be given on a minimum advanced placement score determined yearly by the College of Liberal Arts.

College Level Examination Program (CLEP)

A student may acquire credits by achieving a satisfactory score on one or more of the College Level Examinations—Subject and General. Any of these examinations may be taken at Duquesne's University Counseling Center or at any CLEP Center. Additional information regarding test dates, applications and sample test questions is available from the University Counseling Center, 308 Administration Building. Phone (412) 396-6024.

Students should double check with the College Office or the University Counseling Center to ensure that they are eligible to receive credit for the particular test(s) they plan to take. (Students must withdraw from Duquesne 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).

Post-graduates

Post-graduates are students who already have a Bachelor's degree, and desire to take undergraduate courses at Duquesne, but are not interested in pursing another undergraduate degree.

A Post-graduate student must submit a Post-graduate application to the Division of Continuing Education. If the Bachelor's degree was received from an institution other than Duquesne, the student must supply to the dean of his school a description of the bachelor's degree.

Applicants must supply to the dean of his school a description of the bachelor's degree which does not have regional accreditation must have obtained at least one year of work in the profession or field of study.

Temporary Transfers

Temporary Transfers are students who are enrolled in another college or university who were granted a course transfer of 28 semester hours of course work.

The Committee on Student Standing of the school to which application and registration form for the summer session is being submitted will decide if a student is eligible for transfer. The Committee on Student Standing of the school to which application and registration form for the summer session is being submitted will decide if a student is eligible for transfer. Further information and tuition rates can be obtained from the Duquesne University Office of Admissions.

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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 that will 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 believe 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 natural 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 take a number of basic courses in the liberal arts and sciences. These courses constitute the University Core and are intended for students who possess a breadth of interest beyond their individual specialties, believe learning is a life-long adventure, and who want the challenge of an accelerated learning experience.

Financial Aid

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

APPLICATION PROCEDURE

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

PROGRAMS OF AID ADMINISTERED BY THE FINANCIAL AID OFFICE

University Scholarship/Grants

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

Available to incoming Freshmen - then renewable with cumulative GPA indicated

- Chancellor’s Award: 3.50
- Strub Award: 3.00
- Presidential Merit: 3.00
- Parish Scholarship: 3.00
- Provost Award: 3.00
- Laval Merit Award: 2.75

Available to renewal students only - with cumulative GPA indicated

- Founder’s Award: 3.00
- President’s Scholarship: 3.00 & need*
- Laval Grant: 2.75 & need
- Parish Grant: 2.75 & need

*If funds are available new applicants with minimum 30 credits earned at Duquesne, with 300 cumulative GPA and need will be considered.

Scholars/ROTC Assistance toward room and board costs for ROTC Scholarship winners.

Auxiliary Grant

Grant funds awarded to incoming Freshmen with remaining need after utilizing all aid resources available. Available with minimum cumulative GPA of 2.50, and continued need for funds after utilizing other aid sources available.

Linz & John E. Murray, Jr. Scholarship

Every 4 years Dr. & Mrs. Murray will fund a scholarship to an incoming freshman student. Student will receive funds through gift sources to cover 30 credits of tuition and fees, room and board and a book allowance.

Federal Supplemental Educational Opportunity Grant (SEOG)

Grant funds received through Federal Grant application are given to undergraduate students with exceptional need Preference to students who receive Pell Grants.

Federal Perkins Loans

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

Federal Nursing & Health Professions Loans

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

Institutional Loans

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

Student Employment

Financial eligibility for the Federal Work-Study Program of part-time employment is determined by the Financial Aid Office. Funds are made available through the Federal Aid Office. Interest rates vary. Loan limits vary with academic level. Awards are available to students meeting the requirements indicated. Loan application may be obtained through most banks and lending institutions. The Federal Stafford Loan is need based. In the event the student does not demonstrate need for all or part of the loan limits above, Unsubsidized Stafford Loans are available. Interest must be paid while in school, but all other conditions are the same as the Federal Stafford Loan.

Admission and Financial Aid

APPLICATION PROCEDURE

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

PROGRAMS OF AID ADMINISTERED BY THE FINANCIAL AID OFFICE

University Scholarship/Grants

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

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- Chancellor’s Award: 3.50
- Strub Award: 3.00
- Presidential Merit: 3.00
- Parish Scholarship: 3.00
- Provost Award: 3.00
- Laval Merit Award: 2.75

Available to renewal students only - with cumulative GPA indicated

- Founder’s Award: 3.00
- President’s Scholarship: 3.00 & need*
- Laval Grant: 2.75 & need
- Parish Grant: 2.75 & need

*If funds are available new applicants with minimum 30 credits earned at Duquesne, with 300 cumulative GPA and need will be considered.

Scholars/ROTC Assistance toward room and board costs for ROTC Scholarship winners.

Auxiliary Grant

Grant funds awarded to incoming Freshmen with remaining need after utilizing all aid resources available. Available with minimum cumulative GPA of 2.50, and continued need for funds after utilizing other aid sources available.

Linz & John E. Murray, Jr. Scholarship

Every 4 years Dr. & Mrs. Murray will fund a scholarship to an incoming freshman student. Student will receive funds through gift sources to cover 30 credits of tuition and fees, room and board and a book allowance.

Federal Stafford Loans

Requires completion of FAFSA and Stafford Loan application. Renewal forms are normally mailed directly to students, and new applications can be requested through most banks and lending institutions. Available to students who enroll at least half-time. Interest rates vary. Loan limits vary with academic level. $2625 for first academic level, $3500 for second academic level, $5500 for third and fourth academic level (also 5th year Pharmacy).

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

Federal Pell Loans

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

Federal Nursing & Health Professions Loans

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

Institutional Loans

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

Student Employment

Financial eligibility for the Federal Work-Study Program of part-time employment is determined by the Financial Aid Office. Funds are made available through the Federal Aid Office. Interest rates vary. Loan limits vary with academic level. Awards are available to students meeting the requirements indicated. Loan application may be obtained through most banks and lending institutions. The Federal Stafford Loan is need based. In the event the student does not demonstrate need for all or part of the loan limits above, Unsubsidized Stafford Loans are available. Interest must be paid while in school, but all other conditions are the same as the Federal Stafford Loan.

Federal PLUS Loans

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

Health Education Assistance Loan (HEAL)

Available only to fourth and fifth year Pharmacy students. Loan application may be obtained through the Financial Aid Office. Interest rates vary. Maximum loan amount is difference between need and financial aid, not to exceed $12,500.

University Discounts

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

Catholic High School Graduates

A 10% discount on basic tuition is extended to graduates of Roman Catholic High Schools in the Diocese of Pittsburgh who enroll as full-time students in the fall immediately following graduation. Available only to students receiving no other University awards including, but not limited to, scholarships, grants, tuition remission and other discounts. Renewal requires continuous full-time enrollment during the academic years following initial enrollment, re-application through the Financial Aid Office, and no other University funded awards.

Clergy/Religious

Members of University recognized Christian and Jewish Religions, who have been ordained or professed, may be eligible to receive a 50% discount.
Lay Teachers Current full-time lay teachers in Roman Catholic schools in Pittsburgh, Greensburg, or Altoona-Johnstown Dioceses or lay teachers from other dioceses who have completed a minimum of two years of full-time teaching at an approved diocesan school may be eligible to receive a 50% discount

Senior Citizen Men and women who are 60 years of age or older may be eligible to receive a 50% discount

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

Lay Music Ministers Men and women employed as organists or choir directors at recognized religious institutions may be eligible to receive a 50% discount. May not be full-time students and must be enrolled in either Continuing Education (non-degree) or School of Music. Discount maximum would be 50% of basic tuition

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

ROTC Scholarships Available to incoming students and currently enrolled students. For additional information and application procedure contact the Military Science Department at Duquesne

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

Artizier Scholarship Need based Enrollment in School of Business

Betty V Beeman Scholarship Need based Upperclass students with minimum 30 QPA

Byantine Scholarship For Byzantine seminarians

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

Centennial Scholarship Based on need and academics Allegheny County residents

Century Club Scholarship Need based Final year student with 35 QPA or higher

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

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

Delladottti Scholarship Need based

Ducene Scholarship Based on need and academics Preference to children of Alpha Epsilon then Alpha Tau Omega Brothers. Third preference to male members of Duquesne University Social Fraternity

Eberly Family Trust Based on need and superior academic achievement Preference to Fayette, Greene, Washington and Westmoreland counties in that order

Eckenrode Scholarship Need based

Dumeno Forillon Scholarship Education student Normally based on need

Ferry Scholarship Based on need and academics

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

Gutman Scholarship Need based

William Hart Scholarship Need based

Hesseltng Scholarship Based on need and minimum 25 QPA. Enrollment in College of Liberal Arts

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

Hawkette Scholarship For seminarians of the Roman Catholic Diocese of Pittsburgh

Hyman Scholarship Need based. Selection by member of Hyman family Foundation

Kate M Kelley Scholarship Need based

Kressguyen Scholarship Need based Residents of Allegheny County

Frank Kirk Scholarship Need based

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

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

Knap Scholarship Based on need and academics

Lauri Scholarship Need based

Lefus Scholarship Need based

Margutti Scholarship Need based

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

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

McDonough Scholarship Based on need and academics

McGrath Scholarship Need based

Theodore Meyers Scholarship Need based Preference to children of Veteran of World War I or 2

Tobin Memorial Scholarship Need based Order of preference (1) Single parent, child of single parent, married, other, (2) Sex - female, male (3) Race - African American, other US Government minorities, other

Rahde Scholarship Need based 3 awards per year

Allen Reynolds Scholarship Need based

Summers Family Scholarship Need or Merit based

Residents of Tri-State area - Pennsylvania, Ohio, West Virginia

Jerry Smith II Need based, average grades

Spring Hill Foundation Wayne County residents with preference to children of employees or residents of Sterling Township 2 QPA needed for renewal

Statler Scholarship Need based

Tassan Scholarship Need based

Very Scholarship Based on need and academics

Thomas Wonschel Scholarship Based on need and academics

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

The following are awarded by financial aid and outside representatives

Collegia Scholarship Based on academics Juniors and Seniors in College of Liberal Arts or School of Natural and Environmental Sciences with specific majors

Daily Scholarship Based on need and academics Residents of Butler County

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

Eberhardt Memorial Fund Based on need, academics and activities

Theodore Engleman Scholarship Need based

Mere E Gillard Scholarship Based on need and academics

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

Student Life

Bartole Scholarship Based on need, academics and service Sophomores and Juniors in Business

Geedum Memorial Scholarship Based on academics

Pharmacy students

Hogan Scholarship Need based

Harry McCluskey Memorial Award based on academics, character and volunteer activity

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

College of Liberal Arts

Carror Scholarship Based on academics and creative writing Apply through English Department

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

Kehkajl Scholarship Based on need and academics Communications majors

Laurosii Scholarship Based on need and academics Incoming freshmen, non-renewable Journalism majors

C. S McCarthy Scholarship Need based Juniors and Seniors majoring in Journalism

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

School of Business Administration

** = Application/Information available from Admissions Office, 703 Beckwell Hall

Accounting Scholarships Based on need and academics Juniors and Seniors majoring in accounting Apply by October 1 Applications available from Accounting faculty

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

Clen Beson Scholarship Based on need and academics (3.5 QPA) Seniors, Junior or Senior Business Students **

Consolation Coal Company Scholarship for Information Technology $1,500 to student majoring in Information Technology, with 30 QPA and senior standing by fall of award year. Final determination based on essay

DelPlana Scholarship For needy and worthy junior accounting majors 325 QPA Selected by committee **

Duquesne African American Accounting Scholarship African American accounting majors who maintain a 30 QPA Application and information available from Director of the African American Accounting Scholarship Program

Malxx Scholarship Based on need and merit - minimum 2.75 QPA **
Athletic Training

John Joseph Monteverale Scholarship

Health Management Systems

Roche Memorial Scholarship

Hearst Scholarship

Mary Bischoff Scholarship

Radakovich Scholarship

Therapy Association, Physical Therapy

Perfusion Technology

ME 20824-01220

Professional phase: Applications available through the School of Pharmacy for final year students. Information available through the School of Pharmacy. Contact Dept of Athletic Training for details.

School of Education

Mary Bischoff Scholarship: Need based

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

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

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

Roche Memorial Scholarship: Juniors based on need and academics

M E. Sullivan Scholarship: Juniors or Seniors with Special or Elementary Education majors

School of Health Sciences

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

Health Management System: Loans and scholarships for final year students. Information available through American Health Information Management Association, 919 N. Michigan Avenue, Suite 1600, Chicago, IL 60611-1683, Phone 1-800-433-3243

Occupational Therapy: Scholarships for students in professional phase. Applications available through the American Occupational Therapy Foundation, 4720 Montgomery Lane, PO Box 31220, Bethesda, MD 20824-01220

Perfusion Technology: Scholarships available through the American Society of Extra-Cardiopulmonary Technology and the American Academy of Cardiovascular Perfusion. Contact Department of Perfusion Technology for information

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

Daniel Urso Scholarship: One fourth and one fifth year Physical Therapy student based on academic achievement, service and leadership. Not renewable.

Physician Assistant Financial Aid and scholarships are available through the American Academy of Physician Assistants, the Physician Assistant Foundation Scholarship Program, and the Pennsylvania Society of Physician Assistants. Blue Cross of Western Pennsylvania has provided scholarships to professional phase students. Contact the Department of Physician Assistant for information.

Speech-Language Pathology: Financial aid and scholarship information may be obtained by writing to the American Speech-Language-Hearing Association, 10801 Rockville Pike, Rockville, MD 20852, Phone (301) 697-5700

Institutional Employment Contracts: Allegheny General Hospital provides scholarships for students in professional phase. Amounts vary and require a commitment to Allegheny General Hospital. Contact current employees.

Many other hospitals in Southwestern Pennsylvania provide similar contracts. While information may be posted by departments, the University will not initiate or coordinate these programs. Students must independently seek out these sources. Students are advised to seek legal counsel before signing any documents.

School of Music

Alfred d’Albergue Scholarship: Based on need and academics

Barry Scholarship - Music: Recommended by Dean Hunter Memorial Award: Based upon musical and scholarly excellence

Lavelle Scholarship: Trumpet player Need based

Minnard Scholarship: Need based, academics secondary

Music Therapy Scholarship: Music Therapy students

Pattun Locker Fund: Based upon musical and scholarly excellence

Presul Trombone Scholarship: Based upon talent and promise of jazz trombone student

Renthold Scholarship: Based upon musical and scholarly excellence

Riley Piano Award: One award per semester for piano excellence

Rocerota Scholarship: Woodwind major based on academics

Matty & Eddie Shiner Students studying brass instruments

Mayo School: Cello student, minimum 30 QPA

Women’s Advisory Scholarship: Full time student

Other Awards: Contact Dean’s Office for information

School of Natural & Environmental Sciences

Chemistry Department Scholarship: For chemistry majors

School of Nursing

Rehab Scholarship: Based on need and academics

Warner Scholarship: Male student, based on need

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

Cruise Miller Scholarship: Based on recommendation of Dean

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

School of Pharmacy

Unless otherwise stated, apply through School of Pharmacy.

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

Bauer County Pharmaceutical Association Grant and Aid Fund: Revolving loan fund for two Pharmacy students. Students are residents of Beaver County, PA

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

Chilton Loan: To provide assistance for Pharmacy students

Joel P. Lauglin Scholarship: Awarded by the Graduate Chapter of Phi Delta Chi in memory of Joel P. Lauglin. Three annual awards of $200 to one fraternity brother in each of the three professional years. Must have demonstrated academic achievement and active participation in the functions of the Fraternity Manzione Family Scholarship. Endowed fund established in 1994. Awarded annually to a Pharmacy student in the professional phase. Based on need and academics

Cronton Eddy Goodwin Scholarship: In memory of Cronton Eddy Goodwin. Candidates must be a declared Pharmacy major, possess a minimum QPA, and have an interest in and demonstrated support of the University athletic program.

NARD Foundation: Provides loans to students of Pharmacy in their last two years for tuition, fees and books

Galen Pharmaceutical Society of Pittsburgh: Provides loans to students of Pharmacy in their last two years for tuition, fees and books

Galen Pharmaceutical Society of Pittsburgh: Provides loans to students of Pharmacy in their last two years for tuition, fees and books

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

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

Tau Alumni Chapter of Lambda Kappa Sigma - Rose Manzione Scholarship: In memory of Rose Manzione. P49. Financial awards for members in the last years of the Pharmacy program. Based on financial need and participation in the organization.

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

WONARD Scholarship: Women’s Organization of the National Association of Retail Druggists offers annual scholarships for pharmacy study. The award amount is determined by established need and academic standing. No applications. Apply directly to WONARD by June 1.

Donald Bell Scholarship: Fund of Thrift Drug Company. Awarded annually to deserving Pharmacy students who are entering the first years of the curriculum. Based on combination of scholarship, need, and demonstrated interest in community pharmacy practice.

Geraldine (Maia) Furguele Scholarship: In memory of Geraldine (Maia) Furguele, P’30. Provides scholarships for needy and deserving female students in the School of Pharmacy.

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

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

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

American Pharmaceutical Association Auxiliary Irene Bowers Scholarship: Grants awarded annually to members in good standing of Lambda Kappa Sigma, enrolled in B.S. in Pharmacy and Doctor of Pharmacy programs. Must rank in upper half of her class and present evidence of financial need. Application information from School of Pharmacy.
FINANCIAL AID

REGISTRATION AND SCHOLASTIC POLICIES

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 Semesters 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, fines, and balance due is mailed to the student at his or her permanent address a month before classes begin, thus enabling the student or parent to make payment by mail.

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

The financial obligation for class places reserved by a registered student who does not subsequently attend cannot be canceled unless written notification of the decision not to attend is given to the Registrar before the first class day. Notification received on or after the opening day of classes is subject to the official withdrawal policy. Withdrawal from a course, and ‘Withdrawal and Termination of Attendance’ are elsewhere in this catalog.

Except for changes requested by the dean or advisor, a fee of $5.00 is charged for each change form processed after the close of Pre-registration.

CHANGE OF SCHEDULE

Students requiring a change of class schedule, to change class times or to add or drop a class, are permitted to do so during the periods of Pre-registration, Final Registration, and Late Registration. Change of class schedule is not permitted after the Latest Date for Change of Schedule as announced in the Academic Calendar (published in the Schedule of Classes Booklet). All schedule changes must be approved by an academic advisor and processed with the Registrar.

Schedule change requests processes with the Registrar during Late Registration must also have the signatures of the instructors whose classes are being added or dropped.

Students who process change forms late are not entitled to refund for the course credits dropped. Courses dropped after the deadline for making schedule changes are classified as course withdrawals. (See ‘Withdrawal from a Course’, and ‘Withdrawal and Termination of Attendance’ elsewhere in this catalog.)

CROSS-REGISTRATION Guidelines

The purpose of Cross-Registration is to provide opportunities for enriched educational programs by permitting students at any of the ten Pittsburgh Council 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 each full-time student enrolled in a PCHE college or university with a PCHE college or university.

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

3. Arrangements have been made to the satisfaction of the University for payment in full of all financial charges, including fees, tuition, and housing charges, all of which are due and payable in full before the beginning of classes.
Each college or university accepts registration from the other institutions, however, first priority in registration is given to students of the host college, and not all departments or schools in all institutions are able to participate in this program.

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

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

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

Cross registrants do not thereby acquire the status of students in the institutions in which they are receiving instruction (e.g., for purposes of participation in student organizations, health care plans, 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 at the rate of the home institution. However, students are responsible for paying any additional course or laboratory fees to the host institution.

This cross registration program does not apply to the Summer Session at any of the institutions including the Spring Term at the University of Pittsburgh. However, taking courses at other institutions during those terms is facilitated by "temporary transfer student" procedures separately agreed to by the PCHE colleges and universities.

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

Procedures

A Cross-Registration form is obtained either from an Advisor or the Registrar's Office. The student then completes the form by indicating which courses he/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. All copies of the form are to be delivered to the Registrar's Office.

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

Late Registration

Late Registration may be permitted for serious cause with the approval of a student's dean and with payment of the fee. However, no student may be registered and begin attending classes later than the Latest Date for Registration as announced in the Academic Calendar (published in the Schedule of Classes booklet).

Records and Reports

Semester Grade Reports

Soon after the close of each semester, a grade report is sent to the permanent address of every student who is free of financial obligation to the University.

Transcripts

Each student who is free of financial obligations to the University will receive a summary transcript by May or her complete academic record at the close of each academic year. Students should carefully examine their records for accuracy and immediately report any errors to the Registrar in writing.

To obtain additional copies of academic records, students must write to the Registrar requesting transcripts for themselves or for mailing to other institutions and agencies. All official transcripts issued by the Office of the Registrar may 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 24-hour processing time is required for pick-up service from the Registrar's Office.

Confidentiality of Student Records

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

In order that parents of students may receive from University officials information concerning the academic record of their child, it is required that either the parents must prove the financial dependence of their child upon them according to the dependency test as defined in section 153 of the Internal Revenue Code of 1954, or the student must sign a waiver of rights.

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

Academic Policies

POLICIES

ACADEMIC ADVISEMENT

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

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

AUDITING COURSES

Regularly enrolled Duquesne students are permitted to audit courses. In addition, non-degree students from any institution 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 contacting the Office of the Registrar and the individual schools. Fees for auditing are uniform for all students.

Regulation 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 not 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.

Students eligible for auditing are determined by the individual colleges and schools of the University. A partial list of school policies follows, but students are advised to consult with the offices of the Deans for the most current listings:

1) No courses in the School of Law are available for audits.
2) No clinical courses in the School of Nursing and pharmacy can be audited.
3) The Rangos School of Health Sciences will not allow clinical courses or those courses in the professional phase of the curriculum to be audited by non-majors.
4) In the College of Liberal Arts and the School of Natural and Environmental Sciences, courses in humanities and social sciences can be audited, but communications and science laboratory courses may not be audited.

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

Cancellation of Courses

The University makes every reasonable effort to offer courses as announced in the Schedule of Classes booklet and the summer session tabloid. If the right, however, to make changes or cancel courses in the academic schedule because of insufficient enrollment or for any other equally valid reason.

Class Attendance

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

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

The student who is not able to attend class because of illness, hospitalization, a serious accident, or other extenuating circumstances is responsible for notifying the office of the appropriate school advisor. The student should supply any required written verifications as soon as possible.

The student must submit work assigned and take the examination in the course at the specified time. If work is not submitted or an examination is not taken at the scheduled time, the policy is to assign a zero for that part of the course. An accumulation of zero grades could result in a final grade of 'F'. If a student has for significant reasons missed a part of the course or an examination, the grade may be submitted as an 'I'. If the temporary 'I' grade is to be replaced by a passing grade, the work must be completed by the time stated in the Academic Calendar (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. This status is granted to currently enrolled students who have earned an academic standing of at least 12 credits and are excused from taking the final examination by permission of the academic advisor and the Dean of the student's school.

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

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

COURSE EXAMINATIONS
Unit examinations are given on the dates announced by the instructor at the beginning of each semester. Grades for these are available to the instructor. Final examinations are given at the end of each semester and summer session. No student is excused from taking the final examination.

CREDIT BY EXAMINATION
Examinations for recognition of proficiency in a subject, or for course credit, as authorized by the College or a particular School of the University, are available to currently enrolled students who by previous experience or exposure have acquired mastery of the knowledge in certain courses. An application fee of $30.00 is charged for each course credit. Application forms may be obtained from the Office of the Registrar. Since policies vary among the Schools, students who feel they may qualify for credit by examination should consult the Dean of the School in which they are enrolled for specific information about courses open to this examination procedure.

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

**Grade Description**
- A: Superior
- B: Excellent
- C: Very Good
- D: Good
- F: Average
- L: Below Average
- M: Satisfactory
- G: Average (Minimum general average for graduation)

**PLUS/MINUS GRADING OPTION**
The Plus/Minus Grading System is the official grading system of the University. Faculty are to announce at the first class meeting whether or not plus and minus grades will be used in grading course work and rating academic performance of the students in their class.

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 numbers received to the sum of quality points earned. The Quality Point Value of these grades are:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points Per Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>-2.3</td>
</tr>
<tr>
<td>C</td>
<td>-2.0</td>
</tr>
<tr>
<td>C-</td>
<td>-1.3</td>
</tr>
<tr>
<td>D</td>
<td>-1.0</td>
</tr>
<tr>
<td>F</td>
<td>-0.0</td>
</tr>
</tbody>
</table>

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

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

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

All students in the University are academically dismissed if they fail three courses in one semester. Students may be readmitted by the student standing committee of the college or school to which they were dismissed if they return to another school within the University, the student may 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 apply:

Academic Warning: 175 to 199 QPA (Letter of warning may be sent by the appropriate Dean)
Probation: 150 to 174 QPA (Subject to the jurisdiction of the appropriate Committee on Student Standing and may be required to modify or restrict academic program)
Dismissal: Less than 150 QPA (Readmission may be permitted upon recommendation of the appropriate Committee on Student Standing)

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

Academic Warnings: 185 to 199 QPA (Letter or warning may be sent by appropriate Dean)
Probation: 175 to 184 QPA (Subject to the jurisdiction of the appropriate Committee on Student Standing and may be required to modify or restrict academic program)
Dismissal: Less than 175 QPA (Readmission may be permitted upon 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

Once a course has been identified as a pass/fail elective, the course must be completed as such, and the grade submitted must be an S or U. No required course may be taken on this elective pass/fail basis. The decision to elect the pass/fail option must be made no later than the close of the period for making schedule changes. An authorized pass/fail election declaration form must be obtained from the advisor.
GRADED 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, filed the Application for the University Degree with the Office of the Registrar on or before the latest date to apply for graduation as announced in the Academic Calendar, and satisfied all financial obligations with the University.

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

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

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

1. The bachelor’s degree requires a minimum of 120 semester hours of course credits in all except Pharmacy, which requires 164 credits and Nursing, which requires 125 credits.

2. All bachelor’s degrees require an overall minimum quality point average of 2.0, which is a C grade average in a 4.0 system (Students 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.
Part IV: Tuition and Fees

Tuition and Fees

The University reserves the right to change tuition and fee charges if exigencies require such action. The figures shown apply to the 1996-97 term only, unless otherwise indicated.

**TUITION**

<table>
<thead>
<tr>
<th>RATE</th>
<th>(Arts, Business, Education, Nursing)</th>
<th>Full-time Undergraduate Tuition (12-18 cr)</th>
<th>University Services Fee</th>
<th>Total</th>
</tr>
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<tr>
<td></td>
<td></td>
<td>$12,420.00</td>
<td>976.00</td>
<td>13,396.00</td>
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<th>University Services Fee</th>
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<td></td>
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<td>Per-credit</td>
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<td>35.00 University Services Fee</td>
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<td>457.00 Total</td>
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<tr>
<th>RATE 3 (Health Sciences)</th>
<th>Full-time Undergraduate Tuition (12-18 cr)</th>
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<td>Per-credit</td>
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<td>35.00 University Services Fee</td>
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<table>
<thead>
<tr>
<th>RATE 4 (B S in Pharmacy, Years 4-5)</th>
<th>Full-time Undergraduate Tuition (12-18 cr) (Years 4-5)</th>
<th>University Services Fee</th>
<th>Total</th>
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**FEES**

- Application (non-refundable) $45.00
- Matriculation Deposit (non-refundable) $200.00
- Residence Hall Pre-Payment (non-refundable) $300.00
- Change of Schedule for processing each form $5.00
- Credit by Examination for each semester hour for recognition of proficiency of course credit (See policy in Part III, page 22) $30.00
- Orientation (New Students) $125.00
- Late Registration $25.00
- Removal of I Grade Fee $5.00
- Registration Correction Fee $15.00
- Continuing Registration Fee $100.00
- Undergraduate Pharmacy Student Activities (for Third, Fourth, Fifth, and Sixth Year Students) $40.00
- University Services Fee $35 per credit

**LABORATORY FEES**

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

- Laboratory fees apply to the 1996-1997 academic year $30.00
- English Language Placement Testing (ESL) $15.00
- English Language Placement Testing (ESL) fee is a one-time fee
- Laboratory Breakage Fee $113.50
- One breakage card per semester will cover laboratory breakage in Chemistry

**GRADUATION FEES**

- Thesis Binding Fee—Doctoral Dissertation $303.50
- Thesis Binding Fee—Master Thesis $133.50

**SUMMER TUITION**

Summer tuition is calculated on a per credit basis. See page 26 for the rate that applies to the school in which you are enrolled.

**AUDITING A COURSE**

The cost for auditing a course is the same as the per credit cost of a course.
WITHDRAWAL AND TERMINATION OF ATTENDANCE

Upon officially withdrawing from the University, a student receives remission of part of the tuition charged for the semester or session in accordance with the Tuition Remission Schedule. The amount of the remission is added to payments, and a refund is made upon request where a credit balance is created on the student's total account. The Effective Date of Withdrawal is determined by the registrar's office.

The student is entitled to reimbursement of the University's tuition and fees for the period of attendance covered by the Remission Schedule. However, no refund will be made if the student withdraws after the start of the second week of classes in the fall or spring semesters.

STUDENT FINANCIAL PROGRAM

The University is now offering a 12-month payment plan through Tuition Management Systems (TMS). The student is required to pay a $300 deposit, which is non-refundable, and the remainder of the tuition is divided into ten monthly payments of $290.10 each. The student must sign an agreement with TMS, and the account must be in good standing at the end of the fall semester to be eligible for this plan.

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 AM and 4:00 PM, 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 circumstances. It is the student's obligation to keep their account in good standing.

BILLING PROBLEMS

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

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 living, learning and developmental environment that will enhance students’ growth for the individual self-actualization and positive involvement in the world community.

PHILOSOPHY

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

ORGANIZATION

The Executive Vice President for Student Life coordinates the Departments of Athletics, Commuter Affairs, University Counseling Center, Duquesne Union, Financial Aid, Freshman Development and Special Student Services, Greek Life, Health Service, Judicial Affairs, Residence Life, and Student Activities. Several of these Departments are briefly described below. Additional information may be obtained directly from each Department and through the Student Handbook and Code of Student Rights, Responsibilities and Conduct.

ATHLETICS

The Duquesne University Department of Athletics sponsors 20 NCAA Division I sports including basketball, men’s and women’s basketball, women’s crew, men’s and women’s cross country, football (Division I-AA), men’s golf, women’s lacrosse (beginning Spring 1997) rifle (co-ed), men’s and women’s soccer, men’s and women’s swimming and diving, men’s and women’s tennis, women’s indoor and outdoor track, women’s volleyball, and wrestling. In addition, cheerleading, men’s crew, hockey, and men’s indoor and outdoor track are offered as club sports. Duquesne University believes in and promotes the concept of student athlete, evidenced by an Academic Support staff within the Department of Athletics. Athletic grants-in-aid are available in all varsity sports, with the exception of football.

In addition, the Department of Intramurals and Recreation offers to all students the use of a weight room, cardio-vascular room, racquetball courts, and various aerobics classes. Other activities in which students can participate include tennis, flag football, street hockey, basketball, softball, and soccer, just to name a few.

OFFICE OF COMMUTER AFFAIRS

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

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

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

Commuter Message Center: If someone needs to get a non-emergency 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 and family programming.

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

Other Services Include:

- Suggestions/Complaints
- Commuter Update: Distribution of Student Directory and Student Handbook to commuter students
- The Office is located in the Duquesne Union, Room 315. Office hours are extended during the Fall and Spring semesters when the Office is open Mon day through Thursday, 8:30 a.m. - 5:30 p.m. and Friday until 4:30 p.m. 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 Activities Calendars, and coordinates the Duquesne University Volunteers (DUV), the University’s volunteer program. The staff of this office provides services and amenities required to meet the daily needs of campus life, provides advice and assistance in all phases of campus programming, arranges all scheduling of events in the Duquesne Union, provides leadership training for student organizations and produces and presents a balanced series of cultural, educational, social and recreational programs in support of the mission and goals of the University. The Duquesne Program Council is the student organization of the Duquesne Union which involves students in all aspects of planning and implementing various programs. The DPC offers students a chance to be creative and to gain effective leadership, communication, and program planning skills. The Duquesne University Volunteers is the organization which promotes all volunteer activities of Duquesne students.

OFFICE OF JUDICIAL AFFAIRS

The Office of Judicial Affairs protects the rights and freedom of all students while insuring that such rights and freedoms are exercised within the correct constraints of student responsibilities to the University community. Legal technicalities are minimized and attention is focused on the student development process.

OFFICE OF RESIDENCE LIFE

The Office of Residence Life is committed to creating an environment in each of the four (4) 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 Learning Center experience is an important part of the total University education. The purpose of the Office of Residence Life is to facilitate the personal and academic growth of the resident 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 in the first floor of the Duquesne Union 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 program, policies and regulations for the Living Learning Centers is included in the Residence Life Handbook.

OFFICE OF FRESHMAN DEVELOPMENT AND SPECIAL STUDENT SERVICES

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

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

Please contact the Office of Freshman Development and Special Student Services at 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 Organizations and seeks to promote the Greek system as an integral and productive part of the institution.

To accomplish this mission, the Office promotes the noble ideas of academic excellence, leadership, philanthropy, and moral development of students within the framework of the Duquesne University Mission Statement. If provides training and consulting in leadership development, group processes, and interpersonal skills. If sponsors educational and social programming, and promotes a sense of community such as these processes promote learning outside the classroom.

B PROGRAMS

COMPREHENSIVE STUDENT ADVISEMENT

Students pursuing undergraduate studies are assigned to a student advisor who will work with them throughout their undergraduate career at the University. The student advisor, located in the school in which the student is majoring, acts as an
HEALTH SERVICE
Medical Nursing
The Health Service provides for the evaluation and treatment of illness and injury
Staff
The medical/nursing professional staff consists of Registered Nurses, Certified Nurse Practitioners, and Board Certified Physicians
Immunizations
Duquesne University has established a Pre-Matriculation Immunization Policy. All incoming undergraduate students (Freshmen, Transfers, Fellows, and Second-Degree) are required to provide documentation of immunizations. Immunization requirements will follow guidelines from the Center 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 Mercy Emergency Room. At that time, University physicians are consulted regarding the student's treatment and disposition
Location
The Health Service is located on the second floor of the Towers Living Learning Complex, 300-1656/1652
Eligibility
All full-time registered students. Cost of treatment or diagnostic procedures by non-University physicians, clinics or hospitals must be assumed by students, their family, or their medical insurance. This includes laboratory work performed in the Health Service and gynecological laboratory services such as PAP smears.

All health records are confidential and will not be released without the student's permission
INSURANCE
• It is strongly recommended that each student obtain some form of health insurance. The University provides a Student Health Insurance Plan designed to meet the needs of students and is priced lower than individual health insurance policies. Inquiries about health insurance should be directed to Genny Hughes (396-6677)

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

EMERGENCY
• A Crisis Coordinator is available 24 hours a day to assist in any type of emergency resulting from psychological or medical conditions.
• Call Campus Police 396-4747. They will provide assistance and will contact Paramedics. Health Service and the Crisis Coordinator as needed

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

UNIVERSITY ARCHIVES
The University Archives is the center for the documented history of Duquesne University. It preserves a central location of information about University schools, departments, people, buildings, and a variety of many other activities. The archives seeks to promote knowledge of the heritage and growth of the University through the years. Members of the Duquesne community and the community at large are encouraged to utilize the many collections for research or special interest.

The University Archives is located on the first floor of the Cramer Library. Phone: 396-6323

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

The OIA supports the university's strong commitment to international education as a valued component of the overall mission of the institution

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 development programs in reading, writing, mathematics and science, and offers to students who seek to upgrade their academic skills and advance their intellectual growth.

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

THE PSYCHOLOGY CLINIC
The Psychology Clinic offers initial evaluation, psychological assessment, and brief and long-term psychotherapy services to the general public, as well as to members of the Duquesne University community. Advanced Ph.D. students in the Psychology Department provide all services under the direct supervision of clinical faculty. Fees are set according to each client's income and ability to pay. The Clinic is open Monday through Friday from 8:30 a.m. to 4:30 p.m. Some evening appointments are also available. Persons interested in scheduling an appointment should call 396-6562. An intake session will be scheduled as rapidly as possible

D. STUDENT GOVERNANCE

STUDENT GOVERNMENT ASSOCIATION

The Student Government Association is designed to provide a forum for the expression of student views and interests, to maintain academic freedom and student rights, and to provide effective representation in the policy making and operations of the University. The Student Government Association is composed of the SGA council, which is elected from the student body, and serves as student representatives on crucial University committees and to recognize and fund student organizations.

COMMUTER COUNCIL

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

RESIDENCE HALL ASSOCIATION

The Residence Hall Association supports Living Learning Centers and is involved with the Office of Residence Life in developing and imple-
EDUCATION 

The University provides a wide range of educational opportunities for students. The University offers undergraduate, graduate, and professional degree programs in various fields. The focus on small class sizes and expert faculty ensures a personalized learning experience. The University is committed to student success and provides various support services, such as academic advising, tutoring, and career counseling.

STUDENT SERVICES 

The University is dedicated to providing a supportive and inclusive environment for all students. It offers various student services, including counseling, health services, and multicultural programs. The University also encourages student leadership and provides opportunities for students to engage in extracurricular activities.

LEARNING RESOURCES 

The University provides access to a variety of learning resources, including libraries, laboratories, and online resources. The University also offers support for students with disabilities, ensuring equal access to educational opportunities.

SPORTS 

The University sponsors a variety of intercollegiate sports teams and provides intramural and club sport opportunities for students. The University is a member of the NCAA and participates in various conference championships.

CAMPUS LIFE 

The University is committed to fostering a diverse and inclusive campus community. It offers a range of cultural, social, and entertainment events, including concerts, lectures, and sports games. The University also provides opportunities for students to get involved in volunteer work and community service.

THE Dukes 

The Dukes are the University's athletic teams. They compete in various sports, including football, basketball, baseball, and soccer. The University has a strong athletic department, and the teams are known for their competitive spirit and fan support.

University Yearbook 

The University yearbook, L'Esprit du Duc, provides a historic record of the University's student life, events, and achievements. It is published annually and includes photos, artwork, and other student contributions.
Part VII: Campus Ministry

The Campus Ministry is deeply concerned with the religious life and growth of all Duquesne students. Its policies and programs are oriented to furthering that growth at the personal as well as the community level. For Catholic students, Eucharistic services are celebrated daily, and the Sacrament of Reconciliation is scheduled regularly and by appointment. For all students, faculty and staff, whatever their faith, the Campus Ministers are available to help with spiritual direction, counseling, advice, or sympathetic listening, all in strict confidence. The Campus Ministry provides a listing of worship services of nearby churches and synagogues and referrals can be made to introduce the student to the various ministers or rabbis in the area. The University Chapel is open each day for private prayer and quiet meditation. It is available, too, to groups for specific services of a religious nature. All are invited to stop in the Campus Ministry Center in Towers Living/Learning Center or Room 102, Administration Building to offer suggestions for programs or services, or just to get acquainted with the Campus Ministry Staff.

The Campus Ministry sees itself at the service of the entire campus community in religious, social and community activities. Its main office is Room 102 on the first floor of the Administration Building, with additional offices in Duquesne Towers, St. Anns, Assumption, and St. Martin's.

Part VIII: University Programs and Courses

THE UNIVERSITY CORE CURRICULUM

STATEMENT OF PURPOSE

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

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

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

CORE COURSES

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

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

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

121 Problem Solving with Creative Mathematics 3 cr
An exploration of mathematics as a science and as an art with an emphasis on problem solving. Students may also satisfy this requirement with one of the basic Calculus courses (111 or 115), Fundamentals of Statistics 125 or Biostatistics 225.
through lecture and classroom demonstration. Theological aspects of a select number of key biblical texts and a discussion of their contemporary expression in literature, from the origins of Christianity to the contemporary era. 

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

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

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

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

Before you begin the application process to health professional schools, you must meet standard criteria in the following areas: overall grade point average, science grade point average, and admissions test score. You will also be evaluated by the health professional schools based upon letters of recommendation, an interview, typical courses taken, and the institution of graduation. Duquesne's Pre-Health Professions Program will provide you with guidance in achieving the necessary criteria.

The core courses are as follows:

- English: 2 semesters
- Logic (recommended): 1 semester
- Chemistry with laboratory: 2 semesters
- Organic Chemistry with laboratory: 2 semesters
- Biology with laboratory: 2 semesters
- Physics with laboratory: 2 semesters
- Calculus: 1 semester
- Psychology: 1 semester
- Advanced Writing (recommended): 1 semester

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

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

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

- Basic-level Courses: 0-2 cr
- Intermediate-level Courses: 0-2 cr
- Advanced-level Courses: 0-2 cr

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

Intermediate-level Courses:
- 0-2 cr

Advanced-level Courses:
- 0-2 cr

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

Advanced & Special Purpose Courses:
- 0-2 cr

Up to 20 hours of advanced English for non-native speakers.
The McAnulty College of Liberal Arts

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:

1. A minimum of 120 semester hours of course credits. The last 30 hours must be taken at the University.
2. University Core Curriculum
3. University Writing Intensive Requirement
4. College General Requirements, as described below.

- Major program (see departmental listings)
- Minor program (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
- Pre-registration (on form SRI) for B.A. or B.S. degree in major field
- Submission of application for degree on form provided by Registrar before the deadline published in the current University calendar.

No student is considered a degree candidate prior to submission of this form and official registration for the degree.

COLLEGE GENERAL REQUIREMENTS

- Students enrolled in the College of Liberal Arts for the B.A. or B.S. degree are required to complete the University Core Curriculum, consisting of 27 credits, for graduation.
- Students enrolled in the College are required to fulfill the following area requirements for graduation:
  - Modern or Classical Language proficiency at the 202 level
  - Math/Science (mathematics, computer science, biology, chemistry, physics) 3 cr
  - Social Sciences (political science, sociology, psychology) 6 cr
  - History/Literature 6 cr
  - Philosophy/Theology 6 cr
  - Communication 3 cr
- Courses taken in major or minor programs may also be used to satisfy the College General Requirements.

COLLEGE ACADEMIC POLICIES

Effective catalog

Degree requirements are those stipulated in the catalog of the year in which a student matriculates. The student is responsible for knowing the requirements for the degree. Requirements may be changed without notice or obligation. This catalog has been prepared on the best information available as of Spring 1996. Major requirements are those stipulated in the catalog of the year in which a student declares the major.

Academic Load

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

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

Residence Requirement

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

Limits on Inter-School Electives

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

Major/Minor in Same Department

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

Sequential Courses

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

Transfer Credits from Junior or Community Colleges

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

Temporary Transfers

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

CLEP and Advanced Placement

See page 11

University-Level Courses Taken While in High School

University-level courses taken by entering freshmen while in high school will be evaluated for credit if the following criteria have been met:

- The courses are recorded on an official transcript from an accredited institution of higher learning.
- The grades are C or better.
- The student has completed one semester at Duquesne with a C+ average, or better.

SPECIAL PROGRAMS

CERTIFICATE IN BUSINESS

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

OTHER CERTIFICATE PROGRAMS

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

PRE-LAW

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

COOPERATIVE EDUCATION PROGRAM

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

For further information about the Cooperative Education Program, interested parties should contact the 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 varying Humanities or Social Sciences. A concentration requires a minimum of 30 credits and a maximum of 39 credits. Courses must be chosen from courses 200 and above.

Further information is available in the Dean's Office.
DUAL DEGREE PROGRAMS
Dual degree programs are available with the School of Education (Classics and Mathematics) and School of Business Administration. Students complete the University Core, as well as the general requirements of each school. For specific information, students should consult with their academic advisor.

BACHELOR-MASTER’S PROGRAM
A student who has completed all requirements and 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.

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

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 after the successful completion of the first year of professional work in an accredited medical or law school. 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.
3) The Classical Languages major requires at least twenty-four credits in Latin and Greek in addition to six credits of ancient archaeology, ancient history, or ancient literature courses in English. The Survey of Sanskrit Literature (211-212) may be substituted for the credits of either Latin or Greek.

4) The Classical Civilization major is an 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 either Latin or Greek at the 200 level or above apply to the Classical Civilization major.

REQUIREMENTS FOR THE MINORS

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

ORIGINAL LANGUAGE COURSES

101, 102 Basic Latin I and II 4 cr each

The fundamentals of Latin grammar and syntax with exercises in translation

103, 104 Basic Greek I and II 4 cr each

The fundamentals of Greek grammar and syntax with exercises in translation

111, 112 Basic Sanskrit 3 cr each

The fundamentals of Sanskrit grammar and syntax with exercises in translation

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

Selections of major Latin authors

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

Selections of major classical Greek authors

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

DEPARTMENT OF CLASSICS

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

302 Fifth Century 3 cr
Herodotus, Thucydides, Aeschylius, Sophocles, Euripides, and Aristophanes

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

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

305 Roman Republic 3 cr
Publius, 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, Phiny the Younger, Suetonius, Apuleius and Lucan

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

309 Studies in Genre 3 cr
Selected periods of Greek and/or Latin literature

400 Independent Readings and Research 3 cr

500 Independent Readings and Research 3 cr

CLASSES COURSES IN ENGLISH

(NO GREEK OR LATIN REQUIRED)

121 General Etymology 3 cr
A study of Greek and Latin roots to facilitate the comprehension of English

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

123 Classical Mythology 3 cr
The major myths of Greece and Rome with attention to contemporary interpretations and the influence on art and literature

230 Ancient Theatre 3 cr
An examination of the origins and development of ancient tragedy and comedy

231 Ancient Epic 3 cr
A study of ancient epic literature with particular attention to the techniques of oral and literary composition

232 Contemporary Literature and Classics 3 cr
An investigation of the influence of ancient myth on 20th century French, German, Italian, English, and American literature

233 Ancient Sature 3 cr
Investigation of the satirical element with reference to the writings of Lucian, Lucius, Horace, Persius, Martial, and Juvenal

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

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

245 Greek History 3 cr
Greek history and culture from earliest times up to the death of Alexander of Macedon

246 Hellenistic History 3 cr
Hellenistic history from the death of Alexander until the accession of Octavian and the establishment of the Roman Principate

247 History of the Roman Principate 3 cr
The consolidation of the Roman imperial structure from Augustus to the death of Commodus

248 History of the Late Roman Empire 3 cr
Roman history from the accession of Severus to the death of Justianus

249 Egyptian Civilization 3 cr
A survey of Egyptian history and culture from the pre-dynastic period to the establishment of Roman rule in Egypt. Special attention will be given to the artistic, literary, and religious achievements of Egypt

260 The Classical Tradition 3 cr
A study of the influences of Graeco-Roman civilization on later cultural life

303 Seminar 3 cr
Topics variable

315 Archaeological History of the Ancient Greek World 3 cr
A survey of the archaeology of Greece from prehistory to the Roman period

316 Archaeological History of Athens 3 cr
An investigation into the topography and monuments of Athens and Attica, from the prehistoric to the Roman period

317 Archaeological History of the Ancient Roman World 3 cr
A survey of the archaeology of Italy from pre-history to the mid-fourth century A.D.

DEPARTMENT OF COMMUNICATION

Chairperson Ronald C. Arnett, Ph D

DEFINITION OF THE DISCIPLINE

Communication is both an ancient and extraordinarily contemporary discipline — from classical Greek culture to what has been called the "Communication Century." Communication in written and oral form helps us know, establish and clarify belief, and act upon the environment to bring about change or to reinforce stability in communication contexts ranging from interpersonal, organizational, intercultural, and international to technological and virtual environments. The "comprehensive" nature of our communication program introduces the student to organizational communication (profit and not-for profit) media, journalism, public relations and advertising career options. The Des Places Communication Center serves as the focal point for departmental activities. The center's resources, in addition to classroom space for courses dealing with relational and public communication issues, include two writing/word processing computer laboratories, a research laboratory, an instructional photo laboratory, seminar rooms, a performance room, a television production studio, and the studios of public radio station WDUQ.

DEPARTMENT OBJECTIVES

Major Our department is unique, a leader in a national trend toward "comprehensive" communication departments. All areas of communication are represented within one department. Communication Ethics is the departmental focus. The Communication Department consists of three different majors with optional areas of emphasis or concentration available (1) Major in Communication Studies with optional emphases in Organizational/Professional Communications, Rhetoric and Argumentation, and Human Communication, (2) Major in Media Studies, and (3) Major in Journalism with optional emphases in Print Journalism, News Production and Management, Advertising, Public Relations and Broadcast Journalism. This comprehensive communication program provides students with a wide arena of course options, taught by nationally known faculty.

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

319 Archaeological History Seminar 3 cr
Possible topics include The Bronze Age Aegean, The development of Vase Paintings, The Errusians, etc.
Practical Experience
An important characteristic of the Duquesne communication program is the quality of internship opportunities. Nearly all jobs require experience. We have more than 250 internship sponsors in the Pittsburgh area alone. We also place students in internships from New York to Los Angeles. We employ our own internship director; reflecting our commitment to internship experience and introduction to professional challenges.

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

REQUIREMENTS FOR THE MAJOR
A minimum of 30 credits in communication is required. (To encourage a broad liberal education, the maximum allowable credits in the department is 45.) Students design, in consultation with their advisors, a Plan of Study that is coherent and balanced.

"Coherence" is provided by following the requirements of one of the degree programs listed below. "Balance" is achieved by selecting a range of courses representing different perspectives, levels, and types. In order to facilitate this goal, five core courses are required of all majors.

A Five core courses 15 hours
B Minimum of one course from each of three course areas
   Media Institutions
   Media Audiences
   Media Messages
C Specialization dependent on advising

6 hours minimum

III Major in Journalism
A Five core courses 15 hours
B COMM 271W News Writing & Reporting I
C COMM 371W News Writing & Reporting II
D COMM 375W Editing for Print
E Specialization dependent on advising

6 hours minimum

Print Journalism
News Production and Management
Advertising
Public Relations
Broadcast Journalism

REQUIREMENTS FOR THE MINOR
Required 18 hours minimum
COMM 494W Communication Ethics (3 hours) with two of the following core courses (6 hours)

COMM 201 Human Communication and Society

COMM 210 Mass Communication and Society

COMM 301W History of Communication

COMM 407 Intercultural Communication

Minor Concentration Nine hours dependent upon advising in the areas of Communication Studies, Media Studies, and Journalism.

UNDERGRADUATE CURRICULUM

102 Public Speaking

3 cr
Develops communicative skills necessary to analyze verbal discourse and to perform effectively in public speaking situations that confront the educated person.

103 Introduction to Interpersonal Communication

3 cr
Develops communication skills in a variety of relationships such as friendships, romantic relationships, work, and family relationships.

111 Introduction to Media Arts

3 cr
Familiarizes students with equipment applications and technology, and provides basic hands-on experience in media production.

112 Introduction to World Wide Web Publishing

3 cr
Familiarizes students with digital on-line publication applications and technology.

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.

122 Phonetics

3 cr
Approaches the English language through the study and production of speech sounds as systematized by the International Phonetic Association.

145 Audio Production I

3 cr
Investigates the types of recording equipment, microphones, and sound systems needed for production. Offered in conjunction with the School of Music.

146 Audio Production II

3 cr
Introduces advanced aspects of audio production. Offered in conjunction with the School of Music.

151 Voice and Diction

3 cr
Trans students in the voice and diction skills required of professionals.

177 Language for Journalists

0 cr
Designed to teach students the basic rules of English grammar.

182 Photographic Imaging and Digital Imaging

3 cr
Introduces students to the use of photography as a medium of communication.

201 Human Communication and Society (Core)

3 cr
Human communication and society examines how people influence, and are influenced by, institutions, organizations, and other individuals.

202 Business & Professional Communication

3 cr
Focuses on one-to-one, group, and individual communication in business, government, industrial, and not-for-profit or service organizations.

203 Introduction to Small Group and Organizational Communication

3 cr
Develops communication skills in group and organizational relationships.

210 Mass Communication and Society (Core)

3 cr
An exploration of the social impact of mass communication through considerations of the (1) functions and uses of all forms of mass communication, (2) socio-political and cultural context of media institutions, delivery systems, technology and diffusion, (3) influence of media content on social constructions of reality, and (4) major theories and research through which we attempt to understand this impact.

214 Introduction to Debate

3 cr
This course outlines how to develop an argument in opposition to a given position.

215W Media Design and Script Writing

3 cr
Introduces the theory, process, and techniques of designing and writing for corporate media employee communication, training, and marketing promotion.

240 Video Production Studio

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

271W News Writing & Reporting I

3 cr
Teaches the fundamentals of news reporting and writing.

282 Color Photography

3 cr
Investigates 35 mm slide photography and its application to audio visual production.

285W Television Criticism

3 cr
This is a genre criticism course from both journalistic and academic perspectives.

301W History of Communication (Core)

3 cr
The history of communication surveys the ancient traditions of rhetoric and public communication through the rise of mediated and mass delivery systems.

304 Persuasion

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

308 Nonverbal Communication

3 cr
Examines nonverbal communication in human interaction.

333 Advertising and PR Campaigns

3 cr
Uses case study method to develop an understanding of the principles and practices of contemporary advertising and public relations.

340 Video Production EFP ENG

3 cr
Introduces electronic news gathering and electronic fields production as remote location video production techniques.

351 Radio and Television Advertising

3 cr
Applies principles of effective speaking to broadcasting.

355 Acting for the Camera

3 cr
An introduction to the art of acting.

367 Radio-TV Principles & Writing

3 cr
Applies writing principles and practices for radio and television news in a lecture-laboratory course.
DEPARTMENT OF COMMUNICATION

407/507 Editing for Print 3 cr
This course introduces the students to the use of the World Wide Web in advertising and PR strategies and to teach the techniques for the development of commercial advertising sites and public relations vehicles.

411/511 Rhetorical Criticism 3 cr
Examines critical methods and approaches to the study and analysis of rhetorical acts, movements, and speeches.

412/512 Literary Journalism 3 cr
Although this course will look at writers from other countries, its focus will be on American literary journalism and the many writers who traverse fiction and lyrical journalism.

414/514, Rhetoric of Religious Symbols 3 cr
The aim of this course is to introduce how the rhetoric of religious symbols influence and enrich our daily living.

415/515 Multinational Communication 3 cr
Focuses on the similarities and differences in the way people from different nations think, act, and negotiate.

418/518 Communication and Conflict 3 cr
Examines the role of communication in managing and regulating interpersonal and organizational conflict.

419/519 Mass Communication & Everyday Life 3 cr
Course examines theories and research in the field of mass media (notably television) and society.

421/521 Communication and Gender 3 cr
Examines the differences between men's and women's communication styles in a variety of contexts, including personal, social, and work relationships.

422 Evidence 3 cr
Designed for students of exposition, discussion, persuasion, and argumentation who must support assertions with evidence and defend judgments with probable cause in the many aspects of public communication.

427/527 Communication Management 3 cr
Examines the role of communication in management.

428 Visual Communication 3 cr
Introduces students to the theories of visual perception, graphic communication, and their practical application to the production of visual communication.

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

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

431/531 Computer Graphic Design 3 cr
This course uses computer-based desktop-publishing software to create various forms of visual communication while weaving into overall class understanding, the theories of page design, color and composition.

432/532 Media Production & Graphic Design 3 cr
Examines the print communication of business, industry, professional, and non-profit organizations.

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

434 Media and Sports 3 cr
An overview and analysis of the relationship between sport and media entities and industries.

435 Media Sports Relations 3 cr
An examination and practical application of the public relations, publicity, media coordination, and event organization and management skills necessary for success in the sports industry.

436/536 Marketing Communication 3 cr
Emphasizes 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 within contemporary business environments — with special emphasis on the tools for media sales.

441 Interactive Video 3 cr
Investigates interactive video as a medium that goes beyond linear media.

451 Organizational Communication 3 cr
Examines the scope and function of communication in organizations.

455/555 Small Group Communication 3 cr
Topical course providing a transformation, structure, decision-making, roles, status, errors in decision-making, interaction models, conflict, and methods of doing research in and about small groups.

456/556 Organizational Communication 3 cr
Examines the role of communication in management.

457/557 Communication, Science, and Revolution 3 cr
Examines how communicative beliefs built upon assumptions common to science and revolution influenced the "modern" world's understanding of communication.

458/558 Communication and Imagination 3 cr
Examines how the triumph of beliefs dominated by "imagination" over beliefs dominated by "science" has changed our understanding of communication.

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

471 Advanced Public Affairs Reporting 3 cr
Teaches interpretive reporting of urban affairs in a lecture-laboratory course.

472 Writing Editorials, Critiques & Reviews 3 cr
Examines, the role of communication in management.

473/573 Feature Writing 3 cr
Teaches feature article writing for the general and specialized print publication.

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

475/575 Communication Research Methods 3 cr
This course provides training in gathering and analyzing data relevant to communication phenomena.
DEPARTMENT OF ENGLISH
Chairperson
Joseph J. Keenan, Jr., Ph.D.

The English Department offers a variety of courses in historical surveys, major literary figures and works, writing, both creative and practical, theory and criticism, genre studies, film studies, thematic studies, linguistics, special topics. A degree in English provides a foundation for graduate work and the liberal preparation sought by the worlds of business and law.

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

- 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.

- Five 400-level courses (which may include the Senior Seminar specified below) as follows:
  - Medieval
  - Sixteenth/Seventeenth Century (including Shakespeare Studies)
  - Restoration-Eighteenth/Nineteenth Century
  - Twentieth Century (English or American)

- 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.

- 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 such as films) 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 Senior Seminar (which may fulfill one of the 400-level requirements specified above)
- 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 Minor. No more than six hours in English may be taken at the 200-level. English minors will concentrate their studies in a minor of the following three emphases: English and/or American Literature, Literature and Film, or Writing. Additionally, English minors must fulfill the following minimum requirements:

- 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. These courses should be taken in one of the areas of emphasis indicated above. The first one advanced course from another area may be substituted.

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

Honor's Program
Students interested in pursuing Honors in English should consult with the Department.

Courses

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>201 English Literature Survey I — Through the Eighteenth Century</td>
<td>3 cr</td>
</tr>
<tr>
<td>202 English Literature Survey II — Nineteenth and Twentieth Centuries</td>
<td>3 cr</td>
</tr>
<tr>
<td>203 Advanced Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>205 American Literature Survey I — Beginnings to 1865</td>
<td>3 cr</td>
</tr>
<tr>
<td>206 American Literature Survey II — After 1865</td>
<td>3 cr</td>
</tr>
<tr>
<td>207 The Novel Introduction to various types of novels and to critical analysis of fiction</td>
<td>3 cr</td>
</tr>
<tr>
<td>208 Poetry Critical analysis of British and American traditional and experimental poetry</td>
<td>3 cr</td>
</tr>
<tr>
<td>209 Drama A historical survey of dramatic forms from the classic to the modern</td>
<td>3 cr</td>
</tr>
<tr>
<td>210 Readings in Western Literature I A thematic survey of non-British literature through the Renaissance</td>
<td>3 cr</td>
</tr>
<tr>
<td>211 Readings in Western Literature II A thematic survey of non-British literature from the Renaissance onwards</td>
<td>3 cr</td>
</tr>
<tr>
<td>215 Non-Western Literature English translations of representative Asian and African literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>208 Applied Linguistics Practical uses of structural linguistics in the teaching of composition and literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>210 Readings in Western Literature I A thematic survey of non-British literature through the Renaissance</td>
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<td>3 cr</td>
</tr>
<tr>
<td>309 English Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>310 American Literature Survey I — Beginnings to 1865</td>
<td>3 cr</td>
</tr>
<tr>
<td>311 American Literature Survey II — After 1865</td>
<td>3 cr</td>
</tr>
<tr>
<td>312 The Novel</td>
<td>3 cr</td>
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</tbody>
</table>

Senior Seminar

- Senior Seminar (if space is available)

Special Topics

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>420 Senior Seminar</td>
<td>3 cr</td>
</tr>
<tr>
<td>422 Restoration Literature, 1660-1740</td>
<td>3 cr</td>
</tr>
<tr>
<td>424 English Classicism</td>
<td>3 cr</td>
</tr>
<tr>
<td>426 Late Eighteenth Century English Literature</td>
<td>3 cr</td>
</tr>
<tr>
<td>428 Eighteenth Century English Literature</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

Nineteenth Century Studies

- Nineteenth Century English Literature | 3 cr |
- Nineteenth Century American Literature | 3 cr |
- Nineteenth Century Special Topics | 3 cr |
- American Studies | 3 cr |
- Earlier American Literature | 3 cr |
DEPARTMENT OF HISTORY

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

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

445 American Romantism 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, and others.

447 American Literature since 1945 3 cr
Literary innovations reflecting the century’s cultural and philosophical shifts.

450 Senior Seminar
Twentieth Century English/American Literature 3 cr

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

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

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

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

458 Twentieth Century Special Topics 3 cr

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

461 Senior Seminar
Language/Criticism/Theory 3 cr

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

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

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

466 Literary Theory 3 cr
Principal developments in twentieth-century literary theory and criticism, emphasizing New Criticism, structuralism, post-structuralism, Marxism, and feminism.

458 Special Studies, Language/Criticism/Theory 3 cr

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

DEPARTMENT OF HISTORY

414 Western Civilization 3 cr
An introductory survey of the origins and characteristics of European civilization, emphasizing the personalities, events, and institutions that have shaped the West from the 17th century.

212 Europe in the Feudal Age 3 cr
The world of the Middle Ages — a survey of medieval man’s political, social, and cultural activities.

254 The History of the Modern Middle East 3 cr
A study of the modern Near East with concentration upon the conflict between imperialism and nationalism, traditionalism and western influences in the area.

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

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

259, 260 East-Central Europe I & II 3 cr each
The medieval and modern history of the nations situated between Russia and Germany on the east and the Baltic and Mediterranean Seas on the north and the south.

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

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

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

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

307, 308 History of Science I & II 3 cr each
A survey exploring the significance of scientific developments within the historical and social context of Western culture.

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

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

322 Contemporary Latin America 3 cr
An examination of the causes of revolution, as well as the major social, economic, and political crises confronting the Latin American region.

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

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

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

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

347 War in Modern Society 3 cr
A study and analysis of the phenomenon of war in the Western World from the Age of Napoleon to the present, with special emphasis upon the interrelationship between international conflict and social, political, and technological change.

348 Family and Society History 3 cr
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.

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

358 Civil War and Reconstruction 3 cr
An in-depth study of the American experience from the roots of the sectional conflict in the expansion of the United States through the struggle over slavery, the War itself, and the controversies over the restoration of the Union.

360 Constitutional History of the United States 3 cr
An analysis of the Supreme Court and constitutional development, stressing the major controversies in the field.
362 History of the United States' Political Parties 3 cr
A detailed examination and analysis of the origins, leadership, and operation of the major political parties since 1868

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

366 The Modern Mind 3 cr
The major ideological tendencies of modern European thought and their connection to society and politics, and to the major philosophic and scientific currents of the nineteenth and twentieth centuries

367 Science and Society in the Twentieth Century 3 cr
The economic, social, and cultural consequences of the rise of modern science

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

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

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

380 European Fascism 3 cr
An intensive study of the major fascist movements and regimes of the twentieth century in light of the political, economic, social, intellectual, and psychological tensions which produced them

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

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

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

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

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

395 History of the American City 3 cr
The rise of urban America, addressing such topics as city growth and change, industrialization, immigration, and renewal in the latter half of the twentieth century

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

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

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

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

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

414 Reformation Europe 3 cr
A lecture and discussion course, including audio-visual presentations, describing Protestantism (with emphasis on Martin Luther), the Catholic Reformation, and the Counter-Reformation in the context of economic, political, and social developments in western Europe from 1500 to 1648

417 Reason and Revolution 3 cr
An examination of the history of Europe between 1648 and 1815, this course will concentrate on the rise of absolutism as personified by Louis XIV, the enlightenment and the developments of the Enlightenment, the social and economic changes that underlay and undercut the ancien regime, and the great cataclysm of the French Revolution that ushered in the modern world

419 19th-Century Europe 3 cr
An examination of the European experience between 1815 and 1914, with emphasis on political, social, and cultural trends
design and implement creative solutions. In addition to comprehensive programs leading to a major or minor in mathematics, offerings are designed to serve the literally educated person in support of other disciplines.

**REQUIREMENTS FOR A MAJOR**

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

Mathematics Core (B.A. and B.S.) 115, 116, 215, 216, 300W, 306, 401W, and 415W. A grade of C or better must be achieved in all mathematics core courses. Remaining courses must be taken at the 300-level or above.

**Extra-disciplinary Requirements (B.A. and B.S.)**

Computer Science 150

Additional B.S. Mathematics Requirements

Applications component. At least one course chosen from 301 and 308.

Theoretical component. At least two courses chosen from 402W, 403W, 420W, and 416W.

**General Analytical Physics 211-212**

**REQUIREMENTS FOR A MINOR**

The minor 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 300 or above.

**MATHEMATICS COURSES**

101 College Algebra 3 cr

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

102 Trigonometry 3 cr

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

105 College Algebra and Trigonometry 4 cr

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

111 Calculus for Non-science Students 3 cr

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

115 Calculus I 4 cr

The same topics as 111 except trigonometric functions are included. Credit is not allowed for both 111 and 115.

116 Calculus II 4 cr

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

125 Fundamentals of Statistics 3 cr

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

215 Calculus III 4 cr

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

216 Ordinary Differential Equations 3 cr

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

225 Introduction to Biomathematics 3 cr

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

300W Foundations of Higher Mathematics 3 cr

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

301 Introduction to Probability and Statistics I 3 cr

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

302W Introduction to Probability and Statistics II 3 cr

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

306 Linear Algebra 3 cr


308 Numerical Analysis 3 cr

Linear systems, interpolation, functional approximation, numeric differentiation and integration, and solutions to non-linear equations. May be counted as either mathematics or computer science, but not both. Prerequisites 116 and Computer Programming (150).

311 Number Theory 3 cr

Divisibility, congruences, quadratic residues, diophantine equations, and arithmetic functions. Prerequisites 225 or 300W.

325W Applied Statistics with Regression 2 cr

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

330W Fundamentals of Geometry 3 cr

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

401W Advanced Calculus I 3 cr

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

402W Advanced Calculus II 3 cr

A deeper examination of the algebraic structures studied in 401W including quotient groups and rings, extension fields, and other selected topics. Prerequisite 401W.

403W Topology 3 cr

Topological spaces, homeomorphisms, connectedness, compactness, regular and normal spaces, metric spaces, convergence, and separation axioms. Prerequisites 401W or 415W.

415W Experimental Design 2 cr

Analysis of variance, nested and nested-factorial designs, split-plot designs, response surface designs. Prerequisite 320W or permission of instructor.

491-99 Selected Topics of Mathematics 1-3 cr

**COMPUTER SCIENCE COURSE**

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, Lsp, Modula-2, Pascal, and Prolog, and operating systems including Unix, VMS, and DOS/Windows. Offerings provide opportunities for students seeking courses supporting other disciplines as well as comprehensive programs leading to a major or minor in computer science.

**REQUIREMENTS FOR A MAJOR**

The student may choose to pursue a major in computer science with a program leading to a Bachelor of Science (B.S.) or a Bachelor of Arts (B.A.). The B.A. program, which requires a minimum of 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 or study in computer science at the graduate level. Requirements for all majors are as follows:

Computer Science Core 150, 210, 220, 250, 300, 325W, and 350W (each with a grade of "C" or better)

**Additional B.A. Computer Science Requirements**

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

**Additional B.S. Computer Science Requirements**

At least 12 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.)

111-116 (Calculus I & II)

Additional B.S. Support Courses (Physics 419 Intro to Microcomputers) and at least two mathematics courses selected from 300W (Foundations of Higher Mathematics), 311 (Intro to Probability and Statistics), or 306 Linear Algebra.

**REQUIREMENTS FOR A MINOR**

A minimum of 17 hours in computer science is required for a minor. All programs must include Computer Science 150, 210, 220, 250, 300, and three additional hours numbered 300 and above.

**COMPUTER SCIENCE COURSES**

101 Elements of Computer Science 3 cr

A survey of topics necessary for basic computer literacy. Introduction to programming. Credit not given to computer science majors or minors.
101 Basic Programming 3 cr
Microcomputer programming in Visual Basic
Elementary development and data representation
Credit not given to computer science majors or minors

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

210 Data Structures 4 cr
Dynamic allocation, stacks, queues, linked lists,
induction, recursion, stacks, trees, string processing,
advanced searching, and sorting, and hashing

220 Computer Organization and Assembly Language 3 cr
Basic structure of computer hardware and software,
data representation, addresses and instructions, control
structures, device drivers, files, and macros

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

300 Advanced Data Structures 3 cr
Data organization, connections between the design
of algorithms and the efficient implementation
and manipulation of data structures
Abstract data types, tries, trees, B-trees, and graphs

305 Digital Logic 3 cr
Boolean algebra and logic gates, combinational logic,
decoders, encoders, multiplexers, registers, counters,
memory units, flip-flops, arithmetic state machines,
and digital integrated circuits

308 Numerical Analysis 3 cr
Identical course to MATH 308 Credit can only be
received for one of COSC 308 or MATH 308

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

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

350W Computers and Humanity 3 cr
An exploration of the impact of computerization
on present and future society including sociological
and philosophical issues in computer science

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

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

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

425 Computer Graphics 3 cr
Geometric generation of two- and three-dimensional
graphics, scan conversion, geometric transformation,
clipping, interaction, curves and surfaces, and animation

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

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

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

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

Chairperson Carla E. Lucente, Ph.D.
The Department of Modern Languages and Literatures
offers courses in Chinese, French, German, Italian,
Japanese, and Spanish. The four language skills
(reading, writing, speaking, and oral comprehension),
are emphasized at all levels. Fluency in the active
use of the language is emphasized.

490 Independent Field Study 2-12 cr
Subject to the approval of the department chairperson

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

THE McANULTY COLLEGE OF LIBERAL ARTS

French

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

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

115 French for Musicians 2 cr

120 Intensive French 6 cr

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

220 Intensive French II 6 cr

239, 240 Readings in Modern French Author
3 cr each

301 French Conversation and Composition I 3 cr
Prerequisite 202

302 French Conversation and Composition II 3 cr
Prerequisite 301

305M Intensive French Conversation
and Composition 6 cr

326 Existentialism 3 cr

328 Symbolist Movement in French Poetry 3 cr

329 French Poetry Middle Ages to 20th Century 3 cr
Study of mechanics of prosody, various genres,
periods, movements in French poetry

339 17th Century French Literature 3 cr
Emphasis on 17th Century French prose and poetry
Will also include a play of Corneille, Racine, and Moliere
lab attendance

300 French Prose of the 19th Century 3 cr
311 18th Century French Literature 3 cr
312 An overview of the Siècle des lumières
332 Voltaire and His Age 3 cr
350 French for Business 3 cr
Spoken and written language of business French
letter writing, import, export, and commercial
transactions
400 French Culture and Civilization 3 cr
The major cultural and socio-political movements
of France through its literary works
402 From the Chanson de Roland through 18th Century 3 cr
403 Literary Survey I
404 19th Century Modern Period 3 cr
405 Literary Survey II
406 17th Century French Theatre 3 cr
An overview of the theatre de grand siècle
Emphasis on Corneille, Molière, and Racine
407 18th Century French Theatre 3 cr
An overview of the major dramatists of the century
including Marivaux, Voltaire, and Beaumarchais
408 19th Century French Poetry 3 cr
The major poetic movements of the 19th Century
Romanticism, Parnassianism, Symbolism, with a
special emphasis on Baudelaire
409 19th Century French Novel 3 cr
Selected novels from the 19th Century, from Romanti-
cism to Naturalism
410 19th Century French Theatre 3 cr
Beginning with the influence of the Revolution
on French literature, through the literary movements
of the century
411 20th Century French Poetry 3 cr
Ambivalence of modern French poetry after
Baudelaire
412 20th Century French Novel 3 cr
A study of the major works, authors, and movement
of the 20th Century
413 20th Century French Theatre 3 cr
From Jules Romains to Ionesco and the Theatre of
the Absurd
414 Sartre and Camus 3 cr
415 Directed Readings 1-6 cr
Readings of literary texts under close faculty super-
vision, for majors only and only with written per-
mission of the Department chairperson

German

101 Elementary German I 4 cr
Fundamentals of oral and written German Weekly
lab attendance
102 Elementary German II 4 cr
Fundamentals of oral and written German Weekly
lab attendance Prerequisite German 101
115 German for Musicians 2 cr
For majors in music
202 Intermediate German II 4 cr
An emphasis on the oral and written aspects of the
language Prerequisite German 102
239, 240 Readings in Modern German Authors 3 cr each
301 German Conversation and Composition I 3 cr
Prerequisite 202
302 German Conversation and Composition II 3 cr
Prerequisite 301
306 Intensive German Conversation and Composition 6 cr
Prerequisite German 202
302 or 306 is the prerequisite for all courses above this
level
320 German Culture and Civilization 3 cr
324 Popular Tradition in German Literature 3 cr
329 Introduction to German Poetry 3 cr
330 Modern German Prose 3 cr
331 Modern German Theatre 3 cr
350 German for Business 3 cr
Spoken and written language of business German
letter writing, import, export, and commercial
transactions
400 German Literature from the Middle Ages to the Baroque 3 cr
401 German Literature from the 18th Century to the 20th Century 3 cr
402 Advanced German Stylistics 3 cr
404 German Romantic Literature 3 cr
The German Romantic movement following the
Napoleonic era. The role of the individual in the
works of Novalis, Tieck, etc
405 Modern German Prose 3 cr
The process of alienation in modern German
literature
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 per-
sonified in Goethe's Faust
470 Literature of the Enlightenment 3 cr
Literary works of major writers such as Lessing and
Kant

Italian

101 Elementary Italian I 4 cr
Fundamentals of oral and written Italian Weekly
lab attendance
102 Elementary Italian II 4 cr
Fundamentals of oral and written Italian Weekly
lab attendance Prerequisite Italian 101
109 Italian for Lawyers 2 cr
115 Italian for Musicians 3 cr
For majors in music
202 Intermediate Italian II 4 cr
Emphasis on the oral and written aspects of the
language Prerequisite Italian 102
306 Advanced Italian Conversation and Composition 6 cr
Prerequisite 202 or equivalent Prerequisite for all
courses above 306
314, 315 Individual Study 3 cr
Var cr
With written permission of the Department Chair-
person
321 Introduction to Italian Literature 3 cr
322 Commercial Italian 3 cr
Spoken and written language of business Italian
letter writing, import, export, and commercial
transactions
323 Introduction to Italian Theatre 3 cr
324 Introduction to Italian Poetry 3 cr
326 Italian Culture and Civilization 3 cr

Japanese

101 Elementary Japanese I 4 cr
Fundamentals of oral and written Japanese Weekly
labatory attendance
102 Elementary Japanese II 4 cr
Fundamentals of oral and written Japanese Weekly
labatory attendance Prerequisite Japanese 101
or equivalent
202 Intermediate Japanese II 4 cr
An intensified continuation of oral and written
Japanese Prerequisite Japanese 102

Spanish

101 Elementary Spanish I 4 cr
Fundamentals of oral and written Spanish Weekly
labatory attendance
102 Elementary Spanish II 4 cr
Fundamentals of oral and written Spanish Weekly
labatory attendance Prerequisite Spanish 101
105/107 Medical Spanish 2 cr each
109 Spanish for Lawyers 2 cr
120 Intensive Spanish 6 cr
202 Intermediate Spanish II 4 cr
Emphasis on the oral and written aspects of the
language Prerequisite Spanish 102
220 Intensive Spanish 6 cr
239 Readings in Modern Spanish Authors 3 cr
240 Readings in Modern Spanish-American Authors 3 cr
301 Spanish Conversation and Composition I 3 cr
Prerequisite Spanish 202
302 Spanish Conversation and Composition II 3 cr
Prerequisite Spanish 301
306 Intensive Spanish Conversation and Composition 6 cr
Prerequisite Spanish 202
302 or 306 is a prerequisite for all courses above this
level
322 The Nineteenth Century Novel 3 cr
Examine the realist, naturalist, and regionalist
novel
323 Don Juan as a World Literary Figure 3 cr
324 The Generation of 98 3 cr
Major works of Spain's turn of the century authors
in their aesthetic and historical contexts
325 Contemporary Spanish Novel 3 cr
The Spanish novel since the Civil War
326 Contemporary Spanish-American Fiction 3 cr
327 Spanish Culture and Civilization 3 cr
A study of the major cultural and socio-political
movements of Spain through its literary works
328 Modern Spanish Theatre 3 cr
From Buero Vallejo to the present, including the
"Underground Theatre"
329 Revolt and Change 3 cr
Spanish American Literature 3 cr
Nature and types of protest in modern Spanish-
American Literature. Major works of "protest
literature"
330 Theatre of the Gold Age 3 cr
Focus on the major dramatists of the period Lope
de Vega, Calderon and Tirso de Molina
360 Spanish for Business 3 cr
Spoken and written language of business Spanish
letter writing, import, and commercial transactions
Philosophical reflection encourages human beings to seek the truth and to examine the moral foundation of their thought and action. The general program in philosophy introduces students to philosophical thinking, both past and present, and provides a discipline for asking the basic questions of human life. Courses encourage concentration on original major texts from Plato, through the medieval and modern periods of philosophy, up to the present. Contemporary continental philosophy is a specialty. Philosophy fosters the ability to read with understanding, to think logically, to argue rationally, and to evaluate positions critically. Majors have distinguished themselves in careers in philosophy, law, business, and in the priesthood.

**REQUIREMENTS FOR THE MAJOR**

A total of 30 credits
- at least 24 credits above the 100-level,
- at least 9 credits from courses 300-305,
- at least 6 credits at the 400-level

**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 102 Basic Philosophical Questions**
3 cr
Philosophy, "the love of wisdom," is a discipline for discussing basic questions about ourselves and our world. Students read selected works by major philosophers throughout the history of philosophy, they are encouraged to think critically and to formulate their own answers to perennial philosophical questions. This course is required for all students in the major.

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

**106 Introduction to Logic**
3 cr
This course includes an analysis of valid reasoning, logical fallacies, types of definitions, arguments in ordinary discourse, and the formal logic of inferences.

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

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

**109 Contemporary Moral Problems**
3 cr
This course concentrates on concrete case studies from various fields. Prerequisite: PHIL 105 Ethics.

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

**204 Literature and Philosophy**
3 cr
This course explores philosophical themes in selected works of literature.

**212 Political Philosophy**
3 cr
Fundamental political questions are explored through readings from some classical but mainly from contemporary sources. The link between philosophy and practical political themes is emphasized as much as possible.

**214 Philosophy of Sex**
3 cr
This course provides an introduction to some of the basic themes and texts, both traditional and contemporary, related to the philosophical study of sexuality.

**220 Philosophy of Death and Living**
3 cr
This course provides an introduction to traditional and contemporary themes and texts related to this topic. In asking how human beings can be happy in the face of death, it emphasizes the act of living.

**225 Elements of Thomistic Thought**
3 cr
This course provides an introduction to the basic concepts and principal ideas of Christian philosophy, with an emphasis on the system of Saint Thomas Aquinas.

**226 Philosophy of Sexuality**
3 cr
This course examines philosophically how our lives are shaped by theology and the relation of theology to science, art, and politics.

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

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

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

**290 Concentrated Philosophical Readings**
3 cr
This is a private tutorial arranged with an individual instructor. It is intended for a student who needs to concentrate on a philosophical topic which is not offered in a regular course.

**HISTORICAL COURSES** are designed for majors, minors, and serious students of philosophy. Prerequisites at least two 100-level or 200-level courses or instructor's permission.

**300 Ancient Philosophy**
3 cr
This course spans the beginning of philosophy in Greece, i.e., from Socrates to Plotinus, with readings taken primarily from Plato and Aristotle.

**301 Medieval Philosophy**
3 cr
Medieval texts representing the broad range of issues, approaches, and theories which characterize the major Christian, Jewish, and Islamic philosophical thinking of this period are studied.

**302 Early Modern Philosophy**
3 cr
Major issues in modern thought beginning with Descartes are discussed. Selected texts might include figures such as Montaigne, Pascal, Spinoza, Leibniz, Hume, and Kant.

**304 Later Modern Philosophy**
3 cr
A study of the period of philosophy initiated by Kant, this course deals with some of the crucial thinkers of the eighteenth century such as Hegel, Feuerbach, Kierkegaard, Marx, Mill, and Nietzsche. Prerequisite: PHIL 302 or instructor's permission.

**305 Contemporary Philosophy**
3 cr
This course concentrates on philosophy from 1900 to the present and covers the methods of selected twentieth-century movements. Prerequisite: 302, 304, or instructor's permission.

**ADVANCED COURSES** are designed for majors, minors, and serious students of philosophy. Prerequisites at least one 100-level or 200-level course and two 300-level courses or instructor's permission. Many 400-level courses are also 500-level graduate courses. A list of specific courses taught is available each semester at preregistration. The following are a small sample from courses taught recently.

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

**408 Aristotle's Philosophy of Action**
3 cr
This course emphasizes an analysis of Aristotle's various discussions of Ethics in his theoretical and practical writings.

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

**422 Saint Thomas Aquinas**
3 cr
This course includes a study of the philosophical thought of Aquinas, including both classical and recent figures such as Aquinas, Padua, and Rorty.

**460 The Phenomenological Method**
3 cr
This course explores the phenomenological method originated by Husserl. It will be explored. Possible topics may include intentionality, signs, and meaning.
DEPARTMENT OF POLITICAL SCIENCE

Chairperson
Patricia Dunham, Ph D

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

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

REQUIREMENTS FOR THE MAJOR
Thirty semester hours are required, not more than six of which can be at the 100-level. These credits must include 105, 208 or 209, 245, 317 or 318, and 427 or 436.

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

REQUIREMENTS FOR THE MINOR
Fifteen credits are required, not more than three of which can be at the 100-level. A maximum of six transfer credits can be applied to the minor.

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

DEPARTMENT OF PSYCHOLOGY

Chairperson
Richard T Knowles, Ph D

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

REQUIRED FOR THE MAJOR
The major program consists of 303-Introduction to Psychology plus a minimum of 24 semester hours. These credits must include 220, 223, and 328. 223 Introduction to Existential Phenomenological Psychology, and 328 Psychology of Personality are designated as writing-intensive courses. Majors desiring to pursue graduate study in psychology are strongly advised to take six additional credits through cross-registration at other universities (Learning Theory, Experimental, Perception, Memory, etc.), and Statistics (125 Fundamentals of Statistics offered by the Mathematics department may be considered part of the mathematics/science requirement). Finally, it is recommended that majors enroll in a hospital or community practicum for credit, and/or do volunteer work in a neighborhood clinic. Three credits earned in practicum count.
DEPARTMENT OF PSYCHOLOGY

356 Research Psychology

Theory and Practice

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

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 opportunity 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 development and cross-cultural perspective.

393 Principles of Psychoanalytic Thought

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

394 Psychology of Language and Expression

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

410 Advanced Existential-phenomenological Psychology

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

432 Gestalt Psychology

3 cr
Contributions of Gestalt psychology (especially the works of Koita, Kohler, and Goldstein) to traditional and human-science 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.

THE McANULTY COLLEGE OF LIBERAL ARTS

453 Psychology of Gender

3 cr
This course explores men's and women's existence as gendered beings. The theoretical as well as existential dimensions of gender are thematized, and the biological, social, and personal contexts will be discussed.

457 Independent Studies

3 cr
A tutorial course for an exceptional student who wishes to pursue a particular study with a faculty member. For majors only, usually those intending graduate study, advance coursework completed. Permission of faculty member and department head required.

490 Special Topics

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

DEPARTMENT OF SOCIOLOGY

Chairperson: Douglas Harper, Ph D.
The Sociology Department concentrates on both intellectual and pre-professional training. Majors and other students are introduced to the discipline, build critical thinking skills and develop intellectual and socially conscious values. Our curriculum allows majors to concentrate in either of two areas, Social Change and Social Structure or Criminal Justice.

REQUIREMENTS FOR THE MAJOR

A minimum of 15 semester hours is required for the major. These must include 101 Survey of Sociology, 200 Classical Sociological Theory, 201 Sociological Methods I, 202 Sociological Methods II, EITHER 300 History of Social Thought OR 301W Contemporary Sociological Theory, and 455W OR 456W. Students must complete 12 of the following courses: 203, 207, 208, 303, 315, 316, 317, 318, 401, 404, 415, 416, 454.

REQUIREMENTS FOR THE MINOR

A minimum of 15 semester hours is required for the minor. Although the minor program is self-designed, a faculty advisor should be consulted to assist in the design.

THE GERONTOLOGY CERTIFICATE

The Department offers an 18-credit program leading to a Certificate in Gerontology available to all majors and minors as well as students and para-professionals outside the Department. Students must complete 101 Survey of Sociology, 200 Classical Sociological Theory, and 201 Sociological Methods I, 202 Sociological Methods II. The student must complete 12 additional courses, of which at least nine must be in Gerontology. A minor in Gerontology is optional.

THE MCANULTY COLLEGE OF LIBERAL ARTS

67

456W Senior Seminar

3 cr
Advanced study in seminar form. Prerequisites vary with instructor. Permission of department head for non-majors.

CRIMINAL JUSTICE

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

Required Courses: 101, 103, 200, 201, 202, 300 OR 301W, and 456W. Of the remaining 15 credits must be selected from those courses at the 300-level or above.

REQUIREMENTS FOR THE MINOR

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

THE GERONTOLOGY CERTIFICATE

The Department offers an 18-credit program leading to a Certificate in Gerontology available to all majors and minors as well as students and para-professionals outside the Department. Students must complete 101 Survey of Sociology, 200 Classical Sociological Theory, and 201 Sociological Methods I, 202 Sociological Methods II. The student must complete 12 additional courses, of which at least nine must be in Gerontology. A minor in Gerontology is optional.

TO EARN THE CERTIFICATE

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

PROCEDURE FOR APPLICATION

By the end of the change of schedule period in the semester the student intends to complete the Gerontology Certificate, he must (a) Complete the application form in the Sociology Department Office - 3rd floor of College Hall, (b) Officially register for the Certificate on the registration form.


**COURSE DESCRIPTIONS**

Unless otherwise indicated, all are 3 cr credit courses.

**101 Survey of Sociology**

An introduction to the basic concepts, processes, and institutions which are the subject matter of sociology as an academic discipline. Required for ALL Sociology Majors.

**103 Introduction to Criminal Justice**

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**

An introduction to a major subfield of Anthropology which explores the origins, development and diversity of human cultures.

**200 Classical Sociological Theory**

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**

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

**202 Sociological Methods II**

A study of the construction and application of techniques for data analysis in social research. Specific attention is given to computer uses in the social sciences. Prerequisites: 101 and 201. It is highly recommended that the co-requirement of 125 Fundamentals of Statistics be completed before taking this course. Required for ALL Sociology Majors.

**203 Social Gerontology**

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**

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

**206 Sociology of Social Problems**

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

**207 Sociology of Health and Illness**

What social and cultural factors affect the health of human populations? This study examines the social organizations and social processes related to well-being and sickness in various societies. Prerequisite: 101.

**208 Racial and Ethnic Groups**

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

**209 Social Stratification**

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

**210 Sociology of Sex and Gender**

The study of how conceptions of masculinity and femininity are influenced by social institutions and gender shapes the self, behavior and social relationships, and the characteristics of gender inequality. Prerequisite: 101.

**211 Social Deviance**

A study of the forms and consequences of social deviance and law. Prerequisites: 101 or 103.

**212 Drugs and Society**

The political, practical, and personal effects of substance use on society and individuals. Also considered are control and treatment of this problem.

**213 Criminology**

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

**215 Mass Media and Society**

The study of the role of mass media in contemporary societies by examining the social, economic, political, and cultural contexts within which they operate. Prerequisite: 101.

**216 Delinquency and Society**

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

**217 Social Movements**

A study of sociological theories of social movements and an exploration of a number of contemporary protest movements and sociocultural movements. Prerequisite: 101.

**218 Treatment and Rehabilitation**

A study of institutional and rehabilitative programs and procedures. Emphasis is on terms of treatment methods used and their effectiveness. Prerequisite: 103.

**225 Family Systems**

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

**264 Police and Society**

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**

An introduction to the ideas of Western thought which predate 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 310W is required of ALL Sociology Majors.

**301W Contemporary Sociological Theory**

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

**302 Special Topics Institutions**

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, the political order, education, and medicine and health. Prerequisite: 101.

**303 Sociology of Mental Health and Illness**

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

**310 The Law and The Juvenile Offender**

A survey of those aspects of the legal system that relate to the identification, processing, and rehabilitation of the juvenile offender. Prerequisite: 103.

**311 The Law and The Adult Offender**

The legal procedure from arrest through sentencing emphasizing applicable state statutes and U.S. Supreme Court cases. Prerequisite: 103.

**314 The American Judicial System**

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**

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**

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

**317 Population and The Environment**

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**

An analysis of urban life and its impact on social relations. Prerequisite: 101.

**365 Community Corrections**

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

**366 Police Organization and Management**

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

**369 Women and Crime**

The nature and extent of crime committed by women, the processing of women in the criminal justice system, and 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 Certificate in Social and Public Policy.

**401/501 Complex Organizations**

The aim of this course is to give students a survey of the sociological approaches to the study of organizations. A sociological 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**

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

**409/509 Punishment and Corrections**

This course covers the corrections systems in this country including probation, parole, community corrections, and prison. How and by whom these agencies and facilities are administered and organized is examined. The system is studied from the perspective of parole and correctional officers as well as how the correctional system impacts upon offenders. Prerequisites: 101 and senior standing.

**415/515 Health, Illness and Social Policy**

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**

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 credits for 450, 6 credits for 451.) Internship in a number of different settings. 225 hours in place- ment are required for 6 credits. Prerequisite: Majors must have 21 completed credits in the Major.

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

**Credits do not count toward the 33 required for the major.**
454 Selected Readings
(1 or 2 credits) Independent, supervised reading
Prerequisite 27 completed credits in the major
S ENIORS AND MAJORS ONLY

455W Senior Seminar —
Social Change and Social Structure 3 cr
A seminar designed to serve as a capstone to the
student’s academic career. Prerequisite 21 completed
credits in the major. Required for ALL
Sociology Majors with a Social Change and Social
Structure emphasis SENIORS AND MAJORS ONLY

456W Senior Seminar — Criminal Justice 3 cr
A seminar designed to serve as a capstone to the
student’s academic career. Prerequisite 21 completed
credits in the major. Required for ALL
Sociology Majors with a Criminal Justice emphasis
SENIORS AND MAJORS ONLY

STUDIO ART
Director
Madeline C. Archer, Ph D
A B A in Studio Art is offered as a component of
a liberal arts degree

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

REQUIREMENTS FOR THE MINOR.
Five courses in Studio Art, including FINAR 101 and
103

101 Design I
103 Drawing
120 Advanced Design
130 Painting I
Prerequisite 101 or 103
203 Figure Drawing
Prerequisite 102
230 Advanced Painting
Prerequisites 101 or 103 and 130
235 Introduction to Computer Art
Prerequisite 101 or 103
245 Computer Graphic Design
Prerequisites 103 and 235
315 Relief Printmaking
Prerequisite 101 or 103
316 Intaglio Printmaking
Prerequisite 101 or 103
317 Lithography
Prerequisite 101 or 103

320 Watercolor Painting
Prerequisites 103 and 130
330 Oil Painting
Prerequisites 101 or 103 and 130
350 Illustration Methods and Techniques
Prerequisites 101, 103 (120 and 203 recommended)
360 Sculpture 1
Prerequisites 101 and 120
365 Advanced Sculpture
Prerequisites 101, 120 and 360
375 Computer Assisted Illustration
Prerequisites 101, 103, 203, 350
385 Photography
Prerequisite 101
415 Natural History Illustration
Prerequisites 103, 130, 350 (245 and 320 recommended)
416 Medical and Scientific Illustration
Prerequisites 103, 203, 235, 350 and 375
425 Advanced Computer Imaging
Prerequisites 101, 103, 235, 350
435 Advanced Computer Graphics
Prerequisites 101, 120, 235 and 245
445 Introduction to Multimedia
Prerequisites 101, 120, 235 and 245
475, 476, 477, 478 Special Topics in Computer
Assisted Design and Imaging
Prerequisite As indicated for special topic Permis-
sion of Department required
405 Independent study
Permission of Department required Minimum of
eighteen credits of Studio Art completed
410 Studio Art Internship
Permission of Department required Minimum of
eighteen credits of Studio Art completed

DEPARTMENT OF THEOLOGY
Chairperson
James P. Hangan, Ph D
Duquesne’s Department of Theology offers a pro-
gram which undertakes an academic study of
religion and experience. The Department empha-
sizes Catholic Theology, in dialogue with other
Christian traditions, non-Christian traditions and
Judaism

REQUIREMENTS FOR THE MAJOR
The major program consists of a minimum of 27
credits taken at the 200-level and above, chosen with
the mentor’s approval. These credits will include 2
courses in Biblical Studies, 3 in Religious and
Theological Studies, 2 in Ethical Studies, 1 elective
course from any of the above areas and the seminar
course (number 498)

432 The Johannine Literature
3 cr
A study of Gospel, Letters and the Book of Revela-
tion in the light of contemporary scholarship
439 Special Topics in Biblical Studies
3 cr
An opportunity to pursue a particular interest of
professor and students
490 Field Experience in
Biblical Archaeology
3 cr
Six weeks of supervised participation in an archae-
ological excavation in the Ancient Near East. Ofered
every two or three years, approval of participants
by core staff required
493 Directed Readings in Biblical Studies
1-3 cr
Independent Study permission required

RELIGIOUS AND
THEOLOGICAL STUDIES
205 The Mystery of God
3 cr
An exploration of basic questions concerning God
and the world, and how it is possible to think about
them
220 Jesus The Christ
3 cr
A study of the humanity and divinity of Jesus, in
Scripture, church tradition, and in contemporary
times
225 The Theology and Practice of Prayer
3 cr
Exploration of the experience, understanding, and
various forms of prayer in the Christian tradition
230 The Church
3 cr
The major influences that have shaped the Chris-
tian community, and how they provide insights for
contemporary church and society
232 Faith and Atheism
3 cr
An examination of the claims which atheists make
against faith and the response made by believers to
these arguments
235 Christian Worship
3 cr
An experance-based study of how ritual functions
in human life, leading to a survey of how worship
has both expressed and formed the Christian
tradition
242 Love in Theological Thought
3 cr
A study of family love, friendship, and romantic love
and their relationship to God’s love
250 Catholicism
3 cr
The spirit, beliefs and practices of Roman Catho-
licism, and the issues confronting it today
274 Beginnings of Christianity
3 cr
How in 300 years the Jesus whom the Romans crus-
cized became the God even the emperor worshipped
280 Religious Experience
3 cr
How the Divine is sensed and responded to in
various geographical, cultural, and chronological
contexts
WORLD LITERATURE PROGRAM

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

301 Marriage 3 cr
An examination of conjugal love as the basis for marriage as a Christian sacrament

331 The Church in The Modern World 3 cr
How the Christian community is a prophetic presence in secular society and a community which affirms and sustains human dignity and values

335 Theology of The Sacraments 3 cr
The seven sacraments as rituals and symbols in the growth of the life of Christians

345 Women and Christianity 3 cr
From the Bible to the churches today, with special attention to contemporary roles and spirituality

348 Religion in The United States 3 cr
The role played by religion in American society and culture, with special attention to historical developments and contemporary trends

372 Religious Themes in Literature and Film 3 cr
An exploration of religious experience and religious concepts as expressed in significant works in film and literature

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

375/377 Spiritual Theology 3 cr
A study of the theological dimension of Christian spirituality, in its major historical manifestations

494 Directed Readings in Religious and Theological Topics 1-3 cr
Independent Study Department permission required

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

ETHICAL STUDIES

245 God, Money, and Power 3 cr
A study of the religious and ethical meaning of wealth and power in human life, both personally and socially

248 Religion and Ecology 3 cr
A study of the relation of the human to the rest of the earth community and the role religion has played in defining it

351 Sexuality, Sex, and Morality 3 cr
An analysis of the nature of sex and sexuality in Christian thought, the relevance of these concepts for contemporary moral life

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

356 Special Topics in Ethics 1-3 cr
An opportunity to pursue a particular interest of professor and students

441/541 Foundations of Moral Theology 3 cr
A study of the principles of moral conduct based on the New Testament and on the teachings of the Church

447/547 Special Issues in Health Care Ethics 3 cr
An advanced course exploring selected theoretical and practical concerns in health care ethics and applied issues Prerequisite 353 or 546

449/549 War and Peace in Christian Perspective 3 cr
An analysis of Christian teaching of the moral possibility of using violence and participation in war from biblical times to the present

495 Directed Readings in Christian Ethics 1-3 cr
Independent Study Department permission required

THE McANULTY COLLEGE OF LIBERAL ARTS

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

QUALIFYING DEPARTMENT COURSES

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

English Any literature course at the 300 or 400-level

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

REQUIREMENTS FOR THE MINOR

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

CORE COURSES

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

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

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

WORLD LITERATURE PROGRAM

Coordinator
Wallace S Watson, Ph D

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

REQUIREMENTS FOR THE MAJOR

24 credits These must include 490 Topics in World Literature, at least 6 additional credits selected from the World Literature Core courses listed below, and 15 credits from qualifying courses in Classics, English, and Modern Languages and Literatures — including at least one course from each of these departments The program must include at least one course studying literature in its original language other than English (for appropriate language prerequisites, see listings for Classics and Modern Languages and Literatures)

Course selections for the major should be made on the basis of a coherent plan of study, and approved in advance by the World Literature Coordinator
Bayer School of Natural and Environmental Sciences

Administration
Dean
Heinz W. Machatske, D.Sc.

HISTORY
The School was created in 1994 as a result of the division of the Departments of Biological Sciences, Chemistry and Biochemistry, and Physics from the former College of Liberal Arts and Sciences. In 1995, the School was named in honor of the Bayer Corporation, which chose to support the School for its outstanding accomplishments in both the natural and environmental sciences. The School offers undergraduate and graduate programs and includes the Center for Environmental Science and Management.

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

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

- A minimum of 120 semester hours of course credits. The last 30 hours must be taken at the University.
- University Core Curriculum as described below.
- Thinking and Writing Across the Curriculum
- Imagination Literature and Critical Thinking
- Problem Solving with Creative Math
- Core Science (Biology, Chemistry, or Physics)
- Core Theology (select one of six courses)
- Basic Philosophical Questions
- The Arts and the Human Experience
- Social, Political, and Economic Systems
- The Shaping of the Modern World
- General Requirements as described below.

- General Requirements as described below.
  - Language Proficiency at the 200-level
  - History/Literature 6 cr (must include literature
  - Social Sciences (Psychology, Sociology, Political Science)
  - Communications 3 cr
  - Philosophy/Theology 6 cr (must include Philosophy
- Major program (refer to departmental requirements)
- An overall minimum cumulative quality point average of 2.0. A minimum cumulative quality point average of 2.0 in the major.
- Removal of I and F grades both in the major department and in the required courses.
- Pre-registration (on form SRI) for B.S./B.A. degree in major field. Submission of application for the degree on form provided by the Registrar before the deadline published in the current University calendar. No student is considered a degree candidate prior to submission of this form and official registration for the degree.

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

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

Academic Load
Students normally carry five courses (15-17 credits) in one semester, although a 12-credit schedule in a regular semester is considered full-time study. A schedule of more than 18 credits must be approved by the Student Advisor. Students on academic probation may not take more than 13 credits. Students who wish to carry more than 12 credits of courses in the summer sessions must consult with the Chair of the department in which the student is majoring.

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

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

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

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

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

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

Non-science classes - The BSNES will continue to accept courses that are not science courses taken at a 4-year college/university outside Duquesne University. The course description should be approved by the student's faculty mentor. If the student has not yet reached 60 credits, (s)he may take the class at a two-year college.

CLEP and Advanced Placement
Refer to page 11 of the Undergraduate Catalog.

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

SPECIAL PROGRAMS

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

LIBERAL ARTS ENGINEERING
Students who intend to prepare for a career in engineering may enter a 3-2 binary program that Duquesne University maintains with Case Western Reserve University in Cleveland, Ohio, and the University of Pittsburgh. Under the guidance of a faculty mentor, students will follow a three-year program at Duquesne University, then enter an engineering program at Case Western Reserve University or the University of Pittsburgh. Upon completion of the program at Case Western Reserve University or the University of Pittsburgh, students will be awarded the B.S. Degree in Physics from Duquesne and the B.S. Degree from the School of Engineering.

For details, consult with the faculty mentor for the Binary program in Engineering in the Physics Department.

BACHELOR-MASTER'S PROGRAM IN CHEMISTRY AND ENVIRONMENTAL SCIENCE AND MANAGEMENT
For students planning careers as environmental professionals, the School offers a unique, five-year program providing a bachelor of science degree in chemistry and a master of science in environmental science and management.

Students who wish to complete the joint B.S./M.S. program will follow the curriculum for chemistry majors in the Bayer School of Natural and Environmental Sciences. They may begin course work in the environmental sciences in the third year. The bachelor of science in chemistry will be awarded at the end of the fourth year if all University and College Core Curriculum requirements have been met. Students must have earned a cumulative QPA of 3.0 or better to be permitted to continue graduate course work in the Environmental Science and Management (ESM) program during the fifth year.

JOINT DEGREE PROGRAMS FOR SCIENCE TEACHERS
For students who are seeking a rewarding career as science educators, the BSNES and the School of Education offer a unique five-year Bachelor of Science in biology, chemistry, or physics and a Master of Science in education joint degree program. Students enroll in the BSNES in the Department of Biological Sciences, Chemistry and Biochemistry, or Physics and apply to the B.S. Graduate School of Education in their junior year. Students who wish to seek certification in General Science take additional courses beyond the requirements in one of the natural science disciplines. The Bachelor of Science degree is generally awarded in the senior
DEPARTMENT OF BIOLOGICAL SCIENCES

Biology is the study of mechanisms and principles governing living systems. Based upon chemistry, physics, and mathematics, knowledge of biology is an essential element in a liberal education. Through lectures, seminars, laboratories, and participation in research projects, the Department of Biological Sciences at Duquesne University provides not only insight into this vast and exciting area, but intellectual enrichment, as well as preparation for professional careers.

Students majoring in biology develop a course of study suited to their long-term goals. They are assisted in their course selections each semester by biology department faculty mentors. The Health Professions Program advisor counsels students as they progress through their curriculum and apply for admission to health-related professional schools. Course selection of students wishing to pursue graduate training, or the many and diverse biotechnological research career opportunities in industry, government, or universities, are guided by the Microbiology Major and Biological Sciences Major faculty mentors.

REQUIREMENTS FOR THE MAJOR

The Department of Biological Sciences offers the Bachelor of Science in Biological Sciences and an American Society of Microbiology approved Bachelor of Science in Microbiology. Of the credits required for graduation from Duquesne University, majors in biological sciences are required to complete the 27 credit hour biology core, 10 credit hours of electives, and 31 corequisite science/math credits.

Students majoring in microbiology are required to complete the 24 credit hour microbiology core, 12 credit hours of electives, and 35 credit hours in corequisite science/math courses. By completing this course sequence, a student also completes a biochemistry minor.

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

REQUIREMENTS FOR THE B.S. IN BIOLOGICAL SCIENCES

All students must complete a 27 credit hour core consisting of the following courses:

FRESHMAN YEAR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 121</td>
<td>Biology I</td>
<td>3 cr</td>
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<tr>
<td>BIOL 122</td>
<td>Biology II</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 123</td>
<td>Biology I Lab</td>
<td>1 cr</td>
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<tr>
<td>BIOL 124</td>
<td>Biology II Lab</td>
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SOPHOMORE YEAR

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL 211</td>
<td>Cell Chemistry</td>
<td>3 cr</td>
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<tr>
<td>BIOL 213</td>
<td>Cell Biology</td>
<td>3 cr</td>
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FOR THE B.S. IN MICROBIOLOGY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 311</td>
<td>Genetics</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 313</td>
<td>Developmental Biology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 315</td>
<td>Mammalian Physiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 370</td>
<td>Lab I Experimental Biology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 371</td>
<td>Lab II Cell and Molecular Biology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 372</td>
<td>Lab III Cell and Systems Physiology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 373</td>
<td>Lab IV Microbiology</td>
<td>2 cr</td>
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ADDITIONAL REQUIREMENTS

Choose 10 credits from the following list:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>BIOL 219</td>
<td>General Microbiology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 340</td>
<td>Evolution</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 371</td>
<td>Lab II Cell and Molecular Biology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 372</td>
<td>Lab III Cell and Systems Physiology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 373</td>
<td>Lab IV Microbiology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 375</td>
<td>Special Topics - Biology</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>BIOL 398</td>
<td>Undergraduate Research</td>
<td>1-3 cr</td>
</tr>
<tr>
<td>BIOL 402</td>
<td>Research Skills</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 403</td>
<td>Techniques in Light/Electron Microscopy</td>
<td>3 cr</td>
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<tr>
<td>BIOL 410</td>
<td>Vertebrate Microstructure</td>
<td>4 cr</td>
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<tr>
<td>BIOL 420</td>
<td>Natural History of Animal Viruses</td>
<td>3 cr</td>
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<tr>
<td>BIOL 424</td>
<td>Immunology</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 427</td>
<td>Microbial Ecology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 442</td>
<td>Insect Physiology and Endocrinology</td>
<td>2 cr</td>
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<tr>
<td>BIOL 443</td>
<td>Insect Physiology and Endocrinology Lab</td>
<td>2 cr</td>
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<tr>
<td>BIOL 444</td>
<td>Plant Biology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 450</td>
<td>Comparative Animal Physiology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 455</td>
<td>Cardiovascular/Respiratory Physiology</td>
<td>3 cr</td>
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<td>BIOL 456</td>
<td>Cardiovascular/Respiratory Physiology Lab</td>
<td>1 cr</td>
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<tr>
<td>BIOL 460</td>
<td>Endocrinology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 467</td>
<td>Molecular Genetics</td>
<td>3 cr</td>
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<tr>
<td>BIOL 468</td>
<td>Human Genetics</td>
<td>3 cr</td>
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<tr>
<td>BIOL 469</td>
<td>Signal Transduction</td>
<td>3 cr</td>
</tr>
<tr>
<td>BIOL 475</td>
<td>Neurobiology</td>
<td>2 cr</td>
</tr>
<tr>
<td>BIOL 476</td>
<td>Neurobiology Lab</td>
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</tr>
<tr>
<td>BIOL 480</td>
<td>Readings - Cell and Molecular Biology</td>
<td>3 cr</td>
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<tr>
<td>BIOL 481</td>
<td>Readings - Cellular and Systems Physiology</td>
<td>1 cr</td>
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<tr>
<td>CHEM 401</td>
<td>Biochemistry</td>
<td>4 cr</td>
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Corequisites for the B.S. in Biological Sciences are

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CHEM 121</td>
<td>General Chemistry I</td>
<td>4 cr</td>
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</table>
DEPARTMENT OF BIOLOGICAL SCIENCES

Science/Math corequisites for the B.S in Microbiology are:

- CHEM 121 General Chemistry I 4 cr
- CHEM 122 General Chemistry II 4 cr
- CHEM 205 Organic Chemistry I 4 cr
- CHEM 206 Organic Chemistry II 4 cr
- CHEM 401 Biochemistry 4 cr
- MATH 115 Calculus I 4 cr
- MATH 225 Statistics 3 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, and a minimum of 12 credits selected from the department's major courses numbered 200 or above. Individual course prerequisites must be met.

2. Academic Minor which consists of 121, 122, 123, and a minimum of 12 credits selected from any 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
Lecture, laboratory and recitation focus upon fundamental molecular and cellular processes. This course is restricted to nursing students only.

102 Introduction to Life Processes Laboratory 1 cr

201 Biology of Microbes 2 cr
Examination of microbes as to what they are, how they grow, how they may be controlled, what their relationships to other living things are, why and how some of them cause disease. Lecture

202 Biology of Microbes Laboratory 1 cr

203 Introductory Microbiology 3 cr
Introduction to microorganisms, their morphology, metabolism, ecology, and cultural characteristics, with emphasis on their interaction with other organisms, including man. Principles of medical and health related aspects of microbiology, chemotherapy, therapy, industrial, agricultural, and marine microbiology are presented. This course is restricted to Health Sciences students only. Lecture

204 Introductory Microbiology Laboratory 1 cr

207 Anatomy and Physiology I 3 cr
Studies designed to provide students with a background in the areas of the human body structure and the mechanisms underlying normal body functions. Prerequisites: CHEM 111, 112 or CHEM 121, 122 required, BIOL 121, 122, 123, 124 highly recommended. Lecture

208 Anatomy and Physiology I Laboratory 1 cr
Laboratory includes examination of the macroscopic anatomy of the body, physiological experiments, and exposure to basic clinically important measurements and techniques. Prerequisite: 207 or (concurrent registration) Laboratory

209 Anatomy and Physiology II 3 cr
Continuation of prerequisite 207 preferred but not required. Laboratory

210 Anatomy and Physiology II Laboratory 1 cr
Continuation of 208 Laboratory

220 Sex and Sexuality 3 cr
Consideration of sex and reproduction as universal biological functions and special emphasis on physiological and psychological basis of human sexuality. This course also aims to examine sexual functioning, behavior, and therapy. Lecture

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

122 Biology II Cells, Genetics, Development 3 cr
Study of living systems at the molecular, cell, and multicellular levels. This semester is an introduction to cell chemistry, cell structure and function, energetics, inheritance, reproduction and development. 121 is not a prerequisite to 122. Lecture

123 Biology I Laboratory 1 cr
Laboratory experiments and demonstrations which illustrate animal and plant diversity, ecological principles, and evolutionary concepts

124 Biology II Laboratory 1 cr
Laboratory experiments and demonstrations illustrating cellular and molecular biological principles, energetics, inheritance, reproduction and development

211 Cell Chemistry 3 cr
An introduction to biological macromolecule structure, cell biochemical pathways, metabolic control, and gene expression. This sophomore level course will survey cell biochemical processes and is designed to prepare biology students for the cell biology, microbiology, developmental biology, genetics and physiology core courses. Cell Chemistry is not a substitute for Chemistry 401. Concurrent enrollment in organic chemistry is recommended. Prerequisites: Grade of "C" or better in BIOL 121, 122, 123, 124 and CHEM 121, 122

213 Cell Biology 3 cr
An introduction to the structure, function and physiology of cells. This course will include examinations of cellular organelles, nuclear and chromatin structure, membrane systems, protein trafficking, the cytoskeleton, the cell cycle, cell-cell communications and extracellular matrices. Prerequisite: Grade of "C" or better in BIOL 211 Lecture

219 General Microbiology 3 cr
Survey of the microbial world, metabolism, biosynthesis, regulation, growth, structure and function. Recommended for students majoring in biology, microbiology, and preparatory to remote students. Prerequisites: Grade of "C" or better in BIOL 213 Lecture

311 Genetics 3 cr
This course includes topics in classical Mendelian genetics, chromosomal inheritance, human genetic disease, and human genetics. A grade of "C" or better in BIOL 219 Lecture

313 Developmental Biology 3 cr
This study of the progression through time and space from a single cell, the fertilized egg, to a complex multicellular organism. The powerful tools of molecular and cellular biology have linked the fields of embryology, morphology, genetics, and evolutionary biology to reveal how cells, tissues, organs, and organisms develop. This course explores the processes of morphogenesis, differentiation, patterning, formation, growth, and reproduction at the molecular, cellular, and organismal levels. Prerequisite: Grade of "C" or better in BIOL 213 Lecture

315 Mammalian Physiology 3 cr
Examination of the circulatory 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: Grade of "C" or better in BIOL 213 or permission of the instructor

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 it pertains to pathogenicity. Special attention is given to host-parasite interactions and to the interpretation and significance of laboratory findings in the diagnosis of human disease. Prerequisites: BIOL 121, 122, 123, 124, and 219 or equivalent or permission of the instructor

340 Evolution 3 cr
This course begins with classical morphological methods of studying evolution including phenetic and cladistic analyses. The course ends with a detailed introduction to molecular methods of evolutionary study including DNA sequence alignment, phylogenetic tree construction, and the evolution of genes and the genome. A one day field trip to collect fossils, an assignment to visit the Carnegie Museum of Natural History and assignments using the computer lab are required as a part of this course. Prerequisite: 311

370 Lab I Experimental Biology 2 cr
This junior level lab course sequence is designed to provide students with a multidisciplinary lab that reflects the integration among different disciplines in the broad areas of cellular and molecular biology. The first semester emphasizes techniques and approaches in the molecular, biochemical, and cellular biology of organisms from bacteria to mammals. Included are an introduction to research skills (i.e., computer use, library resources), characterizations and manipulations of cellular macromolecules including proteins and nucleic acids, and microscopy. Laboratory Prerequisites: 211, 213

371. Lab II Cell and Molecular Biology 2 cr
The second semester continues to build on BIOL 370 through investigative labs in cellular and molecular biology (i.e., experimental embryology, genetic mapping, constructing transgenic organisms) and includes a capstone lab project for the last portion of the semester. Laboratory Prerequisite: 370

372 Lab III Cell and Systems Physiology 2 cr
The second semester continues to build on BIOL 370 through investigative labs in cardiovascular, respiratory physiology, muscle and neurophysiology, and endocrinology. Experiments in many cases employ MacLab hardware and Apple Macintosh computers for data acquisition. The course is laboratory project based. Laboratory Prerequisite: 370

373 Lab IV Microbiology 2 cr
The second semester continues to build on BIOL 370 through investigative labs in microbial physiology, ecology and genetics. This laboratory also examines cell culture, virology and immunological techniques used in microbiology and virology. Laboratory Prerequisite: 370

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

396 Special Topics - Microbiology 1-3 cr
Treatment of topics of current or special interest in microbiology. Lecture, laboratory or combinations

BAYER SCHOOL OF NATURAL AND ENVIRONMENTAL SCIENCES
407 Recombinant DNA Techniques 3 cr
This course provides a broad hands-on introduction to the molecular biology of recombinant DNA. Manipulation of cloned DNA using restriction endonucleases, ligases, and phosphorylases will be carried out. Molecular cloning using both plasmid and bacteriophage vectors will be done. Nucleotide sequencing and sequence analysis will be discussed. The student will carry out a nucleic acid hybridization in the form of a Southern blot. Cloned DNA will be transferred by blotting onto a nitrocellulose filter and analyzed by Southern blotting.

410 Vertebrate Microstructure 3 cr
A study of tissue and organ structure and the relationship of that structure to function. Prerequisites 121, 122, 123, 124 and permission of the instructor. Lecture and laboratory.

412 Cell Culture and Virology Lab 2 cr
This laboratory course will cover cell culture techniques, propagation and assays for virus, detection of virus antigens and utilization of virus-specific antibodies. Prerequisite permission of the instructor.

424 Immunology 3 cr
A course in the fundamental mechanisms of the immune system with applications in basic research, medicine and public health. Topics include the mechanisms of immune responses to both cellular and humoral immune responses, immunotoxicology, antigen-antibody reactions, immunogenetics, hypersensitivity, and immunopathology. Prerequisite permission of the instructor. Lecture and laboratory.

426 Pathogenic Microbiology 3 cr
Study of the infectious agents of human disease with emphasis on host-parasite relationships, mechanisms of disease, and the host's response to the pathogen. Prerequisite permission of the instructor. Lecture and laboratory.

427 Microbial Ecology 3 cr
In this course the interaction of microorganisms, primarily bacteria, with each other, plants, animals, and fungi, and the environment will be explored. Topics such as photosynthesis, biogeochemical cycling, energy metabolism, microbial evolution, and the role of microorganisms in the biosphere will be included.

430 Environmental Microbiology 3 cr
An in-depth look at how microbes, both prokaryotic and eukaryotic, effect the environment. Microbial pathways involved in biogeochemical cycles and bioremediation as well as the design and use of Genetically Engineered Microbes (GEMs) are examined in detail. Prerequisites organic chemistry and a course in microbiology or permission of the instructor.

432 Molecular Microbiology 3 cr
This advanced course provides students with an in-depth understanding of contemporary mammalian cardiovascular and respiratory system biology. Topics covered will include cardiac cell biology and regulation, the endothelium, the microcirculation, vascular smooth muscle biology and regulation, regional circulations, body defense mechanisms, the respiratory properties of the pulmonary gas exchange, ventilation/perfusion matching, and acid-base balance. After considering the molecular and cellular mechanisms that underlie normal function, the integrated responses to various stresses and diseases will be considered.

433 Molecular Pathogenesis 3 cr
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 student to the complex interaction between an infectious agent (bacteria, parasites, fungi and viruses) and the host (i.e., 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 219, 213, and CHEM 222, or permission of the instructor. Lecture.

440 Respiratory Physiology 3 cr
This course is a broad overview of mammalian reproductive physiology. The major emphasis will be on human/primate biology, but other mammalian species will be included for comparison. The applied topics include human fertility, pregnancy, lactation, and menopause. The course includes a laboratory component.

442 Insect Physiology and Endocrinology 2 cr
Because insect form is simpler and experimentally more accessible than that of most vertebrates, studies of insect physiology and endocrinology have provided valuable insights into: 1) the behavior of species that are involved in invasive insect models to explore animal and invertebrate physiology. Prerequisites 121, 122, 123, 124, and concurrent registration in 443. Lecture.

443 Insect Physiology and Endocrinology Laboratory 2 cr
This laboratory exercise includes a number of advanced analytical methodologies such as gas chromatography, high performance liquid chromatography, mass spectrometry, and immunochemistry. Prerequisite concurrent registration in 442 Laboratory.

444 Plant Biology 3 cr
An in-depth examination of plant biochemistry, genetics, development and physiology. Emphasis will be placed upon consideration of current research problems and findings in plant biology. Typical subjects will include developmental genetics, applications of molecular biology to understand cellular structure and function, and plant/pathogen relationships. Prerequisites 311, 313 Lecture.
467 Molecular Genetics
An advanced course in molecular genetics. Content will vary from year to year but will include topics in gene regulation, gene expression, and genome structure and function in both prokaryotes and eukaryotes. This course is open to biology seniors who have earned 30 cr with permission of the instructor. Biochemistry majors who have completed CHEM 524 may take this course with permission of the instructor. Lecture 3 cr.

468 Human Genetics
This course is an advanced, current survey of molecular aspects of the genetics of humans, with an emphasis on disease and critical analysis of human genome projects. Topics covered include strategies for mapping and identifying the underlying molecular basis for genetic diseases, gene therapy, epidemiology, mutations, the organization of the human genome, human population genetics, the genetic basis of cancer, genetics of the immune system, and the human genome project. Prerequisite: 311. Lecture 3 cr.

469 Signal Transduction
This advanced cell biology course addresses the question of how the messages from various chemical signaling molecules are "translated" into biological responses. Topics include modes of gene communication, types of chemical signals, steroid hormone action, transduction by cell-surface receptor proteins, G-protein-linked receptors, catalytic receptors, second messengers, cAMP, calcium, calmodulin, monostol phosphatidyl inositol pathway, glycerol pathway, protein kinases and growth factors. Prerequisites: 211, 213 and permission of the instructor. Lecture 3 cr.

475 Neurobiology
Study of the properties of neurons including excitation, conduction, transmission and integration, as well as sensory mechanisms, neural processing, and behavior using vertebrate and invertebrate examples. Prerequisites: a course in animal physiology and permission of the instructor. Lecture 3 cr.

476 Neurobiology Laboratory Techniques
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 intracellular and extracellular recording methodology, neuron culture, and histochemical methods. Data acquisition is MacLab hardware and Apple Macintosh computer based. Completion of an concurrent registration in 475 is required. Prerequisite: permission of the instructor. Laboratory 2 cr.

380 Readings in Cellular and Molecular Biology
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature. 1 cr.

381 Readings in Cell and Systems Physiology
Discussion and critical evaluation by faculty and students of significant papers from the recent research literature. 1 cr.

490 Seminar
Students attend and participate in weekly departmental research presentations and demonstrations by biological scientists from the Department of Biological Sciences and from other universities. 1 cr.

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY
Chairperson
Thomas L. Isenhour, Ph.D.

Professors
Jack W. Haussner, Ph.D.
Thomas L. Isenhour, Ph.D.
H. M. Kingstom, Ph.D.
David W. Seybert, Ph.D.

Associate Professors
Bruce D. Beaver, Ph.D.
Shahen U. Khan, Ph.D.
David J. Mercilier, Ph.D.
Paul D. Stein, Ph.D.

Assistant Professors
Fraser F. Fleming, Ph.D.
Frank G. Gorga, Ph.D.
Mitchell E. Johnson, Ph.D.
Paul G. Johnson, Ph.D.
Richard E. Norman, Ph.D.
Bryan Space, Ph.D.

Professor Emeritus
Kurt C. Schreiber, Ph.D.

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

BAYER SCHOOL OF NATURAL AND ENVIRONMENTAL SCIENCES

111, 112 Principles of Chemistry
3 cr each

The course is divided into three segments, general organic, and biochemistry. In the section devoted to general chemistry the laws of chemical behavior and bonding will be studied with particular reference to the simple molecules of inanimate nature. The organic section deals primarily with the structural features of organic compounds, the chemistry of functional groups and the practical applications of organic compounds in the synthesis of polymers, of carbohydrates, lipids, proteins, nucleic acids, enzymes, vitamins, etc. Biochemistry is treated in terms of the digestion and metabolism of nutrients, the functions of enzymes in the metabolic process and the abnormal metabolic conditions that prevail in disease. Lecture, three hours, laboratory, two hours. Prerequisites: high school algebra or its equivalent for 111, 111, 121, or 131 for 112.

120 Basic Concepts of Chemistry
3 cr each

This course introduces students to the basic concepts of chemistry, as well as to the applications of mathematics pertinent to General Chemistry Lecture, three hours.

121, 122 General Chemistry
4 cr each

The fundamental principles and concepts of chemistry are presented from the standpoint of atomic and molecular structure with illustrative examples from descriptive chemistry. The basic concepts of thermodynamics, chemical kinetics and equilibrium are introduced. The laboratory portion of the first semester illustrates physical and chemical properties of matter in a quantitative manner, and the laboratory portion of the second semester illustrates the principle of ionic equilibria including qualitative inorganic analysis. Prerequisite for 121: Math 105 (College Algebra and Trigonometry) or its equivalent. Normally this prerequisite will be satisfied by adequate preparation in high school algebra as evidenced by satisfactory performance on a math placement examination. Prerequisite for 122: 121 Lecture, three hours, laboratory, three hours.

131, 132 Fundamentals of Chemistry
4 cr each

This course covers the fundamental principles of inorganic chemistry, organic chemistry, and biochemistry in an integrated two-semester sequence. The first part of the course deals with basic chemical concepts, including stoichiometry, the periodic table, equilibrium, structure and bonding, and acid-base chemistry. The second part of the course provides a survey of the chemical properties of the principal functional groups of organic chemistry, including alcohols, aldehydes, ketones, carboxylic acids and carbohydrates and derivatives. Integrated with this functional group discussion is an introduction to the
carbohydrates, lipids, and proteins. The latter portion of the course provides an overview of metabolism and emphasizes the roles of enzymes in catalyzing and regulating the various reactions involved in energy transformations in the cell. This course does not serve as a prerequisite for CHEM 211, 212 Prequisite for 111 high school algebra or its equivalent, as evidenced by satisfactory performance on a math placement examination. Prerequisite for 132 131 Lecture, four hours, laboratory, three hours.

211, 212 Organic Chemistry 3 cr each Students are given a firm foundation in the fundamentals of the structure and reactivity of organic compounds. Emphasis is placed on the basic mechanistic principles of the reactions and the strategies used to synthesize organic compounds. The use of NMR and IR spectroscopy to identify organic compounds is also emphasized. Prerequisite 122 for 211, 211 for 212 Lecture, four hours.

211L, 212L Organic Chemistry Lab 1 cr each This lab exposes students to basic synthetic and purification techniques used in organic chemistry. Both microscale and macroscale equipment are used. The student acquires a knowledge of the various wet methods of qualitative organic analysis and also learns to generate and interpret IR and NMR spectra. Prerequisite 211L for 212L. 211 must be taken prior to or concurrent with 211L. 212 must be taken prior to or concurrent with 212L. Laboratory, three hours.

221L, 222L Organic Chemistry Majors’ Lab 1 cr each Students cover the same techniques as the 211L, 212L labs. In 221L and 222L, students are taught additional techniques useful for undergraduate research. They are permitted hands-on use of various instrumentation such as the NMR spectrometer, gas chromatograph, and GC-MS instruments. Students are introduced to the chemical literature and perform individual research projects involving multi-step syntheses. Prerequisite 221L for 222L. 211L must be taken prior to or concurrent with 211L, and 212L must be taken prior to or concurrent with 222L. Laboratory, six hours.

321, 322 Physical Chemistry 3 cr each A study of the structure and properties of the various states of matter, thermodynamics, thermochromy, kinetics, and an introduction to quantum chemistry. Prerequisite: Physics 202 or 212. Chemistry 111, 116 Lecture, four hours. 323, 324 Physical Chemistry Laboratory 1 cr each Laboratory portion of Chemistry 321, 322, four hours.

401 General Biochemistry I 3 cr An introduction to modern biochemistry at the molecular level. The course includes discussions of the structure and function of proteins, the chemical mechanisms and regulation of enzyme catalysis, the structure and function of carbohydrates, and the bioenergetics of ATP synthesis and utilization. Prerequisite: 212 Lecture, four hours.

401L Biochemistry Laboratory 1 cr Students are introduced to the basic techniques of biochemistry, including protein assay, protein electrophoresis, gel filtration and affinity chromatography, Western blotting, and enzyme assay, purification, and kinetic analyses. 401L must be taken prior to or concurrent with 401L Laboratory, four hours.

402 General Biochemistry II 3 cr This course is a continuation of CHEM 401. The course presents an overview of the metabolic transformations of fatty acids and the complex lipids, amino acids and the purines and pyrimidines, nucleotides. The second half of the course offers discussions of the genetic basis of genetics, including DNA and RNA metabolism, protein biosynthesis, and an introduction to the biochemical basis of recombinant DNA methodology. Prerequisite: 401 Lecture, four hours.

421 Analytical Chemistry 4 cr Theoretical and practical training in modern methods in chemical analysis with emphasis or instrumental methods. Prerequisite: 321 Lecture, three hours, Laboratory, eight hours.

422 Inorganic Chemistry 4 cr A survey course for principles required for understanding inorganic chemistry including atomic and molecular structure, crystal structure, non aqueous solvents and coordination compounds. Prerequisite: 322 Lecture, three hours, Laboratory, four hours.

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

**DEPARTMENT OF PHYSICS**

Chairperson: K Thomas R Davies, Ph D

Professors: Shih-Chu Chang, Ph D

K Thomas R Davies, Ph D

Rev J Clifton Hill, Ph D

Associate Professor: Barbara M. Tanner, Ph D

Assistant Professors: Reginald A. Nye, M Sc

Monica Sorensen, Ph D

Instructor: Anna D'Emeno, B Sc

The program in the Department of Physics is designed to prepare today's students with a fundamental background in traditional physics as well as an understanding of the interrelationships with other sciences and disciplines. The Department is also aware that in today's changing world, there will be many challenges that will face the graduate for the challenges faced in the many professions that are based on the science of physics. Also, it is realized that there are many expanding paths to professional growth. The Department program, therefore, is structured to provide the essential background for those who will enter graduate school, as well as equipping students to successfully compete for the available positions in research institutions, government agencies or private corporations. Department policy calls for individual attention to student needs.

**REQUIREMENTS FOR THE MAJOR**

A minimum of 34 semester hours is required for a Major. The Analytical Physics (211, 212) and 12 credits of upper division physics on the 300 and above level are strongly suggested. Each major takes 350 Extradepartmental Requirements: chemistry 121, 122 or Biology 111, 112, Mathematics 113, 116, 215, 216, and 308. Computer Science 150 or an approved substitute, and two years of modern language. If a student takes both 201, 202 and 211, 212, credit will not be given for both.

**REQUIREMENTS FOR THE MINOR**

The minor consists of six hours in the General Analytical Physics (211, 212) and 12 credits of upper division physics on the 300 and above level. The department will structure the minor program from the course offerings to fit, as nearly as possible, the needs and desires of the individual student.

**REQUIREMENTS FOR BINARY ENGINEERING STUDENTS**

In addition to those courses needed to fulfill the University and Bayer School of Natural and Environmental Sciences Core requirements, each Binary Engineering student is required to complete the following Physics 211, 212, and 421, Chemistry 121 and 122, Mathematics 115, 116, 215, 216, 308 and Computer Science 150 or an approved substitute. Mathematics 306 is recommended, but not required. Depending upon the field of engineering that a student elects to pursue, the Binary Engineering Student may select additional courses from the following list in order to enhance his/her background and understanding. Chemistry 221, 222, 321, 322, Physics 301, 306, 329, 330, 350, 361, 372, 480, and 482. Selection of additional courses must be discussed with and approved by the Binary Engineering faculty mentor who serves as academic advisor to all Binary Engineering Students.

**PHYSICS COURSES**

170 Acoustics 3 cr A course which presents the physical principles underlying the production, propagation, and perception of sound. Examples of the phenomena are drawn mostly from the world of musical sound. No mathematical preparation beyond high school algebra is necessary.

200 Physics for Pharmacists 4 cr A laboratory course designed especially for Pharmacy students to provide a basic knowledge of Physics and its relationship to pharmaceutical science. Topics normally covered include mechanics, properties of matter, heat, and thermodynamics, basic electricity, wave motion and light, and selected topics in modern physics. In addition to being introduced to the physical concepts, the student will also be instructed in the analytical approach to problem solving that is essential to both the physical and pharmaceutical sciences. Prerequisite: 111 Lecture, four hours, Laboratory/Recitation, 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 213.)

201, 202 General Physics 4 cr each Designed to give the student a basic knowledge and understanding of mechanics, properties of matter, heat, wave motion, sound, magnetism, electricity, light, and modern physics through the use of modern day examples and applications. At the completion of this course, the student should have attained a working knowledge of physics, its techniques and reasoning so 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.

263 Astronomy 3 cr This course introduces the student with a sampling of the principles and concepts of elementary astronomy and astronomical observation. Topics covered may include the scale of the cosmos, the celestial sphere, the solar system, the present, the sun and beyond, astronomical tools, the life cycle of stars, black holes and neutron stars, and the evolution and properties of galaxies. The question of life on other worlds may also be examined. This course presumes no prior exposure to astronomy and is open to all students within the University. It is suitable for completion of non-
Operational Amplifiers, Active Filters, Function Generators and practical applications of digital circuits including some computer interfacing. Prerequisite 329 or consent of instructor.

350/350 Theoretical Methods in Science 3 cr
This course will include a variety of theoretical methods that are useful for general problem solving in advanced science and engineering courses. For example, in atomic and molecular structure, mechanics, electricity and magnetism, thermodynamics, and hydrodynamics there are a variety of specialized differential equations (both ordinary and partial) that will be studied. We will also address certain elementary problems involving the Schrödinger wave equation, which occurs in quantum mechanics. In addition, we will include other important theoretical topics, such as vector, matrix, and tensor methods, complex arithmetic and complex variable theory, Fourier and Laplace transforms, and general expansions using orthogonal functions. Also simple statistical methods and numerical algorithms may be covered, e.g., least squares fitting, Newton's method, and various Gaussian integration schemes. Prerequisite Mathematics 215.

361 Mechanics 4 cr
An intermediate level theoretical classical mechanics course involving concepts and problems that require the application of mathematics tools of vectors, calculus, matrices, etc., many of which will be reintroduced in the course. A good calculus background is indispensable. The topics normally covered are the motion of a particle in 3-dimensions, central force systems, dynamics of many particles, transformation to the center-of-mass system, collisions, noncentral systems, and the Lagrangian and Hamiltonian formulations of 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: electrostatics, energy relations in electrostatic 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 and applications of wave optics, geometric optics, and quantum optics. Specific topics include Maxwell's equations as they apply to electromagnetic radiation, reflection and refraction with dielectric and conducting media, polarized, Jones formalism, properties of lenses and mirrors, photon theory and the laser. While this course has no formal laboratory component, laboratory exercises and demonstrations are included at appropriate times throughout the course. 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 is a major part of many physics majors. Some experiments to be performed are: Laser assembly, the characteristics, polarization, shapes, and the transverse nature of a laser beam, the reflection, refraction, interference and spectra of lasers and holography. More advanced experiments could be assigned, if the instructor permits. Prerequisites 402 or consent of the instructor.

419 Introduction to Micro Computers 3 cr
An introduction to the electronic design of micro and minicomputer (PC-type) computers and the methods of interfacing microprocessors and PCs to the outside world. Some aspects of assembly and specialized languages for small computers are examined and applied to microprocessor data acquisition and control. Typical applications include 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 the 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, the use of parallel and serial I/O devices for digital and analog to digital and analog conversation techniques, motor speed control, and process control. Prerequisite Physics 419, or consent of the instructor.

426 Problems in Microcomputers 1-4 cr
Special topics and problems in microcomputers, microcomputer interfacing and control, and related subjects. Prerequisites: physics 329, or consent of the instructor.

427 Robotics 3 cr
This is an introductory course that deals with robotic controllers, programming, operational aids, drive systems, interfacing, end effectors, sensors, and applications. Prerequisite: Physics 419, or consent of the instructor.

430 Senior Research 2 cr
This course offers a supervised research project that is the student's own. No grade is given at the end of the first semester, but a final grade is assigned at the completion of the project in the Spring Semester.

471 Modern Physics 3 cr
This course introduces the topics of quantum mechanics, microscopy, and nuclear structure with applications drawn mainly from modern theories of atomic and nuclear structure. Prerequisites: Physics 212, or permission of the instructor.

474, 480, 484, 485, 486 Special Topic Courses 1-3 cr each
These courses are designed to allow the Physics Major flexibility in designing his/her program. These courses 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 I (please note that the department will accept Graduate Chemistry 357, Quantum Chemistry, in lieu of the Quantum Mechanics Course), 480 Nonlinear Dynamics (Chaos), 484 Introductory Solid State Physics, 485 Relativistic Mechanics, and 486 Shop Techniques. Descriptions of these courses follow.

474 Quantum Mechanics 3 cr
This course provides an undergraduate introduction to the formalism of modern quantum theory. The course usually begins with a review of Schrodinger theory. The main course content includes one-dimensional potentials, the harmonic oscillator, angular momentum, spin, and perturbation theory. Throughout the course, emphasis is placed on Hilbert space formulation, Dirac notation and matrix representation. Prerequisites 212, Mathematics 215.
that he may be able to apply this knowledge of the field to many real life and working situations.

495 Field Studies I 1-4 cr

**EARTH SCIENCE COURSES**

*(Note: These courses have Physics Department course numbers)*

**PHYS 101 Physical Geology** 3 cr

- Comprehensive survey of materials, rocks, structures and geologic processes of the solid earth
- Topics covered may include earthquakes, plate tectonics, volcanism, surface and groundwater, glaciers, and mountain formation
- This course presumes little or no geologic or scientific background, and is open to all students within the University
- It is also suitable for completion of non core science requirements for students in the College of Liberal Arts, and as an earth science course for School of Education students

**PHYS 102 Historical Geology** 3 cr

- A course which examines the essentials of the Earth's evolutionary development through time
- Topics covered in this course may include the 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 little or no geologic or scientific background, and is open to all students within the University
- It is also suitable for completion of non core science requirements for students in the College of Liberal Arts, and as an earth science course for School of Education students

**PHYS 232 Geology of the National Parks** 3 cr

- The national parks provide accessible and protected examples of important geologic processes
- Volcanism, mountain building tectonic activity, glaciation, groundwater and geothermal activity, and river erosion are represented
- Geologic history and features of each of the parks will be presented using slides, supplementary reading material, and maps
- Topics covered may include earthquakes, volcanic eruptions, river alternative energy sources, and environmental impact of society's demand for water, minerals, and energy
- This course presumes little or no geologic or scientific background, and is open to all students within the University
- It is also suitable for completion of non core science requirements for students in the College of Liberal Arts, and as an earth science course for School of Education students

**PHYS 304 Environmental Earth Science** 3 cr

- Analysis of geologic aspects of man's environment with emphasis on geologic hazards and environmental impact
- Topics covered may include coastal processes, earthquakes, volcanic eruptions, river alternative energy sources, and environmental hazards and impact
A.J. Palumbo School Of Business Administration

Administration
Dean
Thomas J. Murrin, B.S., D.M.S
Associate Dean and Director of Undergraduate Studies
Thomas A. Pollack, Ph.D
Associate Dean and Director of Graduate Studies
William D. Presutti, Ph.D

HISTORY
The A.J. Palumbo School of Business Administration was established in 1913 as the School of Accounts and Finance. In 1931, the name was changed to the School of Business Administration to reflect the expansion of its course offerings and its growing professional stature in the education community. During the next two decades, new degree programs were added to enhance the scope of the curriculum and help prepare students for careers in all types of organizations.

Following a generous endowment in October of 1991 by Antonio J. Palumbo, an accomplished business professional, the School adopted its current name, the A.J. Palumbo School of Business Administration.

PHILOSOPHY AND OBJECTIVES
The mission of the A.J. Palumbo School of Business Administration is to 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. 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 understands clearly the critically important changes and challenges occurring in the business world and responds effectively by providing world-class training to help prepare students and others to contribute to the survival, competitiveness, and long-term success of their organizations. Continuously monitor and analyze relevant business, economic, political, and other developments, domestically and overseas, to promote that understanding. Utilize not only our University's considerable resources, but also personnel and resources from elsewhere in academia, business, government, and labor.
- Become leading practitioners of continuous world class quality and productivity improvement by standing offerings and expert lecturers, resource effective programs throughout the School, and innovative pedagogical improvements in the classroom utilizing the most state-of-the-art resources available.
- Provide insightful training in international business incorporating challenges from such countries as Japan and Germany and outstanding opportunities in such areas as Central and Eastern Europe, Central and South America, and the Far East. Introduce leading-edge know-how by developing programs on relevant topics and addressing the need for lifelong learning experiences.
- Espouse ethics as a winning characteristic of organizations that are successful over the long-term and promote a commitment to excellence among the Duquesne community.
- Continuously evolve a Mission Statement for our School which optimally guides our commitments to various customer groups—students, parents, employers, benefactors, alumni and the community. Concurrently contribute substantially to the overall Duquesne goal of becoming The Outstanding Catholic University in America.
- Fully benefit from the resources of existing Advisory Boards, the 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 Duquesne University Office of Admissions, 600 Forbes Avenue, Pittsburgh, PA 15282—Phone (412) 396-5900. The regular University admission requirements can be found on page eight. Acceptance of all international students will be contingent upon the successful completion of the Duquesne University English Placement tests and any required English language course work. 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 course work.

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 in all mathematics and business courses is necessary.

Up to sixty credits of course work taken outside of the School of Business will be accepted for transfer credit. No more than 27 of those credits may consist of business courses. Exceptions will be made if the student is enrolled in a school with an established articulation agreement with Duquesne University. If extenuating circumstances exist, the student may petition the Student Standing Committee for further information. The student should consult an academic advisor.

DEGREE
The School of Business Administration grants the degree of Bachelor of Science in Business Administration. Description of advanced degrees are found in other publications available from the Graduate School of Business Administration.

SECOND BACHELOR'S DEGREE
Persons who have received a bachelor's degree from an approved college or university may be eligible to enter the program for a second bachelor's degree in Business Administration. A second degree candidate must meet all requirements of the School's degree program. A maximum of 30 credits must be completed in residence.

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 a bachelor's degree after successful completion of the first year of academic work at Duquesne University School of Law. Students interested in this program should consult their advisors in their sophomore year to plan their program of studies. Because of the restrictive nature of this program, it is not open to transfer students.

EARLY ADMISSION TO MBA PROGRAMS-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.

DUAL DEGREE PROGRAMS WITH COLLEGE OF LIBERAL ARTS
The School of Business Administration and the College of Liberal Arts have several dual degree programs in business for liberal arts, education and music students.

BUSINESS CERTIFICATE PROGRAM WITH COLLEGE OF LIBERAL ARTS
The School of Business Administration and the College of Liberal Arts have several dual degree programs in business for liberal arts, education and music students.

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. The Health Management Systems program offers specialization tracks in systems and administration.

SCHOOL CENTERS
The School operates several independent Centers designed to provide students with faculty and an opportunity for professional development, as well as to provide services to the University and the community at large. Among the most active of the Business School's Centers are the following.

Center for Economic Education
The Center for Economic Education is charged with the responsibility of initiating and promoting economic education in the community at large. More specifically it develops and coordinates economic education programs in the schools and universities throughout the Pittsburgh area. It is an educational service agency of the Pennsylvania Association of Business Administrators.
The Beard Center for Leadership in Ethics

The mission of the Center for Leadership in Ethics is to accommodate issues of ethical concern by promoting discussion to help 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 roundtable discussions during which business leaders, faculty and students express their views and answer questions.

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. Connely Center for Entrepreneurship and Emerging Enterprise

The John E. Connely Center for Entrepreneurship and Emerging Enterprise was designed to nurture and support the entrepreneurial spirit and technology-driven 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 Connely 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 a Technology Center consisting of three large computer laboratories on the sixth floor of Rockwell Hall. The general purpose personal computer laboratory provides application software associated with the Business School curriculum. The Multimedia Laboratory serves as the School's dedicated teaching laboratory and provides business, as well as general multimedia software. The third laboratory serves our students primarily in the area of network and database applications. All laboratories provide connectivity to the Internet.

STUDENT ORGANIZATIONS

The following student organizations in the A.J. Palumbo School of Business Administration exist for the promotion of the scholarly and professional interests of members.

The American Marketing Association members at Duquesne University interact with the Pittsburgh professional chapter on a regular basis to organize seminars featuring successful marketing executives, workshops, career forums, and networking events. The AMA is dedicated to furthering the profession and developing students' careers.

Beta Alpha Phi is the local honorary society of the School. Its membership is limited to juniors and seniors in the Business School who have attained GPA's of 3.25 or better.

The Delta Chapter of Beta Gamma Sigma, a national professional fraternity for accredited schools of the American Assembly of Collegiate Schools of Business, is established at Duquesne University. Membership in this honorary fraternity is limited to juniors in the top five percent of their class and to seniors in the top 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. This 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 interested 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 within the School. Phi Sigma Epsilon - Delta Chi chapter is the national, professional, coeducational fraternity in marketing, sales, and communications affiliated with the Sales and Marketing Executives International and the Pittsburgh SMC chapter.

The Society for Human Resource Management is a student chapter of the national organization SHRM and is affiliated with the Pittsburgh Personnel Association. The chapter is for students interested in careers in personnel/human resources or line management.

Beta Alpha Psi is the premier national honorary accounting fraternity. Less than 15% of the AACSB-accredited schools eligible for membership have achieved active status. The fraternity sponsors professional growth and development programs, as well as community and University service activities.

ADVISORY BOARDS

Nine separate Advisory Boards, comprised of high-ranking business professionals, serve the School of Business. These business executives, representing the various disciplines within the School, offer advice and counsel on matters of curriculum development, promotion, assessment, internships and employment opportunities and other matters of concern to students, faculty and the business community as a whole.

ACADEMIC PROGRAMS

The A.J. Palumbo School of Business Administration offers a total of ten concentrations (majors) from which to choose courses. The respective areas of concentration include Accounting, Finance, Human Resource Management, Information Technology, International Business, Logistics, Management, Marketing, Pre-Law and Sports Marketing.

Recommended programs of study for specific disciplinary interests are listed on the pages that follow.

Students entering the School of Business Administration are expected to inform their advisors about their career objectives and their academic areas of concentration, and to consult with them whenever course changes or minor courses in any area of concentration are planned. Proposed curriculum choices must, of course, include the University requirements and Business Administration Core requirements as indicated in the illustrations set forth in this catalog. Students are strongly encouraged to include additional course work in speech/communications and in advanced writing in their programs. Regulations for certification in accounting make the program very rigid; this is dealt with in the section describing the accounting curriculum on the following pages.

Students' concentrations should be based upon career objectives and constitute a broad and flexible educational experience. Students are also encouraged to tailor cross-disciplinary educational programs to meet their individual needs. In addition to coursework in specific disciplines, students will be required to participate in programs for professional and personal development as outlined in the following section of the catalog. Career advice should be sought from many and varied sources in the University, but especially faculty. Course suggestions and degree requirements for all major areas of concentration can be obtained from the Academic Advisement Office.

PROGRAMS FOR PROFESSIONAL AND PERSONAL DEVELOPMENT

All students in the School of Business Administration are required to participate in the planned professional and personal development programs in order to complete their degree requirements. See General Business Courses (p. 95) for course descriptions and prerequisites.

Pre-Business Experience

This orientation program is designed to introduce business students to the broad context of a business education. The program serves as an "advance 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 must participate in the School of Business Business Faculty and administrative staff to develop personal relationships and to become acquainted with the organization of the School and the resources available. Participation in this program is required for graduation.

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. 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 Administr-
<table>
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<th></th>
<th>CREDITS</th>
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<tbody>
<tr>
<td><strong>FRESHMAN YEAR</strong></td>
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<tr>
<td>University Core</td>
<td>3 cr</td>
</tr>
<tr>
<td>101 Thinking and Writing</td>
<td>3 cr</td>
</tr>
<tr>
<td>102 Imaginative Literature and Critical Writing</td>
<td>3 cr</td>
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<tr>
<td>110 College Algebra</td>
<td>3 cr</td>
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<tr>
<td>111 Calculus</td>
<td>3 cr</td>
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<tr>
<td>112 Basic Philosophical Questions</td>
<td>3 cr</td>
</tr>
<tr>
<td>141 Social, Political, and Economic Systems</td>
<td>3 cr</td>
</tr>
<tr>
<td>151 The Shaping of the Modern World</td>
<td>3 cr</td>
</tr>
<tr>
<td>161 The Arts and the Human Experience</td>
<td>3 cr</td>
</tr>
<tr>
<td>Business Core</td>
<td>24 cr</td>
</tr>
<tr>
<td>182 Information Systems I</td>
<td>3 cr</td>
</tr>
<tr>
<td>183 Information Systems II</td>
<td>3 cr</td>
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<tr>
<td><strong>TOTAL Credits</strong></td>
<td><strong>30 CR</strong></td>
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| **SOPHOMORE YEAR** |         |
| University Core |     |
| 1 Core Theology Requirement | 3 cr |
| 2 Core Science Requirement | 3 cr |
| **Business Core** | 6 cr |
| 201 Quantitative Analysis I | 3 cr |
| 204 Quantitative Analysis II | 3 cr |
| 214 Financial Accounting | 3 cr |
| 215 Managerial Accounting | 3 cr |
| 221 Principles of Economics I | 3 cr |
| 222 Principles of Economics II | 3 cr |
| 231 Business Law | 3 cr |
| 232 Global Economic Perspectives | 3 cr |
| 203 Pre-Business Experience | NC 4 |
| 202 Outside Reading Program | NC 4 |
| **TOTAL Credits** | **30 CR** |

| **JUNIOR YEAR** |         |
| Business Core |     |
| 331 Business Finance | 3 cr |
| 361 Introduction to Management | 3 cr |
| 371 Introduction to Marketing | 3 cr |
| 367 Total Quality and Operations Management | 3 cr |
| 368 Business Ethics/Communications | 3 cr |
| 402 Outside Reading Program | NC 4 |
| 403 Junior Lecture Series | NC 4 |
| **TOTAL Credits** | **15 cr** |

<table>
<thead>
<tr>
<th>Major Area of Concentration</th>
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<tbody>
<tr>
<td>University Core</td>
<td>3 cr</td>
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<tr>
<td>Business Core</td>
<td>3 cr</td>
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<tr>
<td>University Core</td>
<td>3 cr</td>
</tr>
<tr>
<td>Business Core</td>
<td>3 cr</td>
</tr>
<tr>
<td>University Core</td>
<td>12 cr</td>
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<tr>
<td>Non-business Elective</td>
<td>3 cr</td>
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<tr>
<td><strong>TOTAL Credits</strong></td>
<td><strong>30 CR</strong></td>
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</table>

**ACADEMIC REGULATIONS**

**ACADEMIC LOAD**

Students may normally carry 15 credits in one semester. A schedule of more than 15 credits must be approved by the Advisement Office. In the summer sessions, students normally carry one credit per week, i.e., six credits in the six-week session. A 12-credit schedule in a regular semester is considered full-time study. Students on academic probation may not take more than 12 credits.

**EFFECTIVE CATALOG**

Degree requirements are those stipulated in the catalog in the year in which a student begins matriculation. The student is responsible for knowing the requirements for the degree. Requirements may be changed without notice or obligation. This catalog has been prepared with the best information available as of February 1996.

**CLASS ATTENDANCE**

Regular class attendance in the School of Business Administration is strongly recommended for maximum educational advantage and, in some cases, may be required. The responsibility for all course material rests wholly with the student. It is the prerogative of each instructor to establish specific policies for attendance at examinations and class lectures, deadlines for reports, and other specific school or course requirements.

A student who is unable to attend class because of serious illness, injury, or a serious accident or other extenuating circumstances is responsible for notifying his/her advisor. The student should supply a written verification as soon as possible. A student who is absent for class is expected to complete all 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 instructor'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 credits in business. Students in the College of Liberal Arts and the School of Education who wish to take business courses should follow the business certificate program or the dual degree option. Students should consult their advisors on this matter.

Prerequisites-Upper Level Business Courses
In addition to any specific prerequisites that are listed in the course descriptions, all freshman and sophomore required business courses must be completed before the student may enroll for upper level business courses, that is, those business courses numbered in the 300's and 400's. The student must also have completed 60 credits or more.

**GENERAL BUSINESS COURSES**

The following courses, with the exception of BUADM 401 - Business Administration Internship, are required for all students enrolled in the School of Business Administration. The Business Administration Internship is strongly recommended for all who qualify.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>401</td>
<td>Business Administration Internship</td>
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</table>

202 Sophomore Outside Reading Program
Not for credit
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 co-operative learning, and the realities of the global marketplace. Prerequisite Sophomore standing.

302 Junior Outside Reading Program
Not for credit
The 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. Prerequisites: BUADM 202 and Junior standing.

303 Junior Lecture Series
Not for credit
Designed to familiarize students with current themes and critical concerns in business. Students from specific disciplines discuss corporate policies and business issues in a regularly scheduled lecture series.

401 Business Administration Internship
3 cr
This internship program provides the student with professional work experience in an organizational environment. Internships must be approved in advance by a faculty sponsor and are available to students in all business concentrations. Grading is Pass-Fail. Prerequisites Junior standing and an overall GPA of 2.5 or better, completion of at least 15 credits at Duquesne University
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: Law 353, 354, 355, or 454. It is required that the student achieve a 2.5 average in Accounting 214, 215 before attempting Accounting 311. A minimum grade of C in 311 must be obtained before attempting 312.

Information Technology courses recommended for accounting students are 481 and 485. Finance 383 is also recommended for accounting students.

For further information, the student should consult an academic advisor.

COURSES PREREQUISITES - see p 95

Accounting Practice and Systems 3 cr
216 Develops a sound understanding of the principles and procedures used to process accounting information. Emphasis is placed on both manual and computerized accounting systems. Prerequisite: Accounting 214.

Intermediate Accounting 3 cr/each
311, 312 An investigation and analysis of the accounting problems and practices of the corporation, with detailed study of the component elements of the balance sheet and income statement. Basic topics include generally accepted accounting principles, financial statements, income determination and presentation. Prerequisites: Accounting 214, 215, 216.

Advanced Accounting 3 cr
314 Activities studied include partnerships, consolidation, foreign exchanges, governmental and not-for-profit accounting. Prerequisites: Accounting 311, 312.

Cost Accounting 3 cr
315 Addresses the use of accounting information for purposes of cost determination, cost control and cost analysis. Topics include cost terminology, cost behavior, job order costing, process costing, cost allocations, and standard costing. Prerequisites: Accounting 214, 215.

Auditing 3 cr
411 Standards and procedures employed by auditors in the examination of financial statements for the purpose of rendering an opinion are studied and evaluated. Case problems are used to demonstrate the application of the principles studied. Prerequisite: Accounting 312.

Introduction to Income Tax Accounting 3 cr
412 A study of basic tax regulations and procedures affecting individuals, and to a lesser extent, business units. Prerequisite: Principles of economics. Topics include income, deductions, sales and capital gains and losses, and credits. Prerequisites: Accounting 214 and 215.

Corporate and Partnership Taxation 3 cr
414 Acquaints the student with the principles of taxation as applied to corporations, shareholders, partnerships and estates. Prerequisite: Accounting 412.

Seminar in Accounting 3 cr
419 Designed to develop a student's ability to understand a complex topic in depth. Emphasis is placed on the process of the change of an industry and its social and economic significance. Prerequisite: Economics 221.

COURSE PREREQUISITES - see p 95

ECONOMICS CURRICULUM

The Economics curriculum is designed to give a broad understanding of the United States and international economy and to develop in students the ability to think systematically about a wide range of social and economic problems. An ability to think analytically and to write concisely are stressed in courses in Economics.

COURSES PREREQUISITES - see p 95

Elements of Economics 3 cr
121 An introductory course that provides an understanding of the purpose of free market economic systems, the forces which affect the level, composition, and distribution of the output of the economy, and the purpose of government. Emphasis is placed on understanding the behavior of households and firms under competitive and imperfectly competitive conditions in both output and resource markets.

Principles of Economics I 3 cr
321 Microeconomics acquaints the student with the concepts and logical basis of economic reasoning. Emphasis is placed on understanding the behavior of households and firms under competitive and imperfectly competitive conditions in both output and resource markets.

Principles of Economics II 3 cr
322 Microeconomics acquaints the student with the purpose of cost determination, cost control and standard costing. Prerequisites: Accounting 214 and 215.

Global Economic Perspectives 3 cr
423 Uses economic principles and concepts to analyze business-related current issues. A global context is emphasized on the process of economic development in different parts of the world, with a particular emphasis on the role of the United States in the world economy. Emphasis is placed on understanding the behavior of households and firms under competitive and imperfectly competitive conditions in both output and resource markets.

Economics 221 and 222.

Business Cycles and Forecasting 3 cr
424 Studies the process of economic change through the analysis of seasonal, cyclical, and secular movements utilizing theoretical and empirical data. Analysis techniques include time series analysis. Prerequisites: Economics 221 and 222.

Business and Public Policy 3 cr
425 A study of the regulatory techniques used by government to influence and modify business activity. Includes an analysis of market structure, and conduct and performance considerations pertaining to the firm and industry. Emphasis is given to the anti-trust laws and special regulatory problems. Prerequisites: Economics 221.

Current Economic Issues 3 cr
426 Focuses on specific current economic issues. The course and its content vary. For example, topics might include the federal budget deficit, economic growth and unemployment, the role of fiscal policies, and their implications for inflation, monetary policy, economic growth and foreign exchange.

Economics 221 and 222.

Monetary Theory and Policy 3 cr
427 Deals with the theoretical foundations of money, money markets, and inflation. Topics include the determination of the demand for money, monetary policy, and the behavior of the money supply.
427 Theory of Economic Development 3 cr
Explores 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. Prerequisite: Economics 221 or 222.

429 Seminar in Economics 3 cr
Provides a vehicle for the advanced student to investigate separate subject areas in the field of Economic Theory. The seminar procedure will stress written and oral reports. Prerequisite: Permission of the instructor.

442 International Economics 3 cr
Covers international trade theory and international monetary economics. Topics discussed include the classical and neoclassical theory of comparative advantage, balance of trade, balance of payments, customs union theory, commercial policy, theory of foreign exchange markets, history of international monetary system, and fixed versus flexible exchange rates. Prerequisites: Economics 221 and 222.

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 333, 334, 335, 432, 434, and 437 are suggested for students whose career interests lean toward corporate finance and financial analysis.

For students interested in Real Estate or Insurance, electives are offered in these areas.

Finance students are required to take Accounting 216, Accounting 311 and 312 are strongly recommended.

COURSE PREREQUISITES - see p 95

331 Business Finance 3 cr
Concerned with maximizing the value of the firm in reference to the risk-return relationship. The student is introduced to financial statement analysis, the time value of money, capital budgeting, working capital management, cost of capital, and the impact of leverage on the value of the firm. Prerequisites: Accounting 214 and 215, and QMIS 281.

332 Money and Financial Institutions 3 cr
Examines the influence of monetary policy on such variables as the nominal interest rate, level of income, inflation rate, foreign exchange rate, etc. Specific topics include bank portfolio management, interest rates, the yield curve, real versus nominal interest rates, the savings and loan crisis, financial intermediation, etc.

333 Financial Management 3 cr
Provides a theoretical and conceptual framework that financial managers can use to resolve decisions that have fundamental choices and compromises involving risk and return. Prerequisite: Finance 331.

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. Prerequisite: Finance 331.

335 Business Financial Problems 3 cr
The aim of this course is to provide a vehicle in which the student can utilize material from previous courses to solve problems of a financial nature. Using case studies, the student is expected to be able to identify problems, reach conclusions, recommend solutions, and identify implementation techniques. Prerequisites: Finance 331 and 333.

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 financial framework within which these securities are traded and the types of information necessary to the decision-making process of the investor. Prerequisite: Finance 331.

337 Investment Analysis 3 cr
Develops an understanding of the various types of portfolio investments. Quantitative and descriptive approaches used in portfolio development and risk management are considered. Techniques for measuring the effectiveness of the portfolio are illustrated. Prerequisites: Finance 331 and 336.

338 Futures and Options 3 cr
Designed to develop, with special attention to the futures and options and other derivative financial instruments, the main emphasis is on the reduction of asset and liability risk for business and financial institutions through hedging operations in debt and equity instruments, commodity, and currency markets. The focus is on applying actual market behavior through project analysis. Prerequisites: Finance 331 and 336.

339 Fundamentals of Real Estate 3 cr
A study of the problems involved in financing residential, commercial, and industrial real estate from the point of view of both owner and lender. Prerequisite: Finance 331.

341 Real Estate Investment Analysis 3 cr
Focuses on real estate investment analysis. Emphasis is on the estimation and evaluation of real estate and the effects of financing, income taxes, and property selection upon investment profitability. Prerequisite: Real Estate 339.

342 Credit Management 3 cr
Provides an understanding of the function of credit management. Students will have the opportunity to integrate knowledge from financial sources with that of other disciplines to arrive at a logical, sound credit decision. Prerequisite: Finance 331.

343 Financial Markets 3 cr
An extensive and intensive study of the market in which the financial institutions do business. Financial institutions are emphasized as they act and interact when serving as sources or intermediaries and users of funds for both short-term and long-term capital. Prerequisite: Finance 331.

344 Life Insurance 3 cr
Analyzes the 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. Prerequisite: Finance 331.

345 Property and Liability Insurance 3 cr
A study of business and personal applications of casualty, fire, and liability coverages in the form of both insurance and bonding, including the fields of workers' compensation, landlords', and tenants' liability. Students will explore the various insurance (credit and title insurance, fire and related lines, fidelity and surety bonding, and relevant aspects of inland and ocean marine). Prerequisite: Finance 331.

346 Real Estate Valuation 3 cr
The principles and methods of appraising single-family homes. The market approach, cost approach, and gross-income multiplier approach are presented. Prerequisite: Finance 339.

347 International Financial Management 3 cr
Provides a conceptual framework within which the key financial decisions of the multi-national firm can be analyzed. Emphasis is placed on 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 445.

348 Property Management 3 cr
A survey course intended to provide an introduction to effective management, marketing and leasing techniques as they are applied to commercial real estate. Prerequisites: Finance 339 and Management 361.

349 Seminar in Finance and/or Real Estate 3 cr
Concentration upon selected contemporary topics presented by distinguished visiting professors or resident faculty. Open only to senior students. Prerequisite: Finance 331.

350 Urban Land Economics 3 cr
See Economics Curriculum.

351 Real Estate Law 3 cr
See Pre-Law Curriculum.

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 a concentration in Human Resource Management, students will take HRM 365, 461, 466 or 469, and Law 456, plus three of the following: HRM 445, 463, 466, 468, Management 366, 462, 465, 446, Internship 401, Field Study 494, and/or Economics 420. Non-business electives recommended for this concentration are English 383 or 385, History 472, Communications 102, 103, 202, 203, 304, 310, 402, 417 or 421, Psychology 233, 223, 226, 320, 328, 340, 361, 392, or 432, Sociology 101, 205, 208 or 218, Philosophy 105, 106 or 107, Theology 353.

COURSE PREREQUISITES - see p 95

364 Human Resource Management 3 cr
Explores 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, employee rights, labor unions, international personnel relations, and equal employment opportunity. Prerequisite: Management 361.

365 Industrial Relations 3 cr
Covers the role of labor, management and government in collective bargaining and current industrial relations policies and practices. Prerequisite: Management 361.

445 Multinational Human Resource Management 3 cr
Develops fundamental knowledge about the global corporation's problems and policies of human resource management in multiple foreign environments using cross-national research on various topics of multinational human resource management. Prerequisites: Management 361, Senior standing.

456 Legal Aspects of Human Resource Management 3 cr
See Pre-Law Curriculum.

461 Human Relations and Teamwork 3 cr
An advanced, experiential Organization Behavior course designed to aid the student in developing practical skills in managing interpersonal relationships in the workplace. Topics covered include organizational socialization, learning styles, listening, understanding, and conflict resolution.
skills, interviewing, performance appraisal, group dynamics, group problem solving, team effectiveness, managing conflict, and the management of change. Prerequisite Management 361

463 Collective Bargaining 3 cr Study of the relation of federal and state legislative issues and administrative aspects of collective agreements. Specific provisions including adjustment of grievances, conciliation, mediation and arbitration, collective bargaining and public policy. Prerequisite Management 361

466 Compensation and Benefits 3 cr This is an advanced course for Human Resource Management majors, focusing on pay and benefits issues. Coverage includes relating compensation to strategy, internal equity, job evaluation, market data, pay surveys, developing a pay structure, variable pay, incentive systems, gain sharing, executive compensation, paying expatriates, employee benefits including social security, workers’ and unemployment compensation, medical, retirement, costing out benefits, flexible benefits, managed care, and cost containment. Prerequisites Management 361 and 364.

486 Training in Business and Industry 3 cr Explores the training and development function in human resource management. Covers the assessment of training needs, designing and conducting training programs, and evaluating training effectiveness. Prerequisite Management 364.

INFORMATION TECHNOLOGY CURRICULUM

The Information Technology program prepares students for career opportunities in the analysis, design, development, implementation, integration, management, and maintenance of evolving information systems in organizations. The IT curriculum provides exposure to established hardware, software, and methodologies as well as incorporating emerging technologies. Emphasis is placed on the ability of technology to provide added value to the processes, products, methods, and decision making found in organizations. For a concentration in IT, completion of QSMIS 382, 385, 481, 482, 483 and 484 is required. In addition, two elective courses must be taken from the following 383, 384, 386 and 485.

COURSE PREREQUISITES - see p 95

183 Information Systems II 3 cr Provides the student with an overview of the theory and implementation of today’s information systems. The student will develop an understanding of information systems through a case study approach and study the flow of information through the organization to learn how managers at different levels use information as a strategic resource. Database applications as they relate to the organization are emphasized. Prerequisite QSMIS 182.

382 Information Processing with Programming Techniques 3 cr Presents structured and object-oriented programming techniques. The scope of the course ranges from an introduction to the programming process, data comparison, control break logic, sorting, and table handling methods through file creation and life processing techniques. Prerequisite QSMIS 183.

383 Human Computer Interaction 3 cr Comprehensively addresses the issues of user-computer interfaces. The operator-system interaction is investigated from technical, cognitive, and social perspectives. Uses commercial design tools to analyze and design computer interfaces. Prerequisite QSMIS 183.

384 Decision Support System 3 cr The role of information systems in supporting management decision-making is analyzed. Students will have an opportunity to develop decision models to support the various levels of management. Types of decision support systems tools ranging from spreadsheet through expert systems will be analyzed. Groupware applications are also discussed. Prerequisite QSMIS 183.

385 Computer Systems 3 cr A detailed survey of current issues and technologies in business organizations. Covers technical aspects of operating systems, multi-media, Internet, interface development, telecommunications and other emerging technologies. Prerequisite 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 software is used to construct general purpose simulation models as well as financial system models. Prerequisite QSMIS 183.

481 Systems Analysis and Design 3 cr A detailed study of all phases of the system life cycle with emphasis on structured analysis and design techniques. Case studies are used to generate detailed data flow diagrams. The issues involving conversion, testing, training, documenting, maintenance and managing a system are addressed. Prerequisite QSMIS 183.

482 Database Management 3 cr Focuses on the theory, derivation and development of the relational database model using entity relationship modeling and a commercial desktop data base management software. Emphasis is on understanding the principles of data modeling, data organization and resource issues in database design. Prerequisite QSMIS 382.

483 MIS Project 3 cr Students are expected to use tools and techniques learned in prior MIS courses to develop an information management system. Using a Computer-Aided Software Engineering products and fourth generation languages, students design and implement a project chosen from the local business or university community. Students work in teams toward a solution. Prerequisites QSMIS 481 and 482.

484 Networks and Telecommunications 3 cr This course focuses on the importance of an open systems approach, such as OSI, and contrasts it with several proprietary ones, like IBM’s SNA and TCP/IP. Using the OSI model as a base, students learn fundamentals of physical components, error detection and correction, line disciplines and network protocols. Special emphasis is placed on local area networks and connecting them to organizational networks. Prerequisites QSMIS 385.

485 EDP Audit and Control 3 cr Presents EDP auditing standards with a blend of systems concepts and applications. Techniques for testing computer programs, files, and processing systems are presented. Special attention is devoted to the particulars of auditing on-line, real-time systems. Case studies and generalized audit software are used to create a simulated audit environment. Prerequisite QSMIS 183.

INTERNATIONAL BUSINESS CURRICULUM

The International Business Curriculum provides students with basic skills in dealing with the international dimension of business functions. During the course of studies, students will develop an understanding of the internationalization of business and its impact on the 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, and 447. Management 445. Students must also take 12 hours of credit in a language. Students can request a waiver of the language requirement if they successfully pass the level tests as given by the Modern Language Department. Students are expected to be proficient through the 200-level of a language. (2) Students pay for an independent service to test for language proficiency. Results of these tests will determine whether or not a waiver will be granted. (3) They are native language speakers of a language other than English. (4) Students have taken language courses at another University, and are able to pass the language proficiency test. It is recommended that students majoring in IB incorporate courses from a functional area of business.

COURSE PREREQUISITES - see p 95

341 International Business 3 cr An introductory study of the environment and management of cross-national business activities. Topics include sociocultural, legal and political environment, international monetary and financial systems, international trade, foreign direct and portfolio investments, and the management of international marketing, financial, production and personnel functions. Prerequisite Management 361.

342 International Business Study Abroad var cr Study abroad opportunities with a number of universities in multiple Students should check with their advisors in the School of Business Administration regarding both opportunities and the possibility of transfer of credits.


442 International Economics 3 cr See Economics Curriculum.

443 International Marketing 3 cr See Marketing Curriculum.

444 Business and Society in Europe 3 cr Survey of the major cultural, social and political factors influencing the conduct of business in Europe. The course includes an overview of the major European economies, a description of the institutions and politics of the European Community, and a detailed examination of business and society in Germany and at least two other European countries. Prerequisite Management 361.


446 Japanese Business and Management 3 cr Focuses on the history of Japanese business, the cultural elements of Japanese management practices, and the strategies used by successful Japanese global corporations including their approaches to marketing, operations management, human resource management, and financial strategy. Prerequisite Management 361.

54 The Law of International Commercial Transactions 3 cr See Pre-Law Curriculum.
LOGISTICS MANAGEMENT CURRICULUM

The Logistics Management concentration prepares students to assume roles as logistics professionals in both profit and not-for-profit organizations. The focus will be on providing students with the necessary theoretical, analytical, and practical skills required to manage the flow of materials and products from original source to the final consumer. The program of study emphasizes the roles of managers, operations management, supply chain management, and physical distribution management dimensions of the field of logistics.

For a concentration in Logistics, students will take Strategic Logistics Management 469, Marketing 373, 472, and 474, and one of the following: International Business 341, Law 353, 354 and 355, and Business Internship 401.

COURSE PREREQUISITES - see p 95

469 Strategic Logistics Management 3 cr See Marketing Curriculum

472 Transportation 3 cr See Marketing Curriculum

474 Purchasing Management 3 cr See Marketing Curriculum

MARKETING CURRICULUM

The Management curriculum prepares students for careers in the management of business and not-for-profit organizations. The curriculum provides students with thorough and current understanding of the organization, skills and competencies needed for managing enterprises, an appreciation of the roles managers perform in all functional areas of business, and the ability to analyze and develop solutions to typical managerial issues.

For a concentration in Management, students will take Management 366, Marketing 474, QSMIS 481, plus one of the following: Management 465, 493 and 494, International Business 341, Human Resource Management 364, 365, 461, 463 and 466.

COURSE PREREQUISITES - see p 95

361 Introduction to Management 3 cr This course is an introduction to the basic tasks, functions and responsibilities of managers and the overall environment in which managers and organizations must operate. Areas covered include planning, organization, leadership, and decision making and the context (internal and external) in which managers work to discharge their responsibilities effectively.

366 Behavior in Organizations 3 cr Students learn a number of theories, concepts, and applications regarding people-oriented management. Topics covered include motivation, personality, perception, group dynamics, performance appraisal, leadership, decision making, cooperation and conflict, organizational politics, organizational structure, managing change, and organizational development. Prerequisite: Management 361.

367 Total Quality and Operations Management 3 cr An introduction to the principle topics and issues in production and operations management with an emphasis on total quality management. Both manufacturing and service operations are addressed with a focus on managing the flow of goods and services through the organization. Students will learn about the strategic role of operations in competing and contribute to productivity and competitiveness. Prerequisites: QSMIS 281 and Management 361.

368 Business Ethics/Communications 3 cr Discusses the relevance of social issues in developing a sense of ethics, the need for personal ethics in making business decisions, and the importance of a shared sense of values in developing productive work communities. The emphasis throughout is on practical issues facing people in business. The discussions of ethical issues are used as a forum for developing basic communication skills.

462 Public Administration 3 cr Introduces the student to the content of public administration and to the work of the public manager at both national and state and local government levels. It also compares and contrasts public and private management and links management theory and practice. Prerequisite: Management 361.

465 Introduction to Entrepreneurial Small Business Management 3 cr Deals with the overall management of the small business enterprise. Coverage includes entering the small business arena, organizing and financing a business, operation of the small firm, growth planning, and problems associated with being small. Prerequisite: Management 361.

493 Independent Scholarly Study 3 cr Students must initiate an original research project in a field of business of their choice. The project is then reviewed by a committee of three faculty members. If the project is approved, the Dean will choose a faculty member as director of the project. The project must be completed within an academic semester. This course is open to students in all concentrations in the School of Business. Prerequisite: Students must qualify as a University Scholar.

371 Introduction to Marketing 3 cr Provides an understanding of the dynamic role marketing plays in the economy and in the firm. Students will analyze cases and develop a framework for understanding the role of marketing in the economy and in the firm.

372 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.

373 Sales Administration 3 cr Introduces the fundamentals of salesmanship and the problems confronted by the sales manager. Emphasis will be on developing an understanding of product planning, pricing, market analysis and specific areas of sales management. Attention will be given to the role of the sales force, recruitment, selection and ethical considerations. Prerequisite: Marketing 371.

374 Research Applications in Marketing 3 cr Examines the methods used by business management to get the information needed to support marketing decisions selection of target market, design of product, distribution, promotion, and pricing policy. These methods include exploratory (qualitative) research, conclusive (quantitative) research, sampling theory and application, and various statistical techniques used to support marketing research. Prerequisites: QSMIS 281 and 284, and Marketing 371.

375 Business Logistics 3 cr Analyzes the physical distribution concept in its various environments including its interface with other functions in an organization. Costs, governmental regulations, and international aspects of physical distribution are also covered in detail. Prerequisites: Management 361, Marketing 371 and Transportation 472 (for Logistics majors).

443 International Marketing 3 cr Helps students develop skills in analyzing economic and non-economic factors for identifying and evaluating foreign market opportunities. This course will allow students to become familiar with different approaches for segmenting international markets, and will encourage students to develop skills in formulating strategies for accessing foreign markets and for developing and applying marketing strategies in the context of business outside the United States, and this course will help develop skills in undertaking international strategic marketing planning. Prerequisite: Marketing 371.

472 Transportation 3 cr A detailed and comprehensive examination of the historical evolution, operation, and development of the various components that make up the transportation system of the U.S. The overall effects of technology, regulation (federal, state, and local), deregulation, and world economic factors will also be examined in detail. Prerequisite: Marketing 371.

474 Purchasing Management 3 cr An introductory course on the principles of purchasing and materials management. Topics covered include the profit-generating potential of purchasing, the role of purchasing in total quality management, the price versus cost distinction, supplier selection and evaluation, inventory management, value analysis, and just-in-time purchasing. Prerequisite: Management 361, Marketing 371.
475 Consumer Behavior 3 cr
Encourages the student to develop an understanding of the consumer from the perspective of the marketing manager. The course explores the factors that affect the consumer, which range from a macro level (the effect of the physical and social environment on the consumer) to a micro level (knowledge, attitudes, and actions of the individual consumer). Segmentation, positioning, and marketing mix strategies are discussed in relation to consumer behavior theories. Market research is assigned to allow the student to apply theoretical concepts to real world experiences. Prerequisites: Marketing 371

476 Product Management 3 cr
Examines methods and tools leading to successful product development and commercialization, as well as the maintenance of existing products and product lines, including product positioning, design, marketing mix, testing, forecasting, and product launch, plus product strategy and product life cycle management, using case studies and computer simulations. Prerequisites: Accounting 215, Marketing 371 and 374

477 Strategic Marketing Planning 3 cr
Designed to enable the student to apply acquired marketing knowledge and expertise to real world opportunities. The case method is employed using marketing situations that illustrate opportunity analysis, marketing environments, product 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. Prerequisites: minimum of 12 credits in marketing (including 371). This course is recommended as a spring offering for graduating seniors

478 Industrial Marketing 3 cr
Focuses on business-to-business marketing. It will demonstrate the difference between industrial and consumer marketing, how industrial marketers evaluate their marketing environments, including an understanding of customers and competitors. Prerequisites: Marketing 371

479 Retail Management 3 cr
Focuses on retail management from a strategic perspective, while emphasizing the similarities and differences between the retail and industrial sectors. Emphasis will be placed on consumer behavior, market research, store location, services retailing, franchising and the changing retail environment. Prerequisites: Management 361, Marketing 371

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. This sequence is focused on the application of substantive legal rights and duties to the analysis of business and economic problems.
2. To provide solid preparation for the professional study of law. See three year Bachelor's/J.D. p. 91

For a concentration in Pre-Law Studies, the students will take Law 353, 354, and 355 as well as electives offered in this concentration

COURSE PREREQUISITES - see p 95

251 Business Law
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 regulations.

353 Contracts
The fundamental concepts of the law of contracts are examined to provide the student with an understanding of the common law system regarding formation, performance, third party rights, ethics, discharge and remedies. Prerequisite: Law 251.

354 Commercial Transactions
Study of the provisions of the Uniform Commercial Code (UCC) with reference to the nature and legality of the sale of goods, warranties, nature and kinds of commercial paper, negotiability, methods of transfer and secured transactions. Prerequisite: Law 251

355 Law of Business Organizations
A course which focuses on various laws pertaining to the creation and termination of corporations, partnerships, insurance, and other business entities. Prerequisite: Law 251

357 Real Estate Law
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 borrows and lenders. Prerequisite: Law 251

453 Administration of Legal Systems
Study of the legal system and the procedures by which legal rights and duties are enforced. Prerequisite: Law 251.

454 The Law of International Commercial Transactions
Provides the student with an overall perspective of the basic legal problems involved in doing business with and in other countries. Topics covered include an introduction to foreign legal systems, study of various forms of business organization, legal problems involved in letters of credit, insurance, risk of loss, antitrust aspects of the sale of goods, forms of dispute settlement, and the problems of enforcing judgments against foreign countries. Prerequisite: Law 251

456 Legal Aspects of Human Resource Management
A survey course of state and federal laws that influence the legal environment of personnel and human resource management. Prerequisite: Management 364

QUANTITATIVE METHODS CURRICULUM

Students in the undergraduate School of Business Administration complete a basic sequence in Quantitative Methods. This sequence is concerned with the application of mathematics, statistics, and information processing to the analysis of business and economic problems. Prior to entry into the sequence, Mathematics 101 and 111 in the College of Liberal Arts or the equivalent are required

COURSE PREREQUISITES - see p 95

182 Information Systems I
See Information Technology Curriculum

183 Information Systems II
See Information Technology Curriculum

281 Quantitative Analysis I
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. The course includes basic descriptive statistics, the concepts of probability and specific distributions, and inferential statistics. Prerequisites: QSMIS 182 and Mathematics 111

284 Quantitative Analysis II
A continuation of statistical analysis, extending to the comparison of two or more populations and analyzing the association between variables through regression, correlation, and contingency analysis. Developing basic time series for forecasting and developing and analyzing simulation models are also covered. Prerequisite: QSMIS 281

367 Total Quality and Operations Management
See Management Curriculum

SPORTS MARKETING CURRICULUM

The Sports Marketing Program provides a working understanding of the role of marketing in sports and sports-related organizations, develops skills in applying fundamental marketing concepts, explores strategic marketing concepts, sales management, product development and marketing research techniques, while creating a skill base for employment. For a concentration in Sports Marketing, students will take Marketing 373, 374, 375, 476 or 479 and 477 plus three of the following: 376 Sports Marketing and Promotion, 377 Sports Management, 470 Legal Environment of Sports Marketing and Marketing and 471 Special Topics in Sports. In addition, students will take Media and Sports and Media Sports Relations in the Department of Communications

COURSE PREREQUISITES - see p 95

376 Sports Marketing and Promotion
This course will provide an intensive evaluation of marketing techniques and promotional strategy. In addition, the topical coverage will include the marketing mix, new product strategy and services, interactive promotion, event marketing and value-added marketing. Prerequisite: Marketing 371

377 Sports Management
This course will provide a knowledge base in planning, organizing, motivating and controlling sports organizations. The content of this course will help in the development of skills necessary to manage organizations in the sports industry including marketing firms, licensing agencies, major retailers, professional sports organizations and sporting venues. Prerequisite: Marketing 371

470 Legal Environment of Sports Management and Marketing
This course will cover regulation in the sports industry including NCAA regulations, collective bargaining and codes of conduct. In addition, royalties, rights and licensing issues will be covered. Prerequisite: Law 251

471 Special Topics in Sports
This course will focus on specialized areas of interest as designated by the instructor or the individual student. This course provides an opportunity for the student to pursue special areas of interest in sports marketing and management covering major issues in specific sport venues or the sports industry in general. Prerequisites: Marketing 376 and 377
School of Education

Administration
Interim Dean
James E. Henderson, Ed D
Chair, Department of Elementary, Secondary, and Reading Education
William P. Barone, Ph D
Chair, Department of Counseling, Psychology, and Special Education
Joseph F. Maola, Ph D
Chair, Department of Foundations and Leadership
Rick R. McCown, Ph D
Chair, Department of Educational Services
Frank M. Ribich, Ed D

HISTORY
The School of Education was founded in 1929. In that year the newly organized School of Education granted its first degree in programs of secondary education. The following programs have since been approved for certification by the Department of Education of the Commonwealth of Pennsylvania, music education in 1930, reading education, 1936, elementary education, 1937, guidance, 1952, school administration, 1953, special education, 1964, reading specialist and reading supervision, 1969, school psychology, 1969, early childhood education, 1975, school supervision, 1976

SELECTION AND ADMISSION
Candidates who express a desire to become teachers are admitted to the School of Education through the University Office of Admissions (apply to Dean of Admissions, Duquesne University, Pittsburgh, PA 15282). The curriculum for the first two years is devoted to the broad learning experiences of general and basic professional education and beginning courses work in a major discipline or area of concentration. Students are expected to demonstrate personal and professional characteristics, attitudes, and competencies that will recommend them as worthy candidates for the teaching profession.

PROGRAMS
The School of Education has program approval from the Pennsylvania Department of Education for the preparation of Elementary, Secondary, and Special (teaching the mentally and/or physically handicapped) Education teachers. Also, in consortium with Carlow College, students can become certified in Early Childhood Education.

The programs, in accord with the philosophy and objectives of the School of Education, offer students opportunities to qualify for:

1. The Instructional I (Provisional) Certificate in Pennsylvania
2. Admission to graduate programs in education
The last 30 credits for the degree must be earned at Duquesne University. The minimum number of credits for graduation is 120

DEGREE
The School of Education offers the Bachelor of Science in Education degree

CURRICULUM
General Education The School of Education requires completion of general education which includes courses in the humanities, social sciences, natural and behavioral sciences, and theology. The University Core Curriculum requirements are fulfilled within the General Education Program

Professional Education The basic professional education program introduces the student to the teaching profession through study of the principles and practices of education and the learning process. Specialized courses provide preparation in teaching techniques and methods required for specific fields of concentration—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 provide opportunities for observing and working with children and youth. These include:

1. Planned observations in public and private schools, agencies, institutions and educational settings
2. Teacher aide and tutorial experiences
3. Student teaching in an approved setting for an entire semester

All of these experiences are completed under professional supervision from the University and from the public or private school or off-campus agency

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

Math/Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 Problem Solving with Creative Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>125 Fundamentals of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>127 Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>173 Physics or higher level courses</td>
<td>12</td>
</tr>
</tbody>
</table>

Social Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>141 Social, Political and Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>151 Shaping of the Modern World</td>
<td>3</td>
</tr>
<tr>
<td>161 The Arts and The Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>486 Historical Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

TEACHER EDUCATION CORE

The Teacher Education Core focuses on the knowledge base that underlies effective teaching. The theoretical principles that constitute the knowledge base are not only studied but applied to teaching practice in a variety of ways. One way in which students are given opportunities to apply theory in practice is through field experiences which begin in the freshman year. The Teacher Education Core is designed to develop the knowledge, skills, and values undergirded will need for success in student teaching and for successful entry into the teaching profession.

Courses (Required in All Programs) Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>101, 102 Introduction to Education I, II</td>
<td>3, 3</td>
</tr>
<tr>
<td>201W, 202W Educational Psychology I, II</td>
<td>3, 3</td>
</tr>
<tr>
<td>211 Instructional Planning &amp; Assessment</td>
<td>3</td>
</tr>
<tr>
<td>290 Professional Development Seminar/Inclusion</td>
<td>3</td>
</tr>
<tr>
<td>291 Professional Development Seminar/Diversity</td>
<td>3</td>
</tr>
<tr>
<td>322 Instructional Media</td>
<td>2</td>
</tr>
<tr>
<td>324 Cultural Diversity in Education</td>
<td>2</td>
</tr>
<tr>
<td>326 Teaching Students with Special Learning Needs</td>
<td>2</td>
</tr>
<tr>
<td>*327W Developmental Issues in the Management of Elementary Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>*328W Developmental Issues in the Management of Secondary Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>329 Society, Politics, and the Teaching Profession</td>
<td>3</td>
</tr>
<tr>
<td>390 Professional Development Seminar/School Culture</td>
<td>3</td>
</tr>
<tr>
<td>391 Professional Development Seminar/Classroom Interaction</td>
<td>3</td>
</tr>
<tr>
<td>*Students take 327 and/or 328, depending on the area of certification</td>
<td>3</td>
</tr>
</tbody>
</table>

In Early Childhood Education, 327, 328, 390 and 391 are not required

STUDENT TEACHING

The undergraduate experience in the School of Education culminates in student teaching. Student teaching allows the undergraduate to apply the principles and techniques in an actual classroom or other instructional setting for a full semester in the senior year. In order to register for student teaching, ALL of the following requirements must be met:

- Autobiographical Data Sheet on file
- Placement Preference Sheet on file
- Two faculty recommendations
- Tuberculous test on file
- Act 34 Clearance on file
- Removal of all I and F grades
- Completion of all methods courses
- Completion of all Undergraduate Teacher Education Core courses
- Minimum 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.

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</td>
<td>4</td>
</tr>
<tr>
<td>311 Infant and Toddler Programming</td>
<td>3</td>
</tr>
<tr>
<td>312 Working with Children with Special Needs and Practicum</td>
<td>3</td>
</tr>
<tr>
<td>404 Nursery School Student Teaching &amp; Seminar</td>
<td>6</td>
</tr>
<tr>
<td>406 Primary Student Teaching &amp; Seminar</td>
<td>6</td>
</tr>
</tbody>
</table>
in electives and a minimum of 30 in an Arts or Sciences area to satisfy requirements for the degree and certification

Professional Preparation Credits
All Courses Required 18 or 19
497 Reading in the Secondary School 3
341 Teaching Secondary Mathematics
342 Teaching Secondary Science
343 Teaching Secondary English
345 Teaching Secondary Foreign Languages
346 Teaching Secondary Social Studies
491 Student Teaching 12

*No student may register for additional course work during the student teaching semester without permission from the Committee on Student Standing

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, mental retardation, specific learning disability, mental retardation, multi-handicaps, other health impairments, physical disability.

The 49 credits listed below in Professional Preparation and three in Electives in addition to 42 credits in General Education and the 27 in the Teacher Education Core Curriculum are required for the degree

Professional Preparation Credits
All Courses Required 49
231 Teaching Physical Education in Elementary Classroom 1
233 Teaching Health in Elementary Classroom 1
237 Teaching Art in Elementary Classroom 1
238 Teaching Music in Elementary Classroom 1
325 Teaching Reading in the Primary Schools 3
326 Teaching Reading in Intermediate and Middle Schools 3
330W Teaching Elementary Language Arts 3
331 Teaching Elementary Social Studies 3
333 Teaching Elementary Language Science 3
335 Teaching Mathematics in Grades K-4 3
336 Teaching Mathematics in Grades 5-8 3
484 Children's Literature 3
491 Student Teaching 12

*No student may register for additional course work during the student teaching semester without permission from the Committee on Student Standing

Recommended Elective
485 Problems in Teaching Reading 3 or 3

MUSIC EDUCATION

General and professional course work and professional education courses required for this program are outlined in the School of Music Catalogue.

EDUCATION Core Curriculum are required for the degree

Required Courses — Duquesne University
231 Teaching Physical Education in Elementary Classroom 16
233 Teaching Health in Elementary Classroom 1
237 Teaching Art in Elementary Classroom 1
238 Teaching Music in Elementary Classroom 1
330W Teaching Elementary Language Arts 3
331 Teaching Elementary Social Studies 3
333 Teaching Elementary Science 3
335 Teaching Mathematics — Grades K-4 3

Electives 12

ELEMENTARY EDUCATION

The Elementary Education Curriculum consists of 40 credits (semester hours) in professional preparation (listed below), 42 credits in General Education, 27 credits in the Teacher Education Core, and 11 credits in electives

Professional Preparation Credits
All Courses Required 40
231 Teaching Physical Education in Elementary Classroom 1
233 Teaching Health in Elementary Classroom 1
237 Teaching Art in Elementary Classroom 1
238 Teaching Music in Elementary Classroom 1
325 Teaching Reading in the Primary Schools 3
326 Teaching Reading in Intermediate and Middle Schools 3
330W Teaching Elementary Language Arts 3
331 Teaching Elementary Social Studies 3
333 Teaching Elementary Science 3
335 Teaching Mathematics in Grades K-4 3
336 Teaching Mathematics in Grades 5-8 3
484 Children's Literature 3
491 Student Teaching 12

*No student may register for additional course work during the student teaching semester without permission from the Committee on Student Standing

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 to meet standards promulgated by the Pennsylvania Department of Education. Student teaching in both areas is offered during the student’s final semester.

STUDENT ORGANIZATIONS

The School of Education provides opportunities for participation in student organizations related to professional education. Students are encouraged to take an active part in these professional organizations. The organizations are...

Honor Awards

These awards, presented at the annual Honors Days Convolucion, are open to undergraduates in the School of Education...

Kappa Delta Epsilon, national education sorority

The School of Education has been approved by the Pennsylvania Department of Education to offer course work leading to the Pennsylvania Instruc...
This course is designed to provide an overview of critical issues and strategies related to educating Special Learning Needs students. The course content focuses on historical and legal foundations of special and inclusive education, diverse developmental challenges, students with disabilities and strategies for accommodating in the general education environment.

327W 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.

328W Developmental Issues in the Management of Secondary Classrooms 2 cr
Investigates closely the psychological characteristics of students from junior high-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 citizens, and the legal dimensions of education. The intent is for aspiring teachers to understand the organizational culture of their chosen profession.

390, 391 Professional Seminar 1, 1 cr
Continues the 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 in anticipation of student teaching and entry into the profession.

480, 481 Independent Study 1-3 cr
With permission of an instructor and approval of the Dean, seniors may pursue in-depth study of a 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 child 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, defining 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 to five years in physical, intellectual, social and emotional areas of growth. Methods of recording and assessing growth of young children will be examined and utilized in 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 methodology 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 math for children 3-6 years. A weekly practicum in an early childhood classroom is an integral part of this course. Prerequisites EC 201 and 203 (Fall semester only).

311 Infant/Toddler Program Planning 3 cr
Examination of curriculum implementation of day care services for children birth-5 years. Topics covered include research on working families, program design, environment design, evaluation, personnel management, staff recruitment and training, parent communication, and research on impact of day care on young children and their families. Weekly practicum required in a child care classroom. Prerequisites EC 201 and 203 (Spring semester only).

312 Working with Children with Special Needs and Practicum 3 cr
Implementation of current theory and principles of child development within an early childhood classroom that has children with special needs. A variety of children with special needs will be examined through classroom discussion and through written logs and an examination of the practicum experience. Students will begin with a wellness model and learn to capitalize on the strengths of each child. Whenever possible, students will utilize a developmental model and developmentally appropriate practices as they work in a classroom that has children with special needs. Prerequisites EC 201 and 203, ED 302, PY 308 before or during this class.

404 Nursery School Student Teaching and Seminar 6 cr
406 Primary 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 theory/practice and develops a personal teaching style under the direct supervision of the cooperating teacher and college supervisor. Verification of student competency will be determined jointly by both the cooperating teacher and the college supervisor. Student teachers return to campus one afternoon a week for seminar with the college instructor. This seminar provides classroom discussion of various student teaching experiences as well as analysis of the goals, program designs and curricula of the various early childhood programs in which student 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

231 Teaching Physical Education in Elementary Classroom 1 cr
233 Teaching Health in Elementary Classroom 1 cr
237 Teaching Art in Elementary Classroom 1 cr
238 Teaching Music in Elementary Classroom 1 cr
An introduction to the basic principles and concepts of teaching physical education, visual arts, health, and music to children of elementary school age, including exceptional children.

342 Teaching Reading in the Elementary Classroom 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, consideration will be given to the basic reading skills which comprise the foundation of a developmental reading program—techniques of individualization, evaluation, and reporting pupil progress.

346 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 the 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 readiness of materials, individualization of instruction, evaluation and reporting pupil progress are also studied.

330W Teaching Language Arts 3 cr
Presents psychological principles and historical perspective in the language arts, the foundation on which a good language arts program should be built. Four skills—listening, speaking, reading, writing—as acquired by the child, combined with knowledge of the evaluative process, teaching methods, and materials, provide a realistic approach to teaching language arts and reading experience.
331 Teaching Elementary Social Studies 3 cr
Emphasizes the design, delivery and evaluation of effective social studies plans and units. Higher level thinking processes, values and moral development, and classroom management are explored in small group simulations

333 Teaching Elementary Science 3 cr
Study of theories, techniques, practices, and content of the science area. Accent is on discovery and inquiry instructional styles, organizing for learning

335 Teaching Mathematics in Grades K-4 3 cr
Examines mathematical concepts and skills taught in grades K-4, teaching strategies and methods that are developmentally appropriate for early grades

336 Teaching Mathematics in Grades 5-8 3 cr
Examines mathematical concepts and skills taught in grades 5-8, teaching strategies and methods that foster reasoning and mathematical thinking

480 Senior Project 3 cr
A capstone experience in which seniors engage in an indepth investigation or pursue a special project related to their area of specialization. Requires sponsorship by an instructor and approval of the Chairman

484 Children's Literature 3 cr
A general survey of books and other printed materials for children, for the evaluation and analysis of the children's books, types of books available, considered in terms of interest, needs, and abilities of children

485 Problems in Teaching Reading 3 cr
Reading difficulties in elementary and secondary school levels, discussion of classroom and clinical procedures in solving reading problems, diagnostic and corrective techniques, and materials for the classroom teacher, reading improvement programs, special unit on reading problems of the special needs students (Spring and Summer)

490, 491 Student Teaching — Elementary 9,12 cr
Student teaching in an approved elementary school under the direct supervision of a cooperating teacher. Prerequisites: Senior status, good academic standing, completion of required professional courses, and recommendation of faculty

493 Student Teaching — Elementary 6 cr
Student teaching in an 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

497W Reading in Secondary Schools 3 cr
A survey course in the teaching of reading, appropriate for secondary education majors. Major emphasis is on methods of teaching reading, the materials for evaluating pupil growth in reading and reading in the content subjects (Fall)

SCHOOL OF EDUCATION

SECONED EDUCATION

341 Teaching Secondary Mathematics 3 cr
Explores methods, strategies, and content of secondary mathematics with emphasis on problem solving and technology

342 Teaching Secondary Science 3 cr
Explores methods, strategies, and content of secondary science, with emphasis on discovery, inquiry, technology

343 Teaching Secondary English 3 cr
Examines various ways to teach grammar, language, and composition, provides opportunity for students to review the basics of grammar and composition and to develop lessons for teaching at the secondary level and in special education

345 Teaching Secondary Foreign Languages 3 cr
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 3 cr
This is a competency-based experience for social studies/history majors. It develops evaluation skills, knowledge of curriculum, 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-Secondary or Ed 490-Special Education

SPECIAL EDUCATION

These courses are designed to prepare students for teaching pupils with mental and/or physical disabilities, including Autism/pervasive developmental disorder, serious emotional disturbance, neurological impairment, specific learning disability, mental retardation, multiple handicaps, other health impairment, physical disability

276W 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 basic 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 them 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

386 Mild Disabilities 3 cr
This course is designed to prepare prospective special education teachers to develop and implement appropriate programs for students with mild disabilities. Principles of individualized instruction and appropriate instructional strategies and materials across the curriculum will be emphasized. Students will develop skills in collaborative approaches to consulting and co-teaching known to facilitate the success of students with disabilities in inclusive education programs. Prerequisites: 326, 276

387 Severe Disabilities 3 cr
Evaluation, integration, and implementation of theoretically-based methodologies, curricula, and adaptive instructional techniques and procedures for persons with severe disabilities. Current legislation is also analyzed. Students will develop skills to facilitate the success of students with severe disabilities in inclusive education programs. Prerequisites: 326, 276, 385

388 Transition to Adult Life 3 cr
This course provides an overview of secondary curricular practices, issues in planning and implementing a transition plan, interagency collaboration, as well as, support issues regarding all aspects of adult life for persons with disabilities, including the impact of the Americans with Disabilities Act. Prerequisites: 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
ADMISSION
Students who wish to major in music should apply through the Office of Admissions. Following this an interview and audition should be scheduled through the Administrator of Music Enrollment. Specific audition requirements are mailed to auditioners. The audition consists of solo performance before a committee, 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 and may be arranged by calling (412) 396-5064.

DEGREES
Undergraduate music students enroll in one of three degree programs: the Bachelor of Music degree, the Bachelor of Science in Music Education degree, or the Bachelor of Science in Music Therapy degree. Students planning performance careers, whether in concert, symphony orchestra, opera, media arts or studio recording enroll in the Bachelor of Music program. Students interested in teaching in 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, instrumental music, guitar, recording arts and science, or music technology. They elect a concentration in classical music, jazz, sacred music, or music technology. Students in the Bachelor of Science in Music Education program elect a concentration in choral music or instrumental music.

The curriculum is enhanced by the vital cultural life in the City of Pittsburgh, which was a factor in the selection of the University. Pittsburgh is central to music. Duquesne is often alive and always changing, that the musician in each student the highest caliber of individual musicians, music courses designed for general students are available.

MUSIC TECHNOLOGY FACILITIES
New technologies such as computers and synthesizers offer today's performers and composers myriad opportunities to develop their musical ideas and stretch them to the limits of the imagination. Effective competition in the music fields of today and tomorrow requires strong musical skills linked with ability and artistry in the use of electronic media. Duquesne offers a unique program which blends a strong traditional musical education with practical artistic experiences in all phases of music technology. The Program is designed for talented students who desire to increase their flexibility in order to take advantage of the new professional opportunities available to musicians possessing sophisticated music technology skills.

Fender Electronic Studio
Dedicated in the Fall of 1994 the Fender Electronic Studio is a state of the art electronic studio for MIDI/hard disk recording and electronic and guitar ensemble rehearsal. Featuring Fender 32 channel digital capable board, Fender professional sound reinforcement speaker systems and poweramps, full line of Fender tube amp arrays and guitars with Roland GR-2 synthes synth pickups, Fender Classics, Acoustic Guitar Studio Vision, Yamaha CDX-3000, Yamaha DX7 synthesizer, Roland JX-8p, Yamaha KP-500, Roland JP-8000, and Yamaha K2000R. Rolling VL-70, Roland TD-7 compact digital Drum Kit, Yamaha G-10 guitar controller, Roland GR-1, GR-9, and VG-8 Guitar systems, Oberheim Matrix 6 analog synth, Fostex 4 Track cassette deck, two Zeta violins, Zeta viola, Zeta cello, Roland SPD-36, KORG B-1 drum module, Yamaha EMX-11 poweramps, two Yamaha WX7 and EW1 wind controllers, Roland PC2000 keyboard controllers, Kawai MG-2, Korg 01/W/FD advanced integrated workstations, Yamaha SY77 and DX7II/FD synths, Roland D-70, EMU Proteus 1/2/3 sound modules, Korg K5000, G Vex interactive guitar systems, Ensoniq Mirage sampler.

The Recording Studio
Houses a MIDI/Hard disk recording Macintosh Workstation, Digital Performer, Pro Tools 24-track analog studio consisting of the Otan MX80 with the Otan 34c console, Fostex 8-track tape recorder with MIDI/SMpte auto locator, Panasonic DAT decks, CEGER noise reduction, CD mastering and manufacturing capabilities.

FACILITIES
The School of Music has well over 80 pianos. The Recital Hall is equipped with two Steinway concert grands. Piano majors practice in specially designated rooms that contain grand pianos, other practice rooms are supplied with studio upright pianos. A two-manual Harpsichord is available for practice and recitals. Organ students have access to two Moeller organs and a Fischer practice organ, an electronic organ, a three-manual Moeller organ, and a Fender tracker organ. Two pipe organs by Kijgen and Tellers and a Rodgers electronic theatre organ on campus are also available for recitals and for practice. Many orchestral and band instruments are available for instrumental classes.

The Music Learning Resource Center
A multipurpose learning facility containing ten Power Mac workstations A/V and CD ROM, Macromind Director, Multimedia capabilities with scanners and digital audio stations, eight Korg O1/W/FD MIDI workstations, Korg G3-16, Yamaha M5000, Kawai M300 Digital Pianos, Kawai M300 Digital Pianos, Kawai M8800DX, Kawai M300 Digital Pianos, printers, Kawai keyboard communication system, Mark of the Unicorn's Fast Lane MIDI interfaces, Performer, Coda's Finale, Pracitca Musica, Music Lessons, Fiber-optic Internet connections.

Classroom of the Future
A keyboard/computer lab housing 16 Macintosh workstations, each equipped with EMU Proteus 1, Kawai G-Mega general MIDI sound modules, Kawai M5500, Kawai M330 Digital Pianos, Kawai M8800DX, Kawai M2000 Digital Pianos, Kawai M8800DX, Kawai M300 Digital Pianos, printers, Kawai keyboard communication system, Mark of the Unicorn's Fast Lane MIDI interfaces, Performer, Coda's Finale, Pracitca Musica, Music Lessons, Fiber-optic Internet connections.

A keyboard/computer lab housing 16 Macintosh workstations, each equipped with EMU Proteus 1, Kawai G-Mega general MIDI sound modules, Kawai M5500, Kawai M330 Digital Pianos, Kawai M8800DX, Kawai M300 Digital Pianos, printers, Kawai keyboard communication system, Mark of the Unicorn's Fast Lane MIDI interfaces, Performer, Coda's Finale, Pracitca Musica, Music Lessons, Fiber-optic Internet connections.
SCHOOL OF MUSIC

MUSIC EDUCATION/MUSIC THERAPY
Students completing the course work in music education receive the B.S. in Ed. and may be recommended for certification to the PA Department of Education. Upon successful completion of the National Teachers Exam (NTE), graduates may receive the Instructional Level I—Music, K-12 certificate.

Selection of students for this program depends upon completion of admessions and audition procedures and an interview with a department member. Candidates are expected to demonstrate leadership qualities, excellent communication skills, critical thinking and analysis ability, and a genuine interest in a service-oriented profession.

Postgraduate certification course work in music education is available to those with B.M. degrees or B.S. in education degrees. Audition and/or course requirements are available upon request.

The Bachelor of Science in Music Therapy degree leads to certification as a registered music therapist. In order to receive the Music Therapy degree or its equivalency for certification, all Music Therapy students are required to take a prescribed number and sequence of courses in Music Therapy 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.

COURe DESCRIPtIOeS

PERfORMANCE

Applied Music 1-3 cr
Private study of voice, piano, harpsichord, organ, guitar or orchestral instruments

107 Piano Accompanying 1 cr
This course is designed for the undergraduate with the purpose of affording the student instruction in the art of piano accompanying

115 Vocal Coaching 1-2 cr
Individual work with pianist as a supplement to Opera Workshop and/or Applied Music

French, Italian, German for Singers 2 cr each
Rudiments of each foreign language offered on a rotating basis in the fall semester in preparation for the appropriate Dicton and Repertory course offered in the following spring.

116, 117, 118, 119
Dicton and Repertory 2 cr each
Italian, German, French and English offered on a rotating basis each Spring Semester. All except English preceded by an introductory course in the fall, in the appropriate languages

313 Piano Pedagogy I 2 cr
Students will become acquainted with the techniques and materials for teaching piano at the elementary level. For piano majors, junior standing is recommended.

314 Piano Pedagogy II 2 cr
A continuation of 313 concentrating on the techniques and materials for teaching piano at the intermediate and advanced levels.

398 Junior Recital 0 cr
The candidate for the Bachelor of Music degree must give a recital during the junior year.

400 Recital 1 cr
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.

ENSEMBLE/CHAMBER MUSIC

Required for all students as laboratory work during most semesters of full-time enrollment. Non-music majors are invited to register for ensemble with permission of instructor.

Large Ensembles 0-1 cr each
The Large Ensembles include Wind Symphony, Orchestra, Concert Choir, Chamber Singers, and Jazz Band.

Small Ensembles 0-1 cr each
The Small Ensembles include Trombone Choir, Brass Ensemble, Guitar Ensemble, Percussion Ensemble, various woodwind ensembles, and Electronic Ensemble.

144 Opera Workshop 0-1 cr
A shorter class which students learn standard and other opera repertory in the original languages.

Chamber Music 2 cr
Study and performance of all types of chamber music for various instrumental combinations.
MUSICIANSHIP

121, 122 Dalcroze Eurhythmics I & II 2 cr each
Experiencing, analyzing, and creatively manipulating the metron/musical and expressive/interpretive components of music through rhythmic movement, ear-training, and improvisation

131, 132 Theory I and II 2 cr each
These sequential courses are designated to acquaint the student with the harmonic materials of art music of the Western Civilization. For basic knowledge the Baroque-Classical idiom is explored. Harmony is examined in full, both formal and textural aspects are also discussed. Class contents include part writing, analysis, keyboard work, dictation, harmonic and intervallic ear training, and drills with computers. The classes meet twice a week for lectures, and once a week for an in-depth laboratory session. The scope of the first two semesters is concerned with the elements of music, secondary dominants and simple modulation. Prerequisite: passing the entrance examination to the School of Music

133, 134 Solfege I & II 2 cr each
These sequential courses are designed to develop students' competencies in the areas of intervals, melodic and rhythmic dictation as well as sight singing in traditional meters and tonalities. Prerequisite: passing the entrance examination to the School of Music

231 Theory III 2 cr
This semester completes the study of materials of the Baroque and Classical style with emphasis on harmonic and advanced modulation, as well as the most important elements of the Romantic and 20th Century idioms. Class meetings and the elements of teaching are the same as in 131 and 132. Prerequisites 131 and 132

233, 234 Solfege III & IV 2 cr each
A continuation of 134, these sequential courses are designed to develop students' competencies in the areas of intervallic relationships, melodic and rhythmic dictation as well as clef reading and sight singing in non-traditional tonalities and meters. Prerequisite: successful completion of Solfege 233. Prerequisite: successful completion of Solfege 134

235 20th Century Techniques 2 cr
A survey of the melodic, harmonic, and contrapuntal resources employed by composers in the twentieth century. Readings, analysis and short creative projects will be assigned

251, 252 History and Literature of Music 3 cr each
The survey embraces two semesters which are arranged chronologically. These courses seek to provide a broad historical frame of reference within which the relationship of music to the development of man's thought can be seen clearly, along with a survey and analysis of representative literature

335 16th Century Counterpoint 2 cr
The course is devoted to a study of the polyphonic technique of the 16th Century. The class meets twice a week for lectures, analysis, written assignments, and listening. The species approach is employed. Prerequisite: At least 2 semesters of Theory

336 18th Century Counterpoint 2 cr
A course study concerned with the contrapuntal technique of the period of JS 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 Composition 2-3 cr
A course in original creative writing

CONDUCTING

373 Instrumental Conducting I 2 cr
An introduction to baton technique with emphasis on basic patterns, cuing, and expression using the left hand. Students enrolled will form a laboratory ensemble to gain conducting experience

374 Instrumental Conducting II 2 cr
A continuation of Instrumental Conducting I with emphasis on score analysis and the development of a refined and expressive technique

375 Choral Conducting I 2 cr
An introduction to basic conducting techniques with emphasis on proper conducting posture, the preparatory gesture, the release, basic gesture and styles, use of the baton, and development of the left hand. Course also will include instruction in score reading, analysis, and preparation, with emphasis on the standard choral literature. Class time will be divided equally between lecture-demonstrations and practical conducting experience in a laboratory setting

376 Choral Conducting II 2 cr
Instruction and application of intermediate and advanced conducting techniques with emphasis on subdividing, accent and syncopation, subito dynamic change, tempo alteration, tenuto and fermata, asymmetrical meters, superimposition, and specialized techniques for conducting recitative, concert, temporary music, and musical theater. Course will include score analysis and preparation, as well as choral techniques and methods while focusing on the standard choral literature. Class time will be divided equally between lecture-demonstrations and practical conducting experience in a laboratory setting

MUSIC EDUCATION

091, 092 Fundamentals of Piano I & II 2 cr each
This course introduces students to basic piano skills including scales, trills, cadences, 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

111, 112 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 on the basis of placement testing

Advanced Piano Class 2 cr
For students who wish to focus on vocal or instrumental accompanying and open score reading. Required of non-piano majors in the vocal track in music ed. 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. Fundamental techniques of singing, including posture, breath support, tone, diction, interpretation, repertoire

173, 183 Woodwind Techniques, I, II 1 cr, 2 cr
Introduction to techniques of clarinet, saxophone, oboe, flute, and bassoon with an emphasis on development of teaching skills

282, 283 Brass Techniques, I, II 1 cr, 2 cr
Introduction to techniques of trumpet, French horn, and low brass, with an emphasis on development of teaching skills

481 Percussion Techniques 2 cr
Introduction to techniques of percussion instruments with an emphasis on development of teaching skills

381 String Techniques 2 cr
Introduction to techniques of violin, viola, cello, and bass with an emphasis on teaching techniques

325 Marching Band Methods 1 cr
An overview of band methods with an emphasis on marching band styles

251 Music Education Methods I 2 cr
A multi-faceted course leading to competencies in guitar, recorder, classroom instruments, multicultural music, and mainstreaming. Field experience included

252 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, Orff, and Suzuki music technology

253 Music Education Methods II Lab 2 cr
Clinical experience for 252. Teaching and observing general music lessons

301 Teaching Vocal Music 2 cr
For the advanced music education student in both tracks. Methodologies and materials to develop competencies for teaching in the vocal area, grades K-12. All 100 and 200-level courses are prerequisites

302 Teaching Vocal Music Lab 1 cr
Clinical experience for 301. Teaching weekly vocal music lessons in school systems

386 Choral Lab 1 cr
Weekly field observations and clinical experience with Children's Festival Chorus. Required with 301

303 Teaching Instrumental Music Lab 1 cr
A survey of methodology necessary for the development and administration of the band and orchestra program on the elementary, intermediate and secondary levels

304 Teaching Instrumental Music Lab 1 cr
A clinical experience in area schools, required with 302

488 Senior Seminar — Mu Edu 1 cr
Professional seminar for pre-service teachers for the advanced music education student

493 Student Teaching — Vocal 6 cr
For the senior music ed student who has completed all required music and professional education classes satisfactorily and has been recommended for student teaching. Placement will be with the K-12 vocal or choral music program in a selected school with a qualified cooperating teacher. Daily, 7 weeks

492 Student Teaching — Instrumental 6 cr
For the senior music ed student who has completed all required music and professional education classes satisfactorily and has been recommended for student teaching. Placement will be 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 selected 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 recording methods as well as scores

226 Jazz Improvisation 2 cr
Study and practice of melodic improvisation, conventional forms, chord progressions, employing idiomatic jazz articulations, major-minor and modal scales, altered scales and chords, extended forms, and practical applications to standard and jazz literature.

330 Ear Training for Jazz Musicians 2 cr
The course is designed to train the student to recognize aurally the melodic, rhythmic, and harmonic elements of contemporary jazz. The devices used are sight-singing, keyboard work, and extensive dictation. Emphasis is placed on four, five, and six-note chords, chromatically-altered chords and polychords.

340 Jazz Arranging 2 cr
A study of the basic techniques of scoring for individual instruments and jazz ensembles of various sizes, from small groups to studio orchestras. Analysis of scores by contemporary big band arrangers.

359 Jazz Theory 2 cr
Student music and solo part harmony, chromatically altered chords, chord spacing and voice leading appropriate to jazz writing.

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.

300 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.

305 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.

309 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 rhythm 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 developmental needs correlated with appropriate materials and methods.

SACRED MUSIC

201 Sacred Choral and Solo Literature 2 cr
A survey of choral and vocal literature for the church with emphasis on practical materials for church choirs, soloists, and congregations.

103 Service Playing 1-2 cr
The objective of this course is to develop the service playing skills necessary to play for church services of all denominations through the study of applied harmony, counterpoint, hymnody, anthem accompaniments, and conducting from the console. Students unable to enroll for this course will study this material in their applied music lesson.

112 Church Music Practicum 1 cr
Seminar in practical aspects of church music, establishing the music program in a church, graded choir systems, children’s choirs, instruments in worship, contracts, cantor systems, worship commissions, etc.

240 Hymnody 2 cr
A study of the church’s heritage of song, the psalms, the great hymns of Europe, and 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.

431 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.

432 Organ Improvisation 2 cr each
A practical methodology of the basic tools of improvisation including harmonization of melodies at the organ, two and three part counterpoint, short ABA forms, and chorale preludes with emphasis on their musical application.

451, 452 Organ Literature 2 cr each
A survey of organ literature and organ buildings as it relates to organ registration. The first semester treats organ music from the Renaissance through J S Bach. The second semester deals with the literature of the 18th, 19th and 20th centuries. Outside listening and readings will be required.

476 Organ Design and Maintenance 2 cr
A study of the basic concepts or organ construction and maintenance 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
An introductory music technology course that treats organ music from the Renaissance through the 18th century. Organ literature and organ buildings as it relates to organ registration. The first semester treats organ music from the Renaissance through J S Bach. The second semester deals with the literature of the 18th, 19th and 20th centuries. Outside listening and readings will be required.

MUSR 145 Audio I 3 cr
Foundations of the recording process. Covered are the basic concepts of audio production both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio industry.

MUSR 146 Audio II 3 cr
An introduction to the recording process. Covered are the basic concepts of audio production both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio industry.

MUSR 149 Audio III 2 cr
An introductory music technology course that teaches the basic concepts of audio production both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio industry.

MUSR 153 Audio IV 2 cr
An introductory music technology course that teaches the basic concepts of audio production both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio industry.

MUTK 110 Introduction to Audio Technology 0 cr
An introductory music technology course that teaches the basic concepts of audio production both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio industry.

MUSIC TECHNOLOGY

MUSC 1010 Introduction to Audio Technology 0 cr
An introductory music technology course that teaches the basic concepts of audio production both acoustically and electronically. Mathematics for audio concepts are covered in full. All concepts are then related to the audio industry.
MUTK 101 Music Technology I 2 cr
An introduction to music technology. Includes basic 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 multimedia production

MUTK 206 Music Synthesis III 2 cr
Sampling, digital sound design and editing, multimedia production, and advanced score notation

MUTK 207 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 314 Electronic Orchestration 2 cr
A study of the basic problems of scoring for electronic instruments in a variety of musical contexts, including scoring for both electronic and electro-acoustic ensembles. Analysis of the techniques of electronic orchestration of selected contemporary composers in a variety of musical styles. Prerequisite Music Technology I

MUTK 311 MIDI Controller Techniques 1 cr
The study and application of unique performance techniques used with electronic instruments. Through analysis of acoustic and electronic performances and study of technical exercises, students will learn to control the nuance of performance on electronic instruments. Prerequisite Music Technology I

MUTK 355 Introduction to Composition 1 cr
Fundamentals of composition (Class format)

GENERAL

105 Seminar 0 cr
Registration for Seminar is required of all undergraduates in 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.

School Of Nursing

Administration
Dean and Chair, Ph.D. Program
Mary de Chesney, D.S.N., R.N., C.S., FAAN
Executive Associate Dean and Director,
Center for International Nursing
Joanne F. White, R.N., Ph.D
Assistant Director,
Center for International Nursing
Carolyn Smith, R.N., M.S.
Associate Dean for Clinical Studies
James O'Malley, M.S.N., R.N.
Advisor, RN/BSN/MSN & Second Degree Students
and Special Assistant to Dean for
Minority Recruitment and Retention
Shirley Powe Smith, M.N.Ed., R.N., CRNP
Chair, BSN Program
Joan Such Lockhart, R.N., Ph.D., CORLN
Assistant Chair, BSN Program and
Special Assistant to Dean for Development
Leah V. George, R.N., M.N.Ed.
Chair, MSN Program
Jen N. Male, Ph.D., R.N., CNS
Director, AGH/MDU Center for Nursing Research
Judy De Palma, R.N., M.S.
Comprehensive Student Advisor
Karen Bova

HISTORY

Since it is the policy of the University to establish its 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 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 was designed 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 initiated. 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, Advanced Practice Nurse — Family Nurse Practitioner.

In Fall 1994, the Graduate Nursing Program expanded to include study for the Doctor of Philosophy (Ph.D.) in Nursing.

To date, more than 3000 students have graduated from Duquesne's School of Nursing.

SCHOOL OF NURSING PHILOSOPHY AND DEFINITION OF NURSING

The School of Nursing's philosophy evolves from that of Duquesne University and its mission, goals, and objectives. 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 the 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 curriculum, the concepts of Man, Environment, and Health are implicit in the meaning of the concept of Nursing as a human science.
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 specialty area is viewed as evolving. This evolution is a synthesis of the fields of advanced clinical nursing and of other related disciplines.

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

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 to meet the emerging 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 to qualified high school graduates, registered nurses, non-nursing baccalaureate graduates, and qualified transfer students. The program includes four years of study, and is designed to provide the student with the knowledge and the skills needed to practice as a professional nurse generalist upon graduation. The general and professional education required in this program provides a basis for the student to progress to positions of increasing responsibility and to undertake graduate study. The curriculum is designed to provide a strong liberal arts and science base. The course offerings in the natural, biological and behavioral sciences, and the University core courses support the philosophy that provides the basis for the organizing framework of the professional nursing program. Professional nursing courses, which constitute the nursing major, include theory and practice in the nursing care of individuals and families.

1. English 4 years required
2. Social Studies 3-4 years recommended
3. Language 2 years recommended
4. Math and Science 4 years required
5. Biology 1 year
6. Chemistry 1 year
7. Algebra 1 year
8. Additional year is also required in science or math, e.g., Physics, Algebra, Computers, etc.

ADMISSION REQUIREMENTS
2 A candidate must have been graduated from an approved secondary school in the upper two-fifths of the class, and must have demonstrated exemplary personal conduct in the institution. Students whose class rank is below the upper two-fifths are evaluated individually by the University Admissions Committee according to their overall academic achievement in high school quality point average and testing results are reviewed.

3 The primary consideration for admission is the secondary school academic record. This is considered the most important factor in determining 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.

As of January 1986, felonious acts prohibited licensure in Pennsylvania. A person convicted of any felonious act may be prohibited from licensure by the State Board of Nursing. At the time of application to the School of Nursing, individuals are made aware that the State Board may ask them of their past history regarding convictions.

4 A candidate must present satisfactory scores on the required College Entrance Examination Board Scholastic Aptitude Test in accordance with the standards to which the University adheres.

5 A personal interview with a representative of the School of Nursing may be requested prior to admission.

6 Letters of reference may be requested.

Other additional School of Nursing requirements include evidence of physical and emotional health adequacy 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. 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 Statement.

In specific instances, and at the discretion of the Committee on Admissions, the equivalent of these requirements may be accepted in lieu of the foregoing precise requirements. All applicants are evaluated based on individual potential and total profile with variances permitted as necessary and desirable.

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**TRANSFER STUDENT ADMISSION**

See the section on Admissions for further University requirements.

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**Admission criteria for transfer students**

1. A cumulative GPA of 2.5 from the transfer institution.

2. One unit of chemistry and one 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. Compliance with the Standards of Personal Conduct Policy.

5. Evidence of physical and emotional health adequate to meet the demands of the program as indicated above.

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**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. Time limits may be waived in specific instances.

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**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 experience towards the requirements of the B.S. 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./M.S.N. Advisor within the School of Nursing.

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**Admission Requirements — Second Degree in Nursing Option**

Students who are interested in applying for admission to the Second Degree in Nursing Option should request an application from the Division of Continuing Education, Duquesne University, Pittsburgh, PA 15282.

- Graduation from a baccalaureate program in another discipline.
- Personal interview with the Second Degree student advisor within the School of Nursing.
- Compliance with the Standards of Personal Conduct Policy.
- Evidence of physical and emotional health adequate to meet the demands of the program.

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**TEMPORARY TRANSFER**

With prior written approval, a nursing student may take courses during the summer at an accredited college or university other than Duquesne University. A student wishing to do this must provide the necessary clearance from both institutions.

- A student must bring to the appropriate advisor in the School of Nursing, Undergraduate Program, both the catalog description of courses he or she wishes to take and the schedule for the summer session in which they are given. This request will be reviewed for course equivalency and appropriateness.

2. Ordinarily, a student who has acquired 60 or more credits may not receive advanced standing for courses taken at accredited community or two-year colleges. Students desiring waiver of this policy must obtain the permission of the Second Degree student advisor within the School of Nursing.

3. A candidate for the Bachelor's degree must complete the last 30 credits (exclusive of challenge credits) toward the degree at Duquesne University.

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**SECOND DEGREE STUDENTS**

This option is available to those who already have an earned baccalaureate degree in another discipline and who wish to earn a bachelor's degree in Nursing at Duquesne University. A possible 62 credits may be transferred into the program. Other possible opportunities include challenge examinations and CLEP testing for University credit. Full credit is earned toward the degree.

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**ADDITIONAL EXPENSES* AND REQUIREMENTS**

**Student Liability Insurance (Professional)**

- $25.00 (annually)
- $120.00 (Transportation to and from clinical agencies (weekly))
- $10.00 (School of Nursing pin, upon graduation)
- Varies (if desired)

**Uniforms, identification pin, shoes**

- $1,000 (cost varies)
- $300 (Physical examination and procedures, immunizations)
- $200 (first year)
- $150 (second year)
- $400 (Physical Assessment Kit)
- $500 (Senior Assessment Examination)

**All expenses are approximate**

Training in Cardiopulmonary Resuscitation (CPR) is a prerequisite to all nursing clinical courses. Students must demonstrate 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 must complete specific health requirements by the designated deadline date of March 31. The School of Nursing provides information on required school uniforms to students prior to entrance into the clinical area. Nursing students enrolled in clinical courses must purchase liability insurance in the amount of $1,000,000 or $3,000,000 professional coverage.
Each student is responsible for transportation to and from hospital and other clinical agencies. Each student will be expected to have access to an automobile to permit experience with home care of clients and their families during the senior year.

**STUDENT ORGANIZATIONS**

Each nursing student is a member of the general student body and may select and participate in any of the campus organizations. There are numerous social societies and organizations as well as professional organizations. These organizations exist for the promotion of the scholarly and professional interests of members.

Alpha Tau Delta is a national professional fraternity for persons in nursing. Theta Chapter was chartered on the Duquesne University campus on April 21, 1946. 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 (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 preprofessional 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 leading to licensure as a registered nurse or to registered nurses enrolled in undergraduate programs of nursing.

Kappa Alpha Beta, an undergraduate nursing sorority of Chi Eta Phi Inc., was established in 1946. The purpose of this organization is to increase minority students in nursing and to foster continuing education. While membership is predominantly African-American, individuals from other ethnic/racial groups, as well as male nursing students, are invited to join.

Class Organizations: Each class is an officially recognized organization in the School of Nursing. As such, each class elects its own officers and conducts such programs and affairs as its members deem desirable toward achieving its goals.

Sigma Theta Tau International, Inc. is the international honor society of nursing. The Duquesne University Nursing Honor Society was officially chartered as Epsilon Phi Chapter in March 1962. 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 Alumini.

**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 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 in honor of Mary Tobin, the first Dean of the School, on the occasion of her retirement from the University. The Dean Johnson Memorial Medal established in 1963 commemorates Dean Johnson's contributions to the growth of the School of Nursing as its second Dean.

Four new awards were presented for the first time in 1983. The first award on behalf of Bayer Corporation is awarded annually to the outstanding graduating senior in the area of acute care nursing. The award is called the Bayer Award for Excellence in Nursing Practice in the Acute Care Setting. The second award is 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 is called 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.

Four, Sigma Theta Tau International, Epsilon Phi Chapter, presents four awards, one each to a Basic R N / B S N / M S N., Second Degree and Graduate Program student for excellence in scholarship, leadership, and professional commitment.

Five new awards have also been added: The Community Health Education Award, established in 1963, is awarded to recognize the graduating senior who demonstrates initiative, creativity, and teaching skills in promoting community health. The Faculty Recognition Award, established in 1986, is awarded to an outstanding graduating senior by faculty vote. The Nursing Alumni Award, established in 1987, is awarded to three graduating senior students, a Basic Program student, a Second Degree Option student, and a Registered Nurse student, for excellence in scholarship, professional commitment, and implementation of Duquesne's philosophy.

**GRADUATION REQUIREMENTS**

General University requirements for graduation are in the Academic Policies section of this catalog. In addition, specific School of Nursing requirements are required of all seniors to provide feedback to students in identifying strengths and weaknesses in preparation for the NCLEX-RN licensure examination. Following the assessment examination, students are required to attend formal and informal NCLEX preparation classes.

Degree requirements must be completed within 10 years of 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**

**SCHOOL OF NURSING**

1. Completion of 125 credits
2. A minimum cumulative over-all 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.
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. **Student Conduct**
   A student who is unable to attend class because of serious illness, hospitalization, a serious accident, or other extenuating circumstances is responsible for notifying the appropriate faculty member, Associate Chair or Chair of the Undergraduate Program, School of Nursing. A student who is absent for cause is expected to complete all work in the course. 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. Attendance is mandatory for all scheduled hours in the clinical area. This includes community clinical hours as well as those scheduled in the acute care area. Acceptable reasons for absence will be in accordance with the current Undergraduate Catalog statement of scholastic policies.

3. **Grading System**
   The grading system for all School of Nursing courses is A through F. In most cases, the emphasis will be on the pharmacological action of drugs on specific organ systems. In some instances, drugs will be discussed in relation to their clinical use in the treatment of disease conditions.

4. **Clinical Competency**
   Students enrolled in Clinical Pharmacy courses are required to complete all required clinical rotations. In the event of a missed rotation, students may be assigned to make-up time. The clinical time must be made up at the instructor's discretion. Tardiness or unexcused absence(s) are serious offences of professional responsibility and accountability that may result in failure to meet course goals and objectives. Regardless of cause or reason, all clinical practice time must be made up.

**TOTAL = 125 credits**

**University Core Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>N410 Nursing Care of the Childbearing Family</td>
<td>5</td>
</tr>
<tr>
<td>N420 Nursing Care of the Child and Family</td>
<td>5</td>
</tr>
<tr>
<td>N430 The Research Process in Nsg Humanities Elective</td>
<td>3</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>N55 Nsg Leadership/Mgmt of Client Care</td>
<td>4</td>
</tr>
<tr>
<td>N475 Promotion of Health with Individuals/Families/Groups in the Community</td>
<td>3</td>
</tr>
<tr>
<td>N485 Trends and Issues in Nsg</td>
<td>3</td>
</tr>
<tr>
<td>N495 Advanced Concepts in Clinical Nursing</td>
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<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Elective Nursing/General</td>
<td>3</td>
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</table>

**SCHOOL OF NURSING**

**Handicapped students requiring special assistance are responsible to notify the class instructor before or at the first class.**

**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 competency by means of a written examination prior to progression to Junior level clinical courses.

**4 All students are expected to follow the professionalism and behaviors stated in the Standards of Professional Conduct & Standards of Safe Clinical Practice.**

**Curriculum Standards**
   To progress to the upper division nursing practice courses, a minimum cumulative QPA of 2.0 is required. A minimum C grade is also required in the natural and applied sciences courses (Chemistry, Biology of Microbes, Anatomy and Physiology I and II, Nutrition for Health Promotion, Basic Pharmacology and Pathology) and all prerequisite nursing courses. Providing a minimum C grade is achieved in the natural and applied science theory courses, at least a minimum D grade is required in the related science laboratory course. Students must achieve a C grade in all nursing courses except nursing electives.

   Students are ordinarily permitted to repeat courses in which D and F grades were received. All grades are retained on the permanent academic record. The result of the final attempt in a repeated course is, however, the student's status in the course with regard to attempted credits, earned credits, and the completion of requirements.

   Students must repeat both 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 writing intensive requirements for all students admitted to Duquesne University, the School of Nursing faculty has identified five required courses (N201 Survey of Professional Nursing [RN/BSN/MSN only], N234 Introduction to Inquiry in Nursing, N360 Nursing Care of the Adult Client I, N430 The Research Process in Nursing, and N485 Trends and Issues in Nursing) as meeting this condition. While most, if not all of the required undergraduate nursing courses have some written component as a course requirement, students who are determined to need further assistance with their writing skills will be advised to select such courses as electives.

   The students are encouraged to seek regular advice from their advisors 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 graduating.

   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 make any changes in curriculum that seem necessary or desirable.

**NURSING COURSE DESCRIPTIONS**

**100 Orientation to Professional Nursing**
   This course introduces students to the discipline of nursing as a human science, and provides the framework for exploring the practice of professional nursing according to the philosophy of Duquesne University School of Nursing. Students explore the assumptions about man and environment beginning with the influences of tradition, culture, and self-actualization as a means of valuing self. In addition, students examine beliefs about man, environment, and health and how they make a difference in the practice of nursing.

   Professional nursing is explored from the historical aspect as it relates to present and emerging roles.

   The relationship of nursing research and theories is examined with a concentration on the nursing theories of Rogers, King, Orem and Watson.

   Students begin to investigate how nursing theories can be applied to all courses and to be familiar with the valuing, process and self-esteem as a means of meeting the requirements of 100 and 262.

**215 Basic Pharmacology**
   This course covers the basic principles of pharmacology needed in daily practice. This includes drug effectiveness, mechanism and interaction. In many cases, the emphasis will be on the pharmacological action of drugs on specific organ systems. In some instances, drugs will be discussed in relation to their clinical use in the treatment of disease conditions. Prerequisites: Anatomy and Physiology I.

**222 Human Development Throughout the Life Continuum**
   This course builds upon the major concepts of man, environment, health and nursing. The student studies human development from conception through death. Emphasis is placed on an individual's
psychological, intellectual and personality development within the context of the family, society and culture. Health promotion practices are explored relative to each age group throughout the life continuum. This course provides the basis for students to assess the developmental stages in the clinical environment. Prerequisite: Introduction to Psychology.

229 Toward Healthy Aging 2 cr
This course focuses on elderly people, the aging process, and age-related physiological and psychosocial changes. Emphasis is placed on enhancements of life through the promotion of health and wellness, and strategies to encourage independence and functioning. Environmental and personal safety, various living situations, and economic and legal considerations are discussed. The development of gerontology is highlighted. Prerequisites: Anatomy and Physiology I (concurrent) and Introduction to Psychology (concurrent).

234 Introduction to Inquiry in Nursing 1 cr
This one credit introduction to inquiry in nursing course is the first course in the junior year. 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 inquiry into assumptions, beliefs, goals, values, and character that characterize nursing.

253 Nutrition for Health Promotion 3 cr
This course focuses on nutrition and the 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 many settings and explore the effects on enhancing quality of life through the promotion of health and wellness, and in the maintenance of health and wellness. Prerequisite: Orientation to Professional Nursing.

272 Basic Communications in Nursing 2 cr
This is a basic course in communication. Students examine the components of communication, including the use of nonverbal communication, and learn to write in a manner that is understandable to the listener. The course is divided into two parts: the first part covers the communication process, and the second period focuses on the development of written communication skills. Prerequisite: Orientation to Professional Nursing.

312 Pathology 4 cr
This course is a study of the physiological processes, the body’s response to these processes, and the individual’s ability to cope with stress. This course is divided into two parts: the first part covers the physiological processes and the body’s response to these processes, and the second period focuses on the development of written communication skills. Prerequisite: Orientation to Professional Nursing.

320 Nursing Care of the Adult Client I 7 cr
Nursing Care of the Adult Client I is the first clinical nursing course offered at the junior level. This course builds on the knowledge of normal and human sciences, concepts from selected nursing theorists, Pathology and Physical Assessment of the Adult which are taken concurrently with Adult I. The student is provided with the opportunity to apply the nursing process to the care of adult clients in a variety of acute medical-surgical settings. Basic concepts related to the integrity of biological, psycho-social, spiritual and environmental health patterns are presented. Concepts of loss, grief, and rehabilitation are integrated throughout the course. Students explore the ways in which adult clients respond to alterations in health and the experience of hospitalization. How changes influence the adult client’s unique experience, the utilization of normal, psycho-social, spiritual and environmental health patterns, and the development of coping mechanisms for dealing with alterations are explored. The course explores the theoretical aspects of the nursing role within the framework of the nursing process. Emphasis is placed on the development of critical thinking within the context of the nursing process. Prerequisites: CPR Certification, Orientation to Professional Nursing, Anatomy & Physiology I (concurrent), Human Development Throughout the Life Continuum (concurrent), Basic Communications in Nursing (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 DSM-3R. Emphasis is placed on the students’ understanding of the multifaceted nature of psychopathology. Attention will be directed to the developmental, biological, psychological, and sociocultural aspects of pathological functioning. The theoretical and practical basis for further treatment modalities will be addressed. Prerequisites: Introduction to Psychology, Basic Communications in Nursing, Anatomy and Physiology I and II, Health Promotion Through the Nursing Process.

350 Physical Assessment of the Adult 2 cr
This course builds on previous 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 health changes. The student will be introduced to the theoretical and practical components of the physical assessment process. Emphasis is placed on the development of critical thinking within the context of the nursing process. Prerequisites: CPR Certification, Orientation to Professional Nursing, Anatomy and Physiology I and II, Health Promotion Through the Nursing Process.

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 team planning and explores community mental health resources utilized to address the health needs of clients. Prerequisites: Basic Communication in Nursing, Psychopathological Alterations in Health and Nursing Care of the Adult 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. Concerns of loss, grief, maternal and paternal role identity, body image and self-esteem are explored related to the childbearing family. Concerns related to childbearing family beliefs systems related to health promotion for mothers and newborns are examined from ethical, cultural, and other known 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 II, Psychiatric-Mental Health Nursing Care of the Adult.

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
psychological, intellectual and personality development within the context of the family, society and culture. Health promotion practices are explored relative to each age group throughout the life cycle. This course provides the basis for students to assess the developmental stages in the clinical environment. Prerequisite: Introduction to Psychology.

229 Toward Healthy Aging 2 cr
This course focuses on elderly people, the aging process and age-related physiological and psychological changes. Emphasis is placed on enhancing quality of life through the promotion of health and wellness, and strategies to encourage independence and functioning. Environmental and personal safety, various living situations, and economic and legal considerations are discussed. The development of gerontology is highlighted. Prerequisites: Anatomy and Physiology I (concurrent) and Introduction to Psychology (concurrent).

234 Introduction to Inquiry in Nursing 1 cr
This one-credit Introduction to Inquiry in Nursing course is offered early in the nursing program. The focus of the course is on the assessment and further development of intellectual capacities of student nurses as independent critical thinkers. Students will be introduced to the critical thinking process and its components, describe how they think, and participate in determining learning strategies that will enhance thinking. Students will be encouraged to actively participate in learning as they progress through the course. The process of critical thinking and its course provides 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 and the role nutrition plays in meeting the 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 intervention for individuals and situations 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 many experiences 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 Through the Life Continuum (concurrent). Basic Communications in Nursing (concurrent).

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: Introduction to Professional Nursing.

312 Pathology 4 cr
This course is a theory course designed to acquaint students with the structural and functional changes that occur as the result of illness, as well as the body’s remarkable ability to compensate for those illness-related changes. Since the abnormal changes can ultimately be traced to cellular and histological deviations from the homeostatic state, the mechanisms that disrupt this optimal state will also be elucidated. In addition, the basic mechanisms involved in the pathogenesis of various body systems and the body as a whole are emphasized and contrasted with the similar mechanisms that support normal health. Prerequisites: Biologics of Microbes, Anatomy and Physiology I and II.

320 Nursing Care of the Adult Client I 3 cr
Nursing Care of the Adult Client I is the first clinical nursing course offered at the junior level. This course builds on previously learned knowledge 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 in the clinical setting in Nursing Care of the Adult Client I which is taken concurrently.

321 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 in the clinical setting in Nursing Care of the Adult Client I which is taken concurrently.

329 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 multifaceted nature of psychopathology. Attention will be directed to the developmental, biological, psychological, and sociocultural aspects of pathologic functioning. The theoretical and practical basis for current treatment modalities will also be addressed. Prerequisites: Introduction to Psychology (concurrent), Basic Communications in Nursing, Anatomy and Physiology I and II. Health Promotion Through the Nursing Process.

350 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 in the clinical setting in Nursing Care of the Adult Client I which is taken concurrently.

351 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 in the clinical setting in Nursing Care of the Adult Client I which is taken concurrently.

352 Nursing Care of the Adult Client I 7 cr
Nursing Care of the Adult Client I is the first clinical nursing care 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 provided with the opportunity to apply the nursing process to the care of adult clients in a variety of acute medical-surgical settings. Basic concepts related to the integrity of biological, psycho-social, spiritual and environmental health patterns are presented. Concepts of loss, grief, and rehabilitation are integrated throughout the course. Students explore the ways in which adult clients respond to alterations in health and the experience of hospitalization. How these changes influence the adult client’s unique experience of both spiritual and physical alterations is explored. The student’s body perception needs are addressed.

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).

353 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 multifaceted nature of psychopathology. Attention will be directed to the developmental, biological, psychological, and sociocultural aspects of pathologic functioning. The theoretical and practical basis for current treatment modalities will also be addressed. Prerequisites: Introduction to Psychology (concurrent), Basic Communications in Nursing, Anatomy and Physiology I and II. Health Promotion Through the Nursing Process.

356 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 in the clinical setting in Nursing Care of the Adult Client I which is taken concurrently.

360 Nursing Care of the Adult Client II 7 cr
This course builds on previously learned knowledge of Pathology, Physical Assessment of the Adult, and concepts from selected nursing theorists. The student is provided with the opportunity to apply the nursing process in caring for the adult in a variety of medical-surgical settings. The student continues 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 also explore community resources for supportive and rehabilitative care, and participate in the referral of clients for these health care services. Students integrate previously learned and more advanced nursing knowledge reflecting the uniqueness of man’s health experience to provide wholistic nursing care to the adult client. Prerequisites: Nursing Care of the Adult Client I, Physical Assessment of the Adult, and Pathology.

370 Psychiatric-Mental Health Nursing Care of the Adult 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
This 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 role identity, body image and self-esteem are explored relative to the childbearing family. Changing family belief systems related to health promotion for mothers and 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.

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...
455 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 I, Psychiatric-Mental Health Nursing Care of the Adult

485 Nursing Leadership and Management of Client Care 4 cr
This clinical course provides students the opportunity to synthesize previous learning and develop additional knowledge and skills. Concepts of alteration in patterns and decision-making form the foundation for nursing judgement 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 judgement and technical skill development. Prerequisites: Nursing Care of the Childbearing Family, and Nursing Care of the Child and Family

NURSING ELECTIVES

NOTE Not all nursing electives are offered each semester

104 Dosages and Solutions 1 cr
This directed study course provides the student with an opportunity for a self-paced review of the basic mathematical functions preparatory to problem-solving and instruction in the calculation of dosages and solutions necessary for the administration of medications in clinical practice. The course is designed around student use of a computer-assisted instructional program with teacher supervision. Special permission is required to register for this course.

299 Nursing and Spirituality 3 cr
Nursing and Spirituality is a non-clinical nursing elective. Students explore the universal and timeless truth of the spiritual dimension of human nature. Case histories in nursing are investigated which focus on spiritual needs encountered in the nurse-client relationship. Students are encouraged to develop an awareness of their own spiritual dimension and its growth through nursing experiences. In addition, students discover the gift they bring to the nursing situation when spiritual needs are recognized and shared (entered into) with the client.

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.

427 Introduction to Case Management 3 cr
This course introduces the student to the theory and concepts inherent in the process of case management. The role of the case manager is analyzed within the framework of health care delivery systems, quality, cost, legal, and ethical issues. Several case management models are examined.

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 model 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 credits (one to three), in either clinical and/or non-clinical areas, 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 vary based on content area involved.
School of Pharmacy

CURRICULAR CHANGES

The current B.S. in Pharmacy program will no longer be offered with the graduation of the Class of 1998 (entered in Fall 1995). As of Fall 1994, the School of Pharmacy initiated a six-year entry-level Doctor of Pharmacy program study. The new Pharm D will be configured in a two-year pre-professional and four-year professional curricular format.

Faculty of the School of Pharmacy are developing a competency-based, outcomes-oriented curriculum that will prepare future generalist pharmacy practitioners to provide quality pharmaceutical care to patients. The new professional curriculum will emphasize critical thinking, problem solving, active learning and enhanced communication skills, integrated studies in the biological, chemical, pharmaceutical, administrative, behavioral and clinical sciences taught using traditional and innovative instructional techniques, and a multi-year, introductory-to-advanced level experiential component. Opportunities will be provided for additional preparation in community pharmacy practice, institutional practice, nuclear pharmacy, industrial practice, and for graduate study.

ADMISSIONS

Traditionally, Duquesne University's excellence in pharmacy education has resulted in a large number of applicants for enrollment. Admission to the entry-level Doctor of Pharmacy Class will be on a competitive basis for well qualified Duquesne University students and a select group of transfer students from outside Duquesne University.

The minimum requirements for admission to the Duquesne University School of Pharmacy entry-level Pharm D program are: 1) Completion of the pre-pharmacy course requirements listed in the University catalog, 2) A minimum overall and science/math grade point average of 2.5 and no grade lower than a "C" in a required course, 3) Completion of the Pharmacy College Admissions Test (PCAT) with a minimum composite scaled score of 180, and 4) Completion of an application form that includes a written essay and three letters of recommendation.

An interview is required of candidates for final selection.

Evidence of participation in community service is strongly encouraged and will be a favorable asset in consideration for admission to the program.

PRE-PHARMACY COURSE REQUIREMENTS

<table>
<thead>
<tr>
<th>Duquesne Pre-Pharmacy</th>
<th>Sem</th>
<th>Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology I and II</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>General Chemistry I and II (121 and 122)</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Organic Chemistry I and II (205 and 206)</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Calculus I (115)</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Calculus II (116)</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Physics for Pharmacy (200)</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Thinking and Writing Across the Curriculum (101)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Imaginative Literature and Critical Writing (102)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Theology (Core)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Basic Philosophical Questions (122)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Shaping of the Modern World (151)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Arts and the Human Experience (161)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Elements of Economics (121)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Computer Literacy (COSC 100 or QSMIS 182)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Public Speaking (102)</td>
<td>3</td>
<td>6</td>
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<tr>
<td>Psychology</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>General Sociology/Political Science</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>30</td>
</tr>
</tbody>
</table>

General Requirements

| General Biology with Laboratory | 8 |
| General Chemistry with Laboratory | 8 |
| Organic Chemistry with Laboratory | 4 |
| Calculus (for science or math majors) | 4 |
| General Physics with Laboratory | 8 |
| English Composition and Literature | 3 |
| English Literature | 3 |
| Religious Studies | 3 |
| Philosophy | 3 |
| Modern U.S., European or World History | 3 |
| Music or Art Appreciation | 3 |
| Economics | 3 |
| Computer Literacy (Applications) | 3 |
| Speech (Interpersonal Communication) | 3 |
| Psychology | 3 |
| General Sociology | 3 |
| Total | 69 |

John G. Rangos, Sr.
School of Health Sciences

Administration

Dear Jerome L. Martin, Ph.D.

Director of Student and Alumni Services

Deborah L. Durcak

Director of Budget and Management

Denise M. Ditwiede

HISTORY

On January 29, 1990, Dr. John E. Murray, Jr., President of Duquesne University, announced that the John G. Rangos, Sr School of Health Sciences was being created to "graduate professionals who will provide assistance to people in maintaining their physical well-being. It will make them more self-sufficient physically and provide great hope for their futures." It meets an overwhelming societal need and it enlarges opportunities for students at Duquesne University. In serving the citizens of Western Pennsylvania and our students, this initiative is precisely in accordance with the purposes of Duquesne University."

On March 18, 1991, Mr. John G. Rangos, Sr (President and Chief Executive Officer of Chambers Development Company, Inc.), Pittsburgh-based Chambers Development Company, Inc., The John G. Rangos Charitable Foundation, and the Chambers Development Charitable Foundation, made a major gift to Duquesne University in support of the School of Health Sciences. In recognition of that gift, Dr. Murray announced the School would be named John G. Rangos, Sr School of Health Sciences (RSHS).

MISSION

The 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.

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 philosophical 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.

ACADEMIC PROGRAMS AND DEGREES

GENERAL INFORMATION

Bachelor's Degree Programs

The RSHS offers four-year bachelor's degree programs in athletic training (B.S. in Athletic Training), health management systems (B.S. in Health Management Systems), and perfusion technology (B.S. in Perfusion Technology) which follow a traditional, curricular design. The academic model for these programs is two years of liberal arts and science requirements followed by two years of professional education. In the case of the Health Management Systems program, students may also opt to pursue a Master of Health Management Systems.

Entry-Level Master's Degree Programs

The RSHS offers five-year entry-level master's degree programs in occupational therapy (M.O.T.), physical therapy (M.P.T.), physician assistant (M.P.A.) and speech-language pathology (M.S.L.P.). 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-two model is unique for these professions and provides the RSHS faculty the opportunity to maximally utilize the excellent core curriculum and science offerings at Duquesne as the basis for creative, professional curricula. All of the five-year entry-level master's degree programs 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 B.S. in Health Sciences, but will work directly toward the appropriate master's degree.

Advanced Master's Degree Program

The Advance Master of Health Management Systems program is a 24-month, project-oriented, real-world, problem-based curriculum for executive-level health management systems professionals. A joint M.H.M.S./M.B.A. option will be available to graduates of an accredited business school, or to those who have completed Duquesne University's graduate business core, who have sought and been granted admission into the MBA program as well. A flexible schedule is also available for students with work obligations. For further information,
please contact the Department of Health Management Systems at (412) 396-4772

Joint Degree Programs
The RSHS offers some joint degree programs to currently enrolled RSHS students Students must formally apply for these programs These joint degree programs are not offered to students seeking initial admission into the RSHS

Majors in athletic training also have the opportunity to complement their degree with a Master of Science in Education With this joint degree opportunity students may be eligible for permanent teaching certification in the areas of Mentally and Physically Handicapped, Secondary General Science, Secondary Biology, or Elementary Education

In addition, on a very limited basis, athletic training majors may apply for the joint degree program with the Department of Physical Therapy, and physical therapy majors may apply for the joint degree program with the Department of Athletic Training. An application to this joint degree program will automatically be sent to all first-semester freshmen in both athletic training and physical therapy

Inter-School Majors and Minors
Should students decide to pursue an inter-School major or minor, they should carefully investigate the implications of an increased course and credit load, as well as ensure they will be able to complete all RSHS program requirements in time for entry into the professional phase of their respective program

Inter-School Majors
At this time, there are no inter-School majors available to RSHS students

Inter-School Minors
Students interested in pursuing an inter-School minor within the McAnulty College and Graduate School of Liberal Arts and the Bayer School of Natural and Environmental Sciences could work with a RSHS academic advisor to discuss minor requirements and the minor declaration process

Admission to the health management systems, physician assistant program, which both begin in the summer term

New Students
All students seeking admission to the professional phase of either the occupational therapy or the physician assistant program, which both begin in the summer term

Admission to the health management systems, physician assistant program, which both begin in the summer term

Advanced Health Management Systems program or the professional phase

Inter-School Transfer Students
All internal transfer students must apply through the RSHS. The RSHS considers an internal transfer student to be

1 Any student seeking to transfer into the RSHS from another School or the Division of Continuing Education at Duquesne University

2 Any student within the RSHS who seeks to transfer to another program or class level, within the RSHS itself

All prospective internal transfer students must schedule an appointment with a RSHS academic advisor by stopping in the Office of the Dean, Room 302, Health Sciences Building, or by calling (412) 396-6652

Students with Disabilities
The University and the RSHS do not discriminate on the basis of nonperformance-related handicaps or disabilities. All students seeking admission to the RSHS will be expected to perform certain physical, mental and emotional tasks in order to complete graduation and professional requirements as measured by state and national certification, licensure and registration 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. Further, in limited cases, the student may be required to demonstrate the ability to perform certain “essential” tasks or techniques to the satisfaction of the faculty, prior to professional study

APPLICATIONS

Please note that applications policies are subject to change at the discretion of the RSHS and the Office of Domestic and International 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, with the exception of those students who will be entering directly into the Advanced Health Management Systems program or the professional phase of either the occupational therapy or the physician assistant program, which both begin in the summer term

Student’s Fellowship
Students currently enrolled at Duquesne or who have not been enrolled at Duquesne for a period of two years or more must apply through the Office of Admissions

All internal transfer students must apply through the RSHS The RSHS considers an internal transfer student to be

1 Any student seeking to transfer into the RSHS from another School or the Division of Continuing Education at Duquesne University

2 Any student within the RSHS who seeks to transfer to another program or class level, within the RSHS itself

All prospective internal transfer students must schedule an appointment with a RSHS academic advisor by stopping in the Office of the Dean, Room 302, Health Sciences Building, or by calling (412) 396-6652

Students with Disabilities
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It is the student’s responsibility to notify the Office of Special Student Services if a physical or mental impairment will require accommodations to enable the student to complete academic and professional performance requirements or skills. Further, in limited cases, the student may be required to demonstrate the ability to perform certain “essential” tasks or techniques to the satisfaction of the faculty, prior to professional study
Admissions Criteria for Freshmen

Freshmen admissions will be on selective basis as therapy should have four years of high school must submit a High School Equivalency Diploma issued by their state department of education.

The Office of Domestic and International Admissions will review all freshmen applications based on the following guidelines established by the RSHS. All candidates for physical therapy should have 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.

A class rank in the top one-fifth of their graduating class, a QPA of at least a 3.0, and a composite SAT score of at least 1100 or a composite ACT score of at least 24.

All candidates for programs other than physical therapy should have 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.

A class rank in the top one-fifth of their graduating class, a QPA of at least a 3.0, and a composite SAT score of at least 1100 or a composite ACT score of at least 24.

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
2. Internal Transfers - Must contact a RSHS academic advisor in the RSHS Office of the Dean for Internal Transfer Application
3. Transfers and Second Degrees - Must contact the Office of Domestic and International Admissions for the standard undergraduate admissions application (excluding the official transcript) on the back of the application and the initial letter of reference. Applicants to the advanced master’s program in Health Management Systems should contact the Department of Health Management Systems at (412) 396-4772.

The deadlines are:

1. A minimum cumulative QPA of at least 2.75 for athletic training, health management systems, perfusion technology and speech-language pathology programs, and a minimum cumulative GPA of at least 3.5 for occupational therapy, physical therapy and physician assistant.
2. A “C” or better in all RSHS, Science, Math, and Humanities, Communication and Education (SLP), Business (HMS), and Medical Sciences courses.
3. GREs are not required for admission.
4. 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 will still be considered. Applicants must have a GPA of at least 3.0 in course work and have extensive volunteer/professional experience.

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 UNDERGRADUATES unto whatever year of the program is appropriate, depending on the courses they have and have not completed to date.
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 of previous credit level or degree earned, students are still seeking admission as UNDERGRADUATES.
aware that most financial aid and scholarship opportunities vary by academic standing. Financial aid eligibility requirements require students to carry a specific credit load. This is the student’s responsibility to investigate these requirements and apply for aid. For questions, students may contact the Office of Financial Aid.

Graduate Students

Internal Transfer: Transfer and Second Degree Students

Second degree candidates should carefully investigate the financial implications involved with matriculating into the RSHS. If a student enters any of the RSHS programs as a graduate student, they typically do not qualify for standard undergraduate financial aid.

Graduate Students

Students enrolled in any of the five-year entry-level master’s degree programs should be aware that, for financial reasons, the RSHS considers students to be graduate students upon completion of the spring semester of their fourth year. Students are strongly advised to consult with the Office of Financial Aid regarding financial 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.

PROGRAM AND CURRICULUM INFORMATION

Please note that all program and curriculum information is subject to change at the discretion of the RSHS. Once enrolled students should refer to the RSHS Academic Student Handbook for specific information regarding academic policies pertaining to their respective programs.

The following interdisciplinary courses may be required by some of the programs:

HLTSC 101 Health Sciences Orientation 1 cr
An overview of the health care industry and specific health professions. Students will learn study skills and learn about various health professions while developing an understanding of the health professionals who work in the health care industry.

HLTSC 305 Physiology 4 cr
This course in human physiology presents the normal homeostatic and reproductive functions of the body, with emphasis on unifying concepts and systems integration. The course is intended to provide the student with a solid foundation in human physiology for subsequent clinical training in the Physician Assistant and Perfusion Technology programs. Prerequisites: BIOL 121/123 or 122/124, 207/208, 209/210, or permission of the instructor.

HLTSC 306 Anatomy 4 cr
This course in human physiology presents the normal functions of the body, with emphasis on unifying concepts and systems integration. The course is designed to provide the student with a solid foundation in human physiology for subsequent clinical training in Occupational Therapy, Physical Therapy, and Speech-Language Pathology. Prerequisites: BIOL 121/123 or 122/124, 207/208, 209/210, or permission of the instructor.

HLTSC 307/307L Anatomy 5 cr
This anatomy course presents the aspects of basic histology, embryology and morphology of the human organism. This course is designed to provide a foundation in human anatomy and physiology for subsequent clinical training in the Physician Assistant and Perfusion Technology programs. Prerequisites: BIOL 121/123 or 122/124, 207/208, 209/210, or permission of the instructor.

HLTSC 425 Therapeutic Modalities 4 cr
This course is designed to acquaint the student with the various physical agents and electrotherapy modalities used to treat patients in a clinical setting. Prerequisites: PHYS 201 or 202.

HLTSC 430 Principles of Research 2 cr
Introduces students to the character of the research process. Discussions focus on the design, conduct, analysis, and interpretation of research studies. Prerequisite: MATH 225.

HLTSC 431W Research Seminar 1 cr
Overview of qualitative, evaluative, and single-subject research proposal development research methods. Corequisite: HLTSC 430.

HLTSC 437/438 Functional Kinesiology/ Biomechanics Lab 3 cr
This lab is designed to study, in detail, the elements of normal human motion. Prerequisites: PHYS 201 or 202, HLTSC 307/307L.

HLTSC 441 Medical Sciences 1 3 cr
This course incorporates the science of anatomy in conjunction with the technology of radiology and the medical laboratory to provide the student with a more complete understanding of disease processes which are manifested by patients as symptoms. Prerequisites: HLTSC 305 or 306, 307/307L, or 310/310L.

DEPARTMENT OF ATHLETIC TRAINING (AT)

Chairman
Paula Sammarone Turocy, EdD, ATC

Sports Medicine is a popular general term that refers to all those individuals and services necessary to maintain the overall health of athletes and those who are physically active. Athletic trainers play a major role in the field of sports medicine. In 1991, the profession of athletic training was recognized as an allied health profession by the American Medical Association (AMA). However, athletic trainers have been providing care and services for athletes and other physically active individuals for more than 40 years. The responsibilities of the athletic trainer are prevention of injury and illness, first aid and emergency care, evaluation and management of injuries, design and implementation of treatment and rehabilitation programs, and preparation of athletes 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 industry.

The CAAHEP-approved (Commission on Accreditation of Allied Health Education Programs) athletic training education program at Duquesne University provides students with a comprehensive basic science background, a general liberal arts core of classes, and specific comprehensive course work in athletic training. In this four year bachelor’s degree program, students are presented with opportunities to pursue clinical experiences at the collegiate, secondary, professional, 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’s Degree in Athletic Training. Through this joint degree opportunity, students may become eligible for professional teaching certification in the areas of Mentally and Physically Handicapped, Elementary Education, Secondary General Science, and/or Secondary Biology Education. Also, on a limited basis, athletic training students may be considered for 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 — 63 CREDITS

The pre-professional phase of the curriculum includes the University core courses, Science, Math, and Humanities, Medical Sciences, RSHS courses, and ATHTR 201 with a grade of "B" or better. These prerequisite courses provide a strong foundation for success in the professional phase of the curriculum. A sample course plan for the pre-professional phase of the curriculum can be obtained directly from the Office of Domestic and International Admissions at (412) 396-5000 or from the RSHS at (412) 396-6652

PROFESSIONAL PHASE — 65 CREDITS

A sample course plan for the professional phase of the curriculum can be obtained from the Office of Domestic and International Admissions at (412) 396-5000 or from RSHS at (412) 396-6652

COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE

ATHTR 201 Essential Concepts & Techniques in Athletic Training 3 crs

This course is an introduction to the basic and essential elements of athletic training. It includes the introduction to information, emergency management, recognition, evaluation and follow-up care for injury and illness. Corequisite BIOL 207/208

ATHTR 302 Art & Science of Athletic Training 1 3 crs

This course provides students with experiences in evaluation techniques, recognition of common pathologies associated with the lower body and inter nal organs, as well as information on tissue types, methods of palpation, medical notation, and use of evaluative technology. Prerequisite ATHTR 201

ATHTR 303 Art & Science of Athletic Training 2 3 crs

This second part course provides students with learning experiences in evaluation techniques, recognition of common pathologies associated with the upper extremity, head, and spine. Prerequisite ATHTR 302

ATHTR 305W Health & Medicine 3 crs

This course presents common medical pathologies and current personal and community health information on topics germane to the physically active population. Corequisite HLTS 307/307L

ATHTR 306 Therapeutic Exercise & Reconditioning in Athletic Training 4 crs

In this course, students learn the theory and application of knowledge to develop comprehensive re habilitation programs and to address the rehabilitation and reconditioning needs of the physically active. Prerequisites HLTS 307/307L, 425, ATHTR 302

ATHTR 307W Physiology of Exercise 3 crs

This course prepares students to understand, assess, and manipulate the physiological components of metabolism, muscular activity, and cardiorespiratory function to enhance performance. Prerequisites 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 develop and debate issues germane to the physically active population. Prerequisite ATHTR 303

ATHTR 315 Clinical Practicum in Athletic Training I 2 crs

This practicum involves "hands on" work in an athletic training setting where students will be responsible for the health care of the athletes during practice, games, and in the rehabilitation setting of the training room. Psychomotor skills and class discussions also are included in this course. Prerequisite ATHTR 201

ATHTR 316 Clinical Practicum in Athletic Training II 3 crs

This is a continuation of the previous practicum; however, students now apply knowledge gained from previous and current coursework and experiences to their care of the athletes. Psychomotor emergency management skills and class discussions also are included. 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 methods by which these nutrients may influence the performance of a physically active individual. Eating disorders, weight management, and ergogenic aids also are discussed. Prerequisites CHEM 121, ATHTR 307

ATHTR 404W Psychology of Sport 3 crs

This course incorporates basic and applied psychological principles to discuss topics such as mental imagery, psychology of injury, self-esteem, self-efficacy, stress management and burnout, pain tolerance, gender roles, and interpersonal relationships. Prerequisite PSYCH 103

ATHTR 410W Clinical Practicum in Athletic Training 4 crs

Students assume responsibility for the total health care within the scope of practice of the athletic trainer for the athletes of assigned sport teams. Advanced psychomotor skills and preparation for employment and graduate education are discussed. Prerequisites HLTS 425, ATHTR 303, 306, 516

ATHTR 411W Advanced Clinical Practicum in Athletic Training 3 crs

During this practicum, students may receive experiences either in a traditional or non-traditional athletic training setting. Preparations for the National Athletic Trainers' Association Board of Certification examination are made during this semester. Prerequisites HLTS 425, ATHTR 303, 306, 516

ATHTR 412 Organization & Administration in Athletic Training 3 crs

This course provides students with information to enhance awareness and knowledge of current administrative, professional, organizational, and legal issues pertaining to athletic training. Prerequisite ATHTR 316

ATHTR 414 Medical Perspectives in Athletic Training 3 crs

This course is designed to expose students to a variety of medical topics to include orthopedics, OB/GYN, dentistry, family practice medicine, podiatry, physical therapy, dermatology, health records, and radiology. Professionals from the respective disciplines provide information to enhance the interdisciplinary approach of the responsibilities of an athletic trainer. Prerequisite ATHTR 303

DEPARTMENT OF HEALTH MANAGEMENT SYSTEMS (HMS)

Chairman
Joan M Kiel, Ph D

The health care environment is changing rapidly. Doctors, hospitals, and other health care and related professionals must now interact quickly to provide quality patient care. This has created volumes of patient information that must be transferred efficiently. Innovative methods and advanced technologies are critical to keep this process accurate and timely. This is the challenge of the Health Management professional.

This new health professional possesses a unique blend of skills in clinical, information sciences and business management. Clinical skills aid communication with other medical professionals for the delivery of quality health care. Information sciences provide the ability to apply technological knowledge to information management. Finally, business management skills are necessary to link business and clinical for an improved health care delivery system.

These integrated skills can be applied in a variety of health care and related settings that range from the non-traditional ones of acute care hospitals and clinics to the non-traditional ones of software development companies and health insurers. These skills are needed in any situation that requires the transfer of medical information.

The Bachelor of Sciences in Health Management Systems has three tracks:

1. HEALTH MANAGEMENT SYSTEMS gives students the ability to interface in any medical and technical setting.

2. REGISTERED RECORD ADMINISTRATOR concentrates on administrative and technical positions in acute care hospitals.

3. DUAL DEGREE — Bachelor of Science in Health Management Systems — Bachelor of Science in Business Administration with the A J Fakum School of Business Administration

A fast track Master's degree is available. Students must apply for admission during their third year of study. This degree can be completed in one additional year after receiving the Bachelor of Science degree.

SPECIAL PROJECTS

This is the capstone experience of the program. Students are able to obtain real world experience in many clinical and technical settings. It is intended that this experience be suitable for inclusion in the student's resume or portfolio. Requirements will be discussed on an individual basis.

HEALTH MANAGEMENT SYSTEMS CURRICULUM

PRE-PROFESSIONAL PHASE — 64 CREDITS

The pre-professional phase of the curriculum includes the University core courses, Science, Math, and Humanities, Medical Sciences, Business, and RSHS courses. These prerequisite courses provide a strong foundation for success in the professional phase of the curriculum. A sample course plan for the pre-professional phase of the curriculum can be obtained directly from the Office of Domestic and International Admissions at (412) 396-5000 or from RSHS at (412) 396-6652

PROFESSIONAL PHASE — 60 CREDITS

A sample course plan for the professional phase of the curriculum can be obtained from the Office of Domestic and International Admissions at (412) 396-5000 or from RSHS at (412) 396-6652

COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE

HUTMS 400 Independent Study 1-3 crs

With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisites: Approval of the supervising faculty member and approval of the Department Chairman

HUTMS 431 Health Care Processes 3 crs

Introduction to eight key health care processes explored via the system analysis tool of fact finding and data flow diagrams

HUTMS 445 Health Management Systems Seminar 1 cr

This forum examines the impact of contemporary care issues on information management.
HTMS 460 Elements of Health Information Science 3 crs
Introduction to elements of computer application development in the context of health care emphasizing visual development environments. Prerequisites: QSMIS 182 or equivalent experience.

HTMS 461 Health Information Science 3 crs
Survey of health information science and hands-on introduction to emerging technologies relevant to health care. Prerequisite: HTMS 460.

HTMS 466 Medical Sciences 3 crs
A clinical applications course in which case study presentations are analyzed using quality management principles and trends and issues in health care.

HTMS 470 Health Care Systems Analysis and Design 3 crs
The traditional systems development life cycle (SDLC) and the object oriented approach to the analysis and design of health care information systems are compared and applied through implementation of graphical development packages. Prerequisite: HTMS 461.

HTMS 471 Networking for Health Professionals 3 crs
Exploration of client/server, Internet access, distributed computing, multimedia delivery services, telemedicine, distributed clinical databases, and local area network access in today's ever more sophisticated health care systems. Prerequisite: HTMS 470.

HTMS 477 Health Law 3 crs
This course provides a review of the laws effecting the delivery of health care and related services.

DEPARTMENT OF OCCUPATIONAL THERAPY (OT)
Chairman
Patricia A. Crist, PHD, OTR
Occupations are the essence of active living. Occupations, or activities of daily living, include work, education, self-care, and play/leisure. The goal of occupational therapy is to maximize a person's ability to perform a health balance of culturally-appropriate daily occupations in order to live a fulfilling, independent quality life.

Occupational therapists treat the "whole person" throughout the life span, including physical, psychological, emotional, social, and cultural competencies as influenced by the person-environment-performance interaction. Occupational therapists promote self-determination by actively involving clients in choosing the activities which receive attention during service delivery. Removal of architectural barriers that hinder occupational performance and provision of reasonable accommodations through rehabilitation technology or assistive devices are addressed.

A wide variety of health care issues addressed by occupational therapists includes acute care, industrial rehabilitation, physical rehabilitation, mental health, long-term care, home health care, community services, education, disease prevention, and health promotion. Central to the practice of occupational therapy is the concept of quality of life, productive function, independent living, full access, social integration, cultural identification, and balanced life styles. Therefore, 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 professional leaders and community advocates.

The occupational therapy program at Duquesne University is an entry-level master's degree program offered in a traditional academic model as well as a non-traditional weekend program. The Weekend Program in Occupational Therapy is offered jointly by the RSHS and the Division of Continuing Education. The unique program has been tailored for adults who wish to pursue a career as an occupational therapist, registered (OTR). This weekend program will present the same content as our successful, traditional curriculum. 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.

The traditional program is accredited. The initial accreditation review for the Weekend Program in Occupational Therapy is in progress. Information regarding the accreditation status of either program is available from the Accreditation Council for Occupational Therapy Education, 4270 Montgomery Lane, PO Box 31220, Bethesda, MD 20824-1220 (Telephone Number 301-652-2682).

OCCUPATIONAL THERAPY CURRICULUM
PRE-PROFESSIONAL PHASE AND PROFESSIONAL PHASE
A sample course plan for the pre-professional and professional phase of the program is available from the Office of Domestic and International Admissions (412) 396-5000 or from RSHS at (412) 396-6652.

COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE
OCCTH 305 Occupational Therapy Foundations 3 crs
Overview of the profession's history, philosophies, functions, scholarship, activities, current issues, and future directions. Prerequisite: Junior in pre-professional occupational therapy program.

OCCTH 400 Independent Study 1-3 crs
With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisites: Endorsement of the supervising faculty member and approval of the Department Chairman.

OCCTH 410 Life Span Occupational Performance 3 crs

OCCTH 420 Neuromotor & Sensory Approaches to Treatment 4 crs
Application of sensory, motor learning, and development theories in practice. Prerequisites: OCCTH 430, 445, 455, HLTSC 403.

OCCTH 425 Psychological Approaches to Treatment 4 crs
Psychodynamic, behavioral, developmental, and volitional theories and intervention strategies for life span psychological conditions. Prerequisites: OCCTH 440, 445, 455, 460W, HLTSC 441.

OCCTH 440 Biomechanical Treatment 4 crs
Theories and intervention strategies related to strength, endurance, joint function, and voluntary control over movement. Prerequisites: OCCTH 430, 445, 455, HLTSC 307/307L, 437/438.

OCCTH 445 Activity Analysis 1-3 crs
Introduction to analysis and synthesis of occupational performance areas and performance components. Prerequisite: OCCTH 305.

OCCTH 446 Clinical Education & Reasoning 2 crs
Transformation of didactic learning into clinical reasoning with a focus on establishing therapeutic interactions, clinical observation, and case study methodology. Includes 40 hours of practice. Prerequisites: OCCTH 410, 435, 440, 445.

OCCTH 460W Sociocultural Diversity in Treatment 3 crs
Therapeutic considerations in all aspects of multicultural diversity and implications for health care service delivery. Prerequisites: OCCTH 410, 435, 440, 445.

OCCTH 500 Independent Study 1-3 crs
With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisites: Endorsement of the supervising faculty member and approval of the Department Chairman.

OCCTH 535 Cognitive Approaches to Treatment 2 crs
Cognitive and information processes, theories, and rehabilitation approaches in occupational therapy. Prerequisites: OCCTH 420, 425, 435, HLTSC 403, 441.

OCCTH 540 Fieldwork 1-3 crs
Fieldwork is a required component of the clinical education phase of the program. Fieldwork is organized into a comprehensive work experience with essential curriculum concepts. Advanced learning in several specialty areas may be included. Prerequisites: OCCTH 535.

OCCTH 550 Environmental Adaptations & Rehabilitation Technology 4 crs
Assessment and modification of the physical environment to enhance occupational performance including computer resources, assistive technology, home health, environmental controls, and environmental accessibility. Prerequisites: OCCTH 420, 425, 430, 456.

OCCTH 552 Clinical Seminar 2 crs
Guided discussions regarding Level II fieldwork to enhance occupational performance. Prerequisites: Completion of the clinical education phase with essential curriculum concepts. Advanced learning in several specialty areas may be included. Prerequisites: OCCTH 555, 556, 557.

OCCTH 555, 556, & 557 Level IIA, B, & C Fieldwork 8 crs, 4 crs & 4 crs
Clinical education including exposure to a wide range of diagnoses and treatment in a variety of settings supervised by a registered occupational therapist. Duration of each course a minimum of 40 hours per week for 6 or 12 weeks. Prerequisite: OCCTH 456.
A perfusionist is a skilled health professional trained and educated specifically as a member of an open-heart surgical team. The perfusionist is responsible for the selection, set-up and operation of a mechanical device commonly known as the heart-lung machine. During open-heart surgery, the patient’s blood is diverted and circulated outside the body through the heart-lung machine and then back into the patient. Thus, during surgery, this device assumes the function of both the heart and lungs.

While operating the heart-lung machine during surgery, the perfusionist is responsible for monitoring the altered circulatory process, taking appropriate measures when abnormal situations arise, and keeping the surgical team fully informed of the patient’s condition. Perfusionists also function in supportive roles for other medical situations where extracorporeal circulation is required.

The field of perfusion technology is regarded by many as a very demanding vocation, requiring 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, which includes performing a required number of clinical perfusion cases under the supervision of a certified perfusionist, students will receive a Bachelor of Science in Perfusion Technology. Graduates are eligible to sit for the certification examination that is administered by the American Board of Cardiovascular Perfusion.

DEPARTMENT OF PERFUSION TECHNOLOGY (PERFT)

**Chairman**
Joyce A D’Antonio, M.S., Ph.D.

A perfusion technology program at Duquesne University, in collaboration with several hospitals, offers a four-year bachelor’s degree program. Upon successful completion of the fourth year, which includes performing a required number of clinical perfusion cases under the supervision of a certified perfusionist, students will receive a Bachelor of Science in Perfusion Technology. Graduates are eligible to sit for the certification examination that is administered by the American Board of Cardiovascular Perfusion.

**PERFUSION TECHNOLOGY CURRICULUM**

**PRE-PROFESSIONAL PHASE — 60 Credits**

- **PERFT 299 Independent Study** 1-3 credits
  - With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisite: Endorsement of the supervising faculty member and approval of the Department Chairman.

- **PERFT 301 Introduction to Perfusion Technology** 4 credits
  - Emphasizes physiology as it pertains to the development of extracorporeal devices and basic application of perfusion techniques.

- **PERFT 302 Applied Perfusion Technology** 4 credits
  - Defines the applications of extracorporeal technology and the effects of artificial circulation on the body. Prerequisite: PERFT 301.

- **PERFT 310 Observations in Perfusion Technology** 1 credit
  - Designed to give the student gradual exposure to the operating room by observing open-heart surgery from a bedside. Corequisite: PERFT 301.

- **PERFT 311 Observations in Perfusion Technology II** 1 credit
  - Designed to give the student direct exposure to the operating room and open-heart surgery. Corequisite: PERFT 302.

**PROFESSIONAL PHASE — 62 Credits**

- A sample course plan for the professional phase of the curriculum can be obtained from the Office of Domestic and International Admissions at (412) 396-5000 or from the RSHS at (412) 396-6652.

**PERFT 320W Perfusion Techniques and Applications** 2 credits

- This course emphasizes laboratory experiments utilizing extracorporeal devices. Technical writing skills will also be discussed and evaluated. Prerequisites: PERFT 302, 320, 330, 332.

- **PERFT 330 Cardiovascular Pharmacology** 2 credits
  - Cardiovascular drugs and agents used during open-heart surgery are discussed. Particular emphasis is placed on the interactions of these drugs as they apply to the cardiovascular and respiratory systems. Prerequisites: UPHN 215, PERFT 331.

- **PERFT 331 Cardiopulmonary Pathophysiology I** 4 credits
  - Designed to provide the student with a thorough understanding of the common pathologies associated with the adult cardiovascular system.

- **PERFT 332 Cardiopulmonary Pathophysiology II** 2 credits
  - Focuses on the pathophysiology of congenital heart disease. Prerequisite: PERFT 331.

- **PERFT 340 Introduction to Clinical Education** 1 credit
  - Emphasis is on interactive clinical experience in the role of a perfusion technologist. Prerequisites: PERFT 302, 320.

- **PERFT 401W Clinical Perfusion Technology I** 4 credits
  - This writing-intensive course is designed to give the senior perfusion student the opportunity to discuss and develop a strong understanding of techniques employed during clinical practicum. Prerequisites: PERFT 302, 320, 330, 332.

- **PERFT 402W Clinical Perfusion Technology II** 4 credits
  - Designed to discuss advanced applications and current topics in the science of perfusion technology. Prerequisite: PERFT 401.

- **PERFT 410W Principles of Research** 2 credits
  - Discussions focus on the design and conduct of clinical research.Technical writing skills will be emphasized through the completion of a research proposal. Prerequisite: MATH 225.

- **PERFT 411W Principles of Research II** 2 credits
  - Discussions focus on the analysis and interpretation of clinical research studies. Computer and technical writing skills will be reinforced through the reporting of student research projects. Prerequisites: COSC 100, PERFT 410.

**SCHOOL OF HEALTH SCIENCES**

**PERFT 450 Clinical Practicum I** 8 credits

- Students will acquire the skills that are necessary for the practice of perfusion technology by performing clinical activities at several different clinical affiliation sites under the direct supervision of a certified perfusionist. Prerequisites: PERFT 302, 320, 330, 332.

- **PERFT 460 Clinical Practicum II** 8 credits
  - As a continuation of PERFT 450, this practicum will emphasize autonomy and proficiency in clinical perfusion skills. Prerequisite: PERFT 450.

**DEPARTMENT OF PHYSICAL THERAPY (PT)**

**Chairman**
Robert C Morgan, Ph.D., PT

- Physical therapists assess and treat patients with a variety of diagnoses. They work to prevent, detect, evaluate, correct, treat, and alleviate pain, movement dysfunction, and muscle imbalances. Their work includes the administration, interpretation and evaluation of tests, and physical examinations. They work to prevent, reduce, and/or limit the incidence and severity of physical disability and pain.

- On a very limited basis, physical therapy students may enroll in the joint degree program with the Department of Athletic Training, leading to a Bachelor of Science in Athletic Training, and a Master of Physical Therapy.

- There are two Clinical Education Matriculation Examinations that students must pass before they are permitted to enter into clinical education. These examinations are done in order to determine that students have reached a level of proficiency necessary to safely work with patients. The first examination is given prior to Clinical Education I, near the end of Spring semester, fourth year. The second examination is given prior to Clinical Education IIIA, near the end of Spring semester, fifth year. Students who do not pass all parts of the examination will not be permitted to begin clinical education. This will result in students sitting out of the program for one year and re-taking the matriculation examination the following year. If all parts of the examination are not successfully completed the second year, students will be dismissed from the program.

**PHYSICAL THERAPY CURRICULUM**

**PRE-PROFESSIONAL PHASE — 92 Credits**

- The pre-professional phase of the curriculum includes the University core courses, Science, Math, and Humanities, Medical Sciences, and RSHS courses. These prerequisite courses provide a strong foundation for success in the professional phase of the curriculum. A sample course plan for the pre-professional phase of the curriculum can be obtained directly from the Office of Domestic and Inter-
PHYSICIAN ASSISTANT CURRICULUM
PRE-PROFESSIONAL PHASE — 90 Credits
The pre-professional phase of the curriculum includes the University core courses, Science, Math and Humanities, Medical Sciences, and RSHS courses. These prerequisite courses provide a strong foundation for success in the professional phase of the curriculum. A sample course plan for the pre-professional phase of the curriculum can be obtained directly from the Office of Domestic and International Admissions at (412) 396-5000 or from the RSHS at (412) 396-6652.

PHYSICIAN ASSISTANT CURRICULUM
PRE-PROFESSIONAL PHASE — 90 Credits
The pre-professional phase of the curriculum includes the University core courses, Science, Math and Humanities, Medical Sciences, and RSHS courses. These prerequisite courses provide a strong foundation for success in the professional phase of the curriculum. A sample course plan for the pre-professional phase of the curriculum can be obtained directly from the Office of Domestic and International Admissions at (412) 396-5000 or from the RSHS at (412) 396-6652.

COURSE DESCRIPTIONS FOR THE PROFESSIONAL PHASE

PHYS 401/402/520 Clinical Science I & II 3 crs
An introduction to basic procedures in physical therapy common to all areas of practice. Emphasis will be given to body mechanics, gait training, functional activities, safety, basic manual techniques, wound care, and basic exercise programs.

PHYS 403 PT Science I 4 crs
This course is designed to provide the student with an understanding of the fundamentals of physical therapy. It will cover the theories and management of musculoskeletal dysfunction with emphasis on upper-quarter dysfunction. Prerequisite: PHYS 447.

PHYS 500 Independent Study 1-3 crs
With the guidance of a faculty member, a student may pursue an in-depth study of a subject area or develop an individual project in an area of interest related to their professional goals. Prerequisites: Endorsement of the supervising faculty member and approval of the Department Chair.

PHYS 505 Exercise in Health & Disease 3 crs
An in-depth study of the body's physiological function during exercise and its capacities within the contexts of athletes, recreation, aging, disease prevention and rehabilitation. Prerequisite: HLSCT 306.

PHYS 511 Clinical Education IIA 5 crs
Prerequisite: PHYS 514. This course will provide the student with an in-depth understanding of the body's physiological function during exercise and its capacities within the contexts of athletes, recreation, aging, disease prevention and rehabilitation. Prerequisite: HLSCT 306.

PHYS 513 Clinical Education IIIA 5 crs
During this final phase of clinical education, the student will complete their professional training and become integral members of the health care team. Prerequisites: HLSCT 420, PHYS 505, 511, 542, 524, 553, 550, 551, 562, 563, 566, 567, and successful completion all elements of the Clinical Education Matriculation Examination I.

PHYS 521 Clinical Education IIIB 4 crs
Prerequisite: PHYS 514. This course will provide the student with an in-depth understanding of the body's physiological function during exercise and its capacities within the contexts of athletes, recreation, aging, disease prevention and rehabilitation. Prerequisite: HLSCT 306.

PHYS 523 PT Seminar III 1 cr
The purpose of this course is to define the health care system. Prerequisite: PHYS 421.

PHYS 524/525 PT Seminar IV & V 1 cr (each)
These seminars will be designed to discuss the principles of the clinical and patient experiences which the students have encountered during their clinical affiliations. Prerequisite: PHYS 523.

PHYS 531 Clinical Education IIIA 5 crs
Prerequisite: PHYS 514. This course will provide the student with a more detailed knowledge of issues during early development, and throughout the aging process. Both pediatric and geriatric topics will be addressed including special evaluation and treatment considerations for those groups.

DEPARTMENT OF PHYSICIAN ASSISTANT (PA)
Medical Director
Michael J. Essig, M.D.
Associate Medical Directors
Lous K. Hauber, M.D.
Jack E. Wilberger, M.D., F.A.C.S.

Physician assistants (PA), as described by the American Association of Physician Assistants (AAPA), are health professionals licensed to practice medicine with physician supervision. Physician assistants are qualified by graduation from an accredited physician assistant educational program and/or certification by the National Commission on Certification of Physician Assistants (NCCPA).
SCHOOL OF HEALTH SCIENCES

PHYS 409 Clinical Pharmacology 4 crs
A study of the mechanisms, pharmacodynamic actions of therapeutic agents and rationale for the therapeutic use of prescription and non-prescription medications

PHYS 410/411 Applied Clinical Methods I/II 3 crs (each)
Indications, technical clinical skills and diagnostic modalities are discussed and performed. Prerequisite PHYS 406

PHYS 413 Clinical Problem Solving I 3 crs
Designed to promote the integration of didactic sciences and unfold the art of medicine, thus course uses the teaching strategy of cooperative learning. Prerequisite PHYS 401 Corequisite PHYS 402

PHYS 415 Basic Pathology 4 crs
Principles of basic pathology and the mechanisms of the physiologic responses associated with selected human disease processes. Prerequisites HLTSC 305, 310/310L PHYS 406 Corequisite PHYS 401

PHYS 418 Aspects of Community Health & Resources 2 crs
Study of institutional and community-based primary care models accomplished both in the classroom and through field experience

PHYS 420 History & Physical Examination I 3 crs
A practical study of physical examination techniques of the adult patient including a systematic approach to history-taking, integration of examination systems, patient assessment, and documentation practices. Prerequisite PHYS 403 Corequisites PHYS 401, HLTSC 403

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 505 Clinical Problem Solving II 3 crs
Students continue active learning in the cooperative teaching format. Prerequisites PHYS 402, 413

PHYS 506 Clinical Problem Solving III 3 crs
Students engage in more advanced problem-based learning and exercises. Prerequisite PHYS 505

PHYS 510 Health Policy & Preventive Medicine 2 crs
Course explores current trends, issues and public policies reflective of America's evolving health care system. Prerequisite PHYS 438

PHYS 515 Fundamentals of Surgery 2 crs
Lecture series addresses preoperative, peroperative and postoperative patient care and interventions. Prerequisites HLTSC 305, 310, PHYS 410, 411

PHYS 524 Patient Counseling & Education 2 crs
Emphasizes basic considerations and techniques needed for effective communication with patients regarding personal health problems, achieving optimal outcomes and enhancing compliance with medical regimens

PHYS 528-536 Clinical Externships I-VIII 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
Culmination of independent research project

DEPARTMENT OF SPEECH-LANGUAGE PATHOLOGY (SLP)

Speech and language disorders affect the way people talk and understand. These disorders may range from simple sound substitutions to not being able to use speech and language at all.

Speech-language pathologists are specialists in human communication, its development, and its disorders. They are professionally educated to evaluate and treat persons with communication problems.

The speech-language pathologist will have a master's degree or doctoral degree in speech-language pathology and should hold a Certificate of Clinical Competence (CCC) from the American Speech-Language-Hearing Association. In many states a license is also required.

Speech-language pathologists provide many specialized professional services which include helping people with articulation disorders learn proper pronunciation of speech sounds, assisting people with voice disorders to develop proper control for correct production, assisting people who stutter to increase the amount of fluent speech, and to cope with this disorder, assisting people with aphasia to re-learn language and speech skills and sentence order to compensate for lost language and speech skills, counseling people with speech and language disorders and their families to understand their disorder to achieve normal communication in education, social and vocational settings, and helping people understand the types and severity of communication disorders

SCHOOL OF HEALTH SCIENCES

SPEECH-LANGUAGE PATHOLOGY CURRICULUM

PRE-PROFESSIONAL PHASE — 98 Credits

The pre-professional phase of the curriculum includes the University core courses, Science, Math, and Humanities, Communication and Education, Medical Sciences, and RSHS courses. These pre-requisite courses provide a strong foundation for success in the professional phase of the curriculum. A sample course plan for the pre-professional phase of the curriculum can be obtained directly from the Office of Domestic and International Admissions at (412) 396-5000 or from the RSHS at (412) 396-6652

PROFESSIONAL PHASE — 79 Credits

A sample course plan for the professional phase of the curriculum can be obtained from the Office of Domestic and International Admissions at (412) 396-5000 or from the RSHS at (412) 396-6652

Students should be aware that the Department is pursuing accreditation. Students must graduate from an accredited program to be eligible for licensure/certification examinations. Concerns should be clarified with the Department Chair.

PITTSBURGH HEALTH RESEARCH INSTITUTE (PHRI)

Executive Director
Sue McClendon, M.D.

In 1995, Duquesne University announced the acquisition of The Pittsburgh Research Institute (PRI) through a transfer of control of this non-profit affiliate of Blue Cross of Western Pennsylvania. PRI is now called the Pittsburgh Health Research Institute (PHRI) at Duquesne University.

Created in 1986 from Blue Cross of Western Pennsylvania's Research Department staff, PRI is a not-for-profit organization established to conduct scientific research on health care delivery and financing systems for organizations in the United States and abroad.

The principal mission of PHRI is to conduct computerized health services research to provide critically important data to the health care industry through the analyses of outcome assessments, practice parameters and treatment protocols. Major research initiatives currently include the evaluation of the economic impact of practice parameters and treatment protocols. Major research initiatives currently include the evaluation of the economic impact of practice parameters and treatment protocols. Major research initiatives currently include the evaluation of the economic impact of practice parameters and treatment protocols.

PHRI is now called the Pittsburgh Health Research Institute (PHRI) at Duquesne University.

In 1995, Duquesne University announced the acquisition of The Pittsburgh Research Institute (PRI) through a transfer of control of this non-profit affiliate of Blue Cross of Western Pennsylvania.

"The institute will continue its highly effective research. We also see a number of interactions for the institute that could only occur in a university setting. In this rapidly changing health care environment, with particular emphasis upon managed health care, the need for such research is critical. Duquesne is pleased to play a major role in its development."
Reserve Officers' Training Corps (ROTC)

DEPARTMENT OF MILITARY SCIENCE

ARMY OFFICERS' COMMISSIONING PROGRAM

The Army Reserve Officers' Training Corps (ROTC) has been a member of the Duquesne family since 1936. It exists to train the future officer leadership of the United States Army, and it offers opportunities and challenges that can put college students on the fast track to success in life. ROTC provides a combination of academc and important hands-on training, in addition to physical and mental challenges that will help students succeed in college and beyond. Through the training in ROTC, students will develop the confidence, self-esteem, motivation, and leadership skills they will need regardless of their career plans.

THE FOUR-YEAR PROGRAM

The traditional Four-Year Program is divided into two parts. The Basic Course is taken in the freshmen and sophomore years, and covers subjects like military history, traditions and organizations, national defense, and leadership. There is no commitment for participants at this level. Upon successful completion of the Basic Course, students are eligible for the Advanced Course, taken in the junior and senior years. This course covers management, tactics, ethics, professionalism, and continued leadership development. At the beginning of the Advanced Course, students must decide whether or not they wish to become officers in the Army and enter into a formal contract. During the summer between the junior and senior years, students attend the all-expense paid six-week Advanced Camp to put their newly acquired knowledge and skills to the test and qualify to be commissioned as an officer in the United States Army.

THE TWO-YEAR PROGRAM

If the first two years of ROTC are not taken, students can attend the all-expense paid six-week Camp Challenge during the summer between the sophomore and junior years. This camp will qualify students to begin the Advanced Course in the junior year or in the first year of a two-year graduate program. Or, if a student has served in the active duty military for two years, attended a military academy for one year, or participated in JROTC for three years, they already qualify for entrance into the Advanced Course.

THE ARMY ROTC NURSE PROGRAM

Nursing students can take Army ROTC along with their other studies and begin their professional careers as officers in the Army Nurse Corps (ANC). Nursing students are exposed to the professionalism of Army Nursing through a special Nurse Summer Training Program in lieu of the traditional Advanced Camp between the junior and senior years. This program offers students a clinical training phase, where they work one-on-one with Army Nurses at Army hospitals throughout the U.S.

THE SIMULTANEOUS MEMBERSHIP PROGRAM (SMP)

This program allows students to become members of the Army National Guard or the Army Reserve while enrolled in Army ROTC. Students in the Advanced Course and SMP are paid for their Guard/Reserve training plus $1,500 allowance each year from ROTC. The benefit of this program is that students in the Advanced Course are able to act as Army officers in their National Guard or Reserve unit.

ARMY ROTC SCHOLARSHIPS

Army ROTC offers four, three, and two year scholarships of up to $12,800 per year, with additional annual allowances of $450 for books and $1,500 for spending. At Duquesne, this scholarship is increased with up to a $5,000 bonus for room and board. Both high school and college students are eligible to apply. For application and information call ROTC at (412) 396-6664.

ARMY ROTC RANGERS

Army ROTC students are eligible to participate on the Ranger Challenge Team, which conducts physically and mentally challenging extracurricular training to promote fitness, teamwork, self-confidence, and fellowship. The training includes a comprehensive exercise program, rappelling, rope bridging, tactics, hiking, climbing, weapons training, and orienteering. The team participates in annual competition against other university Ranger Challenge Teams in Pennsylvania. Uniforms, equipment, and instruction are provided.

MILITARY SCIENCE CURRICULUM

THE BASIC COURSE

ROTC 101 Foundations of Leadership Skills
ROTC 102 Individual Skills - MS 102

These courses cover leadership, the role and origin of the Army, the customs and traditions of the Army, the branches of the Army, the role of the U.S. Army Reserve and Army National Guard, and selected military operations and tactical tasks. Physical training, a field trip and social, and a weekly one-hour leadership lab accompany the class. All uniforms, books, and supplies are provided.

ROTC 201 Basic Military Skills
ROTC 202 Small Unit Leadership Skills

These courses cover leadership, the principles of War, the role of the non-commissioned officer, communications, the Code of Conduct, first aid, and additional selected military operations and tactical tasks. Physical training, several field trips and socials, and a weekly one-hour leadership lab accompany the class. All uniforms, books, and supplies are provided.

THE ADVANCED COURSE

ROTC 301 Advanced Military Skills
ROTC 302 Military Skills Development - MS 302

These courses cover leadership, Command and Staff functions, professional military education components in human behavior, military history, math reasoning, and computer literacy, nuclear, biochemical and chemical warfare, the Law of War, weapons, and the branches of the Army. Students must sign an Army contract to take these courses. Physical training, several field trips and socials, a weekly two-hour leadership lab, and internal leadership positions in ROTC accompany the class. All uniforms, books, and supplies are provided.

SUMMER PROGRAMS

ROTC 103 Army Adventurer Training
ROTC students are eligible to participate in Airborne School, Air Assault School, Northern Warfare School, Mountain Warfare School, and Cadet Troop Leadership Training. These courses range from two to four weeks, and students must arrive in top physical condition.

ROTC 104 - Camp Challenge

For details on this course, see the Two-Year Program entry under the Department of Military Science in this catalog.
human behavior and human nature as illuminated by some of the great thinkers of the past and present. The MLS program also emphasizes the self-assessment and development of skills that are crucial to the leader's role, as well as an examination of the world in which today's leaders will function.

This premier program is designed for busy adults who wish to earn their master's degree without interrupting their careers. Modeled after the award-winning Saturday College, courses will be offered on alternate Saturdays in the morning and afternoon. Students who take two courses per semester in the Fall, Spring and Summer semesters can complete their master's degree in two years.

Thirty-six (36) credits are required to earn a Master of Arts in Leadership and Liberal Studies. The curriculum has three components:

**Liberal Studies Core — 12 Total Credits**
- 701 Leadership and Liberal Studies: The Humanistic Perspective 3 Cr
- 702 Leadership and Liberal Studies: Social, Political & Economic Issues 3 Cr
- 703 Leadership and Liberal Studies: The Ethical and Spiritual Dimensions 3 Cr
- 790 Leadership and Liberal Studies: Colloquium 3 Cr

**Leadership Core Curriculum — 15 Total Credits**
- 710 Introduction to the Graduate Study of Leadership (required) 3 Cr
- 711 Interpersonal Communication 3 Cr
- 712 Decision Making & Problem Solving for Leaders 3 Cr
- 714 Conflict Resolution 3 Cr
- 715 Valuing a Diverse Workforce: The Leader's Role 3 Cr
- 716 Public Policy and Legal Issues for Leaders 3 Cr

**Electives — 9 Total Credits**
- Select Three of the Following:
  - 730 Science, Technology, and Society 3 Cr
  - 731 The Shaping of the Contemporary World 3 Cr
  - 732 Economics and the Modern World 3 Cr
  - 733 Comparative Political Systems 3 Cr
  - 734 Human and Financial Resources 3 Cr
  - 735 Information Technologies for Modern Organizations 3 Cr

**III) The Bachelor of Science in Professional Studies Degree**

The Bachelor of Science in Professional Studies (BSPS) is designed for adult students who seek flexibility in a bachelor's degree program. While the BSPS in Saturday College consists of a prescribed series of courses, 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 liberal arts subjects.

A minimum of 120 total credits is required to complete degree requirements, which are listed below:

For this version of the BSPS, the University Core Curriculum is required and includes:
- 734 Human and Financial Resources 3 Cr
- 733 Comparative Political Systems 3 Cr
- 732 Economics and the Modern World 3 Cr
- 730 Science, Technology, and Society 3 Cr
- Electives — 9 Total Credits

**University Core Curriculum — 30 Total Credits**

The University Core Curriculum for this version of the BSPS is the same as that for the BSPS in Saturday College, outlined above on page 156.

**Professional Core Curriculum — 24 Total Credits**

The Professional Core Curriculum for this version of the BSPS parallels that for the BSPS in Saturday College. Since Saturday College courses are limited to Saturday College enrolllees, courses from the A J Palumbo School of Business Administration, which are available in the day and evening schedules, are utilized in this version of the BSPS. Those courses are:
- 182 Micro Computer Software Applications 3 Cr
- 183 Management Information Systems 3 Cr
- 214/215 Financial and Managerial Accounting, 6 Cr
- 221/222 Principles of Economics I & II 6 Cr
- 251 Legal Process 3 Cr
- 371 Principles of Marketing 3 Cr

**Concentrations — 30-42 Total Credits**

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. The required curricula includes 18 credits from the Basic Certificate program, plus nine (9) credits from the following:

- 214 Financial Accounting 3 Cr
- 215 Managerial Accounting 3 Cr
- 216 Accounting Practice and Systems 3 Cr
- 311 Intermediate Accounting I 3 Cr
- 312 Intermediate Accounting II 3 Cr
- 315 Cost Accounting 3 Cr
- 411 Auditing 3 Cr

**Accounting (Basic)**

This certificate is a six-course, 18 credit program of the following courses:
- 315 Cost Accounting 3 Cr
- 411 Auditing 3 Cr
- 313 Financial Management 3 Cr
- 333 Financial Management 3 Cr
- 335 Business Financial Problems 3 Cr
- 433 Financial Markets 3 Cr

**Select one (1) of the following**
- 321 Principles of Economics I & II 3 Cr
- 323 Principles of Economics II 3 Cr
- 325 Principles of Economics III 3 Cr
- 327 Principles of Economics IV 3 Cr
- 328 Principles of Economics V 3 Cr
- 329 Principles of Economics VI 3 Cr
- 331 Principles of Economics VII 3 Cr
- 332 Principles of Economics VIII 3 Cr
- 334 Principles of Economics IX 3 Cr
- 336 Principles of Economics X 3 Cr

**Management Information Systems (MIS)**

This certificate is an eight-course, 24 credit program of the following courses:
- 381 Systems Programming and Design 3 Cr
- 390W Computer Hardware and Networking 3 Cr
- 401 Data Base Management Systems 3 Cr
- 412 Operating Systems 3 Cr
- 418 Formal Languages and Automata 3 Cr
- 425 Computer Graphics 3 Cr
- 435 Theory of Computation 3 Cr
- 445W Systems Analysis and Software Design 3 Cr
- 480W Senior Project 1-3 Cr

**Economics (Basic)**

This certificate is a five-course, 15 credit program of the following courses:
- 311 System Programming and Design 3 Cr
- 390W Computer Hardware and Networking 3 Cr
- 401 Data Base Management Systems 3 Cr
- 412 Operating Systems 3 Cr
- 418 Formal Languages and Automata 3 Cr
- 425 Computer Graphics 3 Cr
- 435 Theory of Computation 3 Cr
- 445W Systems Analysis and Software Design 3 Cr
- 480W Senior Project 1-3 Cr

**Financial Analysis (Basic)**

This certificate is a four-course, 12 credit program of the following courses:
- 331 Business Finance 3 Cr
- 332 Money & Financial Institutions 3 Cr
- 333 Business Management 3 Cr
- 335 Business Problems and Issues 3 Cr

**Computer Science**

This certificate is an eight-course, 24 credit program of the following courses:
- 211 Micro Computer Software Applications 3 Cr
- 212 Micro Computer Software Applications 3 Cr
- 213 Micro Computer Software Applications 3 Cr
- 214 Micro Computer Software Applications 3 Cr
- 215 Micro Computer Software Applications 3 Cr
- 216 Micro Computer Software Applications 3 Cr
- 217 Micro Computer Software Applications 3 Cr
- 218 Micro Computer Software Applications 3 Cr

**Introduction to Business**

This certificate is a four-course, 12 credit program of the following courses:
- 211 Micro Computer Software Applications 3 Cr
- 212 Micro Computer Software Applications 3 Cr
- 213 Micro Computer Software Applications 3 Cr
- 214 Micro Computer Software Applications 3 Cr

**Computer Science**

This certificate is an eight-course, 24 credit program of the following courses:
- 211 Micro Computer Software Applications 3 Cr
- 212 Micro Computer Software Applications 3 Cr
- 213 Micro Computer Software Applications 3 Cr
- 214 Micro Computer Software Applications 3 Cr
- 215 Micro Computer Software Applications 3 Cr
- 216 Micro Computer Software Applications 3 Cr
- 217 Micro Computer Software Applications 3 Cr
- 218 Micro Computer Software Applications 3 Cr

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- 412 Operating Systems 3 Cr
- 418 Formal Languages and Automata 3 Cr
- 425 Computer Graphics 3 Cr
- 435 Theory of Computation 3 Cr
- 445W Systems Analysis and Software Design 3 Cr
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- 412 Operating Systems 3 Cr
- 418 Formal Languages and Automata 3 Cr
- 425 Computer Graphics 3 Cr
- 435 Theory of Computation 3 Cr
- 445W Systems Analysis and Software Design 3 Cr
- 480W Senior Project 1-3 Cr

**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, organization of 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.

Under the supervision of a lawyer, the legal assistant shall apply knowledge of the law and legal procedures in rendering direct assistance to lawyers, clients and courts, design, develop and modify procedures, techniques, services and processes, prepare and interpret legal documents, detail procedures for practicing in certain fields of law, research, select, assess, compile and use information from the law library and other references, and analyze and handle procedural problems that involve independent decisions.

In response to the demand for highly trained well qualified paralegals, the Center for Continuing Education at Duquesne University established the Paralegal Institute.

The Institute offers a program of studies designed to accommodate 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 nine courses. The curriculum consists of five (5) courses and leads to the awarding of the Certificate in Benefit Plans.

The Curriculum consists of five (5) courses and leads to the awarding of the Certificate in Benefit Plans, the holder to use the designation "CBP" after his or her name.

Entry Requirements
Admission to Duquesne University's Paralegal Institute is restricted to qualified candidates. Students must maintain a 2.5 grade point average for successful completion of the program and certificate. Students with academic deficiencies may be required to complete additional course work.

Duquesne Benefits Institute
The Duquesne Benefits Institute is an educational institution associated with the Center for Continuing Education of Duquesne University and devoted to continuing professional education for those who work in the field of employee benefits.

Once principally the domain of tax lawyers, the employee benefit field exploded with the passage of the Employee Retirement Income Security Act of 1974 (ERISA). This field has become one of the most challenging areas of professional practice, encompassing professionals from the areas of law, human resources, management, consulting, actuarial science, insurance and investment management, banking, accounting and many other disciplines.

This is an intensive training program in all phases of employee benefit plans, from qualified pension and profit sharing plans to group insurance plans, IRAs, VEBAs and fringe benefits.

The Curriculum consists of five (5) courses and leads to the awarding of the Certificate in Benefit Plans. Students enrolled in the program will have access to the Duquesne University Law Library as a part of their preparation in Legal Research.

Entry Requirements
Admission to Duquesne University's Paralegal Institute is restricted to qualified candidates. Students may be considered for admission to the program if they possess a Bachelor degree.

*This program has been approved by the American Bar Association.

**In certain cases the Admissions Committee may waive this requirement and consider other related factors such as previous experience.

Call 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.

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.

Examiners 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.

Review Exam Date
September 7, 1996
September 14, 1996
September 21, 1996
September 28, 1996
October 5, 1996
October 12, 1996
October 19, 1996
November 2, 1996
November 9, 1996
November 16, 1996
November 23, 1996
December 7, 1996
January 11, 1997
January 18, 1997
January 25, 1997
February 1, 1997
February 8, 1997
March 1, 1997
March 8, 1997
April 5, 1997
April 12, 1997

GMAT Tentative Dates
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.

Review Exam Date
September 21, 1996
September 28, 1996
October 5, 1996
October 12, 1996
October 19, 1996
February 15, 1997
February 22, 1997
March 1, 1997
March 8, 1997
June 14, 1997
June 21, 1997

University reserves the right to cancel class based on enrollment.

GRE Tentative Dates
The Graduate Record Exam — four days of intensive review include math, logic and verbal sections of the exam. Each section analyzed in detail.

Review Exam Date
November 9, 1996
November 16, 1996
November 23, 1996
December 7, 1996
December 14, 1996
March 8, 1997
March 15, 1997
March 22, 1997
April 5, 1997

University reserves the right to cancel class based on enrollment.
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B A, Ph D, Rhodes University
M A, University of Witwatersrand

*This information has been provided by the Office of the Secretary of the University
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B A , M A , Duquesne University
Ph D , University of Wisconsin
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>University/College</th>
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<tr>
<td>Donald H. Kellander</td>
<td>Assistant Professor of Modern Languages and Literature</td>
<td>B.A., M.A., Pennsylvania State University</td>
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<td>Rev. David F. Kelly</td>
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<td>B.A., College of the Holy Cross, M.A., STB, Catholic University of Louvain</td>
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<td>M. Rel Ed., Loyola University, Chicago</td>
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<td>Paul Krakowski</td>
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<td>Stuart M. Kurland</td>
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<td>Albert C. Labrava, Distinguished University Professor</td>
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<td>Aaron Mackler</td>
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<td>Gregorino Martin</td>
<td>Professor of Modern Languages and Literatures</td>
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<td>Paul T. Mason</td>
<td>Professor of History</td>
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<td>Holly A. Mayer</td>
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<td>Mark S. Mazur</td>
<td>Associate Professor of Mathematics</td>
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<td>Moni McIntyre, I.H.M.</td>
<td>Assistant Professor of Theology</td>
<td>B.A., Mercy College of Detroit</td>
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<td>Constance Deucher Ramirez</td>
<td>Associate Professor of English and Dean of the McAnulty College and Graduate School of Liberal Arts</td>
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<td>Marilyn Schaub</td>
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<td>J. Roland E. Ramirez</td>
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<td>Thomas Rockmore</td>
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<td>Matthew L. Schnerov</td>
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</tr>
</tbody>
</table>
### BAYER SCHOOL OF NATURAL AND ENVIRONMENTAL SCIENCES

#### ADMINISTRATION
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- H. Bernard Hartman, Ph.D.
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- M.A., Duquesne University
- Ph.D., Pennsylvania State University

#### BAYER SCHOOL OF NATURAL AND ENVIRONMENTAL SCIENCES

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<tr>
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<td>William M. Thompson</td>
<td>Professor of Philosophy</td>
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Graduate Program Coordinator, School Administration and Supervision  
B.S., M.Ed., Slippery Rock State University  
Ph.D., University of Pittsburgh
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<td>Margaret I. Ford</td>
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<td>Teaching Associate Program Coordinator</td>
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M M , D M A , Eastman School of Music
Martin Ashby
Assistant Professor of Guitar
B A , Ithaca College
M M , Duquesne University
Susan De, Marie Beck, R M T - B C
Associate Professor and Chair of Music Technology
B S , M M Ed , Duquesne University
M A , Duquesne University
F A M I , Mid-Atlantic Institute
Ph D , Duquesne University
Brian Bowman
Professor of Euphonium
B M , M M , University of Michigan
D M A , Catholic University of America
Judith Bowman
Associate Professor of Music Education and
Chair of Music Technology
B S , Nazareth College
Maureen Budway
Adjunct Professor of Voice
B M , Duquesne University
M F A , Carnegie Mellon University
Kenneth Burky
Associate Professor and Chair of Piano
B M , Oberlin College
M M , Indiana University
William Catellier
Adjunct Professor of French Horn
B M , New England Conservatory of Music
Member, Pittsburgh Symphony

Robert Cameron
Associate Professor of Music
and Chair of Ensembles and Conducting
B A , University of Miami
M M , University of Michigan
D M A , University of Maryland
Tito Capobianco
Professor of Music and General Director of
Pittsburgh Opera Center at Duquesne

Jennifer Conner
Adjunct Professor of Flute
B M , The Juilliard School
Member, Pittsburgh Symphony
Murray Crewe
Adjunct Professor of Bass Trombone
B M , University of British Columbia
Member, Pittsburgh Symphony

Robert Croan
Professor and Chair of Voice
B A , M M , Columbia University
Ph D , Boston University
Charlotte Day
Adjunct Professor of Piano
B M , University of Chicago
M M , Cleveland Institute of Music

Anthony DiVittorio
Adjunct Professor of Piano
B S , Duquesne University
Ronald Dooner
Adjunct Professor of Organ
B M , Chapman College
M M , D M A , University of Southern California

Marilyn Egan
Assistant Professor of Music Education
B S , M M , Duquesne University
Ph D , Kent State University

Rudolph Fellner
Accompanist/Vocal Coach

Marino Galluzzo
Adjunct Professor of Saxophone
B S , M M , Duquesne University
Kenneth Karsh
Adjunct Professor of Guitar
B.S., M.A., Duquesne University

Randolph Kelly
Adjunct Professor of Viola and Piano
Certificate, Curtis Institute of Music, Member, Pittsburgh Symphony

Ruhan Kenny
Adjunct Professor of Flute
B.M., McGill University, Member, Pittsburgh Symphony

Thomas Kikta
Adjunct Professor of Guitar and Piano
Chair of Recording Technology
B.M., North Carolina School of the Arts

Eric Kloss
Adjunct Professor of Saxophone
B.A., Duquesne University

Marbeth Knaub
Adjunct Professor of Alexander Technique
B.M., Lawrence Conservatory, M.M., Peabody Conservatory

Mark Koch
Adjunct Professor of Guitar
Thomas Kosmala
Adjunct Professor of Music Education
B.M.E., St. Vincent College, M.M., Duquesne University

Michael Kumer
Dean of the School of Music

Robert Langevin
Adjunct Professor of Flute
Montreal Conservatory, Member, Pittsburgh Symphony

Tim Lautzenheiser
Adjunct Professor of Music Education
B.S.M.E., State University of New York at Fredonia, M.A., Duquesne University

Lou Muncachy
Professor of Music Education
B.M., M.M.E., Indiana University

Kevin Noe
Assistant Professor of Voice
B.F.A., Indiana University, M.M., Duquesne University

Maja Novich
Professor of Voice
B.M., Northwestern University, B.M., Duquesne University

Mark Nuccio
Adjunct Professor of Music Theory
B.M., University of New Mexico, M.S.W., University of Pittsburgh

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Adjunct Professor of Percussion
B.M., M.M., Westminster College, M.E., Duquesne University

Robert Shankovich
Professor of Music Theory and Director of the Graduate Division
B.S., M.M., Duquesne University, D.A., Carnegie Mellon University

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Adjunct Professor of Trumpet
B.M., M.M.E., Eastman School of Music, Member, Pittsburgh Symphony

Sasha Smolikovsky
Adjunct Professor of Cello
B.M., M.M., Conservatory of Music, Peabody Conservatory

Renee Sogg
Adjunct Professor of Voice
B.A., Duquesne University
SCHOOL OF NURSING

ADMINISTRATION

Mary de Chesnay, DSN, R N, C S, FAAN
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Carolyn Smith, R N, M S
James O'Malley, M S N, R N
Shirley Powe Smith, M N Ed, R N, CRNP
Joan Such Lockhart, R N, Ph D, CORLN
Leah V George, R N, M N Ed
Jeri A Milstead, Ph D, R N, C NAA
Judy DePalma, R N, M S N
Karen Bova

FACULTY

Gerald Unger
Adjoint Professor and Chair of Percussion
B S, B M, Ohio State University
M A, University of Northern Colorado
Member, Pittsburgh Symphony

Joseph Williams, III
Adjoint Professor of Music Education
B M, Temple University
M F A, Carnegie Mellon University

John Wilson
Adjoint Professor of Music and Director of Jazz Studies
B S, M A, Ed D, New York University

SCHOOL OF NURSING

U.S. ARMY RESERVE OFFICERS' TRAINING CORPS (ROTC)

ADMINISTRATION

FACULTY — DEPARTMENT OF MILITARY SCIENCE

CPT David B Culbreth
Professor of Military Science
B A A, Methodist College

CPT Martha G. Granger
Assistant Professor of Military Science
B S, United States Military Academy
Major Routes to the Duquesne Campus

Duquesne University is easily accessible by plane, bus, rail or car. The campus is a 10-minute walk from downtown, where both Greyhound and Trailways bus and Amtrak train stations are located. If you are arriving by plane, the Pittsburgh International Airport is located only 20 minutes from downtown Pittsburgh via bus, cab, rental car or limousine. For those arriving by car, major interstate and state routes lead to Duquesne from all points north, south, east and west. Interstate 79 runs north and south of the campus where it intersects with 279. From the east, the Pennsylvania Turnpike and state routes 22 and 30 intersect with 376. Both I-79 and 376 lead to downtown Pittsburgh.