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G & G Building, Second Floor
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Administration Building, Third Floor
Telephone (412) 434-6208/6209
## All Degrees and Programs Offered in the University

### SCHOOL BACHELOR'S DEGREE MASTER'S DEGREE DOCTORATE

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Academic Calendars
Spring 1988 — Summer 1990

FALL SEMESTER — 1988
Classes Begin August 29 (Monday)
Labor Day Holiday September 5 (Monday)
All Saints Day November 1 (Tuesday)
Thanksgiving Holiday November 21-26
Immaculate Conception Holiday December 8 (Thursday)
Thursday Class Schedule Followed December 14 (Wednesday)
Reading Day December 15 (Thursday)
Final Exams December 16-22

FALL SEMESTER — 1989
Classes Begin August 28 (Monday)
Labor Day Holiday September 4 (Monday)
All Saints Day November 1 (Wednesday)
Thanksgiving Holiday November 20-25
Immaculate Conception Holiday December 8 (Friday)
Friday Class Schedule Followed December 12 (Tuesday)
Reading Day December 14 (Thursday)
Final Exams December 15-21

SPRING SEMESTER — 1989
Classes Begin January 9 (Monday), January 7 (for Saturday classes only)
Martin Luther King Holiday January 16 (Monday)
Spring Break February 21-26
Easter Holiday March 23-27
Thursday Class Schedule Followed April 25 (Tuesday)
Friday Class Schedule Followed April 26 (Wednesday)
Final Exams April 27-May 3
Ascension Holiday May 4 (Thursday)
Commencement May 6 (Saturday)

SPRING SEMESTER — 1990
Classes Begin January 11 (Thursday)
Martin Luther King Holiday January 15 (Monday)
Spring Break March 5-10
Easter Holiday April 12-16
Monday Class Schedule Followed May 1 (Tuesday)
Final Exams May 3-9
Commencement May 12 (Saturday)

SUMMER SEMESTER — 1989
Summer Term Begins May 8 (Monday)
Memorial Day Holiday May 29 (Monday)
Independence Day July 4 (Tuesday)
End of 12 week term July 28 (Friday)
Assumption Holiday August 15 (Tuesday)

SUMMER SEMESTER — 1990
Summer Term Begins May 14 (Monday)
Ascension Holiday May 24 (Thursday)
Memorial Day Holiday May 28 (Monday)
Independence Day July 4 (Wednesday)
End of 12 week term August 3 (Friday)
Assumption Holiday August 15 (Wednesday)

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

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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 1988.
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. The school grew rapidly in its first years until it moved from its original location on Wylie Avenue in the city’s Uptown section to its present site, a scenic 39-acre hilltop called ”The Bluff”, which overlooks downtown Pittsburgh.

By 1911, the school had achieved university status, at which time the name Duquesne University of the Holy Ghost was adopted in honor of the 18th century governor general of French Canada, the Marquis de Duquesne, who first brought Catholic services to Pittsburgh while it was under French dominion.

Duquesne’s great period of student growth after World War II, along with the necessity of refurbishing a makeshift physical plant led the University to begin an ambitious program of planned physical expansion and modernization in 1950.

Now in the enviable position of having completed most of its physical development needs for the foreseeable future, the University is a modern, attractive, highly functional educational facility which has more than tripled from its early 12.5 acres to its present self-enclosed 39-acre campus site.

Today, Duquesne University is not only one of the leading private institutions in Pennsylvania, but also one of several major private, Catholic, urban universities in the United States.

The University has more than 6,000 students enrolled in its eight schools—College of Liberal Arts and Sciences (1978), Graduate School of Liberal Arts and Sciences (1911), and the Schools of Law (1911), Business and Administration (1913), Pharmacy (1925), Music (1926), Education (1929), and Nursing (1937). Duquesne’s eight schools offer degree programs on the baccalaureate, professional, master’s and doctoral levels.

PHILOSOPHY AND OBJECTIVES
A Catholic institution operated by the Congregation of the Holy Ghost, Duquesne is open to students of all religions and creeds. A community committed to the ideal of producing young men and women whose minds seek intellectual freedom and truth, the University seeks to impart to its students the ability to judge and make decisions independently, to interrelate disciplines and experience, and to balance memory, reason and imagination.

In essence, the Duquesne student is ideally an individual with a fully integrated personality and a sensitivity and responsiveness to his humanity and that of others.

The educational objectives of the University include the development of a sound philosophy of life through an integration of spiritual, physical, intellectual, moral, social and aesthetic goals and values, the fostering of a spirit of inquiry and scholarship necessary for continuing intellectual and professional growth, the formation of a well-balanced, self-assured personality, and the imparting of an attitude of continuing self-evaluation and self-improvement both as an individual and a contributing member of the community of man.

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 STATEMENTS ON INTERNATIONAL EDUCATION
The mission of Duquesne University’s founders, the Holy Ghost Congregation, has always included service to peoples outside of the United States. Duquesne University also is committed to providing an educational environment which recognizes cultural and national pluralism.

Duquesne welcomes qualified students from throughout the world and encourages its students and faculty to take advantage of opportunities to study and teach abroad.

The University believes that the sharing of the multiple traditions and mores of societies is an invaluable element in the educational process.

In a world that is growing ever smaller, it is imperative that Duquesne reach out to peoples of different cultures to afford them the opportunity to acquire educational experiences not otherwise available to them. Interaction among international and American faculty and students will enrich all and enhance their ability to be better citizens of our shared world.

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

THE UNIVERSITY SETTING
Located adjacent to downtown Pittsburgh, Duquesne University’s modern hilltop campus is read-
PHYSICAL FACILITIES

The Administration Building, "Old Main," was the first building constructed on the Duquesne campus, dedicated in 1885. Recently renovated, it houses the Executive Offices of the University, Office of Admissions, Registrar’s Office, Campus Police, Information Technology Center, Career Planning and Placement Office, Learning and Counseling Center, Financial Aid Office, Advisement and Counseling Center, and the offices of International Education, University Events, Alumni Relations, Development, and Public Relations.

The J. Palumbo Center, dedicated in 1988, is the home of the Duquesne Dukes basketball team. In addition to the Duke’s home court, the center serves as a recreational facility for students, faculty, and staff. The 6,200-seat arena also houses intramural activities, racquetball and squash courts, a weight room, exercise room, sauna, and locker facilities.

The campus also includes a simulation laboratory, an instructional photo laboratory, seminar rooms, a graphics art classroom, and a little theatre performance room. The women’s recreation center, including a gym and slimmings area, is located on the ground floor.

The Duquesne Towers, a 17-story, air-conditioned double-tower residence for 1,200 men and women featuring separate housing wings, was dedicated in 1970. The facility features a full-size indoor swimming pool with a sundock, offices of the Residence Life Division, an office of Campus Ministry, the Campus Health Services area, a main student lounge and smaller lounges on each floor, telephones in each room, and a resident dining hall with a 2,500 student capacity.

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

The G & G Building, in addition to housing various administrative offices of the University, also houses the University’s Vocations Office.

The Gymnasium is used as a practice facility by various intercollegiate athletic teams of the University and as the center for indoor sports of the University’s intramural sports program. The gym features a modern, equipped weight training facility, the Dukes Court Weight Room, which is open to the student body as well as the University’s varsity teams.

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

The Physical Education Building, dedicated in 1987, was the center for outdoor intramural sports of the University. The building now houses the School of Education, Curriculum Library, Reading Clinic, and Guidance Clinic as well as the Department of Physical Education and the Office of ROTC.

The College of Architecture and Planning is housed in the newly constructed College of Architecture and Planning Building.

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synthesizers, sequencers and samplers, opened in 1987.

Rockwell Hall, dedicated in 1958, is a 10-story structure which houses the School of Business and Administration. Its Business Simulation Laborato-

ary contains 12 conference rooms equipped with television cameras and microphones for observation and recording of activity in the individual rooms. Rockwell Hall also houses a snack bar, the Business School's student lounge, two modern computer laboratories of the School of Business and Admini-

tration, Center for Communications and Information Technology, the Division of Continuing Education, Student I D Center, Office Services Department, Peter Mills Auditorium, Institute of Formative Spirituality, and the University Archives.

St. Ann's Hall, dedicated in 1964, is a two-wing, three-story coed dormitory with its own laundry area, several lounges and television rooms, a recreation area, snack area, and attractive grounds. Double and single rooms are available.

St. Martin's, A 14-story residence, provides housing for graduate and law students, as well as non-Duquesne students from other Pittsburgh aca-
demic and vocational institutions.

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

ACCREDITATION AND AFFILIATION

University
Accreditation
Commission on Higher Education
Middle States Association of Colleges and Schools
State Board of Education of the Pennsylvania Department of Education
Member
American Association of Collegiate Registrars and Admissions Officers
American Council on Education
Association of Catholic Colleges and Universities
Catholic College Coordinating Council
Catholic Educational Association of Pennsylvania
College Entrance Examination Board
Council for Advancement and Support of Education
International Federation of Catholic Universities
Middle States Association of Collegiate Registrars and Officers of Admission

National Association for Independent Colleges and Universities
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
National Catholic Educational Association
National Commission on Accrediting Pennsylvania Association of Catholic College Admissions Officers
Pennsylvania Association of Colleges and Universities
Pittsburgh Council of Higher Education

College of Liberal Arts and Sciences
Accreditation
American Chemical Society
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
Association of Departments of English
The Historical Society of Western Pennsylvania
National Collegiate Honors Council
Organizations of American Historians

School of Business and Administration
Accreditation
American Assembly of Collegiate Schools of Business
Accreditation Council
Membership
Association for University Business and Economic Research
Middle Atlantic Association of Colleges of Business Administration

School of Education
Accreditation
Middle States Association of Colleges and Schools

Pennsylvania Department of Education
Membership
American Association of Colleges for Teacher Education
Association of Independent Liberal Arts Colleges for Teacher Education
International Council on Education for Teaching
The Pennsylvania Association of Colleges and Teachers

School of Music
Accreditation
National Association of Schools of Music
National Association for Music Therapy
Membership
American Symphony Orchestra League
National Catholic Music Educators Association

School of Nursing
Accreditation
National League for Nursing
Approval
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

ACCREDITATION AND AFFILIATION

GENERAL INFORMATION

Pennsylvania Department of Education
Membership
American Association of Colleges for Teacher Education
Association of Independent Liberal Arts Colleges for Teacher Education
International Council on Education for Teaching
The Pennsylvania Association of Colleges and Teachers

School of Music
Accreditation
National Association of Schools of Music
National Association for Music Therapy
Membership
American Symphony Orchestra League
National Catholic Music Educators Association

School of Nursing
Accreditation
National League for Nursing
Approval
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

Evening Study
The School of Business and Administration and the College of Liberal Arts and Sciences offer evening classes for full-time and part-time students each semester and during the Summer Session. These are for persons whose employment does not permit them to attend as regular day students.

Through careful planning and consultation with academic advisors, the bachelor's degree program may be completed by evening study in all major areas of the School of Business and Administration and some areas of the College of Liberal Arts and Sciences. Other undergraduate schools also schedule occasional evening courses but it is not possible to complete their degree requirements through

of Continuing Education, or Dr. William Barone, Assistant Director of Continuing Education, at 434-5034

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. Short term offerings of one and two week duration, usually at the graduate level, are scheduled before and after the regular session.

CENTER FOR COMMUNICATIONS AND INFORMATION TECHNOLOGY
The Center for Communications and Information Technology provides facilities and guidance in the use of computing and communications equipment for the University's instruction, research, and administrative programs. The Center reports administratively to the Vice President for Management, Business, and Development.

The present facilities include a Digital Equipment Corporation VAX 8200 and a Sparc 110/72 mainframe computer with state-of-the-art education and administrative applications. The systems provide support for the BASIC, FORTRAN, COBOL, C, LISP and F77 programming languages, as well as Statistical Packages for the Social Sciences, Interactive Financial Planning System, and MINITAB. Labs distributed throughout the campus provide students with access to more than 200 microcomputers and terminals. Additional microcomputers are anticipated to be added to the labs in 1988/89 in addition to this equipment, an IBM System 36 computer and a number of terminals and microcomputers are used for Administrative functions such as registration, grade reporting, admissions, and financial recordkeeping.

The Center provides a professional staff to serve Duquesne faculty, staff and students. Included in these services are state-of-the-art seminars, consulting, and data entry. Student aides in the computer laboratories are available for consultation regarding use of the facilities.

During 1986/87 the university approved a long-range plan for computing and communications on the campus. During this five-year period the current mainframe computers are anticipated to be replaced by more powerful systems, microcomputer labs are expected to be installed in every major campus building, and a fiber-optics network installed to provide campus-wide communication and to provide gateways to national and international networks and data bases. Both the university library and the law library are anticipated to be fully automated, with direct access to catalog files through workstations on campus or from the home.
Part II: Admission and Financial Aid

Admission

OFFICE OF ADMISSIONS
The Office of Admissions is located on the first floor of the Administration Building
Telephone (412) 343-6200, 343-6211, 343-6222
Office hours: Monday through Friday from 8:30 A.M. to 4:30 P.M.

POLICY
It is the policy of Duquesne University to admit applicants who are both qualified to profit from opportunities which the University offers for intellectual, spiritual, and social growth. In general, admittance 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 any combination from the area of social studies, language, mathematics, and science, and four elective units for which the secondary school offers credit toward graduation. In specific instances, and at the discretion of the Committee on Admissions, the genuine equivalent of these requirements may be accepted in lieu of the precise requirements specified. (Note: Candidates planning to enroll in pharmacy or pre-Health programs, or as science or mathematics majors should have completed a minimum of seven units in mathematics and sciences.)
3. Scores in accordance with the standards adhered to by the University must be presented for the required College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT). (Note for admission to the School of Music, an audition is required.)

EARLY DECISION
Students who desire Duquesne University as their first choice for college should consider the Early Decision Plan. This plan requires that the student apply by November 1 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.

APPLICATION—NEW FIRST-YEAR STUDENTS
Applications should be addressed to the Director of Admissions, Duquesne University, Pittsburgh, Pennsylvania 15282. It may be submitted at any time during the candidate’s senior year up to July 1. The application procedure is as follows:
1. Obtain, complete, and file the Application for Admission with the Office of Admissions.
2. Include the $20 non-refundable application fee with the application form. International students must pay a $30 non-refundable application fee.
3. Application will be processed for consideration by the Committee on Admissions unless accompanied by the required fee.
4. Request the secondary school principal or guidance counselor to submit a transcript of the candidate’s academic record. A recommendation is requested.
5. Complete the required SAT or ACT examination during the spring of junior year and/or fall of senior year. It is the personal responsibility of each candidate to have test scores forwarded to the University.
6. An interview is highly recommended for prospective students. Auditions are required for School of Music applicants.
7. Students interested in being considered for University Scholarships should submit their application by February 1 of their senior year.
8. Early Decision Deadline (for students who have Duquesne as their first College choice) is November 1 of their senior year. If accepted under the Early Decision Plan, commuting students are asked to submit a non-refundable tuition deposit of $100 with two weeks’ notice. Resident students are asked to submit a $250 non-refundable deposit.
9. Notification of decisions for regular admission begins on or after December 15. Applicants are notified if accepted, students are asked to submit a non-refundable tuition deposit of $100 for commercial purposes or $250 for resident students by May 1 of their senior year. International students must submit a non-refundable tuition and room and board deposit of $650. It is the responsibility of the applicant to arrange to have all supporting credentials on file with the Office of Admissions and Financial Aid Office prior to the deadline dates.

EARLY ADMISSION
Although the University believes that most students profit from four years in the secondary school, the Early Admission plan is open to outstanding students. This is a plan for students who usually are college candidates who have completed less than four years of a secondary school program. Early Admission students may apply for consideration to begin college after their junior year. Early Admission is awarded following successful completion of their freshman year in college. Two separate interviews are required. Further details may be obtained by telephoning or writing to the Office of Admissions.

APPLICATION—OTHER CATEGORIES
It is the responsibility of persons who apply for evening study, or as international students, postgraduate, readmission students, transfers, temporary transfers, and veterans, 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 deadline dates.

ADMISSION OF UNDERGRADUATE INTERNATIONAL STUDENTS
Application Criteria
Duquesne University welcomes applications from qualified international students interested in entry as either freshmen or transfer applicants.
Eligibility criteria for application as a first-year freshman student include:

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

Eligibility criteria for transfer student include:

1. A demonstrated record of academic success.
2. A cumulative grade point average of 3.0 or higher.

Support Form along with required accompanying financial resource certifications, TOEFL scores, and an additional international fee is required.

ADMISSION, FINANCIAL AID

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

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

All accepted international students, whose native language is other than English, are administered an English Language Placement Test upon arrival. If additional assistance with English language proficiency development is indicated, then the student is offered 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.

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

The Duquesne University TOEFL Institution Code is 2196.

Application Procedures
Interested applicants should submit the following items:

- Duquesne University Undergraduate International Application Form,
- Completed Duquesne University Affidavit of Support Form along with required accompanying financial resource certifications, (NOTE: There is no program of financial assistance available to undergraduate international students).
- Certified copies of all academic records of secondary and any post-secondary study.
- One letter of recommendation, and
- Application fee in the amount specified on the application form.

Duquesne University is authorized under federal law to enroll nonimmigrant alien students. However, certain documents can be used until all application materials, including financial resource certification, are received. In order to complete on-campus arrival orientation, language...
proficiency testing, and registration, accepted international students should plan to arrive approximately one week before semester classes begin.

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.

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

Director
Office of International Education
Duquesne University
Pittsburgh, Pennsylvania 15282
USA
Telephone 412-343-6113 Telex 295-581 (RCA)

POST-GRADUATES
Post-graduates are students who already have a Bachelor’s degree, and desire to take undergraduate courses at Duquesne, but are not interested in pursuing another undergraduate degree. A Post-graduate student must submit a Post-graduate application to the Division of Continuing Education if the Bachelor’s degree was received from an institution other than Duquesne. Proof of degree is required either by an official transcript or a certificate of graduation.

READMISSION
Any student who withdraws from the University must apply for readmission through the Office of Admissions regardless of the time interval involved since withdrawal. A student who is dismissed for academic reasons must appeal to the Committee on Student Standing of the school to which application of admission or readmission is being made, once the application has been submitted to the Admissions Office.

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

The College of Liberal Arts and Sciences and School of Education award 60 semester hours of credit to accepted transfer applicants who have an Associate Degree in Arts from a regionally accredited two-year institution.

Students transferring from a regionally accredited institution must present academic records which show an overall average of C (2.0 on a 4.0 quality point system).

Persons seeking admission to the University as transfer students from a state approved college which does not have regional accreditation must have attained a cumulative average of 3.0 based on a 4.0 quality point system. In addition, such prospective students must take the College Entrance Examination Board tests and attain the appropriate scores.

An interview is highly recommended for all transfer students and will be required of those students whose Admissions Office notifies personally.

TEMPORARY TRANSFERS
Temporary Transfers are students who are enrolled in another college or university but who desire to take a course or courses at Duquesne for one semester.

No Temporary Transfer Student will be granted admission without formal application and an official transcript or permission from an official at the University at which the student is enrolled. A Temporary Transfer Student must reapply if he/she desires to take the same courses or courses at Duquesne University beyond one semester.

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

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

Graduates and other former students, including anyone who withdrew from the University, must obtain readmittance, financial aid before they may register for summer classes.

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

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

Credit will be given on a minimum advanced placement score determined yearly by the College of Liberal Arts and Sciences. For current information about the minimum score acceptable for each subject and the credits granted, consult with the University’s Director of Testing Bureau or the Office of Academic Advisement, College of Liberal Arts and Sciences.

Applicants who hope to receive advanced placement credit must request that scores be sent to the University. Information about advanced placement examinations is available from the College Entrance Examination Program, Box 977, Princeton, New Jersey 08540. Information about equivalent University courses for which qualifying students may receive credit may be obtained from the University’s Director of Testing Bureau or the Assistant Dean for Administration, College of Liberal Arts and Sciences.

CREDIT HOUR BANK
The Credit Hour Bank program is designed for high school students and adults who would like to sample college courses prior to official enrollment. The maximum number of credits that may be taken is 15. Credits completed in the Credit Hour Bank are held in escrow until the applicant applies and fulfills all regular admission requirements. Upon regular admittance, all credits are then evaluated toward a degree program.

To apply to the Credit Hour Bank Program, submit the $20 non-refundable application fee, and attach a summary of high school curriculum and acceptance of the conditions of the Credit Hour Bank Program. A form is available for this purpose and can be obtained by contacting the Office of Admissions.

Generally, all first year courses in the College of Liberal Arts and Sciences and the School of Education are open to Credit Hour Bank students. The School of Music also participates in the Credit Hour Bank program providing the applicant passes a music audition.

CHEMISTRY
General chemistry, general psychology, introductory business management, introductory marketing, (only validation of comparable course(s) taken at regionally accredited schools where courses were offered at the 200 level or above. Students must have completed the course(s) with a "C" or better to be eligible), introductory sociology, macro-economics, micro-economics. When a student has accumulated 30 or more credits is not eligible to take the General Examinations for credits. When a student has acquired 60 credits he will not be given credits on the basis of CLEP exams. This total of 60 includes the CLEP credit, i.e. if a student has completed 57 credits, he could not receive more than 3 credits on CLEP exams. The University is continuing to evaluate CLEP subject scores and performance at Duquesne University Credit will be given on a minimum score determined yearly by the College of Liberal Arts and Sciences.

Exams must be taken according to the usual progressions of courses. The exam in College Algebra or College Algebra/Trig must be taken before a student registers for Calculus 1.

Information about the time and place that examinations are given may be obtained from the University’s Director of Testing Bureau or the College Level Examination Program, Box 977, Princeton, New Jersey 08540. Information about equivalent University courses for which qualifying students may receive credit may be obtained from the University’s Director of Testing Bureau or the Assistant Dean for Administration, College of Liberal Arts and Sciences.

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Financial Aid

Duquesne University subscribes to the philosophy that "no student should be denied the education of his/her choice for lack of sufficient financial resources." The Office of Student Financial Aid has been established to help students locate the financial support they require. Students and parents should not be overwhelmed by the variety and apparent complexities of modern student financial aid. Rather, a patient thorough examination of aid opportunities should be undertaken to locate the most advantageous forms of assistance available to the individual student.

PRINCIPLES OF AID: FINANCIAL NEED

The major criterion of most aid programs is the student's need for funds. In general, parents and the student are expected to pay the expenses of education. However, to the extent they cannot reasonably be expected to meet this expense, there is a demonstrated financial need or eligibility for aid. Methods of determining need may vary slightly among aid sources, but all have the common objective of identifying the difference between educational costs and the individual family's ability to contribute to these costs. The costs considered include tuition, fees, room and board or an allowance for maintenance at home, travel or commuting expenses, books, and necessary personal expenditures. Need analysis presumes the family's ability to contribute to these costs will approximate that of families of similar size and financial strength, with consideration given for individual circumstances. It is extremely important that all financial information reported by the family be complete, accurate, and updated for any major changes. Such information is considered and treated confidentially by aid administrators.

AWARD CONDITIONS

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

STUDENT SELF-HELP

As the primary beneficiary of higher education, the student is expected to accept at least partial financial responsibility for the cost. This principle is reflected in both the determination of need and the types of aid available. In determining need, consideration is given for at least a minimum contribution to cost from the student's summer earnings, savings, and resources. Two types of self-help programs of aid are available: loans and work. Student loans provide rates, terms, and conditions superior to those offered by commercial lenders, and offer the student the opportunity to help himself/herself by accepting future repayment responsibility. Student employment programs provide the opportunity to help earn a portion of the educational costs.

GIFT ASSISTANCE

Non-repayable scholarships or grants are available in accordance with one or a combination of the following criteria: 1) Financial Need, 2) Superior Academic Potential or Achievement, and 3) Special Ability, which reflects proficiency in a specialized field or activity, such as music, debate, athletics, etc. It should be noted that many sources of gift aid expect the student to accept some form of self-help assistance.

MEETING STUDENT NEED

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

PROGRAM FUNDING

All programs of financial aid are subject to limitations of available funds. Therefore, in addition to the eligibility requirements of a particular program, assistance depends upon the level of funding in the program. First consideration always goes to applicants who apply within deadline dates and who provide complete and accurate information. All programs are subject to change, elimination, or replacement. Changes in government programs are routine, since these require periodic legislative review.

CURRENT INFORMATION

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

UNIVERSITY AID

APPLICATION PROCEDURE

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

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

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

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

5. Applications must be filed annually.

PROGRAMS

The following programs for which the foregoing application procedures apply, are administered directly by the Financial Aid Office: University Scholars Awards: The University awards scholarships annually to exceptional high school scholars. These awards are not based on a demonstrated need and may be renewed each year provided the student maintains a high level of academic achievement. The academic requirement is a cumulative Quality Point Average of 3.0

Competitive Scholarships: These awards are given to students of outstanding ability and achievement who are currently enrolled students. Recipients are selected in accordance with guidelines published by the Federal Government. Loan repayment does not begin until nine months after the borrower terminates at least half-time study, and is scheduled over a ten-year period at an interest rate of five percent a year.

Federal Nursing Loans: These loans are available to full-time undergraduate nursing students who demonstrate financial need and are making acceptable progress toward a degree. Recipients are selected in accordance with guidelines published by the Federal Government. Loan repayment does not begin until nine months after the borrower terminates at least half-time study in nursing, and is scheduled over a ten-year period at an interest rate of six percent a year.

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

**Alcoa Loan Fund**

Loan fund established through the Alcoa Foundation. Awarded to full-time students who demonstrate financial need. Repayment begins 6 months after termination of enrollment, with a 5-year repayment period. Interest rate is 9 percent.

**Gulf Loan Fund**

Loan fund established through the Gulf Oil Corporation. Awarded to full-time students who demonstrate financial need. Repayment begins 6 months after termination of enrollment, with a 5-year repayment period. Interest rate is 4 percent. Funds are normally awarded to students in their final year who have exhausted other loan eligibility.

**Power Loan**

Loan fund established through the Stanley K Power Trust of the Pittsburgh Foundation. Awarded to needy full-time students who are residents of Allegheny County. Repayment of four-fifths of amount borrowed within ten years of graduation is required. Selection is based on financial need. Student Employment. Two programs of employment are available to financial aid applicants who demonstrate need. The first is the College Work-Study Program which is financed principally by Federal appropriations and awarded as aid in accordance with guidelines published by the Federal government. The second program is referred to as the General Program which is funded by the University. In addition to considerations of financial need, placement in a part-time position depends upon the student’s qualifications for performing successfully in the job. Student employment is limited to a maximum of fifteen working hours a week when classes are in session. Students working under either program may not retain outside jobs during academic periods.

**OTHER SOURCES OF AID**

**PELL GRANT PROGRAM**

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

**STATE GRANT ASSISTANCE**

General. Depending upon the student’s legal state of residence, direct grant assistance from the state may be available for study at Duquesne University. Non-Pennsylvania residents should contact their high school guidance counselor or state Department of Education to determine if grants are available, and to determine application procedures. Pennsylvania residents should obtain the State Grant Application from high school guidance offices, the University Financial Aid Office, or the Pennsylvania Higher Education Assistance Agency (PHEAA). At current levels, grants ranging from $300 to $1,850 a year are available to full-time undergraduate students, based on considerations of financial need. Filing deadline is normally May 1.

**GUARANTEED STUDENT LOANS**

This program provides long-term, low interest student loans available through the cooperative efforts of federal and state governments and participating private lending institutions. These loans are available to students enrolled in an institution of higher learning on a part-time, full-time, or an extended time basis. They are provided by commercial lending institutions in every state. To apply, the student should inquire at a local lending institution where the student or parent has an account. Subsidized loans are need based and require a needs analysis document. Pennsylvania provides a non-subsidized loan. However, a need document must be filed to establish eligibility for a subsidized loan. The maximum that an undergraduate student may borrow for any academic level is $2,625 for each of the first two years of study, $4,000 for each remaining undergraduate year of study. A four to six week processing period should be anticipated.

**Parent Loans for Undergraduate Students/Supplemental Loans for Students**

Loans are available to parents of DEPENDENT undergraduate students, INDEPENDENT undergraduates may apply themselves. The maximum amount that can be borrowed for any academic level is $4,000. Repayment begins 60 days after disbursement of funds. Applications and information are available through banks and other lending institutions.

**OTHER POSSIBILITIES**

In addition to mass programs of aid previously described, financial assistance may be obtained from a variety of sources. Application procedures and requirements differ greatly, it is not possible to provide specific information. In general, the student seeking potential sources of aid may inquire of 1) high school guidance counselors, 2) parents employers or labor unions, 3) fraternal, social, religious or professional organizations, 4) major organizations utilizing the skills of the field for which the student is preparing, and 5) specific departments within the University.

**AID FROM DEPARTMENTS AND SCHOOLS**

**COLLEGE OF LIBERAL ARTS AND SCIENCES**

**The Eleanor Pols Capone Memorial Award**

The award honors, in perpetuity, the memory of Eleanor Pols Capone. The scholarship consists of the total annual income from a restricted growth endowment fund and is awarded to an undergraduate student enrolled at the University, who will be selected on the basis of academic achievement, with need a secondary consideration. Interested students should contact the Chairman, Honors and Awards Committee, English Department, prior to June 1.

**Andrew Kozora Memorial Scholarship**

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

**The Rev. Joseph A. Laurits, C S Sp., Journalism Scholarship**

This is an annual scholarship in tribute to the Rev. Joseph A. Laurits, C S Sp., Founding Father of the Duquesne University student newspaper, DUQM. This scholarship is awarded annually to a freshening, entering undergraduate student in journalism who is planning to major in journalism. The award is administered by the Laurits Scholarship Committee, Department of Journalism. Deadline for application is April 1. This award is not renewable.

**Eduard T. Leech Scholarship**

This annual scholarship was established in 1971 by the Scrapps-Howard Foundation for journalism junior/senior students who demonstrate academic promise, concurrent financial need, and are preparing for a journalism career in the newspaper or broadcasting fields. It is administered by the faculty of the Department of Journalism.

**Colecchia Scholarship Award**

The award honors, in perpetuity, the memory of Ambrogio Colecchia. The Scholarship award is available to juniors and seniors in the undergraduate College of Arts and Sciences majoring in any of the following disciplines: Modern Language, Literature, Classics, Philosophy, English, Math, Chemistry, Computer Sciences, Physics, or Biology. All recipients must be full-time students of proven scholastic achievement, be of good moral character, and demonstrate a potential for leadership. The scholarship is awarded annually.

**Chivers Scholarship Award**

The award honors Frances Jahrling Chivers and is available to Junior or Senior English majors. Recommendations made by Chair of English Department Selection by representatives of Chivers family and Financial Aid Office.

**SCHOOL OF BUSINESS AND ADMINISTRATION**

**Accounting Scholarships**

Twenty $1,000 scholarships are awarded annually to students whose major area of concentration is accounting. Ten are awarded to juniors and 10 to seniors. The scholarships result from an endowment funded by the “Big Eight” accounting firms as well as local accounting firms.

Applications are available at the Office of the Dean of the School of Business and Administration. Completed applications must be received in the Dean’s Office by October 1 of each academic year. Recipients are selected by the school on the basis of academic achievement.

**Ryan Homes Scholarship**

This award is made to an undergraduate senior student in production. Recipient is selected by the School based upon academic achievement.

**Traffic Club of Pittsburgh Scholarship**

This award is made to an undergraduate senior student in transportation. Recipient is selected by the School based upon academic achievement.

**Charles F. Artzberger Memorial Scholarship**

Awarded to needy students in the School of Business. Application from high school guidance office also available through Financial Aid Office.

**SCHOOL OF EDUCATION**

School of Education Scholarships are available to freshmen and transfer students who were among the top fifth of their high school class or who maintained a 3.0 high school average. Transfer students applying for these scholarships must have a “B” average from the school they last attended. Applicants are required to submit three recommendations representing the areas of academic performance and personal achievement. An interview is also required to discuss individual perceptions and ideals, as well as a statement of career goals. Freshman applicants are required to apply annually to the Guidance Office.
must have an SAT score of at least 900, with a minimum of 400 on any one test. Transfer applicants must be new students to Duquesne. To apply, contact the School of Education. For renewal requirements and procedures, contact the Office of Financial Aid.

Laurence Roche Memorial Scholarship. The award will be made to a student who, as a junior in the School of Education, has made the highest grade point average among her peers.

Robert Minaidi Memorial Scholarship Fund. This fund provides financial assistance on an annual basis to an outstanding performer in the School of Education.

SCHOOL OF NURSING
Women's Advisory Board Scholarships. This fund provides scholarships in varying amounts each year to outstanding performers. These scholarships are awarded on the basis of academic merit, and are limited to junior or senior nursing students with a minimum 2.0 grade point average. The recipients are selected by the School of Nursing.

School of Pharmacy Scholarships. The School of Pharmacy offers a variety of scholarships to its students. These scholarships are awarded on the basis of academic merit and are limited to junior or senior nursing students with a minimum 2.0 grade point average. The recipients are selected by the School of Pharmacy.

SCHOOL OF MUSIC
Women's Advisory Board Scholarships. This fund provides scholarships in varying amounts each year to outstanding performers. These scholarships are awarded on the basis of academic merit, and are limited to junior or senior nursing students with a minimum 2.0 grade point average. The recipients are selected by the School of Nursing.

School of Pharmacy Scholarships. The School of Pharmacy offers a variety of scholarships to its students. These scholarships are awarded on the basis of academic merit and are limited to junior or senior nursing students with a minimum 2.0 grade point average. The recipients are selected by the School of Pharmacy.

FINANCIAL AID

Admission, Financial Aid

FINANCIAL AID

Admission, Financial Aid

FINANCIAL AID

Admission, Financial Aid

FINANCIAL AID

Admission, Financial Aid
ed to a fourth-year pharmacy student, to be applied toward tuition expenses in the fifth year of study. Selection of a pharmacy student recipient will be based on demonstrated financial need and service to the Duquesne University campus community.

**GENERAL**

The Pittsburgh/Centennial Scholarship was created at the close of Duquesne University’s Centennial year (1978) in the spirit of the University’s founding mission to provide ready access to higher education for all. The scholarship will be provided to deserving students who have demonstrated high academic performance and need, and are residents of Allegheny County. Emphasis will be on performance in selection of recipient. Inquiries should be directed to the Office of Financial Aid.

**DUSSO Scholarship Fund** Annually the Duquesne University Student Scholarship Organization sponsors scholarships to help make it possible for deserving students to attend Duquesne. Applicants must be enrolled on a full-time basis, show proven academic ability, be of good moral character, and demonstrate financial need. Application materials may be obtained through the SCA office and must be filed by April 1.

**McCloskey Memorial Fund** is awarded to students who have demonstrated scholarly ability, good character, and volunteer service to the community. Applications are made directly to the Office of the Dean of Students.

**Vera I Homes Travel Award** This fund was established to provide an educational and cultural opportunity for promising young women students. Recipients are selected on the basis of academic achievement and evidence of interest in intercultural or international relations. Inquiries should be directed to the Office of the Dean of Students.

**Nathan and Harry Daly Scholarship** This is an annual award that is to be made to “such deserving person or persons from Butler County, Pennsylvania attending Duquesne University.” Selection is made by a committee upon the recommendation of the University’s Financial Aid Office. Candidates are considered for academic achievement and financial need. Interested students should apply through the Financial Aid Office.

**Elizabeth Elsie McDonough Scholarship** This award was established to assist needy students from Allegheny County to continue their educational endeavors at Duquesne University. Recipients are selected by the University and are based on both academic achievement and financial need. Applications are made directly to the Office of Financial Aid.

**Minnie Hyman Scholarship** A gift from the Hyman Family Foundation. Applications are made directly to the Financial Aid Office and the Hyman Family Foundation.

**James H. and Margaret Lavelle Ferron Memorial Scholarship** This award was established in honor of, in perpetuity, the memory of James H. and Margaret Lavelle Ferron by awarding annually a prize to a deserving student in their name. Recipients are selected by the University, with the primary consideration being financial need and academic achievement. Recipients must be enrolled as undergraduate students. Interested students should apply through the Financial Aid Office.

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

**J. W. Rhade Memorial Scholarship Fund** A fund in honor of J. W. and Ruth Lewis Rhade in recognition of their long-time affection for the City of Pittsburgh. Recipients are chosen for leadership qualities, good character, strong potential for civic contributions (especially to the City of Pittsburgh) and the ability to relate well with others. Interested students should reply through the Financial Aid Office.

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

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

**Century Club Scholarship** Awarded to needy students in their final undergraduate year. Preference is given to students of Our Lady of Grace Parish and the Financial Aid Office.

**Eberly Family Endowed Scholarship Fund** (ROTC) SCHOLARSHIPS

**Frank H. Kirk Memorial Scholarship Endowment Fund** Awarded to needy and deserving students. Applications are available from Financial Aid Office.

**Mary H. & Peter Loftus Scholarship Fund** Awarded to needy and deserving students. Applications are available from Financial Aid Office.

**James L. & Paul L. McGloin Scholarship Fund** Awarded to needy and deserving students. Applications are available from Financial Aid Office.

**William J. Hart Scholarship** Awarded to needy students for books and personal expenses. Award can also be used for room and board. Applications are available from Financial Aid Office.

**Wayne County Scholarship Awards** for Wayne County Residents, with consideration given to children of employees or residents of Sterling Township. Applications available from Financial Aid Office.

**Mara B. Stalter Trust** Awarded to needy and deserving students. Applications are available from Financial Aid Office.

**Anna Reynolds Memorial Fund** Awarded to needy and deserving students. Applications are available from Financial Aid Office.

**Frank H. Kirk Memorial Scholarship Endowment Fund** is awarded on the basis of need. Preference is given to Jewish students who are residents of Allegheny County. Emphasis will be on performance, and need, and are residents of Allegheny County. Emphasis will be on performance in selection of recipient. Inquiries should be directed to the Office of Financial Aid.

**J. W. Rhade Memorial Scholarship Fund** is awarded to needy students who have demonstrated high academic performance and need, and are residents of Allegheny County. Emphasis will be on performance in selection of recipient. Inquiries should be directed to the Office of Financial Aid.

**Eberhardt Memorial Fund Awards** are made to Melville Alexander Eberhardt, based on academic achievement, financial need, and activities. Selection is made by outside committee upon recommendation of Financial Aid Office. Applications are available from Financial Aid Office.

**Pacioli Memorial Scholarship Fund** is established to honor Florence M. Pacioli. Awards are based on financial need. Order of selection will be (1) marital status—single parent, child of single parent, married; (2) Race—black, Hispanic, other (3) Sex—female, male (4) Age—under 25 years of age, 25 years of age and over (5) Other—appropriate to the University's educational mission. Applications are available from Financial Aid Office.

**Vira I. Heinz Travel Award** is awarded by the Eberly Family Trust primarily to assist students in their final undergraduate year. QPA of 2.5 required for renewal. Applications are available from Financial Aid Office.

**Eberly Family Trust** is established to further the University’s educational mission. Applications are available from Financial Aid Office.

**R. T. Meyers Scholarship** is awarded to needy and worthy students. Applications are available from the Financial Aid Office.

**Pacconi Family Scholarship Fund** is established to honor tapping M. Pacconi. Awards are based on financial need. Order of selection will be (1) marital status—single parent, child of single parent, married; (2) Race—black, Hispanic, other (3) Sex—female, male (4) Age—under 25 years of age, 25 years of age and over (5) Other—appropriate to the University's educational mission. Applications are available from Financial Aid Office.

**University Discounts**

1. University fees, laboratory costs, room and board, and other non-tuition related expenses will be charged at full rate. Discount is one-half tuition only.

2. Only one Duquesne degree may be obtained utilizing the discount and no other form of discount or remission may be received simultaneously.

3. Discount is not extended for studies in the Institute of Formative Spirituality, Law School, Master of Legal Studies, doctoral degree programs, or any dual degree programs with differential rates. Applications are available from Financial Aid Office.

4. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

5. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

6. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

7. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

8. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

9. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

10. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

11. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

12. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

13. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

14. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

15. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.

16. Discounts are not extended for studies in the School of Law or School of Business and Public Management. Applications are available from Financial Aid Office.
The application period begins in April at Duquesne University, Pittsburgh, Pennsylvania, 15282. Interested high school students may apply by writing Army ROTC, Duquesne University, Pittsburgh, Pennsylvania, 15282. For students already enrolled at Duquesne University, three-year and two-year scholarships are available. Individuals need not be participating in the ROTC program to apply. For additional information, contact the Military Science Department at 434-6664.

The opportunity to cross-register is open to each student who is a bona fide student of Duquesne University. The opportunity to cross-register is open to each student who has met these conditions:

1. Appropriate authority for admittance to study in a school or department has been given by an authorized officer of the University. The admitting authority for undergraduate students resides in the University's Registrar.
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.

Part III: Registration and Scholastic Policies

REGISTRATION

Students who attend the Fall Semester, which begins in late August, receive academic advisement and register for classes during the preceding months of April, May, June, and July. Spring Semester students register in the Fall Semester during November.

Orientation programs for new students are conducted by the school 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, dormitory charge, deposits, financial aid awards, and balance due is mailed to the student at his or her permanent address a month before classes begin, thus enabling the student or parent to make payment by mail.

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

The financial obligation for class places reserved by a registered student who does not subsequently attend cannot be canceled unless written notification of the decision not to attend is given to the Registrar before the first class day. Notification received on or after the opening day of classes is subject to the official withdrawal policy. Withdrawal from room and board reservation contracts is to be made in accordance with the provisions of the contract. See Room and Board—Withdrawal Refund, page 28 of this catalog.

OFFICIAL REGISTRATION

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

Official registration is the recognition given by the University to persons who have met these conditions:

1. Appropriate authority for admittance to study in a school or department has been given by an authorized officer of the University. The admitting authority for undergraduate students resides in the University's Registrar.

CHANGE OF SCHEDULE

Students requiring a change of class schedule to change class times or to add or to drop a class, are permitted to do so during the Preregistration period, the Final Registration period, and the Late Registration period. 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 the academic adviser and processed with the Registrar. Schedule change requests processed with the Registrar during the late registration must also have the signatures of the instructors whose classes are being added or dropped.

Students who tardily process change forms 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 from the University’ mentioned elsewhere in this catalog).

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

CROSS-REGISTRATION Guidelines

The purpose of cross-registration is to provide opportunities for enriched educational programs by permitting students at any of the ten Pittsburgh Council 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.

FINANCIAL AID

REGISTRATION, SCHOLASTIC POLICIES
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 departments or schools in all institutions are able to participate in this program.

In each case of student cross-registration, the approval or disapproval of transfer student procedures separately agreed to to the University’s approval from the respective host college will prevail. Whether its rules have or have not been violated, it is determined by the University whether its rules have or have not been violated. The student’s own institution will impose such penalties as it considers proper when violations are reported to it. Cross registrants do not thereby acquire the status of students in the institutions in which they are receiving instruction (e.g., for purposes of participation in student activities, insurance programs, etc.) They do receive library privileges at the host institution and may purchase course tests at the host bookstore. Each qualified student normally may enroll in no more than one course off campus in any one term or semester under this program. Duquesne University students who are participating in this program are charged tuition and university fees in accordance with the current rates of Duquesne University, however students are responsible for paying any additional course or laboratory fees to the host institution.

This cross registration program does not apply to the Summer Sessions at any of the institutions including the summer session tabloid. It reserves every reasonable effort to offer courses as announced in the Schedule of Classes booklet and the summer session tabloid. It reserves the right, however, to make changes or cancel courses in the academic schedule because of insufficient enrollment or for any other equally valid reason. The University makes every reasonable effort to offer courses as announced in the Schedule of Classes booklet and the summer session tabloid. It reserves every reasonable effort to offer courses as announced in the Schedule of Classes booklet and the summer session tabloid. It reserves the right, however, to make changes or cancel courses in the academic schedule because of insufficient enrollment or for any other equally valid reason.

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

CANCELLATION OF COURSES

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

CLASS ATTENDANCE

Regular class attendance is normally essential for maximum educational advantage and is strongly encouraged. The responsibility for all course material rests wholly with the student. The University requires attendance at every class. It is the prerogative of each school to establish policy for attendance at registered classes, laboratories, clinics, examinations, deadlines for reports, and specific school requirements. It is the instructor’s responsibility to make the student’s policy known at the first class session as it pertains to the course and school.

The student who is unable to attend class because of illness, hospitalization, a serious accident or other extenuating circumstance is responsible for notifying the office of his academic advisor. If the work is not submitted or an examination is not taken at the scheduled time, the student 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 regularly matriculated student A “Certificate of Attendance” for non-degree students will be offered by the Division of Continuing Education. Audited courses are only eligible to be converted to matriculated credits. Courses audited may not be challenged later or completed via CLEP or other advanced standing tests.

CANCELLATION OF COURSES

The University makes every reasonable effort to offer courses as announced in the Schedule of Classes booklet and the summer session tabloid. It reserves the right, however, to make changes or cancel courses in the academic schedule because of insufficient enrollment or for any other equally valid reason.
missed a part of the course or an examination, the course may be submitted as an ‘F’. If the temporary ‘F’ 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 student’s permanent record.

CLASSIFICATION OF STUDENTS
Freshman—less than 30 credits completed
Sophomore—30 to 59 credits completed
Junior—60 to 89 credits completed
Senior—90 or more credits completed

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

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

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

COURSE EXAMINATIONS

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

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

CREDIT BY EXAMINATION

Examinations for recognition of proficiency in a subject, or for course credit, as authorized by the College, may be given to a student who, by previous experience or exposure, has acquired mastery of the knowledge in certain courses. An application fee of $20.00 is charged for each course credit, application forms may be obtained from the Office of the Registrar.

As 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. 

Grades, effective for the 1988 Spring Semesters:

Grade Description
A Superior
A – Excellent
B + Very Good
B Good
B – Average
C + Satisfactory
C Average
D Lowest passing scale grade
F Failure (Course must be repeated for credit)

A student who feels they may qualify for credit by examination is required to complete a petition and present it to the appropriate instructor, in the case of a passing grade to be obtained from the advisor before registering in the course. The decision to elect the pass/fail option must be made no later than the close of the period provided for making schedule changes. An authorized pass/fail election declaration form must be obtained from the advisor.

STUDENT STANDING

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

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

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

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

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

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

Students who have attempted 61 or more credits and who have a QPA of between 1.85 and 1.99 may continue on probation for one semester. However, 

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

COMPUTATION OF THE QUALITY POINT AVERAGE

The Quality Point Average is the ratio expressed to the decimal thousands of the sum of course credits for which the grades of A, A –, B +, B, B –, C +, C, D, and F were received to the sum of quality points earned. The Quality Point value of these grades are:

Grade | Quality Points per Credit
--- | ---
A | 4.0
A – | 3.7
B + | 3.3
B | 3.0
B – | 2.7
C + | 2.3
C | 2.0
D | 1.0
F | 0.0

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

REPEATING COURSES AND COURSE RETROGRADATION

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

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

PASS/FAIL ELECTIVES

One course a semester, elected by a junior or senior and approved by the academic advisor as providing an opportunity to expand and enrich the student’s experience, may be taken on a pass/fail (S-U) basis. If passed, the credits will count for graduation, but neither grade nor credits will be calculated in the quality point average.

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

The decision to elect the pass/fail option must be made no later than the close of the period provided for making schedule changes. An authorized pass/fail election declaration form must be obtained from the advisor.
students who have earned 90 credits or more are subject to dismissal unless they have a QPA of 2.0 or better. Students who accumulated three F grades in one semester are subject to dismissal. Appeals of academic dismissal must be directed to the appropriate College or School Committee on Student Standing. Students subject to the jurisdiction of the appropriate Committee on Student Standing in accordance with the established guidelines who are permitted to re-enroll on a full-time basis but continue participation in noncurricular and extra-curricular activities shall be without appeal if they are subsequently dismissed from the University for poor scholarship.

ACADEMIC ADVISEMENT FOR STUDENT ATHLETES

The policy of the Council of Academic Deans on Student Athletics vs-a-vis academic standards reads as follows:

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

b) "A student athlete must be making satisfactory academic progress. This means that a student must have successfully completed 24 credits during the previous academic year. This would allow a student to graduate within five years."

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

DEAN’S LIST

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

GRADUATE COURSES FOR UNDERGRADUATE CREDIT

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

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

The student must periodically review in consultation with his academic advisor progress toward graduation and seek, with the advisor, the resolution of any question about fulfillment of graduation requirements.

Each school and each department sets forth in their catalog requirements for graduation which the student is expected to know, as well as the aforementioned general requirements, and the following:

1. The bachelor’s degree requires a minimum of 120 semester hours of course credits in all except Pharmacy which requires 163 credits.

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 last year’s work (a minimum of 30 semester hours of credit) must be completed in residence at the University.

4. Not less than three credits (or one course) in theology are required for all undergraduate Catholic students in every program at the University.

5. 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) when taken without 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 last year’s study.

HONORS

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

Cum Laude—Quality Point Average 3.30 to 3.74
Magna Cum Laude—Quality Point

WITHDRAWAL FROM A COURSE

First semester freshmen may withdraw from courses with the approval of their advisor up to the period of final examinations and receive a grade of "W" by processing the proper form. If a student, other than a first semester freshman, wishes to withdraw from a course, he may do so with the approval of his academic advisor and by processing the proper form up to the date announced in the Academic Calendar for withdrawal with a "W" grade.

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

A student who is not granted approval of the request and withdraws from the course unofficially will receive a "F" grade for the course.
Part IV:
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 1987-88 term only, unless otherwise indicated.

**TUITION**

- Undergraduate Tuition for each semester hour credit: $211.50
- Graduate Tuition for each semester hour credit: $223.00
- Auditors pay the same as students taking courses for credits.

**FEES**

- Application (non-refundable): $20
- Matriculation Deposit (non-refundable): $100
- Residence Hall Pre-Payment (non-refundable): $150
- Change of Schedule Fee: $5
- Credit by Examination Fee: $5
- Orientation (New Students): $25
- Late Registration: $25
- Removal of I Grade: $5
- Registration Correction Fee: $15
- Continuing Registration Fee: $50

- Undergraduate Business and Administration Student: $16 per credit
- Undergraduate Music Student when carrying 12 or more credits: $16 per credit
- School of Pharmacy Undergraduate Fee: $16 per credit
- Undergraduate Pharmacy Student Activities (for Third, Fourth, and Fifth Year Students): $16 per credit
- University Fee: $16 per credit

**LABORATORY FEES**

All amounts are for one semester, where applicable, the yearly charge is double. In addition to the laboratory fee, some programs also require a breakage charge of $15.00 a semester, this is proportionately refundable, depending upon the losses incurred.

Laboratory fees apply to the 1987-1988 academic year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology (each laboratory)</td>
<td>$35</td>
</tr>
<tr>
<td>Business 491 (Simulation)</td>
<td>$5</td>
</tr>
<tr>
<td>Chemistry (each laboratory)</td>
<td>$45</td>
</tr>
<tr>
<td>Computer Science</td>
<td>$10</td>
</tr>
<tr>
<td>Education 322, 315, 317</td>
<td>$10</td>
</tr>
<tr>
<td>English 203, 380, 381, 382</td>
<td>$5</td>
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<tr>
<td>English 383, 394, 385</td>
<td>$10</td>
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<tr>
<td>English 399, 379</td>
<td>$10</td>
</tr>
<tr>
<td>*English Language Placement Testing (ESL)</td>
<td>$30</td>
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<tr>
<td>Journalism 330, 380, 406, 409</td>
<td>$10</td>
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<tr>
<td>Journalism 367, 369, 370, 379</td>
<td>$15</td>
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<tr>
<td>Journalism 375, 267, 268, 376</td>
<td>$25</td>
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<tr>
<td>Mathematics 307, 308</td>
<td>$10</td>
</tr>
<tr>
<td>Music-App. 2 or 3 credits</td>
<td>$220</td>
</tr>
<tr>
<td>Music-App. 1 credit</td>
<td>$110</td>
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<tr>
<td>Music-Class Piano</td>
<td>$35</td>
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<tr>
<td>Music-Class Methods</td>
<td>$35</td>
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<tr>
<td>Music-Ensemble</td>
<td>$35</td>
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<tr>
<td>Music-Seminar</td>
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<tr>
<td>Music-Therapy Practicum</td>
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<td>Personal Computer Writing</td>
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<tr>
<td>Pharmacy 301, 302, 306, 309</td>
<td>$40</td>
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<tr>
<td>Physics (each laboratory)</td>
<td>$35</td>
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<tr>
<td>Speech 101, 204, 206, 208, 208</td>
<td>$5</td>
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<tr>
<td>Graduate Biology with Laboratory</td>
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<tr>
<td>Graduate Chemistry 520, 521</td>
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<tr>
<td>Graduate Classics 551</td>
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<tr>
<td>Graduate Communications 512</td>
<td>$25</td>
</tr>
<tr>
<td>Graduate Modern Languages 051 &amp; 052</td>
<td>$194</td>
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<tr>
<td>Graduate Psychology 371</td>
<td>$5</td>
</tr>
<tr>
<td>Graduate Pharmacy (each laboratory) 501, 502, 521, 522, 539, 540, 541, 542, 565, 671</td>
<td>$30</td>
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<tr>
<td>Graduate Education 512, 692, 693</td>
<td>$10</td>
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<td>Graduate Education 515, 516, 517, 518</td>
<td>$15</td>
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<tr>
<td>Graduate Music Major</td>
<td>$220</td>
</tr>
<tr>
<td>Graduate Music Minors</td>
<td>$110</td>
</tr>
</tbody>
</table>

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

**SUMMER AND SPECIAL SESSION TUITION AND FEE CHARGES**

- Undergraduate Tuition for each semester hour credit: $211.50
- Graduate Tuition for each semester hour credit: $223.00
- University Fee: $16 per credit

**GRADUATION FEES**

- Bachelor Degree: $30.00
- Master Degree: $40.00
- Doctor of Pharmacy Degree: $85.00
- Juris Doctor Degree: $55.00
- Doctor of Philosophy Degree: $93.50
- Thesis Binding Fee - Doctoral Dissertation: $83.50
WITHDRAWAL AND TERMINATION OF ATTENDANCE

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

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

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

TUITION REMISSION SCHEDULE

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

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

With the Summer Session—Based on a Six Week Session Standard

| First Week | 60 |
| Second Week| 20 |
| After Second Week | None |

ROOM AND BOARD

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

Tuition and fees

### Tuition and Fees

<table>
<thead>
<tr>
<th>Room and Board Charges</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single for each semester</td>
<td>$1,950.00</td>
</tr>
<tr>
<td>Double for each semester</td>
<td>$2,625.00</td>
</tr>
</tbody>
</table>

### Summer Sessions—Room and Board

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Weeks</td>
<td>$763.14 (Single Room and Board)</td>
</tr>
<tr>
<td>8 Weeks</td>
<td>$911.52 (Single Room and Board)</td>
</tr>
<tr>
<td></td>
<td>$843.92 (Double Room and Board)</td>
</tr>
</tbody>
</table>

### Room and Board—Withdrawal and Refund

A resident student must notify the Assistant Director of Residence Life in advance of the planned withdrawal. No refund of room charges will be made when withdrawal occurs after the opening classes. In the event of withdrawal, board will be refunded at the rate of 75 per cent of the balance remaining on the student’s meal plan, up until mid-semester. After the mid-semester point, no refund will be made. No reduction of charges nor refund of payments to which a student may have been otherwise entitled will be made if withdrawal is not in accordance with the official withdrawal procedure.

### Financial Matters

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

### Billing Problems

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

- Balance Forward, Credits, Payments—Office of the Assistant Dean of Residence Life
- Deposits—Accounts Receivable Office
- Financial Aid Awards, Federal Loans, Guaranty Loans, and Employer Billing—Office of the Vice President of Finance
- Student Finance Program, (Deferred Payment Plan)—Accounts Receivable Office
- Housing Reservations and Housing Charges—Office of the Assistant Dean of Residence Life

### Student Financing Program

(All prior balances must be paid in full before the student is eligible for this plan.) Duquesne University students desiring payment of their tuition and other charges for the semester by installment, contact the Student Financial Office at the University for a statement of the conditions and a copy of the installment agreement.

### Cashing Checks

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

### Bad Checks

It is the policy of the University to charge bad checks to the student who cashes them regardless of the maker. A $3.00 service charge will be assessed on checks that are returned from a bank for lack of funds. Payment of registration or room and board with an NSF check will result in cancellation of the registration.
Part V: Student Life, Programs, Services and Organizations

A. DIVISION OF STUDENT LIFE MISSION

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

PHILOSOPHY

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

ORGANIZATION

The Vice president for Student Life coordinates the Departments of Athletics, Dean of Students Office, Duquesne Union, Residence Life. These Departments are briefly described below. Additional information may be obtained directly from each Department and through the Student Handbook and Code of Student Rights, Responsibilities and Conduct.

ATHLETICS

Duquesne University is a member of the National Collegiate Athletic Association (Division I) and the Atlantic 10 Conference. All rules of these two organizations, including those pertaining to a student’s eligibility for a varsity team, are followed. Duquesne University believes in and promotes the concept of the student athlete, manifested in part by the appointment of the Academic Supervisor for Intercollegiate Athletics. Athletic grants-in-aid are available for all varsity sports.

The Athletic Department fields men’s varsity teams in baseball, basketball, cross-country, football (Division III), swimming, tennis, women’s varsity teams in basketball, cross-country, swimming, tennis, track and field, coed varsity teams in golf and rifle, and club teams in bowling, hockey, and crew.

DUQUESNE UNION

The Duquesne Union is more than a unique building. It is a unique partnership of professional staff, faculty and students working together to provide the experience necessary to develop mature, effective citizens of the world. The Union staff provides advice and assistance for all phases of campus programming and establishes goals for, as well as producing and presenting, a balanced series of cultural, educational, recreational and social programs. With the goal of community, all aspects of the Union are open to the entire campus. It is not the “Student Union,” but the Duquesne Union.

The Union staff works most closely with the Union Program Board, which is the student organization exercising primary coordination and implementation of University-wide programming through a series of special committees. The UPB offers its members the opportunity to develop effective skills in leadership, communication, organization and group process.

RESIDENCE LIFE

The Office of Residence Life is committed to creating an environment in which 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. Therefore it is the purpose of the Office of Residence Life to facilitate the personal and academic growth of the resident student. To this end, the professional and resident assistant staff will provide the means to foster such development.

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

8. ADVISEMENT AND COUNSELING CENTER

The Advisement and Counseling Center has responsibility for providing academic advisement for all freshmen and those sophomores who have not selected a major. In addition, the duties and activities of the Career Planning and Placement Office, the Counseling and Testing Center, University Health Service and the Retention Office are administered through the Advisement and Counseling Center. The integration of these services provides students with a holistic approach to their educational, professional and life goals.

CAREER PLANNING AND PLACEMENT

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

The individual who clearly defines career goals may seek employment advice including resume preparation, job application and interview techniques, job references and credentials. The graduating student may also be interested in campus interviews with visiting employers.

Graduate students may earn academic credit for approved professional work under the University’s Cooperative Education program which is administered by the Career Planning and Placement Center.

The part-time and summer employment program is open to all students in financing their education and to those seeking practical experience to augment college training. Placement in campus jobs is largely, though not totally, dependent upon financial need. Part-time and summer jobs in the community are also available.

COUNSELING AND TESTING CENTER

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

Personal counseling is provided at the Counseling and Testing Center. Professionally trained counselors offer consultation, referral and short or long term confidential counseling for individuals, couples and groups. A counselor assists the student seeking vocational guidance in systematically exploring and investigating his/her interests and abilities through testing and individual counseling.

Learning how his/her interests and abilities relate to the world of work and education, the student receives help in clarifying occupational goals and in choosing an academic program suitable to these goals.

Information about the application for national qualification examinations (CLEP, DAT, GRE, LSAT, GMAT, SAT, etc.) is also available.
HEALTH SERVICE

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

- Allergy injections are given when ordered by a physician. Students must provide serum and instructions.
- Starter doses of medication are given when in stock. However, students must pay for prescriptions filled off campus.
- Health counseling and referrals to medical, social, and welfare agencies as needed.
- Routine screening physicals are provided for driver's license, teacher certification, premarital, pre-employment, and nominal fee.
- Routine gynecological assessment and treatment by certified nurses.

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

- Staff
  - The medical/nursing professional staff consists of all registered Nurses, Nurse Practitioners and a Board Certified Family Practitioner.
  - In-Hospital Care
  - Students are transported to nearby medical centers when in-patient care is needed.

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, priced lower than individual health insurance policies. Inquiries about health insurance should be directed to the Office of Contracts and Enterprises (434-6085).

Location
- The Health Service is located on the second floor, Towers Living Learning Center 434-1650/1652.

Eligibility
- All resident and full-time undergraduate students.
- Prepads.
- All Graduate and part-time students.
- First aid and referral services without charge.
- All benefits of on-going primary care such as physician visits, allergy injections, starter doses of medicines, by electing to join the Health Service program. A nominal fee of $25 per semester is required.
- All health records are confidential and will not be released without the student's permission.

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

EMERGENCY
- A Crisis Coordinator is available 24 hours a day to assist in any type of emergency resulting from illness, injury, Psychological Problems.
- Call Campus Security 434-6002. They will provide assistance and will contact Paramedics, Health Service and the Crisis Coordinator as needed.

RETENTION OFFICE
The Retention Office, under the direction of the Vice President for Academic Affairs, 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.

C. OTHER DEVELOPMENTAL SERVICES

OFFICE OF INTERNATIONAL EDUCATION
The Office of International Education (OIE) provides services to international students and scholars pursuing undergraduate and graduate degree programs at the university. These specialized services include furnishing pre-arrival information to accepted students, facilitating compliance with 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 on-going direct service and appropriate referral services to international students and scholars on campus in a personalized and professional manner.

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

LEARNING SKILLS PROGRAM
The Learning Skills Program 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 Program delivers diagnostic and prescriptive services. Individualized developmental programs in reading, writing, mathematics, and science are offered to students who seek to upgrade their academic skills and advance their intellectual growth.

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

THE PSYCHOLOGY COUNSELING CENTER
The Psychology Counseling Center is staffed by the clinical faculty and staff of the Psychology Department and is available to students for personal counseling. Counseling interviews provide the student with an opportunity for personal growth through the development of the individual's ability, working together with a trained counselor, to find one's own compatible solutions for difficult situations. Single conferences or a series of interviews in individual or group counseling can be arranged at the Center's office.

D. STUDENT GOVERNANCE

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

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

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

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

INTER-FRATERNITY COUNCIL
The Inter-Fraternity Council serves as a clearing house for general fraternity social information and as a forum for airing constructive proposals for the improvement of the fraternity system. Membership in the Council is composed of appointed representatives from each of the nine member fraternities. The IFC establishes all rules governing inter-fraternity sports and regulations.

PANHELLENIC COUNCIL
The Panhellenic Council was established for the purpose of strengthening women's fraternities as organizations and for promoting cooperation among the groups through scholastic, athletic, and social activities. Membership in the Panhellenic Council is composed of the presidents and elected representatives of each of the seven women's social fraternities. Panhellenic Council establishes all rules concerning the rushing and pledging of new fraternity members.

E. STUDENT ORGANIZATIONS

GENERAL
There are more than 90 student organizations at Duquesne. Some serve the needs of specific interest groups, others relate directly to major areas of study. Some honor academic achievement. Many are formed to meet social, service or religious needs and interests. Whatever their purpose, these organizations and their activities comprise a major part of campus life.

HONOR SOCIETIES
These societies have as their primary purpose recognition of academic excellence and leadership achievement and are members of the Association of College Honor Societies.

PROFESSIONAL AND DEPARTMENTAL ORGANIZATIONS
These professional organizations exist to provide...
opportunities for career development and the exchange of ideas pertinent to students academic pursuits. With this purpose in mind, these organizations sponsor numerous programs including debates, symposiums, and lectures.

**PROGRAMS AND ACTIVITIES**

The Union Program Board (UPB) is the student organization of the Duquesne Union. It provides social, educational, recreational, cultural, and service events for the entire University. The UPB is directed by students and is comprised of several committees which present such events as concerts, dances, art exhibits, lectures, and ski trips. Membership is open to all students.

**SERVICE ORGANIZATIONS**

The purpose of these nationally-affiliated organizations is to provide a high standard of service to the campus and local communities while, at the same time, developing the leadership qualities of each member of the organization. Service organizations sponsor a wide variety of professional, service, charitable, and social programs.

**SOCIAL ORGANIZATIONS**

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

**PERFORMANCE GROUPS**

**TAMBURITZANS**

The Duquesne University Tamburitzans were founded in 1937 at the University and were the first university-based performing folk ensemble in the United States. The group takes its name from the Tamburitzta family of stringed instruments, indigenous to the folk cultures of Southeastern Europe. The group exists for the dual purpose of preserving and perpetuating the Eastern European cultural heritage in the United States and offering scholarship opportunities to deserving students.

**THEATRE**

The Red Masquers provide an extracurricular outlet for students who wish to participate in the theatre. The organization's aim is to provide the University and its students with educational and cultural benefits that accrue from a dramatic program. In line with these objectives, the Masquers' program offers a variety of stage entertainment—one-act plays, musicals, comedies, tragedies. Any Duquesne student is eligible for membership in the group.

**MEDIA ORGANIZATIONS**

**WDUQ RADIO**

WDUQ 90.5 FM, a public radio station affiliated with the National Public Radio and American Public Radio networks, has been broadcasting from the campus of Duquesne University since 1949. The station specializes in news, public affairs, and classical music. In addition, WDUQ carries live coverage of special Congressional hearings, National Press Club luncheons, and other newsworthy events.

WDUQ, a 25,000 watt stereo station broadcasts 24 hours a day, 365 days a year to over 66,000 listeners in Southwestern Pennsylvania and parts of Ohio, West Virginia and Maryland within a seventy-mile radius of Pittsburgh. The signal is also carried by a number of cable companies beyond this area. The station depends on listener donations solicited mainly through on-air fundraising campaigns, for over half of its yearly operating budget. A small full-time staff oversees the daily operation of the station and supervises the activities of university students (as both volunteer and paid positions), community volunteers and high school interns working in the various departments Programming, Engineering, Operations, Special Projects, News and Public Affairs, Administration, Production, and Development.

WDUQ is located on the fourth and fifth floors of the Duquesne campus. Regular business hours are Monday through Friday, 9 AM to 5 PM. Tours are available upon request.

**WDRC**

This radio station, purchased by Residence Council and operated by students, provides music and announcements in the Duquesne Tower's Cafeteria during the lunch and dinner hours. Students interested in being disc jockeys and/or announcers should contact Residence Council.

**PUBLICATIONS**

The Duquesne University Code of Student Rights, Responsibilities, and Conduct

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

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

**Part VI: Campus Ministry**

The Campus Ministry is deeply concerned with the religious life and growth of Duquesne students and all campus residents. Its policies and programs are oriented to furthering that growth at the personal as well as the community level. For Catholic students, Eucharistic liturgies are celebrated daily, and the Sacrament of Reconciliation is available by appointment. For all students, whatever their faith, the Campus Ministers are available to help with spiritual direction, counseling, advice, or sympathetic listening. The Campus Ministry provides a listing of Sunday services in nearby churches or 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.

The Campus Ministry sees itself as the service of all in an open, unstructured, nonthreatening relationship and invites the entire Duquesne Community to make use of its services.

The Ministry's activities are announced by posters in residence halls, and almost all other campus buildings. Its main office is Room 102 on the first floor of the Administration Building, with additional offices in Duquesne Towers, St. Ann's, and Assumption Center.
**CORE CURRICULUM**

**Effecttve for Freshmen Entering Fall 1987**

**STANIMATE OF PURPOSE**

The University Core Curriculum is a set of courses that provide Duquesne undergraduates with a common intellectual experience as the foundation for their college careers. Because this curriculum is seen not merely as a preparation for the students' professional or pre-professional majors but also for lifelong learning, the Core courses focus on issues and values central to the liberal tradition and to the mission of the University. By developing some mastery of the fundamental skills and fundamental subjects taught in the Core courses, students will be better able to adapt to a changing world.

Among the fundamental skills the Core courses emphasize are critical thinking and effective communication. The abilities to make informed judgments and to speak and write clearly and persuasively are commonly regarded as the marks of an educated person. Students practice these skills not only in specific courses but across the entire curriculum.

The fundamental subjects which the Core courses integrate are those that contain 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 dimensions and significance of faith and religion.

**CORE COURSES**

Part VII: University Programs and Courses

Across the Curriculum is a prerequisite

121 Problem Solving with Creative Mathematics 3 cr

An exploration of mathematics as a science and an art with an emphasis on problem-solving. Students may also take this requirement with one of the basic Calculus courses (111 or 115), the Introduction to Modern Mathematics 107, or Fundamentals of Statistics 225.

131 Bases of Human Thought and Action 3 cr

This course examines some fundamental theories and findings regarding the way people feel, think, and act from the perspectives of psychology and philosophy. The outcome of this course will be an understanding of the disciplines of philosophy and psychology, and their relationships to each other.

141 Social, Political and Economic Systems 3 cr

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

151 Shaping of the Modern World 3 cr

An understanding of change through time is essential to the comprehension of the world in which we live. "The Shaping of the Modern World" studies the origins of the contemporary age through the examination of three significant phenomena: revolution, industrialism, and war.

161 The Arts and the Human Experience 3 cr

The visual and musical arts and classical literature are explored in light of the major themes, movements, and styles of Western culture. Emphasis is placed on the points of convergence and divergence among the arts. The course draws upon the rich cultural resources of the Pittsburgh community, such as the Carnegie Institute, the Pittsburgh Symphony, the Pittsburgh Ballet, and the Pittsburgh Opera.

Core Science 3 cr

Students may choose one of the courses described below (171, 172, or 173). Each course presents a body of fundamental knowledge to provide the student with an awareness and understanding of the discipline. As this body of knowledge is explored, examples of scientific inquiry will be presented to explain the scientific method as the foundation of modern scientific thought. Each course will lead students to some understanding of the scientific basis of selected problems facing humankind (Students may also satisfy the Core Science requirement by one of the following courses: Biology 111 or 112, General Chemistry 121 or 122, General Physics 201 or 202).

171 Biology 3 cr

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

172 Chemistry 3 cr

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

173 Physics 3 cr

Through the study of a particular topic such as space habitats, students are introduced to physical concepts which serve as the basis for understanding technological developments that have important implications for society. Among these developments are, for example, artificial gravity, solar energy, and the Strategic Defense Initiative. Where applicable, principles from other disciplines such as economics, psychology, chemistry, and biology will be introduced.

Core Theology 3 cr

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

182 Human Morality 3 cr

An introduction to the basic questions and approaches of Christian ethics, emphasizing the formulation of moral values, the sources and context of Christian ethics, in its biblical and historical development, and including applications to some contemporary issues.

183 The Judeo-Christian Religious Tradition 3 cr

A study of the fundamental beliefs, values, and spirit of the Judeo-Christian tradition as expressed in its religion, law, philosophy, art, music, and literature. The course includes an analysis of the Judeo-Christian faith in a personal and social context, the interrelation of religion and culture, and the relationship of religion and culture to the modern world. Students may also satisfy the Core Science requirement by one of the following courses: Biology 111 or 112, General Chemistry 121 or 122, General Physics 201 or 202.

184 Introduction to the Bible 3 cr

An introduction to the methods of investigation necessary to understand the sacred books of Jews and Christians. An examination of the historical, literary, and theological aspects of a select number of key biblical texts and a discussion of their contemporary relevance.

185 Religions East and West 3 cr

A study of some of the world’s great religions which are thought to be particularly representative of humanity’s religious experience—namely, archaic traditions, Hindu and Buddhist traditions, Chinese traditions, and the Islamic path.

186 Roman Catholic Heritage 3 cr

An introduction to the fundamental beliefs of Roman Catholicism and their expression in literature and the visual arts. After a brief introduction on the interrelation of religion and culture, Roman Catholicism is studied in various historical periods: origins of Christianity, the Patristic Age, the Middle Ages, Scholasticism and the Renaissance, the Reformation and the Counter-Reformation, and the Modern and Contemporary Era.

Students will complete the Core requirements according to guidelines established by their respective schools and in consultation with the Advisement and Counseling Center.

**THE INTEGRATED HONORS PROGRAM**

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

**IHP COURSES**

The IHP curriculum consists of twelve core courses (39 credits), plus four capstone seminars (4 credits).

101 Logic and Rhetoric 3 cr

Clear and disciplined thinking, reading, speaking, and writing.

104 Information Resources 3 cr

The rapidly-changing revolution in information and data-gathering, including traditional library resources and electronic media.

105 Approaches to Culture 4 cr

An integrated analysis of the key ideas and the significance of the world—ancient, medieval, and contemporary.
106 Approaches to Culture
The East 3 cr
The great, historic and often unknown civilizations of India, China and Japan

113 Mathematics
Quantitative literacy as a major mode of information gathering and thinking in the modern world (Required of all non-math, non-science majors)

115 The Rational Self
Human nature, human intelligence and the ethical sense

203 Societal Structures I
The objective and subjective societal framework within which individual functions

204 Societal Structures II
The development of political and legal systems

205 Approaches to Culture
The American Experience 3 cr
The rise and significance of the U.S. as a democratic, industrial, affluent, and open society

207 Science I
Chemistry and Physics 4 cr
Contemporary developments and issues in the physical sciences Laboratory included (Required of all non-science majors)

208 Science II
Biology and Biochemistry 4 cr
Traditional and new directions in the life sciences Laboratory included (Required of all non-science majors)

210 The Aesthetic Experience
3 cr
The visual arts and music as universal and distinctive human experiences and cultural expressions

Capstone Seminars 1 cr each semester
These seminars provide intensive study of some of the major fields of study and themes which have emerged from the student's earlier IHP experience

THE LOGOS PROGRAM
The LOGOS Program is a one-year curriculum designed to help students improve their basic skills and realize their full potential for college work. Students in the program take a prescribed block of courses during their freshman year and thereafter complete their education at Duquesne in the traditional manner.

Emphasis in the LOGOS Program is on critical thinking and reading and the general development of ability in the use of language skills. The program features an integrated and mutually reinforcing set of required and demanding courses, including

English 101, 102 College Writing I and II 3 cr ea
Practice in effective writing. Review of principles of grammar and rhetoric, introduction to literary types and forms 101 is prerequisite to 102

Classes 101, 102 Basic Latin 8 cr
Study of the grammar and syntax of Latin, both as a discipline, and as a basis for learning how language works. The courses maintain a constant comparative tension between Latin and English, in an effort to uncover basic language structures common to the two languages, and to understand Latinate influences on English

Classes 121 General Etyymology 3 cr
The study of Greek and Latin vocabulary in an effort to understand how words are used in the English language. The method is analytic, with stress on developing an understanding of roots, prefixes, suffixes, and other linguistic structures as they relate to word meanings

Logos 102 Argument Analysis (Critical Reading I) 3 cr
An introduction to critical reading through the reading of basic texts and the study of the grammatical and logical structures in those texts. The focus is on the reading of works fundamental to the American political tradition, ranging from Aristotle to The Federalist Papers and The Constitution

Logos 103 Great Books Seminar (Critical Reading II) 3 cr
The reading and discussion of texts representing a variety of subject matters and literary types, in an effort to develop facility in the reading of different kinds of material. Texts include Greek and Shakespearean drama, the Bible, Platonic dialogues, and other works important in Western culture.

The balance of the student's schedule (6 credits) will be drawn from the University Core Curriculum. Students in the LOGOS program have been admitted into the University's College of Arts and Sciences. However, after devoting a year to the required LOGOS curriculum, achieving satisfactory academic performance, and meeting any admissions standards, qualified LOGOS students may matriculate in a major in any of the schools of the university. Courses in the LOGOS curriculum carry full college credit, will not normally delay graduation, and serve to replace a number of university and school requirements

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

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

The ESLP focuses primarily upon English for Academic Purposes (EAP). Qualified students at intermediate and advanced levels may combine coursework in their academic degree major with ESL study. Eligible international students accepted to undergraduate degree programs may be awarded academic credit for their ESL coursework.

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

COURSE DESCRIPTIONS

Basic-Level Courses 0-3 cr Hrs/Week

120 Basic ESL Grammar 4
121 Basic ESL Pronunciation/Oral Skills 4

122 Basic ESL Reading 4
123 Basic ESL Writing 4
124 Basic ESL Aural Comprehension 4

Intermediate-Level Courses 0-3 cr Hrs/Week

125 Intermediate ESL Grammar 4
126 Intermediate ESL Pronunciation/Oral Skills 4
127 Intermediate ESL Reading 4
128 Intermediate ESL Writing 4
129 Intermediate ESL Aural Comprehension 4

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

Advanced-Level Courses 0-3 cr Hrs/Week

130 Advanced ESL Grammar 4
131 Advanced Oral Proficiency 4

Special Purposes Courses var cr Hrs/Week

140 ESL Special Topics 4

An ESL course designed to address specialized skill development in English as a Second Language. Prerequisite Placement Testing

141 ESL Special Purposes Reading 4

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

142 ESL Special Purposes Writing 4

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

145/146/147 ESL Guided Study var

A multi-level program of ESL language proficiency development offering supervised, continuously sequenced instruction in individually-prescribed learning modules. Prerequisite Placement Testing

149 New International Student Seminar 1
A series of discussions and activities designed to facilitate the transition and adjustment of new international students to U.S. academic life, the city of Pittsburgh, and Duquesne University.
Core 101 Thinking and Writing Across the Curriculum (ESL) 3 cr
An introduction to and preparation for both the university-wide integrated Core Curriculum and the many general and specific aspects of the entire university curriculum

EXTRA-DEPARTMENTAL COURSES

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

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

College of Liberal Arts and Sciences

DEGREES

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

GRADUATION REQUIREMENTS

To receive the Degrees of Bachelor of Arts or Bachelor of Science in the College of Liberal Arts and Sciences, a student must complete the following requirements:

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

College General Requirements, as described below

- Major program (minimum of 24 credits, see departmental listings)
- Minor program (minimum of 12 credits, see departmental listings)
- An overall minimum cumulative quality point average of 2.0
- 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 and in required courses
- Submission of Pre-Graduation Review Form (available in College Office) to the Associate Dean

no later than two weeks before pre-registration for the final semester

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

COLLEGE GENERAL REQUIREMENTS

Students enrolled in the College of Liberal Arts and Sciences require to complete the University Core Curriculum, consisting of 27 credits, for graduation.

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

- Modern or Classical Language proficiency at the 202 level
- Math/Science (mathematics, computer science, biology, chemistry, physics) 3 credits
- Social Sciences (Political Science, Psychology, Sociology) 6 credits (two disciplines must be represented)
- History/Literature 6 credits (must include literature)
- Philosophy/Theology 6 credits (must include philosophy)
- Communication (Journalism, Media Arts, Speech, Linguistics) 3 credits

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

COLLEGE ACADEMIC POLICIES

Effective catalog

Degree requirements are those stipulated in the catalog of the year in which a student matriculates. The student is responsible for knowing the requirements for the degree. Requirements may be changed without notice or objection. This catalog has been prepared on the best information available as of Spring 1988. Major requirements are those stipulated in the catalog of the year in which a student matriculates.

Academic Load

While a 12-credit schedule in a regular semester is considered full-time study, students may normally carry five courses (15-17 credits) in one semester. A schedule of more than five courses or 17 credits must be approved by the Associate Dean. Students on academic probation may not take more than 15 credits.

Residents who wish to carry more than 12 credits of courses in the summer sessions must consult with the Associate Dean.

Residence Requirement

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

Limits on Inter-School Electives

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

Major/Minor in Same Department

A student's major and minor programs may not be chosen from the same department, except that Modern Language majors may minor in a second language.

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.

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 Associate Dean.

CLEP and Advanced Placement

See page (9)

University-Level Courses Taken While in High School

University-level courses taken by entering freshmen students while in their senior year of 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

PROGRAM IN WORLD LITERATURE

The Departments of Classics, English, and Modern Languages jointly offer a World Literature
The program is designed to give the student an awareness of the historical and cultural framework in which Classical, British, American, Continental, Asian and African Literatures have evolved, their influence upon each other, and an in-depth study of selected major literary works in these areas.

REQUIREMENTS OF THE PROGRAM

Major 24 credits (6 in the core and the remaining 18 credits distributed equally among Classics, English, and Modern Languages)

Minor 15 credits (6 in the core and the remaining 9 credits distributed equally among Classics, English, and Modern Languages)

Core Course Readings in World Literature I and II (English)

DEPARTMENTAL COURSE OFFERINGS

Classics Any of the current offerings in Classical Literature, either in translation or in the original language, at the 200 level or above

English Any of the current course offerings in Literature at the 333-400 level, as approved by the department chairman

Modern Languages Any of the current offerings in Modern Languages, either in translation or in the original language, above the 302 level

PRE-LAW PROGRAM

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 and a student-faculty committee, 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.

PRE-HEALTH PROFESSIONS PROGRAM

Students who intend to prepare for a career in medicine, dentistry, veterinary medicine, or related fields may major in the subject area of their choice and should select a major as soon as possible. They must meet degree requirements of the major department, as well as admission requirements of the professional school of their choice. A Pre-Health Professions advisor and student-faculty committee assist the medically-oriented student.

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 Florida Institute of Technology. Students are expected to meet the curricular requirements of the College of Liberal Arts and Sciences except for the completion of a major program. Under the guidance of a liaison officer, they will normally complete the program at Duquesne University in three years, then enter an engineering program at Case or Florida Institute of Technology.

Upon completion of the program at CWRU or FIT students will be awarded the B A Degree from Duquesne and B S Degree from the School of Engineering.

For complete details consult with the Liaison Officer for the Binary program in Engineering in the Physics Department.

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 Sciences and 8 courses (24 credits) in the School of Business and Administration. Specific requirements are as follows:

**Liberal Arts and Sciences**

109 College Algebra (3 cr) or
115 College Algebra and Trigonometry (4 cr)

111 Calculus for Non-science Students (3 cr)
211 Principles of Economics I (3 cr)
222 Principles of Economics II (3 cr)

**Business and Administration**

181 Introduction to Computers (3 cr)
281-282 Probability and Statistics (6 cr)
211-212 Introductory Accounting (6 cr)

**Business Emphasis** choose one group of 3 courses, 9 cr

A 361 Principles of Management
371 Principles of Marketing
331 Business Finance
B 381 Introduction to Decision Sciences
   Two advanced management information courses
   or
C 361 Principles of Management
   Two advanced management courses
   General or human resource
D 371 Principles of Marketing
   Two advanced marketing courses

Suggested Additional College Electives

383 Writing for Business and Industry (3 cr)
389 Prof and Tech Writing Workshop (3 cr)
102 Techniques of Oral Communication (3 cr)
401 Cooperative Education (3 cr)

**Health Professions**

Students who intend to prepare for a career in medicine, dentistry, veterinary medicine, or related fields may major in the subject area of their choice and should select a major as soon as possible. They must meet degree requirements of the College of Liberal Arts and Sciences except for the completion of a major program. Under the guidance of a liaison officer, they will normally complete the program at Duquesne University in three years, then enter an engineering program at Case or Florida Institute of Technology.

Upon completion of the program at CWRU or FIT students will be awarded the B A Degree from Duquesne and B S Degree from the School of Engineering.

For complete details consult with the Liaison Officer for the Binary program in Engineering in the Physics Department.

INTER-SCHOOL MINORS

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

**COOPERATIVE EDUCATION PROGRAM**

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

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

It is expected that the cooperative education student will be paid a salary commensurate with the work assigned. The actual job must be pre-professional, well-defined and fully supervised. Sixty (60) or more advanced credits and a cumulative quality point average of 2.5 or better are basic requirements for student qualification for the Program.

Clearance from academic advisors is required of those studying in departments with other internship school. When employed, and before starting work, a cooperative student must enroll in the course, "Cooperative Education," which carries a minimum-maximum of three to nine credits depending on the number of hours of work.

For further information about the Cooperative Education Program, interested parties should contact the Director, Career Planning and Placement.

BACHELOR OF ARTS—LIBERAL ARTS AND GENERAL SCIENCES

This program is designed for those students who prefer not to choose a formal major or minor offered in a traditional discipline. All requirements other than the major and minor must be completed. Students must select one area of concentration. Humanities, Social Sciences, Natural Sciences. A concentration requires a minimum of 30 credit hours and a maximum of 39 hours. Courses must be chosen from courses 200 and above.

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 and Sciences. Further information is available from the Graduate School of Liberal Arts and Sciences.

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 Associate Dean of the College.

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 after the successful completion of the following requirements:

A 390 credits with a 3.5 overall average
B Completion of all requirements for a major in another college or school
C A major in a different field of study

For further information, students should consult the Office of the Associate Dean of the College.
and bachelor's degree by earning an additional 30 semester hours in residence in the College of Liberal Arts and Sciences 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 Associate Dean.

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

MAJORS
- Biochemistry
- Biology
- Chemistry
- Classics
- Classical Civilization
- Computer Science
- Economics
- English
- French
- German
- Greek
- History
- Journalism
- Latin
- Mathematics
- Media Arts

MINORS
- American Government
- American Literature
- Art History
- Biochemistry
- Biology
- Business and Administration
- Chemistry
- Classical Civilization
- Comparative Government
- Computer Science
- Criminal Justice
- Economics
- Education
- English Literature
- French
- German
- Gerontology
- Greek
- History
- Human Communication Resources
- International Relations
- Italian
- Journalism
- Latin
- Mathematics
- Media Arts
- Media Performance Art
- Music
- Philosophy
- Physics
- Political Science
- Prehistory
- Psychology
- Rhetoric and Public Address
- Russian
- Social Communication
- Sociology
- Sociology Concentrations in Sociology, Criminal Justice, Human Services/Gerontology
- Spanish
- Speech Communication
- Theatre/Media
- Theology
- World Literature
- Writing

COURSES DESCRIPTIONS

ARThISTORY

Director Madeline C. Archer, Ph.D.

Survey and period courses in the history of western art are offered by the Art History Division of the History Department to introduce the concepts of art history to those who wish to extend their visual perception and to understand the role of the visual arts in Western culture. Qualified students are advised to take collateral courses in classics, history, philosophy, and psychology, and additional upper division art history courses offered at member colleges of the Pittsburgh Council on Higher Education. In addition to personal enrichment and heightened awareness of man’s will to create visual forms, the study of art history can lead to careers in teaching, publishing, museology, historic preservation, and urban redevelopment.

REQUIREMENTS FOR THE MINOR

The minor consists of 12 credits of upper division art history courses. The prerequisites are six credits of introductory and survey courses at the 100 level or their adjudged equivalent.

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

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

123 Classical Mythology
3 cr
A presentation of the major myths of Greece and Rome with special attention to contemporary interpretations of myths and the influence of myth on art and literature. (Offered by the Classics Department)

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

207 Roman Art
3 cr
An introduction to Roman innovations in architecture, sculpture, and painting. The background of Roman art in Etruria, Greece, and Egyptian civilization is investigated, and the impact of Roman art on Formulating Christian Art, Renaissance Art and Neo-Classicism is analyzed (Offered in alternate years).

208 French Art
3 cr
A survey which discusses ideas, schools, and styles in the history of French art from the Roman occupation to the present. Highlights are Medieval, Renaissance, Rococo, and Modern art (Offered in alternate years).

210 American Art
3 cr
An overview of American architecture, painting, sculpture, and decorative arts intended to acquaint the student with the major trends and contributions of American art. Can be elected to fulfill the history/literature requirement.

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

260 The Classical Tradition in America
3 cr
A study of the influences of Graeco-Roman civilization on American cultural life (Offered by the Classics Department).

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

313 15th Century Renaissance Art
3 cr
An investigation of the Renaissance spirit of the 15th century. Concentration is upon comparisons of Northern and Southern attitudes of man, nature, and social structure, and to materials, techniques, pictorial representation, and iconography. (Offered in alternate years).

331 Art of the 19th Century
3 cr
A survey of the visual arts in the 19th century. The visual arts not only reflect the dramatic changes in the arts due to form, color, line, texture and light, but also emphasize the changing political, religious, and social values in society. (Offered in alternate years).

332 Art of the 20th Century
3 cr
A chronological study of 20th century painting and sculpture which “looks beyond visual perception” and tries to find the essence and meaning of reality. Focuses on conceptual art, from Picasso to Pollock and Pop. This course offers a thorough exploration of the visual arts of the 20th century (Offered in alternate years).

431 Directed Readings
1-3 cr
Art History majors only. Permission of Department.

441 American Painting and Sculpture
3 cr
An examination of the forces created by American painters and sculptors from the early 17th through the late 20th century. Special class intent involves arriving at a clear understanding of America’s concept of reality during these years, particularly in the 20th century. (Offered in alternate years).

442 American Architecture
3 cr
Construction, style, building types, and concepts of city planning in American architecture from the 17th century to the present. Field trips to important monuments in the Pittsburgh area are scheduled. (Offered in alternate years).

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

477 Introduction to Museum Studies
3 cr
An overview of the various functions of museums in American society. Prerequisite: Permission of Department. (Offered in alternate years).

478 Internship
3 cr
Practical experience in art related areas introduces the student to the many opportunities in the art field. Prerequisite: Permission of the Art History faculty and completion of the Art History minor.
Biology is the scientific exploration of life in its many forms and details. It is a fundamental element in a balanced liberal education and offers both intellectual insight and knowledge vital to societies facing serious problems having biological implications. The biology program is a part of that search by mankind to understand its world in an effort to more effectively deal with the realities of that world and pursue its great promises.

The undergraduate program is basic and flexible, providing a core of experience around which continuous future personal development may be centered. The program offers opportunity to develop professional attitudes and technical competence which aid in opening avenues for advanced study and career fulfillment as well as personal enrichment. The course of study pursued can aid in preparation for professional careers in teaching, research, medicine, dentistry, veterinary medicine, and allied health fields as well as for advanced study in various graduate school specialties. While many students choose to pursue the benefits of advanced study in graduate and professional schools, others prefer to pursue opportunities in biological technologies in pure and applied research and service in hospitals, universities, private industry, and governmental services. Diverse opportunities are available in specialty sales, pharmaceutical laboratories, medical laboratories, research laboratories, governmental agencies, and chemical laboratories, food technology and processing, fisheries, oceanography, conservation, health services, space biology, agricultural technology, food and drug administration, environmental services, as well as in other industries and agencies.

### REQUIREMENTS FOR THE MINOR

The department offers two minor programs:

1. **Professional Minor** which consists of 111, 112 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 107, 108 or 111, 112 and a minimum of 12 credits selected from the department’s courses numbered 200-395. Courses which are open to either majors or non-majors may be selected. Individual course prerequisites must be met.

If a student takes 107, 108—Principles of Biology and 111, 112—General Biology, the credits for the 107, 108 will not apply to the total number required for the degree. These courses are not interchangeable.

### NON-MAJOR COURSES

#### 107, 108 Principles of Biology

- **5 cr** each
- Study of the living world of which man is an integral part. It includes considerations of organization, activity, growth, reproduction, inheritance, energetics, as well as influence of other relationships. This course is designed to provide the non-science student with the biological information and principles necessary to assume an enlightened role in our increasingly complex society. Not for Biology Major credit. 107 is prerequisite to 108. Lecture and laboratory.

#### 109 Principles of Biology Laboratory

- **1 cr**
- Laboratory work illustrating selected biological principles and factual details. Not for Biology Major credit. Not for Prerequisite Biology 107 (or concurrent registration) Laboratory.

#### 201 Biology of Microbes

- **3 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. Not for Biology Major credit. Lecture.

#### 202 Biology of Microbes Laboratory

- **1 cr**
- Laboratory work illustrating methods of observation, growth, and identification of microbes as well as methods of controlling these organisms using sterilization techniques, disinfectants and antibiotics. Not for Biology Major credit. Lecture and laboratory.

#### 206 Environmental Biology

- **3 cr**
- This course deals with the biological background for understanding environmental problems and considers population, energy, land use and pollution, as well as legal aspects of the amelioration of environmental abuses. Not for Biology Major credit. Lecture and laboratory.

#### 207 Anatomy and Physiology I

- **3 cr**
- Studies designed to provide students with a background in the areas of human body structure and the mechanisms underlying normal body functions. Prerequisites: some previous exposure to introductory biology and chemistry is desirable. Not for Biology Major credit. Lecture and laboratory.

#### 208 Anatomy and Physiology Laboratory

- **1 cr**
- Laboratory includes examination of the micro and gross anatomy of the body, physiological experiments, and exposure to certain basic clinically important measurements and techniques. Prerequisites: 207 Anatomy and Physiology (or concurrent registration) Not for Biology Major credit. Lecture and laboratory.

#### 209 Anatomy and Physiology II

- **2 cr**
- Continuation of 207 Lecture and laboratory.

#### 210 Anatomy and Physiology Laboratory II

- **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. The course also aims to examine sexual dysfunction, behavior and sex therapy. Not for Biology Major credit. Lecture.

#### 226 Genetics

- **4 cr**
- See description under Major Courses.

#### 230 Stress and Adaptation

- **3 cr**
- A study of the biological effects of acute and chronic stress stimuli of various origins, and the neuro and hormonal regulations associated with adaptation to stress. Not for Biology Major credit. Lecture and laboratory.

### MAJOR COURSES

Except for 398 and 399, all courses for majors also are open to non-majors, providing that individual course prerequisites are satisfied.

#### 111, 112 General Biology

- **4 cr** each
- Introduction to the scientific study of life at the molecular, cellular, and organismal levels. It involves consideration of reproduction, development, structure, function, growth, reproduction, inheritance, evolution, and ecology. This course provides the basic information and concept necessary for understanding populations, species, and interrelationships of living organisms. Prerequisite: to 112 Lecture and laboratory.

#### 203 Introductory Microbiology

- **4 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. Laboratory includes examination of the micro and gross anatomy of the body. Lecture and laboratory.

#### 398 Experiemental Research

- **3 cr**
- A course designed to provide students with a background in the areas of human body structure and the mechanisms underlying normal body functions. Prerequisites: some previous exposure to introductory biology and chemistry is desirable. Not for Biology Major credit. Lecture and laboratory.

#### 399 Research Project

- **4 cr**
- A course designed to provide students with a background in the areas of human body structure and the mechanisms underlying normal body functions. Prerequisites: some previous exposure to introductory biology and chemistry is desirable. Not for Biology Major credit. Lecture and laboratory.
allied fields Prerequisites 111, 112, and 203 or equivalent or permission of the instructor. Lecture and laboratory

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

398, 399 Undergraduate Research 2 cr each Opportunity for selected students to work in the laboratory on research problems under the direction of a faculty member. 398 is not prerequisite to 399. Maximum of four credits. Registration by permission of the instructor. Lecture. Laboratory.

410 Cell Physiology 4 cr A study of cells with regard to means of obtaining energy including respiration, fermentation, and photosynthesis, work done by the cell including biosynthesis, active transport, and cell movement, cell growth and differentiation, relationships of cell structure to these processes. Prerequisites 111, 112 and organic chemistry. Lecture and laboratory.

464 Regulatory Physiology 4 cr A treatment of physiological and environmental regulations with emphasis on neuroendocrine integration and adaptation. Prerequisites 111, 112. Lecture and laboratory.

496 Ecology 4 cr The goal is to provide an overall grasp of the principles and procedures underlying ecological thought. Past, present and future aspects of environmental studies are considered from the ecosystem viewpoint. Interrelationships of living things with each other as well as the non-living components emphasize the need for interdisciplinary studies and quantitative data. Both terrestrial and aquatic habitats are used to illustrate concepts such as growth, niche, succession and competition. Applicability to current human problems is discussed, such as waste disposal, pollution, food, fuel, agriculture and urbanization. Prerequisites 111, 112. Lecture and laboratory.

DEPARTMENT OF CHEMISTRY

Chairman Andrew J. Glaid, Ph.D.

Professors
Andrew J. Glaid, Ph.D.
Jack Hauser, Ph.D.
Omar Steward, Ph.D.

Associate Professors
David Seybert, Ph.D.
Paul Stein, Ph.D.
Jim Tsai, Ph.D.

Assist Professors
Bruce Beaver, Ph.D.
Shahed Khan, Ph.D.
Daniel Solomon, Ph.D.

Professors Emeriti
Oscar Gawron, Ph.D.
Norman Li, Ph.D.
Kurt Schreiber, Ph.D.

Adjunct Professor
Ted J. Weismann, Ph.D.

The Chemistry program is designed to provide the student with a fundamental background in chemistry and an understanding of the relationship of chemistry to the other sciences and disciplines. Elective courses and the opportunity to do undergraduate research allow the chemistry major to develop interests in a specialized area of chemistry, such as analytical, inorganic, organic, physical chemistry, and biochemistry.

Because of the fundamental nature of chemistry as a science, numerous opportunities for advanced study, as well as employment, are open to chemistry and biochemistry majors. A large percentage of students elect to continue their study in graduate programs in chemistry and related fields. Chemists and biochemists provide a core of personnel in pure and applied research, technical sales, technical libraries, management positions in the chemical and related industries, the space industry, education, the environmental sciences and the health professions, such as medicine, dentistry and veterinary medicine. The major in biochemistry centers around the core of basic chemistry courses while also providing advanced courses in biochemistry and electives in biology.

DEPARTMENT OF CHEMISTRY MAJOR

Required Courses
Chemistry 111, 112 Principles of Chemistry 4 cr each

The course is divided into three segments, physical, organic, and biochemistry. In the section devoted to physical chemistry the laws of chemical behavior are developed with particular reference to the simple molecules of inanimate nature. The organic section deals primarily with the structural features of organic compounds, the chemistry of functional groups and the practical applications of organic compounds in the synthesis of polymers, carbohydrates, lipids, proteins, nucleic acids, enzymes, vitamins, etc. Biochemistry is treated in terms of the digestion and metabolism of nutrients, the functions of enzymes in the metabolic process and the abnormal metabolic conditions that prevail in disease. Lecture, three hours, Recitation, one hour, Laboratory, two hours.

121, 122 General Chemistry

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 in a quantitative manner, and the laboratory portion of the second semester illustrates the principles of ionic equilibria including qualitative inorganic analysis.

Requirements for the Minors

A minor in Chemistry consists of 12 credit hours beyond 121, 122. A minor in Biochemistry consists of 12 credits, beyond 121, 122. Normally 205, 206 or 221, 222 along with 401, will constitute the Biochemistry minor.

111, 112 Principles of Chemistry 4 cr each

The course is divided into three segments, physical, organic, and biochemistry. In the section devoted to physical chemistry the laws of chemical behavior are developed with particular reference to the simple molecules of inanimate nature. The organic section deals primarily with the structural features of organic compounds, the chemistry of functional groups and the practical applications of organic compounds in the synthesis of polymers, carbohydrates, lipids, proteins, nucleic acids, enzymes, vitamins, etc. Biochemistry is treated in terms of the digestion and metabolism of nutrients, the functions of enzymes in the metabolic process and the abnormal metabolic conditions that prevail in disease. Lecture, three hours, Recitation, one hour, Laboratory, two hours.

121, 122 General Chemistry

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 in a quantitative manner, and the laboratory portion of the second semester illustrates the principle of ionic equilibria including qualitative inorganic analysis.

121 Lecture, three hours, Recitation, one hour, Laboratory, three hours

122 Lecture, three hours, Recitation, one hour, Laboratory, six hours

205, 206, 221, 222 Organic Chemistry 4 cr each

The theoretical background is developed from the standpoint of the electronic structure of molecules and the accompanying energy considerations. The preparation and the chemical and physical (including special) properties of representative organic compounds are discussed in detail. Prerequisites 121, 122. For 205, 206, Lecture, three hours, Recitation, one hour, Laboratory, four hours, and for 221, 222, Lecture, three hours, Recitation, one hour, Laboratory, four hours.

311, 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 chemical physics. Prerequisites: Physics 202 or 212, Chemistry 122, Mathematics 116. Lecture, four hours.

323, 324 Physical Chemistry Laboratory 1 cr each

Laboratory portion of Chemistry 321, 322, four hours.

401 Biochemistry 4 cr

An introduction to biochemistry at the cellular level. The structure and chemistry of cellular components (proteins, nucleic acids, etc.), of cellular reagents (enzymes, coenzymes, respiratory pigments, etc.) and metabolic reactions of carbohydrates, lipids, and amino acids are discussed. Prerequisite 206 or 222. Lecture, three hours, Laboratory, four hours.

421 Analytical Chemistry 4 cr

Theoretical and practical training in modern methods in chemical analysis with emphasis on instrumental methods. Prerequisite 322. Lecture, three hours, Laboratory, eight hours.

422 Inorganic Chemistry 4 cr

A survey of the basic principles required for understanding inorganic chemistry including atomic and molecular structure, crystal structure, nonaqueous 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.

524 Molecular Basis of Biochemistry 3 cr

A detailed discussion of a number of biochemical processes such as oxygen transport, immunology, hormone action, blood coagulation, muscle contraction, etc., with emphasis on the structure of the protein(s) and/or enzyme(s) involved.
REQUIREMENTS FOR THE MINOR

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

ORIGINAL LANGUAGE COURSES

101, 102 Elementary Classical
- Latin 4 cr each
- Study of the fundamentals of Latin grammar and syntax combined with occasional exercises in translation from Roman authors

103, 104 Elementary Classical
- Greek 4 cr each
- Study of the fundamentals of Greek grammar and syntax combined with frequent exercises on translation from Greek authors

111, 112 Basic Sanskrit
- 3 cr each
- A study of the fundamentals of Sanskrit grammar and syntax combined with exercises in translation

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

201, 202 Intermediate Classical
- Latin 3 cr each
- Selections of major Latin author(s)

203, 204 Intermediate Classical
- Greek 3 cr each
- Selections of major classical Greek author(s)

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

211, 212 Survey of Sanskrit
- Literature 3 cr each
- Selected readings from major Sanskrit texts including the Mahabharata, Hitopadesa, Kathasaritsagara, Mahabhadra, Rigveda, and Meghaduta

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

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

- Each course will cover an individual author or group of authors or a genre. Each course may be repeated as long as a different author or work is read.

COURSES IN ENGLISH (NO GREK OR LATIN REQUIRED)

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

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

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

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

207 Roman Art
- 3 cr
- An introduction to Roman innovations in architecture, sculpture, and painting. The background of Roman art in Etruscan, Greek, and Egyptian civilizations is investigated, and the impact of Roman art in formulating Christian Art, Renaissance Art and neo-Classicism is analyzed (Offered in alternate years)

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

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

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

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

233 Ancient Satire
- 3 cr
- Investigation of the satirical element in classical literature, with special reference to the writings of Lu- can, Lucilius, Horace, Persius, Martial, and Juvenal

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

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

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

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

247 History of the Roman Principate
- 3 cr
- Study of the consolidation of the Roman imperial structure from Augustus to the death of Commodus
248 History of the Late Roman Empire 3 cr
Examination of Roman history from the ascension of Severus to the death of Justinian

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

250 Classical Archaeology 3 cr
A study of the archaeological discovery of classical civilization from the Greek Bronze Age through the Roman Empire An introduction to the techniques of archaeological investigation

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

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

300 Seminar 3 cr
Topics variable

DEPARTMENT OF COMMUNICATION

Chairperson
Nancy L. Harper, Ph D

Professors
Edward J. Gregory, M Ed
Nancy L. Harper, Ph D
Nancy Jones, Ph D

Associate Professors
Margaret J. Patterson, M A
Eva Robotti, M A

Assistant Professors
Robert Frady, Ph D
Frank Thornton, M A
Paul J. Traudt, Ph D

Lecturers
Roger Angelelli, Ph D
Sondra Chester, M S
Beatrice Hirschl, B A
Kathy Kovach, M A

Certified Comprehensive Interpreter
Nancy Fallon, M A
Jacqueline Malloy, B A
Robert Skwarecki, M A
Victor Vrabel, B A

Professors Emeriti
Paul Krakowski, M A
Cornelius S. McCarthy, Ed M

A new Communication Department has been formed through a merger of the journalism, media arts, and philosophy programs Students who had declared majors or minors in one of these programs prior to the beginning of the 1984-85 academic year may choose to follow the requirements in effect when they began. Students who choose to follow new requirements now being developed by the faculty Students interested in beginning a major or minor should request information from the department chairperson Within the framework of the new communication major being developed, as within the old framework, students are encouraged to design individualized programs which build upon College requirements in the humanities, arts, social and natural sciences. All majors are expected to develop sound theoretical knowledge of communication and practical skills in some aspect of communication production. Thus, individual programs may be designed to lead to graduate study in communication or other liberal arts disciplines or to professional training in areas such as law or speech pathology and audiology, or to careers in fields such as advertising, community relations, graphics for print and electronic media, human relations, media management, organizational development, public relations, personnel, photography, public opinion research, sales, radio and television broadcasting, videography, writing for newspapers/magazines/television, etc. The academic program of the Department is supported by a variety of student clubs and organizations, e.g. Women in Communication, Inc., the Public Relations Student Society of America, Sigma Delta Chi/Society for Professional Journalism Communication students are also active in extracurricular activities such as The Red Masquers theatre group, the University Debate team, and the student radio station, WDSR, and the student newspaper, WDUQ public radio station, student television programming, the Yearbook, and The Duquesne Duke The Department also offers scholarships to majors based upon both academic performance and financial need. For more information about Communication at Duquesne, visit the Department Chairperson and/or faculty in the Des Places Communication Center

The following list of Requirements is based on the old division of the Department into three different programs Students who enrolled prior to Fall 1988 may choose to follow the "old" requirements listed below or to see the Department of Communication Chairperson for information on new requirements now being developed

JOURNALISM

REQUIREMENTS FOR THE MAJOR

Twenty-seven semester hours are required for a major Required courses are 171, 271, 330, 335, 367, 372 or 376, and 498

REQUIREMENTS FOR THE MINOR

Eighteen semester hours are required for a minor Credit must include 171, 271, 371, and nine of journalism credits approved by the head of the Department of Communication Minor requirements do not qualify for the Department's Professional Internship program

171 Dynamics of Mass Communication 3 cr
Provides an overview of the mass communication media in contemporary American society. Gives consideration to the print and the telecommunications media from their philosophical foundations and historical development to current trends and studies Examines current media problems for the ethical implications in today's social, economic, and political life

172 Language for Journalists 3 cr
Aims at improving and polishing language skills of prospective or beginning majors Emphasizes word usage, grammar, spelling, Introduces style and copy-editing symbols

271 Basic Reporting and Writing I 3 cr
Teaches the fundamentals of news reporting and writing Students practice in laboratory exercises and by covering beats and special events outside of class Word processors used Typing ability required

300 Public Relations Principles and Practices 3 cr
Introduces students to the profession of public relations with special emphasis on expanding areas of the field Focuses on the role of public relations in industry and corporations, non-profit institutions, and agencies

301 Specialized Publications 3 cr
Examines the print communications of business, industry, professional, and non-profit organizations Students practice the writing, designing, and editing of brochures, newsletters, annual reports, magazines, and other internal and external publications Prerequisites Freshman or sophomore status

334 Communication Research Methods 3 cr
Shows students how research can be applied to specific problems in a variety of communication settings Students learn the techniques of research and the uses of research results in the world of communication, research has become an increasingly important tool, more and more communication professionals use research in their everyday work.

335 Advertising Principles and Writing 3 cr
Studies and applies writing principles and practices for advertising in a lecture-laboratory course Examines various types of advertising Prerequisites 271 or department approval

367 Radio-Television Principles and Writing 3 cr
Studies and applies new writing principles and practices for radio and television in a lecture-laboratory course Provides laboratory experience in radio and closed-circuit TV studios Prerequisites 271 or department approval

368 Broadcast Advertising and Promotion 3 cr
A study of the music and tools of advertising and promotion in commercial and public broadcasting. Analyzes the factors regarding advertising and promotion strategies in commercial and public broadcasting. Analyzes the factors affecting the use of radio and television in the world of communication, research has become an increasingly important tool, more and more communication professionals use research in their everyday work.

JOURNALISM

REQUIREMENTS FOR THE MAJOR

Twenty-seven semester hours are required for a major Required courses are 171, 271, 330, 335, 367, 372 or 376, and 498

REQUIREMENTS FOR THE MINOR

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A study of the music and tools of advertising and promotion in commercial and public broadcasting. Analyzes the factors regarding advertising and promotion strategies in commercial and public broadcasting. Analyzes the factors affecting the use of radio and television in the world of communication, research has become an increasingly important tool, more and more communication professionals use research in their everyday work.
Advanced Writing for Radio and Television 3 cr
Teaches writing for radio and television in a lecture-laboratory course. Covers scripting for special types of programs, such as documentaries, editorials, and panel shows. PSAs, traffic continuity, and promotion-publicity are also studied. Prerequisite 307.

Advanced Public Affairs Reporting 3 cr
Teaches interpretation and reporting of urban affairs in a lecture-laboratory course. Analyzes major political, economic, and social developments that have local news interest and significance. Includes guests and field trips. Prerequisites 271, 371.

Writing Editors, Criticism, and Reviews 3 cr
Analyzes and practices the writing of reviews/critiquing of books, theater, films, television, music, and the visual arts. Lab sessions stress the writing of reviews and accompanying interviews, as well as critiques of published reviews. Guest speakers include local critics and artists. Prerequisites 271 or department approval.

Writing for Magazines 3 cr
Teaches free-lance article writing for the general and specialized magazine in a lecture-laboratory course. Covers queries, research, and marketing. Prerequisites 271 or department approval.

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

Communication Ethics 3 cr
Examines the role of communication, especially the media in American society. Discusses how the media make decisions, how they set ideals, and how close their practices come to meeting those ideals. Looks at the philosophical basis for a free press and the roots of its ethical codes and practices. Includes an examination of ethics in broadcasting, advertising, and public relations as well as interpersonal and organizational contexts. Open to majors only. Junior/senior seminar.

Industrial Communication 3 cr
Covers the principles and practices of industrial marketing communications. Emphasizes trade-paper ads, direct-mail advertising, descriptive product folders, sales letters, and presentations. Examines related crafts, such as commercial art, typography, printing, plate-making, and media selection. Prerequisites 271, 335 or department approval.

Internship 1-6 cr
Provides a supervised observation-experience program of study and assignment in the Pittsburgh area. Open to majors only. Requirements 75 credits with an overall QPA of 2.75 or better, department approval.

Directed Readings 3 cr

MEDIA ARTS

REQUIREMENTS FOR THE MAJOR
A major consists of thirty-six credits in Media Arts courses. 111 Introduction to Media Arts, 182 Basic Photography, 241 Video ENG/FP, and Media Arts majors may concentrate on either program development of production. In close consultation with their academic advisors, they may design programs which emphasize photography, videography, writing, or a combination of these areas.

One extra-departmental course may be applied toward the Media Arts Major. Fine Arts 220 (History of Photography).

REQUIREMENTS FOR THE MINOR
Eighteen credits are required for a minor in Media Arts. These must include 111 Introduction to Media Arts.

Media Arts Minors may, in consultation with their advisors, design general programs to gain broad experience or concentration in either of the following areas: Video Production (111, 241, 341), Photography (182, 282, 382 and Fine Arts 220). 111 Introduction to Media Arts, 182 Basic Photography.

Familiarizes students with equipment operations and technology as well as the selection, use, and evaluation of media. Video theory and operation are extensively explored.

Introduces students to the use of photography as a medium of communication. Teaches the fundamentals of camera work, light, filters, film development, and printing. Covers photojournalistic techniques. Students must supply their own 35mm adjustable camera. Lecture-laboratory.

Surveys the past, present, and future role of media, especially television in society. Exploring the varied effects of media on individuals and the broad implications of its informational, educational, and persuasive powers.

Covers the systematic design of media emphasizing systems design, research technique, script development, storyboarding, and formal writing. Covers writing for news, advertising, documentaries, slide/tape productions, film, radio-TV broadcast, cable TV, educational TV, semi- and non-scripted TV.

Covers the electronic news gathering and the electronic field production as a fundamental event in media history. Covers post-production editing into final form. Requires extensive out-of-class production time.

Investigates the types of recording equipment, microphones, and sound systems needed for production plus the skills of recording, mixing, and editing. (Same as Music 145).

Communication 3 cr
Visual Communication 3 cr
Visual Communication 3 cr
Introduces students to students for evaluating, planning, and producing graphic material for print, television, display, and presentation to groups of various sizes. Covers layout and design.

Explores the nature of color, light variations, flash technique, color developing/printing, slide/tape production, and color slide format. Involves extensive out-of-class work. Prerequisite 182.

Develops the skills necessary for incorporating the various media (print, photography, video, graphics, and audio) into a single production. Prerequisites Permission of the instructor, requirements vary with Media Arts concentrations.

Analyzes the role of the director as a catalyst and the producer as a coordinator in media production. Includes extensive examination of directors and media follow-through. Prerequisites 282, 382.

Introduces "electronic news gathering" and "electronic field production" as mobile units of video production. Covers pre-production planning and design, on location production, video segments, and post-production editing into final form. Requires extensive out-of-class production time.

Investigates interactive video as a medium that goes beyond linear media. Examines its applicability in industrial and educational environments. Both computer authoring systems and authoring language are used. Prerequisites 215 and 241.

Internship 1-6 cr
Intensive application of experiences gained during course work in the field situation. Open to majors only. Requirements 75 credits with an overall QPA of 2.75 or better, department approval.

Directed Readings 1-3 cr

SPEECH COMMUNICATION

REQUIREMENTS FOR THE MAJOR
A minimum of 30 credits required for a Speech Communication Major. Students concentrating in speech pathology/audiology will be required to enroll in 110, 140, 204 and 220. A maximum of 12 transfer credits in speech communication can be applied to the major requirements. A maximum of 6 credits can be taken in Speech/Media internship or Independent study. Students considering graduate study in communication should consider taking courses in both Human Communication Resources and Rhetoric and Public Address.

REQUIREMENTS FOR THE MINOR
The minor consists of 18 credits. Six credits in required introductory courses and 12 additional credits. There are 5 emphases that the student may follow:

1. HUMAN COMMUNICATION RESOURCES 101, 104 and 12 credits in any of the following:
Comparative analysis of theories of communication

verbal and nonverbal grammar systems from infancy to adulthood.

Acquisition of communication

120, 220, 320, 420

121 Sign Language

Presents sign language systems used by deaf and hearing impaired. The student is taught to read and write sign language.

122 Phonetics

Approaches the English language through the study of time, pitch, and intensity.

123 Voice and Diction

3 cr

3 cr

3 cr

3 cr

3 cr

3 cr

3 cr

3 cr

Develops human communication skills and abilities in face-to-face relationships. Emphasizes students' ability to present a positive attitude.

204 Interpersonal Communication

3 cr

Develops verbal human communication skills and abilities in face-to-face relationships. Emphasizes students' ability to present a positive attitude.

206 The Small Group

3 cr

Develops human communication skills and abilities in the decision-making and problem-solving group. Students discuss theories that deal with leadership and membership in the small group.

208 Nonverbal Communication

3 cr

Examines the many ways in which nonverbal communication occurs without the use of language and the applicability and significance of nonverbal communication in a wide range of real-life situations.

220 Introduction to Speech Pathology

Surveys various speech disorders, their causes, characteristics, and treatment.

221 Anatomy and Physiology

Studies the basic neurological, skeletal, and muscular structures involved in the speech and hearing process.

255 Acting I

Studies the basic principles, theories, and techniques of acting, including various problems confronted by the actor in the creation and interpretation of a character. A role on television or film.

290 History of the Theatre

Covers the development of theatre as an art form in Western civilization and in the Orient. Examines production, stages, methods, production, and growth of formal theatre, etc., as manifestations of how human beings have seen the world through the ages.

301 Introduction to Theatre Arts

Surveys theatre as an art form, involving the selection of a number of skills and disciplines to bring about the aesthetic of the theatrical moment. Beginning with lectures on the roles of the director, actor, designer, and various craftspeople, the course will work up to a sampling of the various modes and forms of drama in terms of exigencies of production.

304 Persuasion

Studies and applies principles and practices that influence people's beliefs and actions.

305 Evidence

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.

306 Business and Professional Communication

Focuses on communication in one-to-one (e.g., informal group; e.g., problem-solving, planning, and individual [e.g., formal proposals]) in business, government, industry, and not-for-profit or service organizations.

320 Clinical Techniques in Speech Pathology

Focuses upon the clinical management of speech and hearing problems. Past and present techniques of speech and hearing. Different organizational procedures and practices are also included. Prerequisite: 120, 220, or permission of instructor.

321 Speech Pathology/Audiology Externship

Provides opportunities to observe various aspects of clinical work. Directed readings and field trips are included. For Speech Pathology/Audiology majors only. Required 120, 220, and 320. QPA of 3.00 in the major, department approval.

351 Radio and Television Announcing

Applies principles of effective speaking to broadcasting.

355 Oral Interpretation

Analyzes pieces of literature from all genres for purposes of reading them aloud, a skill which is both an art in itself and a useful discipline for announcers and actors.

355 Acting for the Camera

Emphasizes performing for television—e.g., fight scenes, scenes with two or more characters, characters from works of great modern and classical dramatists. Prerequisite: 255 or permission of instructor.

402 Argumentation and Debate

Applies the principles and methods of critical deliberation to a significant contemporary social issue. Emphasizes advocating, defending, and refuting a proposition of policy. Prerequisite: 102 or permission of instructor.

404 Intercultural Communication

Examines similarities and differences between perceptions of reality held by cultural groups and the ways in which such perceptions affect the communication process.

407 Communication, Science, and Revolution

Examines how beliefs built upon assumptions common to science and revolution influenced the "modern" world's understanding of communication.

408 Communication and Imagination

Examines how the triumph of beliefs dominated by imagination over beliefs dominated by science is changing our understanding of communication. Rhetorically analyzes science-fiction/fantasy (the literature combining science and imagination) for insights into the shifting of commonplace assumptions about reality which characterize "modern" and "post-modern" worldviews. Prerequisite: 407 or permission of instructor.

420 Speech Problems of the Exceptional Child

Investigates the speech and language development, speech problems, and speech remediation of the mentally retarded, brain injured, aphasic, learning disabled, and cerebral palsied child. The role of other professionals, in addition to that of the speech pathologist, is presented. Prerequisite: 101 or permission of instructor.

422 Speech Pathology/Audiology Clinical Practicum

Provides an opportunity for active participation with professionals in their work in varied settings. For Speech Pathology/Audiology majors only. Required QPA of 3.00 in the major, completion of all required courses, department approval.
DEPARTMENT OF English

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

Professors
Ralph C. Boettcher, Ph.D.
Samuel J. Hazo, Ph.D.
Yong Ik Kim, M.A.
Albert Labriola, Ph.D.
G. Foster Provost, Jr., Ph.D., Emeritus
Wallace S. Watson, Ph.D.
Frank T. Zbozny, Ph.D.

Associate Professors
Bernard F. Beranek, Ph.D.
Joseph J. Keenan, Jr., Ph.D.
Jerome L. Niedermeier, Ph.D.
Constance Deucher Ramirez, Ph.D.
John W. Smeltz, Ph.D.
Samuel J. Tundall, Jr., Ph.D.

Assistant Professors
George Richard Benzinger, Jr., M.A.
John Kenneth Hanes, M.A.
Frederick Newberry, Ph.D.
Daniel Paul Watkins, Ph.D.

The chief purpose of the English program is to develop the student's powers to think critically about his/her life. To this end the Department's curriculum unites intensive and critical reading in a broad range of our literary heritage with close attention to the presentation of ideas in writing. Attention is also given to oral expression of ideas by means of dialogue between professor and student. Not only is the degree in English an excellent preparation for law school and for graduate work in English, education, and library science, it also provides the liberal preparation which is sought by the business world for such areas as personnel, advertising, and management.

Prerequisites—Thinking and Writing Across the Curriculum 101 (or its equivalent) is a prerequisite for admission to Imaginative Literature and Critical Writing 102. Imaginative Literature and Critical Writing 102 (or its equivalent) is a prerequisite for admission to all courses offered by the department.

The English Department further advises that a 200 level course should be taken before the student attempts any 300 or 400 level course (except for 308 and 407).

REQUIREMENTS FOR THE MINOR

A minor of 12 credit hours beyond the freshman level of no more than six hours may be taken at the 200 level.

There are five separate emphases from which the student must choose one:

1. English Literature: 201, 202, and six hours in upper division English Literature, courses 409 through 469.
2. American Literature: 205, 206, and six hours in upper division American Literature, courses 471 through 489.
3. Literature and Film: "Introduction to Film" (3 hours) and nine hours in courses in literature and film. Examples are "Shakespeare on Film" and "American Short Story into Film."
4. Writing: 203 and nine hours in 300 level Writing Workshops.
5. English Honors: Students who, by invitation of the Department Honors Committee, complete English 212, 213, and two 300 Honors Seminars, may count that program as an English Minor.

HONORS PROGRAM

Students who give evidence of outstanding ability in English through their performance in Thinking and Writing Across the Curriculum 101 or by virtue of superior national test scores will be invited to participate in the English Honors Program.

These students may apply Honors course credits to either an English major or minor, or may use these credits as electives. Further details concerning the Honors program are available through the department office and will be distributed to all nominees at the time of their recommendation for admission to the program.

100 Freshman Honors English 3 cr

This is an Honors counterpart to Core 102, designed to fulfill the Core 102 requirement.

201, 202 English Literature Survey 3 cr each

Representative masterpieces of English literature in their literary and historical context.

203 Advanced Writing 3 cr

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

205 American Literature Survey I—Beginning to Civil War 3 cr

Representative selections from major American authors treated in both their literary and their historical contexts.

206 American Literature Survey II—After Civil War 3 cr

Representative selections from major American authors treated in both their literary and their historical contexts.

207 The Novel 3 cr

Introduction to various types of novels and to critical analysis of fiction.

208 Poetry 3 cr

Appreciation of British and American poetry, critical analysis of traditional and experimental poetic form, consideration of philosophical and social concerns of poetry.

209 Drama 3 cr

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

DEPARTMENT OF Economics

Chairperson
Geza Grosschmid, J. U. D.

REQUIREMENTS FOR THE MAJOR

Twenty-four semester hours are required for a major. These credits must include 221, 222, 321, and 322. Extra-divisional requirements: Mathematics 225 in the Mathematics Department of the College. Students planning to do graduate work in Economics are advised to take calculus. Students having economics as a major consult with the chairman of the Economics Department for advisement.

REQUIREMENTS FOR THE MINOR

Eighteen semester hours are required for a minor in Economics. These credits must include 221, 222, and 322. It is strongly recommended that students having economics as a minor consult with the Economics Department for advisement.

Course Descriptions and faculty listing are provided in the School of Business and Administration Section of this Catalog on pages 00-00.
Examples of courses regularly offered are

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

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

Medieval Studies

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

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

Renaissance Studies

413 Sixteenth Century English
3 cr
Survey of the major works from the 1500s.

415 Milton
3 cr
A study of Milton and his times. A close scrutiny of the major poems, and *Paradise Lost* and *Samson Agonistes*.

416 Seventeenth Century English
3 cr
A survey of drama, prose, and poetry to 1660.

419 Renaissance Special Topics
3 cr
Studies in Renaissance thought and aesthetic in the works of one or more of its great writers such as Shakespeare, Sidney, Donne, Jonson, etc. or through the ideas and attitudes conveyed in one of the dominant genres of the Renaissance: the lyric, the epic, the drama, etc.

Shakespeare Studies

412 Shakespeare I
Comedies and romances

418 Shakespeare II
Tragedies and histories

Eighteenth Century Studies

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

424 English Classicism
3 cr
Developments of neo-classical literature from the Restoration to the death of Pope. Primary attention given to Swift and Pope.

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

429 Eighteenth Century Special Topics
3 cr
Studies in Eighteenth Century thought and aesthetic in the works of one or more of its great writers. Dryden, Swift, Pope, Johnson, Blake, etc. or through the ideas and attitudes conveyed in one of the dominant genres of the Eighteenth Century: the drama, the novel, the essay, etc.

Nineteenth Century Studies

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

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

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

Twentieth Century Studies

461 Early Twentieth Century
3 cr
Selectively study of authors representing the major literary types and trends from about 1890 to 1930. Hardy, Moore, Butter, Conrad, Yeats, Hopkins, and Joyce.

463 Contemporary British Literature
3 cr

DEPARTMENT OF HISTORY

Chairperson
Bernard J. Weiss, Ph.D.

Professors
Albert B. Costa, Ph.D.
Jean E. Hunter, Ph.D.
Jerome E. Janssen, M.A.
Paul T. Mason, Ph.D.
Joseph R. Morice, Ph.D.
Joseph R. Morice, Ph.D.
Steven B. Vardy, Ph.D.
Michael P. Weber, D.A.

Assistant Professors
Madeline C. Archer, Ph.D.
Perry K. Blatz, Ph.D.
Joseph F. Rishel, Ph.D.

Adjunct Professor
Samuel J. Astorino, Ph.D., J.D.

Adjunct Assistant Professor
Ann T. Kowalski, M.A.

The Department of History offers a program devoted to the study of mankind in diverse cultural settings through time. A large number of courses are taught by a faculty reflecting a variety of philosophical and methodological outlooks. Apart from the fact that the program fully meets the needs of students intending to pursue graduate work in historical studies, the history major will be well prepared for careers in law, business, or government services. Moreover, the discipline of history provides an excellent synthesis of the liberal-arts education since it effectively joins together the humanities and the social sciences.

REQUIREMENTS FOR THE MAJOR

A minimum of 30 credits must be taken including History of the U.S. (103, 104) and either Western Civilization (214, 213) or World History and the Historian (311, 312). Fifteen credits must be taken from 200, 300 and 400 level courses. At least six credits must be taken at the 400 level, including the Senior-Honors Seminar (490), which is mandatory for all majors and open by invitation to non-majors. Six credits of 300-400-level Art History can count for a History major.

A maximum of 12 transfer credits in history can be applied to the major requirements.

REQUIREMENTS FOR THE MINOR

Students who wish to minor in history may consult with the department’s undergraduate advisor. The student is required to take 15 hours including 103, 104

Introductory Surveys

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

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

Area Courses

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.

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

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.
### 246 Hellenistic History
3 cr
An examination of the development of Greek history and culture from earliest times up to the death of Alexander of Macedon.

### 248 History of the Late Roman Empire
3 cr
Examination of 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.

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

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

### 257, 258 Russian History
3 cr each
Development of society and state in Russia from their origins to the twentieth century.

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

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

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

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

### Topical Surveys

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

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

#### 311, 312 World History and the Historian
3 cr each
The course traces the main events of world history in relation to the most important themes of world history and in the context of an inquiry into the nature of historical understanding. The first semester treats prehistory, the emergence of civilization, and the world views of the major classical civilizations. The second semester is an inquiry into the nature of modernity.

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

#### 340 History of Western Law
3 cr
Primary emphasis will be placed on the rise of customary law, especially its development in England common law.

#### 341 History of American Law I
3 cr
This course deals with the development of law, legal philosophy, and legal institutions in America from the colonial period to the Civil War.

#### 342 History of American Law II
3 cr
This course deals with the development of law, legal philosophy, and legal institutions from the Civil War to the present.

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

#### 344 Church History II
3 cr
Selected topics in Catholic and Protestant development from 1500 to the present day, special emphasis on the crises, revolutions, and reforms that were central to this development.

#### 345 American Church History
3 cr
Emphasizes the historical development of major religious traditions in America, both Catholic and Protestant. Special attention will be given to "the life of the mind" of Christianity in America, the frontier expansion of religion, the often-controversial interaction between the Church and American culture, the place of religion in the creation of the American character, and the unique separation of church and state.

### 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 in 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
Practical in nature, investigation and evaluation of the personal, political, contemporary, and historical roles of each president with some attention to the growth of the office.

### 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 Since 1868
3 cr
A detailed examination and analysis of the origins, leadership, and operation of the major political parties since 1868.

### 363 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.

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

### 375 History of Inner Asia
3 cr
The history of Inner Asia from Genghis Khan's Mongol Empire to Mikhail 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 evolution from a European-centered world to global politics.

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

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

### 386 Historical Geography
3 cr
A survey of the historical world which is the basis for a human civilization, past, present, and future. What are the possibilities and limitations of different places for human development? How successful or unsuccessful were human settlements? Emphasis also on geography as an intellectual discipline and cultural phenomenon.

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

### 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.

### 401 Medieval Europe
3 cr

### 403 History of Papacy
3 cr

### 413 Renaissance to Reformation
3 cr

### 417 Reason and Revolution
3 cr

### 419 18th Century Europe
3 cr

### 422 20th Century Europe
3 cr

### 441 American Painting
3 cr

### 442 American Architecture
3 cr

### 443 American Decorative Arts
3 cr

### 444 Origins of Modern Science
3 cr

### 462 The American Character
3 cr
Specialized Areas and Topics

358 Civil War and Reconstruction 3 cr
An intensive study of the American experience before and after the War for the Union

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

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

387 The American Frontier 3 cr
An historical view of man's attempts to create new societies, concentrating upon ecological issues, frontier experiences, and utopian ventures

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.

420 Special Studies in European History 3 cr
Topic will be announced by the instructor. The course may be taken more than once.

421 Special Studies in American History 3 cr
Topic will be announced by the instructor. The course may be taken more than once.

422 Special Studies in Third World History 3 cr
Topic will be announced by the instructor. The course may be taken more than once.

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

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

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

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

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

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

490 Senior Honors Seminar I 3 cr

491 Senior Honors Seminar II 3 cr

499 Directed Reading, Selected Historical Topics 3 cr

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Charperson

Thomas Keagy, Ph D

Professors

Thomas Keagy, Ph D
Kathleen A Taylor, Ph D

Associate Professors

George R Bradley, Ph D
Donato DeFelice, M S
Rosaline Lee, Ph D

Charles Loch, M A

Assistant Professors

Daniel Barbush, M A
Frank D'Amico, Ph D
Adam Drozdek, Ph D
Abhay Gaur, Ph D
Mark S Mazur, Ph D
Hershel Sacks, Ph D

Instructors

Jeanne Baugh, M S
John Ryan, M S

Lecturers

John Hourland, M S
Edward Markoff, M A
Larisa Shtrahman, M S

MATHEMATICS PROGRAM

The Department of Mathematics offers a sequence of modern courses which will 1) aid students in developing their ability to think scientifically and form independent judgments, 2) provide students with a breadth and depth of knowledge concerning not only manipulative skills but also fundamental and essential theory, 3) enable students to use their knowledge in the formulation and solution of problems, and 4) give students the necessary basis of foundation for the pursuit of graduate study or productive effort at the bachelor level.

REQUIREMENTS FOR THE MAJOR

Bachelor of Arts Degree

A minimum of 32 semester hours is required. These must include 115, 116, 215, 216, 303, 415, 416, the remainder must be selected from courses numbered above 300. Extradespartmental Requirements: Computer Science 101 Basic or 111 Fortran or 405 Computer Programming I.

Bachelor of Science Degree

A minimum of 32 semester hours is required. These must include 115, 116, 215, 216, 303, 415, 416, the remainder must be selected from courses numbered above 300. Extradespartmental Requirements: 20 hours in science, 211, 212 General Analytical Physics and Computer Science 101 Basic, 111 Fortran or 405 Computer Programming I. The remaining courses may be selected from Biology 111, 112, and 226 and above Chemistry 121 and above Physics above 212, and additional Computer Science courses.

REQUIREMENTS FOR THE MINOR

A minor must include 116 and 10 additional credits selected from courses numbered above 116. For science majors, 215, 216, 315 are recommended.

111 Calculus for Non-Science Students 3 cr

115, 116, 215 Calculus, I, II, III 4 cr each

A unified course in analytic geometry and calculus. Considers theory of limits, functions, differentiation, integration, series, of space, functions of several variables, and multiple integration. Prerequisites for 115, Two years of algebra, one year of plane geometry, and one-half year of trigonometry.

216 Ordinary Differential Equations 3 cr

Bachelor of Arts Degree

A course in solving ordinary differential equations. Prerequisite: 115

225 Discrete Mathematics 3 cr

Bachelor of Science Degree

A course in logic, sets, relations, functions, graphs, trees, Boolean algebra, algebraic structures, algorithms, and discrete structures. Prerequisite: 115

301, 302 Introduction to Probability and Statistics I, II 3 cr each

A mathematical treatment of probability theory and mathematical statistics including probability distributions, random variables and their transformations, expectation, point and interval estimation, sampling distributions Prerequisite 115 or equivalent.

303 Principles of Modern Algebra 3 cr

A study of basic properties of groups, rings, and fields. Prerequisites: 115, 116

306 Linear Algebra 3 cr each

Systems of linear equations, vectors and matrices, determinants, vector spaces, linear transformations, products, eigenvalues, and canonical forms. Prerequisite 115 or consent of department.

308 Numerical Analysis 3 cr

Numerical techniques for solving problems involving linear systems, interpolation, functional approximation, numerical differentiation and integration, and solutions to non-linear equations. Prerequisites 105 or consent of department.

311 Introduction to Number Theory 3 cr

A discussion of divisibility, congruences, quadratic residues, diophantine equations and number functions. Prerequisite: Proficiency at 105 level.

325 Applications in Statistics 3 cr

This course is intended for students interested in statistics and who wish to examine methods in ap-
COMPUTER SCIENCE PROGRAM

The major objectives of the computer science program are to provide the student with a knowledge of the theoretical basis of computing, an appreciation for the relationship between the various components of the field, skills in applying the subject to practical problems, and an ability to adapt to new technologies and advancements. Courses in the curriculum give the student appropriate tools to identify problems best solved by means of a computer and to design and implement effective, economical, and creative solutions for them. Offerings provide opportunities for students seeking courses supporting other disciplines as well as comprehensive programs leading to a minor or a minor in computer science.

REQUIREMENTS FOR A MAJOR

A minimum of 31 semester hours in computer science is required for the major. In addition, support courses in mathematics and English are required for all majors. At least one course in physics is strongly recommended. All majors must choose either a business or a scientific track as outlined in the subsections below. Requirements for all majors are as follows:

Computer Science Core 105, 106, 200, 211, 300, 325, 480 (each with a grade of "C" or better)
Additional Computer Science Requirements At least 12 additional upper level hours (at least 9 of which must be taken at the 400 level)
Mathematics Support Courses 115-116 (Calculus I & II), 235 (Discrete Mathematics), and either 301 (Introduction to Probability and Statistics), or 306 Linear Algebra

English Support Course 385 (Professional and Technical Writing)

COMMERCIAL APPLICATIONS

majors who choose an emphasis in commercial applications minor in business, complete a certificate program in business, or complete a minor in another field related to business or commercial applications. Possible professional positions include business applications programmer, systems analyst, database administrator, and information systems analyst. Suggested electives include 401, 410, 425, 435, and 445.

SCIENTIFIC APPLICATIONS

majors who choose an emphasis in scientific applications should minor in one of the laboratory sciences, mathematics, or another field related to scientific applications. Possible professional positions include scientific applications programmer, engineer, analyst, and software engineer. Suggested electives include 308, 410, 418, 419, and 425.

REQUIREMENTS FOR A MINOR

A minimum of 15 hours in computer science and three hours of discrete mathematics are required for a minor. The programs must include Math 225 and Computer Science 105, 106, 211, and 300, and three additional hours numbered 200 and above. Suggested computer science courses related to commercial applications include 325, 401, 410, 425, 435, and 445. Suggested computer science courses related to scientific applications include 308, 325, 410, 418, 419, and 425.

100 Elements of Computer Science 3 cr
An introductory course for students in other disciplines. Includes a survey of computer organization, computer languages, the history of computers, and the role of the computer in the modern world. Some programming is required. Credit not given to computer science majors or minors.

101 Introduction to Computer Science/Business 3 cr
A first programming course Microcomputer programming in Basic, algorithms, data representation, computer logic, and computer organization. Credit not given to computer science majors or minors.

105 Computer Programming I 3 cr
Structured programming in Pascal. Data types and representations, arithmetic and logical operations, simple I/O, control structures, subprograms, arrays, records, and an introduction to file processing. Programming style, documentation, and testing.

106 Computer Programming II 3 cr
Continuation of 105. Structured programming in Pascal and C. Recursion, dynamic allocation, stacks, queues, and linked lists. String processing, searching, sorting. Prerequisite 105.

418 Formal Languages and Automata 3 cr

419 Introduction to Microcomputers 3 cr
Microcomputers as components of systems, VLSI processor and co-processor architectures, addressing and instruction sets, I/O interfaces and supervisory control, VLSI architectures for signal processing, integrating special purpose processors into a system. Prerequisite 325.

423 Operating Systems and Computer Architecture I 3 cr
Continuation of 225. Techniques in system design, implementation, and evaluation. Microprogramming, parallel processors, concurrency, synchronization, memory management, processor scheduling. Prerequisite 325.

435 Theory of Programming Languages 3 cr
Syntactic and semantic problems in defining program languages. Problems of language implementation. Global properties of algorithmic languages including scope of declaration, storage allocation, grouping of statements, binding time. Subroutines, coroutines, and tasks. Comparison of several languages. Prerequisite 300.

445 Systems Analysis and Software Design 3 cr
Introduction to the analyses, design, and implementation of large software systems. Topics include methods and tools for the structuring and modular design of large systems, organization and techniques of team programming, design evaluation and validation. Prerequisite 300.

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

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
Gregorio C. Martín, Ph D
Professors
Francesca Colechia, Ph D
ed towards the major.

The student possessing a knowledge of foreign languages will find career opportunities in a number of fields such as education, government employment, foreign service, social work, business and industry, tourism, and international law.

**REQUIREMENTS FOR THE MAJOR**

The Department offers major programs in French, German, and Spanish. In addition, it offers minor programs in Italian and Russian, as well as non-major courses in Swahili.

The major program in Modern Languages and Literatures consists of a minimum of 27 semester hours at the 300 level and above. Required courses are:

- **French**
  - 301, 302, 462, 463
  - Majors will discuss their courses with their advisors
- **German**
  - 301, 302, 460, 461
  - Majors will discuss their courses with their advisors
- **Spanish**
  - 301, 302, 401, 402, 453, 460
  - Majors will discuss their courses with their advisors

Elementary and intermediate courses must be taken in sequence. Credit toward the major or minor will not be given for 101, 102, 201, 202, or 239, 240, 302 or 303 (306) is the prerequisite to all courses numbered 312 and above.

**REQUIREMENTS FOR THE MINOR**

The minor program consists of a minimum of 12 semester hours at the 200 level and above.

490 Independent Field Study

(All Languages)

The student will participate, under the supervision and guidance of the instructor, in selected tours to various foreign countries to undertake independent study on selected and approved projects involving the exploration and study of history, life, work, arts and culture. Prerequisite: Prior permission of the instructor and Department Chairman.

495 Professional Language Internship

A supervised internship consisting of 100-120 hours of supervised work for which the student will receive three credits. See Department for particulars.

French

101 Elementary French 1

3 cr

Fundamentals of oral and written French. Three hours of class and one hour laboratory per week.

102 Elementary French 2

3 cr

Fundamentals of oral and written French. Three hours of class and one hour laboratory per week. Prerequisite: French 101.

115 French for Musicians

2 cr

Specially designed for majors in music to provide them with those skills in French to meet their professional requisites. Registration limited to students in the School of Music.

120 Intensive French

6 cr

Fundamentals of oral and written French. Utilizes a different approach allowing the student to complete one year’s work in one semester. Six lecture hours and one-hour laboratory each week.

201 Intermediate French 1

3 cr

An integrated review of grammar and a major emphasis of oral skills. Prerequisite: French 102.

202 Intermediate French 2

3 cr

Emphasis on the written and oral aspects of the language. Prerequisite: French 201.

220 Intensive French

6 cr

Review and continuation of 120. Utilizes techniques allowing the student to complete one year’s work in one semester. Prerequisite: 120, 102 or equivalent.

239, 240 Readings in Modern French Authors

3 cr each

Selections from modern works of literature. Do not carry credit toward a major or minor. Prerequisite: 202 or equivalent.

301 French Conversation and Composition I

3 cr

Prerequisite: 201.

302 French Conversation and Composition II

3 cr

Prerequisite: 301.

303 is the prerequisite to all courses above this level.

320 Stylistics

3 cr

Comparative study of English/French style in spoken and written French.

321 Phonetics

3 cr

Mechanics of phonation with comparative English-French application to phonemic analysis of French.

322 Theatre de L’Avant-Garde

3 cr

The “avant-garde” theatre since 1950 such as Ionesco, Beckett, Genet, Schohebad, Vian, Pinget.

325 Realism and Naturalism

3 cr

Theories of the two movements in the latter part of the 19th Century.

326 The Literature of the Existentialist Movement

3 cr

Analysis and discussion of selected works of A. Camus, J.P. Sartre, and G. Marcel.

327 The Symbolist Movement in French Poetry

3 cr

A basic introduction to the Symbolist movement, with emphasis on hermetic poetry of Mallarme and Rimbaud.

328 French Poetry Middle Ages to 20th Century

3 cr

Study of mechanics of prosody, various genres, periods, movements in French poetry.

329 17th Century French Literature

3 cr

Emphasis on 17th Century French prose and poetry. Will also include a play of Corneille, Racine, and Moliere.

330 French Prose of the 19th Century

3 cr

Examination of French prose of the 19th Century.

331 18th Century French Literature

3 cr

An overview of the Siecle des lumières, with emphasis on the literary works of the four major “philosophers” Montesquieu, Voltaire, Diderot, and Rousseau.

332 Voltaire and His Age

3 cr

In-depth work on Voltaire, plus one other writer of the period, such as Prevost, Beaumarchais, Bernardin de Saint-Pierre, etc.

360 French for Business

3 cr

Spoken and written language of business French. Conventions of letter writing, import, export, and commercial transactions.

460 French Culture and Civilization

3 cr

A study of the major cultural and socio-political movements of France through its literary works.

462 Chanson de Roland through the 19th Century

3 cr

Literary Survey I Main authors and movements of the Middle Ages, 16th, 17th and 18th Centuries.

463 19th Century to Modern Period

3 cr

Literary Survey II Main authors and movements of the 19th and 20th Centuries.

464 17th Century French Theatre

3 cr

An overview of the théatre de grand siècle. Emphasis on Corneille, Moliere, and Racine.

465 18th Century French Theatre

3 cr

An overview of the major dramatists of the century, including Marivaux, Voltaire, and Beaumarchais.

466 19th Century French Poetry

3 cr

The major poetic movements of the 19th Century: Romanticism, Parnassianism, Symbolism, with a special emphasis on Baudelaire.

467 19th Century French Novel

3 cr

Selected novels from the 19th Century, from Romanticism to Naturalism.

468 19th Century French Theatre

3 cr

Beginning with the influence of the Revolution on French literature, through the literary movements of the century. Emphasizes works written for the stage and current in criticism and directing.

469 20th Century French Poetry

3 cr

Ambivalence of modern French poetry after Baudelaire. Will consider Apollinaire, Valery, Breton, Aragon, Eluard, Cocteau, Supervielle, Saint-Jean Perse.

470 20th Century French Novel

3 cr

A study of the major works, authors, and movements of the 20th Century.
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>471</td>
<td>20th Century French Theatre</td>
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<td>472</td>
<td>Sartre and Camus</td>
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<tr>
<td>480</td>
<td>Directed Readings</td>
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<tr>
<td>460</td>
<td>German Literature from the Middle Ages to the Baroque</td>
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<td>461</td>
<td>German Literature from the 18th Century to the 20th Century</td>
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<td>314</td>
<td>20th Century French Theatre</td>
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<td>201</td>
<td>Intermediate Italian I</td>
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<td>202</td>
<td>Intermediate Italian II</td>
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<td>306</td>
<td>Advanced Italian Conversation and Composition</td>
<td>3 cr</td>
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<td>315</td>
<td>Individual Study</td>
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<td>115</td>
<td>German for Musicians</td>
<td>2 cr</td>
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<td>201</td>
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<td>202</td>
<td>Intermediate German II</td>
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<td>239, 240</td>
<td>Readings in Modern German Authors</td>
<td>3 cr</td>
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<tr>
<td>301</td>
<td>German Conversation and Composition I</td>
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<tr>
<td>302</td>
<td>German Conversation and Composition II</td>
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<td>320</td>
<td>German Culture and Civilization</td>
<td>3 cr</td>
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<td>324</td>
<td>Popular Tradition in German Literature</td>
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<td>329</td>
<td>Introduction to German Poetry</td>
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<td>330</td>
<td>Modern German Prose</td>
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<td>331</td>
<td>Modern German Theatre</td>
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<td>331</td>
<td>Modern German Theatre</td>
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DEPARTMENT OF MODERN LANGUAGES AND LITERATURE

301 Spanish Conversation and Composition I 3 cr
Prerequisite: 201
302 Spanish Conversation and Composition II 3 cr
Prerequisite: 301
303 as the prerequisite to all courses above this level
322 The Nineteenth Century Novel 3 cr
Examines the realist, naturalist, and regionalist novel in the works of Caldos, Clarín, Fardo, Bazán, Perea, and Valera
332 Don Juan as a World Literary Figure 3 cr
Principal plays and narrative poems dealing with the theme from its origins in Seventeenth Century Spain through modern times. Authors include Tirso de Molina, Molterre, Mozart, Byron, Zorrilla, and G. B. Shaw
324 The Generation of 98 3 cr
Major works of Spain's turn of the century authors in their aesthetic and historical contexts. Includes Unamuno, Azorín, A. Machado, Fio Baroja, J. R. Jimenez and Valle Inclan
325 Contemporary Spanish Novel 3 cr
The Spanish Novel since the Civil War. From Cela to the present
326 Contemporary Spanish-American Fiction 3 cr
Most recent developments in the novel in historical perspective. From Asturias through García Marquez and Sarduy
327 Spanish Culture and Civilization 3 cr
A study of the major cultural and socio-political movements of Spain through its literary works
328 Modern Spanish Theatre 3 cr
From Buero Vallejo to the present, including the "Underground Theatre".
329 Revolt and Change
The Spanish American Novel 3 cr
Nature and types of protest expressed in modern Spanish-American Literature. Major works of "protest literature"
330 Theatre of the Golden Age 3 cr
Reading and discussion of works of the major dramatists of the period selected plays by Lope de Vega, Calderon and Tirso de Molina
360 Spanish for Business 3 cr
Spoken and written language of business Spanish. Conventions of letter writing, import, and commercial transactions
401 Spanish Literature from the Cid through the Siglo de Oro 3 cr
Survey of major works from the Medieval Period through the 17th Century
402 Spanish Literature from the 18th Century to the Present 3 cr
Survey of works representative of the major literary movements of the 18th, 19th, and 20th Century

- DEPARTMENT OF MODERN LANGUAGES AND LITERATURE
- DEPARTMENT OF MODERN LANGUAGES AND LITERATURE

453 Trends in Latin American Literature 3 cr
Major movements and representative works from Pre-Columbian period to the present
460 The Quixote 3 cr
An in-depth study of Cervantes' masterpiece and of the symbols, meaning of the two main characters
461 Spanish Literature since the Civil War 3 cr
The Civil War as mirrored in this literature. Its relations to contemporaneous literary expression in other countries from Hernandez through Goytisolo and Sastre
462 Avant-Garde Spanish-American Theatre 3 cr
An introduction to the avant-garde theatre in Spanish America. Historical perspective. Influence of European avant-garde
463 Lorca and the Generation of 1927 3 cr
Major poets of the "Lorca-Guillen generation" who brought Spanish poetry to the new "Siglo de Oro"
464 The Literature of the Siglo de Oro 3 cr
Spain's most glorious era through the poetry, prose, and drama of its major authors
465 Literature of Spanish Romanticism 3 cr
Study of the major poets, plays and historical novels of the period. Authors include Duque de Rivas, Espejo, Larra, Becquer, Rosalia de Castro and Zorrilla
466 The Age of Enlightenment 3 cr
The study of literary works of major 18th century Spanish writers
467 Readings in Medieval Literature 3 cr
Development of Spanish literature from its oral tradition as well as the evolution of the Spanish language, beginning with the "jarchas" through La Celestina
480 Directed Readings 3 cr
Readings of literary texts under close faculty supervision for majors only and with written permission of the Department. Variable credit

- DEPARTMENT OF MODERN LANGUAGES AND LITERATURE
- DEPARTMENT OF MODERN LANGUAGES AND LITERATURE

- DEPARTMENT OF MODERN LANGUAGES AND LITERATURE

405 Literature and Philosophy 3 cr
Explores philosophical issues as they emerge within great works of literature. Works will be selected from such authors as Sophocles, Dante, Shakespeare, Goethe, and Dostoyevsky
203 Philosophy of Religion 3 cr
Introduction to the nature of religious experience. Topics such as religious symbols, belief and unbelief, the existence of evil, and free will, will be considered. Assigned readings include both traditional and contemporary writers.
204 Literature and Philosophy 3 cr
Explores philosophical themes as they emerge within great works of literature. Works will be selected from such authors as Sophocles, Dante, Shakespeare, Goethe, and Dostoyevsky
205 Existential Phenomenology 3 cr
Examination of the methods and style of thought which characterizes existential phenomenology. Lectures and discussion on texts by major thinkers, such as Bong and Tine by Heidegger, Phenomenology of Perception by Merleau-Ponty, and Being and Nothingness by Sartre.
211 Marxism 3 cr
A study of the political philosophy of Karl Marx as one of the major directions in social thought. The Department requires majors to take nine philosophy courses above the 100 level of these nine courses, three must be selected from the Historical Sequence, and two from the sequence of Advanced Courses.
106 Introductory Logic 3 cr
Analysis of the requirements for valid reasoning, logical fallacies, types of definitions, and important informal aspects of arguments in ordinary discourse will be studied in addition to the formal logic of inferences involving simple and compound statements.
107 Medical Ethics 3 cr
Ethical questions that arise in medical care and research will be examined. Topics might include experimentation on animals and man, allocation of scarce medical resources, euthanasia, the privileged relationship of doctor and patient, etc.
108 Business Ethics 3 cr
A course, designed primarily for business majors, begins with a discussion of some general ethical issues and, in particular, the problem of a just distribution of wealth. These discussions are applied to concrete current business problems.

Basic Courses
200 Introduction to Phenomenology 3 cr
The basic approach to philosophical issues developed by Husserl, the founder of Phenomenology, will be explored, the types of signs, meaning, the possibility of philosophy as rigorous science, etc. are considered.
203 Philosophy of Religion 3 cr
Introduction to the nature of religious experience. Topics such as religious symbols, belief and unbelief, the existence of evil, and free will, will be considered. Assigned readings include both traditional and contemporary writers.
204 Literature and Philosophy 3 cr
Explores philosophical themes as they emerge within great works of literature. Works will be selected from such authors as Sophocles, Dante, Shakespeare, Goethe, and Dostoyevsky.
205 Existential Phenomenology 3 cr
Examination of the methods and style of thought which characterizes existential phenomenology. Lectures and discussion on texts by major thinkers, such as Bong and Tine by Heidegger, Phenomenology of Perception by Merleau-Ponty, and Being and Nothingness by Sartre.
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- DEPARTMENT OF MODERN LANGUAGES AND LITERATURE
- DEPARTMENT OF MODERN LANGUAGES AND LITERATURE
Philosophy of Sex 3 cr  
The course provides an introduction to some of the basic themes and texts, both traditional and contemporary, related to the philosophical study of sex. It uses historical, analytical and phenomenological methodologies and gives attention to the sexual origins of our consciousness of values.

Psychoanalysis and Philosophy 3 cr  
Psychoanalysis has had an impact upon and been studied in the presuppositions and implications of Freud’s thought and that of some other thinkers, such as Sartre, Marcuse, Roccour.

Communication and Philosophy 3 cr  
Speech is man’s most important means of communication. The course will examine the structure, purpose, and function of speech in everyday usage and in the spheres of politics, science, and art.

Elementary Symbolic Logic 3 cr  
Introduction to the methods of symbolic logic as applied to the logic of arguments involving compound statements, propositional functions and quantifiers, and relations.

Special Topics 1-3 cr  
Philosophy of Death and Living 3 cr  
The course provides an introduction to some of the basic themes and texts, both traditional and contemporary, related to the philosophical study of death. Its main purpose is to ask how human beings can be happy in view of death’s certainty, therefore it emphasizes the act of living.

Philosophy of Sport 3 cr  
a physiological examination of the nature of sport. Particular focus will be upon the ontological, ethical and aesthetic status of the phenomenon of sport.

Elements of Thomistic Thought 3 cr  
An introduction to the basic concepts and principal ideas of Christian philosophy with an emphasis on the thought system of St Thomas Aquinas. The course will cover an introduction to metaphysics, metaphysical thinking, definition of knowledge, analogy of being, the principles, structure and causes of being, the content of the transcendental and the problem of evil.

Philosophy of Technology 3 cr  
a philosophical examination of how our lives are shaped by technology and the relation of technology with science, religion, ethics, and metaphysics.

Computerized Formal Logic 3 cr  
An introduction to formal logic with computer assisted tutorials. The course will also deal with translating arguments from ordinary language into formal symbols and will apply these principles to “real world” situations.

Philosophy of Law 3 cr  
A study of the major legal traditions. The following topics will be examined: legal reasoning, justice and law, ethics and law, legal relations and social institutions, philosophical issues involved in evidence and procedure, legal and political theories, and theories of law.

Historical Sequence  
300 Ancient Philosophy 3 cr  
A study of the beginning of Philosophy in Greece, from the Presocratics to Plotinus with readings principally taken from Plato and Aristotle.

301 Medieval Philosophy 3 cr  
A philosophical study of medieval texts in English translation selected as representatives of the broad range of issues, approaches, and theories which characterize the major Christian, Jewish, and Islamic philosophical thinking of the period.

302 Early Modern Philosophy 3 cr  
The course explores the beginning of modern thinking in the 16th century and proceeds to the time of the French Revolution. Course work consists in analysis of several important texts chosen from such philosophers as Montaigne, Descartes, Pascal, Hobbes, Spinoza, Leibniz, Locke, Hume, Kant.

304 Later Modern Philosophy 3 cr  
The course examines the period of modern philosophy initiated by Kant. It deals primarily with the crucial thinkers of the 19th century including Hegel, Feuerbach, Kierkegaard, Marx, Mill, and Nietzsche.

305 Contemporary Philosophy 3 cr  
A study of contemporary philosophy from 1900 to the present, covering the methods and history of selected 20th century movements.

322 American Philosophy 3 cr  
Punishment, Enlightenment, Transcendentalism, Pragmatism, with emphasis on key figures in American Philosophy Peirce, Dewey, James, Royce, Santayana, Whitehead, etc.

323 Oriental Philosophy 3 cr  
Introduction to Oriental thought through study of its major structures in their historical setting, aiming at understanding its characteristic vision. Examination of perspectives presented by traditions such as Confucianism, Taoism, Buddhism, Hinduism and others.

325 Concentrated Philosophical Readings 3 cr  
The course is an in-depth study of one or several philosophers, such as Plato, Aristotle, Aquinas, Ockham, Descartes, Kant, Wittgenstein, Strawson, Heidegger, etc., varying in subject matter from text to text.

Advanced Courses  
313 Philosophy of the Human Sciences 3 cr  
The relations of the human sciences with other sciences, with philosophy, and with practical life, the use of mathematics and interpretation, and other issues will be discussed in relation to past and contemporary philosophical and scientific thought.

401, 402 Thomism 3 cr each  
Course dealing with the texts of St Thomas Aquinas. The first semester (401) covers his metaphysics and the second semester (402) deals with his philosophy of man. Neo-scholastic interpretations of the texts of Aquinas (Maritain, Gilson and the school of Manchester and other).

403 Philosophy of God 3 cr  
The course introduces students to selected texts and basic themes in types of religious experience such as Babylonian, Greek, and Judeo-Christian. It emphasizes such questions as: What is the Holy? What is the relation between scientific knowledge and religious knowledge? What are the various arguments about the existence of God and the immortality of the soul? Why is man suffering if God is good and all-powerful? What do the symbols of the end of the world mean? Attention is given both to traditional and to contemporary philosophical texts.

406 Aesthetics 3 cr  
An examination of theories of art which explore such questions as the beautiful, creativity, imagination, and the role of art in life. Authors such as Aristotle, Lessing, Kant, Hegel, Nietzsche, Heidegger, and Camus will be read.

415, 416 Ancient Philosopher 3 cr each  
A course devoted to detailed study of a single ancient thinker, such as Plato or Aristotle.

420, 421 Medieval Philosopher 3 cr each  
A course devoted to detailed study of a single medieval thinker or thinkers, such as Augustine, Avemaria, Malemondes, Bonaventure, will be studied.

425, 426 Modern Philosopher 3 cr each  
In-depth examination of the work of a single or several contemporary philosophers, such as Augustinian, Avemaria, Malemondes, Bonaventure, will be studied.

431 Contemporary Philosopher 3 cr each  
A course devoted to a single contemporary philosopher such as Husserl, Heidegger, Sartre, Merleau-Ponty, Wittgenstein, Whitehead, Wattenstein.

435 Senior Seminar 3 cr  

DEPARTMENT OF PHYSICS

Acting Chairperson  
Reginald A. Neys, M.S.

Professors  
Shih-Chi Chang, Ph.D.
Rev. J. Clifton Hill, Ph.D.

Assistant Professor  
Reginald A. Neys, M.S.

Instructor  
Anna D’Eramo, B.S.

The program in the Department of Physics is primarily aimed at providing today’s students with a fundamental background in traditional Physics as well as the interrelationships with other sciences and disciplines. The Department is also aware that in today’s changing world, there must be a suitably flexible program which will best fit the graduate’s interests in the many professions which are based on the practice of Physics. There is always the hope that the student will continue professional growth in Physics but it is also realized that there are many expanding paths to professional growth. The Department program, therefore, is structured to provide the essential background for success in graduate studies in the many current fields which seek Physics graduates, as well as equipping the student to successfully compete for the available positions in research institutions, government agencies, or private corporations. The Department policy calls for individual attention to student needs.

REQUIREMENTS FOR THE MAJOR  
A minimum of 32 semester hours is required for a major. These credits must include 211, 212, 301, 329, 330, 361, 372, 402, 430, 473, 483, 474, 484, or 486 may be substituted for 483 with departmental approval.

Extra-Dpartmental Requirements  
Chemistry 121, 122 or Biology 111, 112, Mathematics 115, 116, 215, 216, 308, Computer Science 111, and two years of modern language.

If a student takes 207, 208-Physics and the Modern World and either 201, 202-General Physics or 211, 212-General Analytical Physics, the credits for the 207, 208 will not apply to the total number required for the degree. Credit will not be given for both 201, 202 and 211, 212.

REQUIREMENTS FOR THE PHYSICS MINOR  
The minor consists of eight 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 College of Arts and Sciences Core requirements, each Engineering student is required to complete the following: Physics 211, 212, and 473, Chemistry 121 and 122, Mathematics
theory and statistical mechanics The following is fundamental principles of thermodynamics, kinetic
This is an intermediate level course covering the
211, 212 General Analytical Physics 4 cr each
Modern World 3 cr each
207, 208 Physics and the
students should take 211, 212 Lecture, four hours, Laboratory, two hours
207, 208 Physics and the Modern World 3 cr each
A course especially for the nonscientist Designed to give the student some basis for understanding the
physics of the twentieth century and the physicist’s approach to the study of nature. The physics of everyday life is treated as a basis and concrete
introductions to the mathematical tools will be reintroduced in the
201 Machine Language Programming and 301 Computer Logic
245 Microcomputer Laboratory 3 cr
A “hands-on”, laboratory course in the use of
single-board microcomputers for interfacing and control. This course introduces the student to those applications and limited digital electronics that relate to the use of these concepts for interfacing the microcomputer with the “real”/analogue world. Student topics centered are assembly language
programming for an 8085 microprocessor, use of parallel and serial I/O ports, analog to digital and digital to analog conversion techniques, motor speed control, microprocessor control
249 Principles of Microcomputers 1 cr
Special topics and problems in microcomputers, microcomputer interfacing circuitry and related
subjects suitable for independent work. Prerequisites Physics 419, or consent of the instructor
252 Robotics 3 cr
This intermediate level course deals with
autonomous controllers, programming, operational aids, drive systems, interfacing, end effectors, sensors and robotic applications Prerequisites Physics 211 and 212, or Permission of the Instructor
430 Advanced Research 2 cr
This is a one year course in which the student selects a research project, develops it, and prepares a report
on the results. The student is also required to present
results of his work at a departmental seminar or an appropriate scientific meeting if deemed advisable. Research topic is selected from those suggested by members of the Physics Department or other science faculty members. Work is carried out in close coordination with the selected advisor, although all work must be the student’s own. No grade is given at the end of the first semester but a final grade is assigned at the completion of the project in the Spring Semester
473 Atomic Physics 3 cr
This course provides an introduction to special
relativity and quantum theory with applications drawn mainly from modern theories of the atom. Topics usually include: photon, quantum theory of heat radiation, the uncertain principle, quantum theory of the hydrogen atom, many-electron atoms, atomic spectroscopy.
484 Introductory Solid State Physics 3 cr
Relativistic Mechanics 3 cr
This course is an introduction to the Special and
General Theories of Relativity. A list of topics which may be discussed are absolute space, Einsteinian Kinematics, Einsteinian Optics, spacetime and four-vectors, relativistic particle mechanics Prerequisites
485 Shop Techniques 1 cr
A brief introduction to machine shop techniques necessary to experimentalists in all fields. Some of
DEPARTMENT OF POLITICAL SCIENCE

Chairperson
Kent F. Moors, Ph.D.

Professors
Robert Beranek, Ph.D.
Kent F. Moors, Ph.D.
Harold Webb, Jr., Ph.D.

Associate Professor
Patricia M. Dunham, Ph.D.

Assistant Professor
Charles T. Rubin, Ph.D.

Political science studies the political ideas, institutions, behavior, values, and goals of human collective life. The department stresses an understanding of political life as a necessary complement to the study of human existence. Through an awareness of, and appreciation for, the similarities and differences among political structures and political tasks, political actors, systems of law, political ideas and thought, and the ways by which political activity relates to the dimensions of life as a whole, the student becomes familiar with the political as an expression of deeper and more fundamental considerations. Students in the Department of Political Science are introduced to both the normative and empirical methods of analyzing political life.

Political science majors are prepared for careers in government and administration, teaching, private enterprise, and for further study in graduate and law school programs.

REQUIREMENTS FOR THE MAJOR IN POLITICAL SCIENCE

Twenty-four semester hours beyond 101 are required for a major in political science, these credits must include 208, 233, 309, and 405 or 406. A student transferring to Duquesne from another college or university may receive a maximum of 12 transfer credits applied to their major requirement.

REQUIREMENTS FOR THE MINOR

General Minor This minor is designed to provide the students with a comprehensive view of the entire discipline and is recommended for those students who may later contemplate graduate study or think that they might eventually like to change from a minor to a major in Political Science. It consists of a minimum of 12 credits beyond the freshman course, 101, the 12 credits encompass the required courses, 208, 233, 309, and 405 or 406.

Concentrated Minor The following minors, concentrated in a particular area, are also available:

1. American Government, 208 and a minimum of nine credits from among, 233, 236, 240, 276, 305, 323, 324, 325, 401, 407, and 413.
2. Comparative Government, 208 and a minimum of nine credits from among, 315, 318, 321, 408, 412, 413, and 450.
3. International Relations, 208 and a minimum of nine credits from among, 312, 328, 402, 404, 409, and 450.

Selective Minor The Department of Political Science will also devise a minor from its course offerings to fulfill the particular needs and desires of a student in any major area of concentration. Such a minor must be structured in consultation with an assigned Political Science Department faculty advisor and the Department Chairman. A maximum of 6 transfer credits can be applied to the minor requirement.

101 Introduction to Political Science 3 cr
An investigation of the most fundamental concepts involved in the study of political society.

208 Comparative Political Systems 3 cr
A systematic, multifaceted analysis of selected political systems.

233 American National Government 3 cr
The institutional structure and policy-making processes of national government are examined as reflections of the assumptions of liberal democracy and of the American social and economic systems. In addition to the three branches of government, political parties, interest groups, and elections are considered.

235 The Mass Media and Politics 3 cr
A study of the mass media and its nature, role, and impact on U.S. politics. The emphasis will be on the mass media as instruments of political communication and opinion leadership.

237 State and Local Government 3 cr
A study of the position of the state and local governments in the Federal Union.

240 American Political Parties 3 cr
An intensive study of the roles of interest groups and political parties in the decision-making processes of the American system of government with attention devoted to the internal dynamics of these institutions.

276 Voting and Election Behavior 3 cr
An examination of the determinants of opinions and political beliefs, political participation and voting behavior, the significance for democratic government of findings in these areas.

305 The American Presidency 3 cr
A study of the role of the President at the center of the decision-making process in the American political system.

309 International Relations 3 cr
A study of the major factors involved in international relations including such concepts as sovereignty, nationalism, balance of power, and international law and organization.

312 International Law and Organization 3 cr
A survey of the historical development and present role played by international law in the world community and the formation and operation of such organizations as the United Nations and its specialized agencies.

320 United States Foreign Policy 3 cr
A study of American foreign policy since the Second World War, with emphasis on the central present issues and the domestic sources of foreign policy.

321 Government and Politics of Eastern Europe 3 cr
An analysis of political developments in the communist regimes of Eastern Europe with special emphasis on relations between the USSR and Eastern Europe in the post-Stalinist era.

323 Constitutional Law Federalism 3 cr
A detailed examination of Supreme Court cases concerning the nature of American federalism—Congressional and Presidential power, commerce clause, state powers, judicial review, due process clauses, and apportionment. Students are introduced to court and appeals procedures, the reading and briefing of court decisions, and the nature of the court review process.

324 Constitutional Law Civil Liberty 3 cr
A detailed analysis of Supreme Court decisions bearing upon Bill of Rights guarantees, with specific reference to the freedoms of speech, press, assembly, the dimensions of search and seizure, right of legal counsel, equal protection and due process rights, voting rights, and the adjudication of the fourteenth amendment application of rights to state action.

325 Constitutional Law Criminal Law 3 cr
This course will consider appellate cases in criminal rights, and major aspects to criminal procedure.

As with the Constitutional Law courses, it is a case approach. Students will read court decisions and will develop familiarity with briefing cases.

327 Research Methods in Political Science 3 cr
A study of the techniques of scientific inquiry into political phenomena including research methods, data collection, analysis and interpretation.

331 Peace and the Arms Race 3 cr
An analysis of the grave threat to world peace posed by nuclear weapons and the arms race. Special attention will be given to the political, ideological, and moral dimensions of the arms race.

401 The American Congress 3 cr
An investigation of the operation of the Congress of the United States within the American system of government.

402 Soviet Foreign Policy 3 cr
An analytical study of the development of Soviet foreign relations with special emphasis on the post-Stalinist era.

405, 406 Western Political Thought 3 cr each
A study of political ideas as distinct from and yet related to political institutions which constitute our perennial western political heritage. 405 considers theorists from the classical period to the early 16th Century 406 considers theorists from the later 16th Century to the late 19th Century.

407 American Political Thought 3 cr
An analysis of the issues which have played a fundamental role in American Politics, from colonial church-state problems, to modern liberalism and conservatism.

408 Theory of Comparative Government 3 cr
An examination of the basic theories and concepts in contemporary approaches to comparative political systems.

413 Government and Politics of the USSR 3 cr
An intensive analysis of the origin and evolution of the Soviet political system.

414 Public Policy 3 cr
A study of the elements, operations, and investigation of the way governmental units decide upon programs and policy objectives.

420 Contemporary Political Theory 3 cr
A study of central topics in political thought from Marx to the present time.

430 Internship in Practical Politics 4 cr
A work and observation experience in government and political offices at the city, county, state, and national levels in the Pittsburgh area. Permission of department required.

436 Advanced Seminar 3 cr
A detailed analysis of a selected topic.
450 Workshop-International Studies  3 cr
An intensive one-week interdisciplinary summer school course This course presents political, political policy, culture, religion, and social problems of Third World Countries Several outside speakers augment Duquesne faculty

DEPARTMENT OF PSYCHOLOGY

Chairperson
Richard T. Knowles, Ph D

Professors
Anthony Barton, Ph D

Constance Fischer, Ph D

William Fischer, Ph D

Richard T. Knowles, Ph D

Rev. Edward Murray, Ph D

Rolf von Eckartsberg, Ph D

Associate Professors
Charles Maes, Ph D

Paul Richer, Ph D

Rev. David Smith, Ph D

Assistant Professors
Charles Brice, M A

Michael Suprenant, M A

Eva Sport, M A

Sidney White, Ph D

The undergraduate program of the Department of Psychology is designed 1) to introduce and familiarize students with the fundamental content, issues, and interests of a variety of areas of psychology and critically evaluate and reformulate them 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 professional-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 with a historical perspective Further study in graduate school prepares students for careers in mental health, schools, mental health and social welfare agencies, business and industry. In our rapidly changing society the demand for professionally trained psychologists is increasing.

While the department believes that human scientific psychology is the most viable and encompassing approach to the study of the person, it also realizes its responsibility to expose its students to other psychological approaches. Hence, every major who plans to enter graduate school in psychology is strongly encouraged to take advantage of the offerings in sister universities through the procedure of cross-registration.

REQUIREMENTS FOR THE MAJOR

The major program consists of 103-Introduction to Psychology plus a minimum of 24 semester hours These credits must include 220 and 223. 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 (225 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 toward the 24 required credits, an additional three credits in practicum may be earned above and beyond the required minimum of 24 Information about such opportunities can be obtained from the department secretary. Prospective majors should consult the departmental secretary concerning the special procedure followed for the declaration of the major. A minimum of 25 credits in psychology exclusive of practicum must be taken at Duquesne University for the major.

REQUIREMENTS FOR THE MINOR

Requirements for a minor are 103 and 223 and any three of the following: 225, 226, 280, 328, 340, 352, 361, 390, 400 level courses may be taken for the minor with permission of the department head. A minimum of nine credits in psychology must be taken at Duquesne University for the minor

COUNSELING SERVICES

Personal counseling services are available to all students at the Psychology Counseling Center located at the Chapel end of Centennial Walk

103 Introduction to Psychology  3 cr

(Preq: 102) Introduction to fundamental concepts and methods of psychology, examined from both traditional and phenomenological perspectives. Prerequisite for all other departmental courses

220 Systematic psychology  3 cr

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

223 Introduction to Existential Phenomenological Psychology  3 cr

Introduction to a human science alternative to psychology as a natural science. Prerequisite for 356 and 410, required for majors and minors

225 Developmental Psychology I (Infancy and Childhood)  3 cr

Growth and development of the child, with emphasis on personality development

226 Developmental Psychology II (Adolescence and Maturity)  3 cr

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

230 Psychology of Community Experience  3 cr

Experience of community phenomena, e.g., individual versus group priorities, intimacy versus privacy

280 History of Psychology I  3 cr

Overview of figures and issues in the history of psychology, from precursors to present

282 Psychology of Personality  3 cr

Critical examination of major theories of personality

340 Social Psychology  3 cr

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

352 Abnormal Psychology  3 cr

Examining of theories and data on disordered human experience

356 Research Psychology Theory and Practice  3 cr

Review of theory and practice of traditional and human science research. Includes study projects. Prerequisite 220, permission of department head for non-majors

361 Psychology of Identity and Fulfillment  3 cr

The ways in which identity is lived individually and collectively. Designed to be personally relevant to the life of the student. Open to juniors and seniors only

370 Psychology of Aesthetic Experience  3 cr

Theoretical and empirical explorations of aesthetic experience

390 History of Psychology II  3 cr

Intensive study of selected historical figures, in dialogue with contemporary themes. Reading of primary sources. Prerequisite 280

391 Applied Psychology Practicum  3 cr

An applied psychology setting provides opportunities for working directly with professionals. Settings include psychiatric hospitals and community centers. Majors only, permission of Department head. Repeatable once

392 The Individual and His/Her World  3 cr

Examination of individual’s relation to society, from a developmental and cross-cultural perspective

393 Principles of Psychoanalytic Thought  3 cr

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

394 Psychology of Language and Expression  3 cr

Communication as a life embodied relation of person to world and others. Emphasis on phenomenological theorists. Permission of department head for non-majors

410 Advanced Existential-Phenomenological Psychology  3 cr

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

432 Gestalt Psychology  3 cr

Contributions of Gestalt psychology (especially the works of Koffka, Kohle, 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

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 to graduate study. Advanced courses work completed Permission of faculty member and department head required

490 Special Topic  5 cr

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

DEPARTMENT OF SOCIOLOGY

Chairperson
Eleanor V. Fails, Ph D

Professors
Eleanor V. Fails, Ph D

Michael Kupersanin, Ph D

Associate Professors
Norma Feinberg, Ph D

Joseph D. Yennell, Ph D

Assistant Professors
Mary Frances Antolini, M A

Charles F. Hanna, Ph D

Lecturers
Lee Frank, M A
Ronald Freeman, M A
Jerry, M A
Patrick J Moore, M A
Linda Nelson, M A
Raymond A Novak, J D
Marilyn Sullivan, M S
James L Walney, M A
Charles Westbrooks, M A

Professor Emeritus
Chester A Jurczak, Ph D

Undergraduate instruction in sociology has as its primary commitment the intellectual development and professional training of sociology majors. At the same time, we focus on the contribution of the discipline to the liberal education of the student, regardless of his/her major. The pursuit of excellence in value-building and service orientation articulated in the Mission and Goals statement of the University has been and continues to be the foundation on which our curriculum is built.

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

Course Descriptions

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
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<tbody>
<tr>
<td>102 Introduction to Criminal Justice</td>
<td>3 cr</td>
</tr>
<tr>
<td>201 Sociological Theories</td>
<td>3 cr</td>
</tr>
<tr>
<td>300 Sociological Methods</td>
<td>3 cr</td>
</tr>
<tr>
<td>301 Sociological Methods</td>
<td>3 cr</td>
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</tbody>
</table>

Additional requirements for Criminal Justice Concentrations

- 210 Introduction to Criminal Justice
- 3 cr

Announcement of the criminal justice system, including police, courts, correctional facilities, and community-based corrections. Open to non-majors.

Additional requirements for Human Services/Gerontology Concentrations

- 103 Introduction to Human Services | 3 cr |
| Survey of the history and areas of social and community services and programs | |
| Open to non-majors | |

Sociology

- 202 Sociology of Social Problems | 3 cr |
| A study of the person-structure-change framework applicable to contemporary social issues | |

Person and Society

- 205 Person and Society | 3 cr |
| A study of the person’s interaction with societal groups, organizations and institutions | |

Sociology of Child and Adolescent

- 214 Sociology of Child and Adolescent | 3 cr |
| A study of the child and adolescent in American society | |

Family Systems

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

Leisure and Popular Culture

- 307 Leisure and Popular Culture | 3 cr |
| A study of the relationship between work, leisure and popular culture, leisure as a social problem will be considered | |

Criminal Justice

- 210 Introduction to Criminal Justice | 3 cr |
- 211 Social Deviance | 3 cr |
- 212 Helping Process | 3 cr |
- 213 Delinquency and Society | 3 cr |
- 214 Sociology of Child and Adolescent | 3 cr |
- 218 A Study of Juvenile Delinquency | 3 cr |
- 219 Criminology | 3 cr |
- 220 Social Aspects of Crime | 3 cr |
- 221 A Study of Criminal Jurisprudence | 3 cr |
- 222 A Study of Criminal Behavior | 3 cr |
- 223 A Study of Criminal Justice | 3 cr |
- 224 Police and Society | 3 cr |
- 225 A Study of the Role of the Police in Society | 3 cr |
- 226 Crime Prevention | 3 cr |
- 227 A Study of Contemporary Crime Prevention Programs Involving Criminal Justice Agencies, Citizens, and Community Polices | 3 cr |
- 228 The Law and the Adult Offender | 3 cr |
- 229 A Survey of Those Aspects of the Legal System That Relate to the Identification, Processing and Rehabilitation of the Adult Offender | 3 cr |
- 230 Human Services/Gerontology | 3 cr |
- 231 Social Gerontology | 3 cr |
- 232 Social Gerontology | 3 cr |
- 233 An Examination of the Sociology of Aging | 3 cr |
- 234 Aging Across Cultures | 3 cr |
- 235 A Study of the Socialization, Roles and Problem Aspects of the Process of Aging in Various Cultures | 3 cr |

Human Services/Gerontology

- 236 A Study of the Socialization, Roles and Problem Aspects of the Process of Aging in Various Cultures | 3 cr |

DEPARTMENT OF THEOLOGY

Chairperson
Reverend Francis X Malinowski, C S Sp , Ph D

Professors
James Hanigan, Ph D
Reverend David Kelly, Ph D
Marilyn Schaub, Ph D
William Thompson, Ph D
Dr. George S Worvil, Jr., S T D

Associate Professors
Reverend Charles Fenner, C S Sp , Ph D
Reverend Michael Slusser, D Phil

Assistant Professor
Dr. Anne M Clifford, C S J , Ph D
DEPARTMENT OF THEOLOGY

The numbering of the course indicates the level of study, as well as an introduction to their literary, historical, and theological context. Selected topics are dealt with at a more advanced level than in the lower-division courses. These courses are designed to provide a deeper understanding of religious concepts and their historical and cultural contexts.

REQUIREMENTS FOR THE MAJOR

The major program consists of a minimum of 27 credits. These must include 106, 213, 214, 220, 250, 498, the remaining credits will be chosen in consultation with the student’s advisor.

REQUIREMENTS FOR THE MINOR

A minor consists of four courses. The department has also prepared suggested sequences which may be helpful to a student wishing to concentrate in a certain area of study, e.g., Biblical Studies, Roman Catholic Theology, World Religions, Religion and Culture, Christianity in History, etc.

COURSE INFORMATION

The numbering of the courses indicates the level of approach. These courses are of the basic, survey type, wherein emphasis is on breadth rather than on depth, and serve as background for other courses.

BIBLICAL STUDIES

213 Introduction to the Old Testament 3 cr. A presentation of the Old Testament writings in their dynamic context of culture, politics, and geography, as well as an introduction to their literary modes, theologies, and themes.


313 Archaeology and the Bible 3 cr. An illumination through archaeology of the historical, cultural background, and the events described in the Bible, as a general introduction to the techniques of archaeological investigation and a study of the principal archaeological sites in Palestine.

316 The Apostle Paul 3 cr. An exposition of Pauline Literature, emphasizing the person of Paul and his impact on the early Church.

321 Jesus in the Gospels 3 cr. A portrait of the person of Jesus Christ, based on a study of the 4 gospels, with ample usage of recent scholarship.

413 Theology of the Old Testament 3 cr. Examination of the Theology of the various books or blocks of writing in the Old Testament, an attempt to draw together and present the major themes, motifs, and concepts of the Old Testament, a study of the relationship between the Old Testament and the New Testament. Prerequisite 114 or 213.

414 Theology of the New Testament 3 cr. A study of specific themes or books or the New Testament focusing on particular questions of contemporary Christianity. Syllabus will be available in the Theology Office.

490 Field Experience in Biblical Archaeology 3 cr. Six weeks of supervised participation in an archaeological excavation in the Ancient Near East, experience in stratigraphic digging, pottery identification, scientific analysis of finds, and recording methods. Offered every two or three years, approval of participants by core staff required.

493 Individual Topics in Biblical Studies 1-3 cr. The topics will change regularly and will be published within the department.

Christian Studies In General

140 Christian Understanding of the Human Person 3 cr. An investigation into the question of “What does it mean to be human?” according to Judeo-Christian teaching, a discussion of the relationship of the human person to others, the world, and the Divine as the basis for humaneness, a study of the issues involved in these four relationships, e.g., freedom, grace, contemplation.

255 Christian Worship 3 cr. The meaning of ritual and worship in Christianity with special emphasis on the foundational history of worship and the developments in both Roman Catholic and Protestant worship since the Vatican Council.

243 Religion and Social Issues 3 cr. A study of the influence of religious convictions in contemporary major social issues of today’s world, e.g., population growth, famine, ecology, liberation, revolution, truth, and human dignity.

260 Protestantism 3 cr. An introduction to the thought of the principal reformers Luther, Calvin, Zwingli, Wesley, a study of speculative and practical forces operative in the fifteenth-sixteenth centuries which gave rise to the Reformation, the formulation of Protestant Orthodoxy.

271 Eastern Christianity 3 cr. A study of the main theological developments in the Eastern Church from the Patristic age on through the medieval times until the modern day, as they shape its distinctive spirit and mentality and as they are expressed in the Eastern Church.

274 Church History I 3 cr. A religious and historical exploration of the growth of Christianity from the first century up to the Reformation, a discussion of those issues within the Church and the external factors which brought about the conflict and development.

275 Church History II 3 cr. Selected topics in Catholic and Protestant development from 1500 to the present day, special emphasis on the crises, revolutions, and reforms that were central to this development.

345 Women and Christianity 3 cr. A study of the Old and New Testament views of women and a history of the status of women in the Roman Catholic and major Protestant traditions with emphasis on the contemporary role and spirituality of women in Christianity.

351 Sexuality, Sex, and Morality 3 cr. An analysis of the nature of sex and sexuality according to the sources and developments of Christian thought, the integration of these concepts into a contemporary moral and ethical system.

352 Human Life and Morality 3 cr. A discussion of the fundamental moral principles involved in making any of the "life decisions," the problem of the definition of life, a survey of the varied moral approaches to the issues of war and peace, capital punishment, abortion, birth control, euthanasia, genetic engineering, and the new embryo.

353 Health Care Ethics 3 cr. A study of practical and theoretical issues in the ethics of health care. The course is cross-listed in the nursing school and is team-taught by a member of the theology faculty and a member of the nursing faculty. Issues include life and death questions, professional-patient relationships, and moral aspects of the health care professions.

451 War and Peace in Christian Perspective 3 cr. An introduction to Christian teaching of the moral permissibility of using violence and participation in war from biblical times to the present, including an evaluation of the varieties of pacifism, of nonviolent resistance, and of just war theories.

470 Christian Mysticism 3 cr. A study of the manifold Christian experience of mysticism, i.e., experiential contact with God, as seen in famous exemplars of mystical experience, e.g., Jesus Christ, Paul, Ignatius of Antioch, Augustine, John of the Cross, Catherine of Siena, Teresa of Avila, John of the Cross, Venerable Liberman.

494 Individual Topics in Christian Studies 1-3 cr. The topics will change regularly and will be published within the department.

Roman Catholic Theology

106 Faith and Experience 3 cr. An examination of various forms of atheism and an exploration of Christian responses to their challenge, a study of the meaning of faith and revelation, a major conflict and development.

210 Theology of the Incarnation and the Passion 3 cr. An explanation of the spirit, beliefs and practices of Roman Catholicism in the doctrine of the Incarnation and the Passion of Jesus Christ, as People of God, as a sacramental community, as People of God, as sacrament.

220 The Mystery of Christ 3 cr. A study of the person and meaning of Christ in historical and contemporary perspective, a discussion of the mystery of Christ in historical and contemporary perspective, a discussion of the new era in the spirituality of humanity inaugurated by the Incarnation and the Passion-Death-Resurrection event.

230 The Church 3 cr. A study of the Christian community of believers in its origins, some of its major historical and dogmatic emphases, and its contemporary understanding of itself, the Church as a mystery, as Mystical Body, as People of God, as sacrament.

242 Contemporary Theological Issues 3 cr. An examination of theological developments in an era of renewal, reevaluation, and cooperation, e.g.,
250 Conscience and Morality 3 cr
A Catholic perspective of the basic issues involved in the formulation of moral values with the developing person, and of the sources upon which moral systems are based, a discussion of the absolute vs the relative, traditional morality vs the "new morality," and application of these principles to modern problems.

256 God and His Meaning 3 cr
A theological understanding of the problems of God, a consideration of the responses of various religions and philosophies to this problem, the origins and development of the theology of God in the Judaeo-Christian tradition with special focus on Catholic development.

301 Marriage 3 cr
A personally-oriented and practical treatment of the marital union as seen in its Christian theological, psychological, and sexual aspects, a discussion of Christian marriage as a bond of love, as a sacrament, and as a way of human fulfillment.

331 The Church in the Modern World 3 cr
An analysis of the Church's role in human development today and in offering solutions to present problems of humanity in light of Vatican II's "Pastoral Constitution on the Church in the Modern World" and other related documents.

335 Theology of the Sacraments 3 cr
A practical treatment of the seven sacraments in relation to their significance for the Christian's daily spiritual growth and fulfillment, consideration of human needs for ritual and symbol, discussion of recent revisions and developments in sacramental theology.

475 Theology and Catechesis 3 cr
An examination of the principal theological and pedagogical themes of modern religious education, and of the place of catechesis in the ministry of the Church, a presentation of the historical background of the contemporary catechetical renewal.

491 Experience in the Teaching of Religion 6 cr
One semester of supervised experience in teaching religion in a high school environment in conjunction with a cooperating high school teacher and University Department coordinator. This course is open only to majors in Theology upon approval of the Chairperson of the Department.

495 Individual Topics in Roman Catholic Study 1-3 cr
The topics will change regularly and will be published within the department.

498 Seminar in Theology 3 cr
A critical analysis of selected topics in theology or of selected works by outstanding theologians, open only to juniors and seniors with a major or minor in theology.

Selected Religious Studies

180 Religious Experience 3 cr
An examination of the dimensions of mankind's religious experience, e.g., mystical, ritual, mythical, ethical, and scriptural, an analysis of the likenesses and differences of how the Divine is sensed and responded to in varied geographical, cultural, and chronological contexts.

240 Studies in Black Theology 3 cr
An examination of the dimensions of the religious experience of Black Americans, e.g., its history, its relationship to African origins, to slavery, to racism, to Christian denominations, an analysis of special elements in that experience, e.g., Black Churches, preaching, music and the "American Way of Life".

283, 284 Judaism People & Faith 3 cr each
A survey of modern Jewish history to discover roots and traditions of the Jewish people in American, Israel and the Soviet Union and the view of the Holocaust and its effects on world Jewry. The faith, beliefs and practices of Jewish life today. (This course is sponsored by the Chautauqua Society).

372 Religious Themes in Literature and Film 3 cr
An exploration of religious experience and religious concepts as expressed in significant worlds in film and literature, including themes concerning human person's relationship to self, others, and to God.

496 Individual Topics in Religious Studies 1-3 cr
The topics will change regularly and will be published within the department.

DEPARTMENT OF THEOLOGY

SCHOOL OF BUSINESS AND ADMINISTRATION

School of Business and Administration

Administration

Dean
Glen Beeson, Ph.D.
Associate Dean
Bernadine Meyer, Ed.D., J.D.
Assistant Dean
Thomas A. Pollock, Ph.D.
Assistant to the Dean
Emily Nguyen, M.B.A.
Chairperson(s)
Robert Borman, M.B.A., C.P.A.
Quantitative Sciences Division
William D. Presutti, Jr., Ph.D.
Behavioral Sciences Division
Geza Grosschmid, J.U.D.
Economic Sciences Division

HISTORY

The School of Business and Administration was established in 1913 as the School of Accounts and Finance. The rapid growth of the School necessitated a constant broadening of the curriculum until it covered all business subjects of fundamental importance.

In 1931 it was designated the School of Business Administration and, with this change, definitely became a professional school of business administration.

In 1971 the name was changed to the present designation to indicate broader preparation for activity in organizations of all types.

PHILOSOPHY AND OBJECTIVES

In accord with the educational philosophy and objectives of the University, the School of Business and Administration aims to assist students in their development of the natural and supernatural virtues. The general aim is to provide through the media of instruction and related collegiate activity the facilitation of purposeful character, intellectual accomplishment, emotional and social maturity, and professional efficiency.

The School of Business and Administration has the professional responsibility of developing in students such knowledge of business principles, procedures and problems as will enable them to become self-sustaining members of the community, aware of their social and public responsibilities and dedicated to the enrichment of the resources for worthy living.

It seeks to produce graduates who, upon entering their chosen careers, will be effectively prepared to discharge their obligations to God, their community, and themselves as intellectual and moral beings.

The School attains this objective by guiding students through a cultural core program, a business core program, an elective area of advanced business subjects chosen on the basis of professional interests, co-curricular and extra-curricular activities, and maintained personnel services.

As a division of the University, the School of Business and Administration is obviously dedicated to promoting those University aims and objectives contained in the overall mission statement.

The professional objective of the School of Business and Administration is to produce graduates who have acquired and developed:

1. An appreciation of the importance of initiative and who consequently are willing to assume responsibility, work efficiently and harmoniously with others, and adjust to changing circumstances.

2. A respect for logical thinking and who strive energetically, therefore, to develop the capacities for analytical reasoning through the vigorous and orderly application of ethical and technical principles to problem solving.

3. An understanding of the personal and professional value of effective communications and a cultivation of their capacities for speaking and writing clearly and concisely.

4. An awareness of the important role of quantitative measurements in today's business and who have become skilled in the interpretation of mathematical, accounting and statistical data with computer usage.

5. Sufficient knowledge in a professional area so that they can assume positions of responsibility with a background that will enable them to progress rapidly.

ADMISSION

Students who wish to enroll in the School of Business and Administration should apply through the Office of Admissions. In addition to the regular University admission requirements (see p. 6), students who wish to enroll in the School of Business and Administration should present a good background in mathematics.

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 2.25 or better overall and a graduate of C or better in all mathematics and business courses are necessary.

If the student wishes to transfer credit for course work in business taken elsewhere at the lower level (freshman and sophomore) when that work is offered at the upper level (junior and senior) in the School of Business and Administration, the student must first validate such course work by testing. For information about validation by CLEP and qualifying examinations, the student should consult an advisor.

DEGREE

The School of Business and Administration grants the degree of Bachelor of Science in Business Administration. This degree may be awarded to those who satisfy the entrance requirements and complete successfully the School’s degree program.

SECOND BACHELOR'S DEGREE

Persons who have received a Bachelor’s degree from an approved college or university may be eligible to enter the program for a second Bachelor’s degree in Business Administration. A second degree candidate must meet all requirements of the School’s degree program and must complete a minimum of 30 credits.

THREE-YEAR BACHELOR’S/J D

A student who has completed 90 credits at Duquesne University with a 3.5 or better overall average and who has satisfied all undergraduate curricular requirements may apply for the Bachelor’s degree after successful completion of the first year of academic work at Duquesne University. Students interested in this program should consult their advisors in the sophomore year.

EARLY ADMISSION TO MBA PROGRAM—BSBA/MBA

The School of Business and Administration provides an opportunity for students in the School who achieve the Dean’s List to apply for early admission to the Master of Business Administration (MBA) program. Provided they receive a satisfactory score on the Graduate Management Admission Test, these students may apply to take certain MBA courses during the senior year. Students interested in this program should consult their advisors early in the junior year.

EARLY ADMISSION TO MBA PROGRAM—BS PHARMACY/MBA

The School of Business and 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.

INTERNATIONAL BUSINESS CERTIFICATE PROGRAM

See International Business Curriculum.

BUSINESS CERTIFICATE PROGRAM WITH COLLEGE OF LIBERAL ARTS AND SCIENCES

The School of Business and Administration and the College of Liberal Arts and Sciences have developed a certificate program in business for liberal arts students. Students in the College who are interested in the program should consult their advisors.

SCHOOL CENTERS

Activity complementing direct instruction takes place in three ancillary units. All function to provide students and faculty with an opportunity for professional development as well as to provide services to the University and the community at large.

Center for Economic Education

The Center is charged with the responsibility of initiating and promoting economic education in the society at large. More specifically, it develops and coordinates economic education within the Western Pennsylvania and Tri-State area primarily to upgrade economic literacy and teaching competency in the school system. The Center also conducts economic education programs for clergy, media professionals, and other opinion leaders.

Center for International Management

The objective of the Center is to develop a better understanding of the American involvement in international affairs and business and in management abroad through teaching and research, it is achieved by an interdisciplinary approach. The areas of current research focus are:

1. Trade expansion between the USA and Eastern Europe
2. Management in foreign nations
3. Problems in international business
4. International economic development with a stress on interaction among developed countries, and on the relationship of developed and less developed countries
5. International political and legal issues

The Center has no teaching program of its own, most of its staff are faculty members from various schools and departments of the University or visiting foreign professors.

Center for Real Estate Studies

The objective of the Center for Real Estate Studies is to become a regional education center and to provide students with the necessary background so that they may obtain various professional designations in the field of real estate.

SCHOOL OF BUSINESS AND ADMINISTRATION COMPUTER FACILITIES

The School of Business and Administration operates two large computer laboratories in Rockwell Hall. One laboratory is dedicated to personal computers and their applications across the business curriculum. These personal computers have graphics capabilities and maximum internal memory capacities. The other laboratory consists of terminals which provide on-line access to software and applications associated with the University's mainframe computer system. These two laboratories provide state-of-the-art hardware and software support to students in the School of Business andAdministration.

STUDENT ORGANIZATIONS

These student organizations in the School of Business and Administration exist for the promotion of the scholarly and professional interests of members of the College. The Beta Chapter Sigma, national honorary fraternity for accredited schools of the American Assembly of Collegiate Schools of Business, is established at Duquesne University. Membership in this honorary fraternity is limited to juniors in the highest five percent of their class and to seniors in the highest 10 percent of their class.

Beta Alpha Phi is the honorary scholarship society of the school.

Phi Chi Theta is a national professional commerce organization.

American Marketing Association, the student chapter, affords membership to students whose major interests include salesmanship, marketing, advertising, transportation, or foreign trade. A selected group of seniors is permitted, under faculty supervision, to participate in the meetings of the Sales Executives Club of Pittsburgh and the senior chapter of the A M A.

Delta Sigma Pi, a national professional business society, is represented by Delta Rho chapter.

The Association for Personnel Administration, the student group sponsored by and affiliated with the American Society for Personnel Administration, is represented by the student chapter.

Pursuits in the University course of study are sponsored by the student advisory council, a group of student leaders in the School who meet on a regular basis with the Dean to discuss School matters.

The School of Business and Administration is a student organization for those with interest in careers in the area of international business.

Financial Management Association, is a group whose activities promote the interests of students interested in finance.

Data Processing Management Association - A student chapter of DPMA is an organization for those whose career interests are in the management information systems area.

ADVISORY BOARDS

Corporate Advisory Board for Management Information Systems

L. J. Killeen, ALCOA

Richard S. Cuccio, Arthur Andersen & Co

Russel Zemba, Consolidation Coal Company

Paul Ruggier, Cooper's Lybrand

Wayne R. Maue, Blue Cross of Western Pennsylvania

John A. Armstrong, Consolidated Natural Gas Company

John G. Crandall, Duquesne Systems Inc

Regis F. Zebroski, HJ Heinz Company

Dean McCallister, Koppers Company

David Moore, Mellon Bank

Richard V. Baker, Mobay Corporation

Richard S. Brzenk, National Steel

Kenneth P. Leckey, Jr., Pittsburgh National Bank

R. R. Rezac, USX Corporation

Edward J. Reis, Westinghouse Electric Corporation.

Advisory Board for Programs in Taxation

Joseph B. Banko, Jr., CPA

Jeffrey S. Blum, Esq., Berkman Ruslander, Pohl, Libey & Engel

David B. Good, CPA

Leroy I. Metz, Esq., Wick, Rich, Fluke & Streiff

Joseph D. C. Wilson III, Arthur Young & Company

Davis W. Nelson, Esq., Westinghouse Electric

Robert B. Williams, Esq., Eckert, Seams, Chevron & Mellott

Marvin S. Lieber, Esq., Berkman, Ruslander, Pohl, Libey & Engel

Frank P. DeMarco, CPA, Arthur Anderson & Co

Linda B. Burke, Esq., ALCOA

George O'Harlon, Internal Revenue Service

James C. Stickler, CPA, Price, Waterhouse & Co

W. Redd Lowe, Esq., Meyer, Unkovic & Scott

C. Paul Jannis, CPA

Robert D. German, Esq., Cooper, German, Kelly & Purcell

Joseph P. Davoren, Koppers Company, Inc.


### CURRICULUM

#### Recommended Programs of Study

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<td>Fall Semester</td>
<td>Spring Semester</td>
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<tr>
<td>100 Thinking and Writing</td>
<td>3</td>
</tr>
<tr>
<td>201 College Algebra</td>
<td>3</td>
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<td>301 Business Finance</td>
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</tbody>
</table>

Students' concentrations should be based upon career objectives and constitute as broad and flexible an educational process at the undergraduate level as is possible. Career advice should be sought from many and varied sources in the University, including faculty.

### Guide for Business Students

Course suggestions for all business programs can be found in the Guide for Business Students, available from advisors. This publication also contains information about academic and registration policies.

#### FOUR YEAR SAMPLE PLAN

**Effective September 1987**

<table>
<thead>
<tr>
<th>Course Schedule</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall Semester</strong></td>
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<td>100 Thinking and Writing</td>
<td>3</td>
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<tr>
<td>201 College Algebra</td>
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<td>301 Business Finance</td>
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<tr>
<td><strong>Sophomore Year</strong></td>
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<td>202 Intermediate Accounting</td>
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<td>302 Intermediate Economics</td>
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<td>402 Intermediate Accounting</td>
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<td><strong>Senior Year</strong></td>
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<td>151 Senior Project</td>
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**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 basis of information available as of June 1988.

### CLASS ATTENDANCE

Regular class attendance in the School of Business and Administration is normally required for maximum educational advantage. The responsibility for all course material rests wholly with the student. It is the prerogative of each instructor to establish specific policies for attendance at tests, examinations, class lectures, deadlines for reports, and other specific school or course requirements.

A student who is unable to attend class because of serious illness, hospitalization, a serious accident, or other extenuating circumstances is responsible for notifying the student’s advisor. The student should supply a written verification as soon as possible. A student who is absent for cause is expected to complete all of the work in all courses. It is the student’s responsibility to make up all assignments in all courses and to be familiar with any instructions which may have been given during the absence.

### DIVISIONS AND ACADEMIC PROGRAMS

The School of Business and Administration is comprised of three divisions: Quantitative Science, Behavioral Science, and Economic Science.

Students entering the School of Business and Administration are expected to inform their advisors about their career objectives and their academic areas of concentration, and to consult with them when choosing junior and senior courses indicated in any of the three divisions. Their proposed curriculum choices must, of course, include the University requirements and Business and Administration Core requirements as indicated in the illustrations set forth in this catalog. Students are strongly encouraged to include coursework in speech/communications and in advanced writing in their programs. Regulations for certification in Accounting make the program very rigid, thus it is dealt with in the section describing the accounting curriculum on the following pages.

#### ACADEMIC LOAD

Students may normally carry five courses in one semester. A schedule of more than five courses or 15 credits must be approved by the Dean. In the summer sessions, students normally carry one credit a week, i.e., six credits in the six-week session. A 12-credit schedule in a regular week is considered full-time study. Students on academic probation may not take more than 12 credits.

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### DIVISIONAL STUDENTS

Handicapped students requiring special assistance are urged to notify the class instructor or the student’s advisor before the first class.

### Enrollment in Business Courses by Students in Other Schools of the University

Students enrolled in other schools in the University are welcome to take business courses provided they meet all prerequisites. Under no circumstances, however, may a student in another school take more than 24 credit hours in business. Students in the College of Arts and Sciences who wish to take business courses should follow the business certificate program established by the two schools. Students should consult their advisors in 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.

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CPA Requirements
Students who desire to become certified public accountants in Pennsylvania and who have been graduated from a four-year program in a college approved by the State Board of Education may sit for the CPA examinations. The degree program of the University is so approved.
Graduates may sit for the CPA examination in other states, among which are New Jersey and New York.

211, 212 Introductory Accounting 3 cr each
An introduction to the language of accounting, basic accounting concepts and brief exposure to recording financial information. An extensive study is made of accounting information for management decisions. Offered every semester.

311, 312 Intermediate Accounting 3 cr each
This course is primarily concerned with an investigation and analysis and the accounting problems and practices of the corporation, with detailed study of the component elements of the balance sheet and income statement. Basic topics are accepted and alternative methods in the accounting cycle, financial statements, form, content and use, accounting problems of the corporation, detailed analysis of financial accounting, determination of net income, statement of source and uses of working capital. Prerequisites 211, 212 Offered every semester.

313 Managerial Accounting 3 cr
A study of the techniques involved in the gathering, recording and interpretation of accounting and statistical data used in the solution of internal problems of management. Some of the topics covered are construction, analysis and interpretation of reports, establishment of production, operating and financial standards, measurement of managerial performance, use of budgets in managerial control, use of cost data and interpretation of cost reports, use of quantitative data in the formulation of policies, consideration of various aspects of Federal, State and local taxes and their effect on managerial decisions. Recommended for non-accounting students. Prerequisites 211, 212 Offered every semester.

314 Advanced Accounting 3 cr
This course applies fundamental theory to a number of important activities in business. Activities studied are partnerships, consolidations and foreign exchange. Prerequisite 311 Offered every semester.

315 Cost Accounting 3 cr
Basic cost accounting procedures are discussed from the following viewpoints: cost principles, cost determination, cost control, cost analysis. Topics treated include cost terminology, planning and control techniques, and development and application of overhead rates. Cost behavior patterns are studied in conjunction with development and application of overhead rates. Standard costing, job order costing, process costing, joint products and by-product costing are treated in detail. Methods of judging managerial efficiency, inventory control and management control systems are also discussed. Prerequisites 211, 212 Offered every semester.

411 Auditing 3 cr
Standards and procedures employed by auditors in the examination of financial statements for the purpose of rendering an opinion are studied and evaluated. Emphasis is placed on theory and philosophy of auditing, however, case problems are used to demonstrate the application of the principles studied. Prerequisites 312 Offered every semester.

412 Introductory Income Tax 3 cr
This course is a study of basic tax regulations and procedure affecting individuals and to a lesser extent, partnerships and corporations. Principal topics include: returns, rates, exemptions, income, deductions, sales and exchange of assets, and credits. Emphasis is placed on problems to demonstrate the application of the principles studied and use is made of official forms for demonstration purposes. Prerequisites either 311 or 313 Offered every semester.

413 Accounting Information Systems 3 cr
A course designed to introduce students to management information processing systems and the transformation of information systems to meet specific types of informational requirements. Topics include database concepts, file storage considerations, development methodology, design, implementation and management of mainframe based data systems. The course presumes a familiarity with basic computer programming and accounting 211, 212 Offered every semester.

414 Corporate and Partnership Taxation 3 cr
This course will acquaint the student with the principles of tax law as they apply to corporations and their shareholders and to partnerships and their partners. Rather than emphasizing tax return preparation, the course's concentration is upon preparing students to make reasoned and sound judgments regarding the tax consequences of business transactions. Prerequisites 412 Offered every spring.

419 Seminar in Accounting 3 cr
This course is designed to develop a student's understanding of management and auditing. Topics include the study of contemporary accounting problems and literature. Students are made acquainted with the philosophy and methodology of research, and required to prepare a research paper. Prerequisite 314 Offered as needed.

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, insurance, corporate finance, 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 336, 337, 338, and 433.

In the insurance area, the designation for professional personnel in life insurance is CLU (Chartered Life Underwriter). In property and liability insurance, the designation is CPCU. For students interested in careers in insurance, Finance 334, 434, and 435 are recommended.

Finance 331, 332, 334, and 439 are suggested for students whose career interests lean toward corporate finance and financial analysis.

Accounting 311 and 312 are recommended for all finance students.

331 Business Finance 3 cr
This course combines the study of internal and external sources of funds with the tools of financial management to maximize the wealth of the business entity. Primary attention is given to private business entities. While many of the tools and instruments used in the demonstrations are those of large business concerns, entities of all sizes are covered. Special attention is given to the decision-making process as applied to the finance function of business. Secondary emphasis is given to the securities markets, financial projections, organizational form, mergers and consolidation and reorganization. Offered every semester.

332 Money and Financial Institutions 3 cr
To develop knowledge about the role of financial institutions in our society as they perform their function of the creation of the medium of exchange and of taking funds from sources of excess to areas of financing need. Further, to develop an understanding of the construction of the portfolios of the institutions in order to understand why each employs its available funds as they do, knowledge about interest rate movements and their effects on business and the development of financial instruments, and the relationship of the business entity to the financial markets. Modern developments in financial institution regulation and policy are discussed. Prerequisite 331 Offered every semester.

333 Financial Management 3 cr
The course is designed to provide a theoretical or conceptual framework that a financial manager can use to reach decisions. Material is presented so that the purpose of involving the student in the fundamental decisions and compromises of the financial manager as choices between risk and return are made. Readings, case studies, computer analysis of financial problems and a research project are used. Prerequisite 331 Offered every semester.

334 Risk Management 3 cr
A study of the broad spectrum of risk exposures in business enterprise, with special attention to the need for identifying these in terms of nature and magnitude. Emphasis is on techniques available to reduce the decision-making in making decisions under conditions of uncertainty. Methods of alleviation, avoidance, and insurance are studied. Attention is given not only to the traditional forms of insurance hazards, but also to implicit risks such as those of loss in market value of assets, capital budgeting decisions, new product financing techniques, mergers, and other areas where risk is present in the decision. Prerequisites 331 Offered every third semester.

335 Business Financial Problems 3 cr
The aim of this course is to provide a vehicle in which the student can take material from previous courses and through its utilization solve problems of a financial nature. It also provides the student with the opportunity to learn to write and deliver professional opinions on how to solve business problems. While the course is taught primarily through the case technique, other methods are also used. The student is expected to be able to identify problems, recommend solutions, and identify techniques on how they might be applied. Prerequisites 331 Offered every third semester.

336 Security Analysis 3 cr
An intensive study of the analytic techniques applicable to the selection of the various securities of both private as well as public entities. Consideration is given to the markets in which these securities are traded and the types of information necessary to the decision-making process of the investor. The attempt is made to measure the value of a particular security. Several models are examined in seeking appropriateness in establishing the relative worth of a security. Prerequisites 331 Offered every year.

337 Investment Analysis 3 cr
This course develops an understanding of the various types of investments available for a portfolio. Discussion of the risks to which a portfolio may be subject and the importance of these risks to various types of portfolio builders is undertaken. Quantitative and descriptive approaches used in portfolio development are considered. Techniques for measuring the effectiveness of the portfolio are illustrated. Prerequisites 331, 336, or special permission of the instructor. Prerequisite 336 Offered every year.
The course is designed to develop an understanding of financial instruments while these contracts may be used for speculative purposes, the main emphasis is on the reduction of asset and liability risk for business and financial institutions through hedging of futures and options and other derivative contracts. Other topics covered include interest rates, financial strategies, and technology. Financial modeling is an important part of the course. Students will have the opportunity to study actual market behavior through project analyses. Prerequisites: 331, 336. Offered every year.

MANAGEMENT INFORMATION SYSTEMS CURRICULUM

The Quantitative Science Division offers an area of concentration in Management Information Systems to prepare students for career opportunities in business application programming, systems analysis and design, and information processing management. The course work is designed to prepare students to apply computers, software, and systems techniques to the solution of information systems problems within organizations. For the area of concentration, completion of 382, 383, 385, 481, 482, and 483 is required. In addition, three elective courses must be taken from the following: 384, 386, 387, and 485.

382 Information Processing with COBOL

Prerequisite: 381. This course covers the essential techniques as they relate to sequential, indexed sequential and relative file organization. Methods for creating, accessing, and updating files are discussed. Theoretical foundations of structured programming are stressed throughout. Additional topics include an in-depth discussion of table processing, the COBOL SORT feature, ISAM, V5AM, subprograms, utility programs, and the COBOL report writer. Prerequisite: 382. Offered as needed.

383 File Processing with COBOL

Prerequisite: 331. This course covers the essential techniques as they relate to sequential, indexed sequential and relative file organization. Methods for creating, accessing, and updating files are discussed. Theoretical foundations of structured programming are stressed throughout. Additional topics include an in-depth discussion of table processing, the COBOL SORT feature, ISAM, V5AM, subprograms, utility programs, and the COBOL report writer. Prerequisite: 382. Offered as needed.

384 Expert Systems in Business

The potential role of expert systems to support management decision-making is analyzed. Expert systems are defined, their development is discussed, and areas of business applications are surveyed. The artificial intelligence software environment is also explored and evaluated. The student will apply the concepts of knowledge engineering to expert systems development through a class using a widely used commercial expert systems software tool. Problems in installing and maintaining expert systems are also discussed. Prerequisite: 182.

385 Computer Systems

Prerequisite: 384. This course provides detailed coverage of mainframe hardware and system software. Topics include system architecture, internal processing, and operating system concepts. Prerequisite: 331. Offered every third semester.

386 Computer Time Sharing

Provides an orientation to the design and implementation of simulation models as a means of studying the behavior of a system. The student is required to validate models and their results for the purpose of management decision-making. Popular simulation languages are used to construct general purpose simulation models as well as financial system models. Other topics include computer graphics applications using personal computers. Prerequisite: 384. Offered as needed.

481 Systems Analysis and Design

A detailed study of all phases of the systems life cycle with emphasis on structured analysis and design techniques. Case studies are used to generate detailed data flow diagrams. The student is required to analyze needs, organize, and design files with corresponding inputs and outputs. The issues involved are the grid, testing, training, documenting, and verification of the actions. Emphasis is on the design and implementation of the system. Prerequisite: 382. Offered as needed.

482 Data Base Management

Prerequisite: 381. This course focuses on implementation, usage, and integration of a database into the systems analysis and design process. After a thorough introduction to data structures, students will apply the network, hierarchical and relational data models to a series of business problems using available commercial packages. Emphasis is on using such packages in a high-level or fourth-generation languages. Prerequisite: 382. Offered as needed.

483 MIS in Organizations

Establishes the role of management information systems and decision support systems in organizational objectives and structure. The course stresses the importance of accurately defining information requirements for all levels of management in a manner that fully utilizes the capacity of the information resource. Prerequisite: 382. Offered as needed.

484 Distributed Information Systems

Prerequisite: 382. Develops an understanding of the terminology, design and implementation of pre-packaged software to devise solutions for business and management decision-making. Emphasis is on the impact of communications technology on information systems. Data communication errors, their detection and correction are discussed. Available software, common carriers, and prevalent costs for services are presented. Case studies are used as the student is expected to design an information system in a data communication environment. Prerequisite: 381. Offered as needed.
REAL ESTATE CURRICULUM

Students who desire a concentration in real estate must complete Real Estate 339, 431, 434, 436 or 438, Law 357 and, in addition, must select nine credits in real estate elective courses.

339 Foundations of Real Estate Analysis
A study of the problems involved in financing, residential, commercial and industrial real estate from the points of view of both owner and lender. Methods of financing covered include use of individual and business equity, loans, secured by mortgages, land contracts, sale and lease-back arrangements, and cooperatives, syndicates, and real estate trusts. Attention is given to procedures for originating servicing and foreclosing loans and mortgages, mortgage cooperation by principals, agents and mortgage bankers. Prerequisite: Finance 331. Offered every year.

431 Real Estate Finance and Mortgage Banking
This course will be an analytically oriented treatment of real estate finance. It will include real estate applications of financial mathematics, methods and sources of funding for real estate, financing instruments and private governmental financing institutions. Prerequisite: 339. Offered as needed.

434 Real Estate Investment Analysis
In this course the student learns the application of investment principles and analytical techniques to real property. Emphasis is on the estimation and evaluation of income, expense, and risk/return relationships in investment valuation of realty and the effects of financing, income taxes, and entity selection upon investment profitability. Prerequisite: 339. Offered as needed.

435 Property Management
A survey course intended to provide an introduction to effective management, marketing and leasing techniques as they are applied to commercial real estate. Examination of both the physical and fiscal management functions and how they impact upon the financial performance of property. Prerequisites: 339 and Mgmt 361. Offered as needed.

436 Residential Real Estate Valuation
3 cr.
The principles and methods of appraising single-family homes, including analysis of location, neighborhood, and market characteristics. The market approach, cost approach and gross-income multiplier approach are presented. Prerequisite: 339. Offered as needed.

438 Commercial/Industrial Valuation
3 cr.
Income Property Valuation: Forecasting and computation of gross income, expenses, and net operating income, theory and mechanics of deriving alternative capitalization rates, applications of compound interest theory, residual approaches and mortgage equity analysis. Critique of contemporary theory and practices. Students are prepared to challenge the second level designation examination (1B parts A and B) of the American Institute of Real Estate Appraisers. Prerequisites: 339 and 436. Offered as needed.

439 Contemporary Topics Seminar
3 cr.
This course is designed in a seminar format and provides opportunities for specialized study of the theory and special applications of real estate problems and institutions. Topical issues are treated in detail and students are encouraged to provide extensive examination of relevant and important issues facing property owners, users and society in general. Prerequisite: 339. Offered as needed.

328 Urban Land Economics
3 cr.
See Economics Curriculum.

357 Real Estate Law
3 cr.
See Law Administration Curriculum.

DIVISION OF BEHAVIORAL SCIENCE

PROGRAM GUIDE
Programs of study offered through the Division of Behavioral Science include, but are not limited to, the following:

General Business Administration
Human Resource Management
International Business
Law Administration
Management
Marketing
Microdata Management

These can be modified and other concentrations can be structured according to the objectives of the student, in consultation with the advisor.

REAL ESTATE

GENERAL BUSINESS ADMINISTRATION CURRICULUM

This concentration is intended for those students who are interested in a business background rather than specialization in any one specific field. Course work beyond the required core may be selected from junior or senior level elective courses in the various fields of study in business. Students in this concentration should plan their programs in consultation with their advisors.

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 this career field.

For a concentration in human resource management, students should take HRM 364, 365, 405, 407, and Law 356; plus three of the following: HRM 463, 468, Management 366, 464, and 494, Economics 420, 421. Non-business electives recommended for this concentration are English 203, 383, or 385, History 204, Speech 206, 302, or 304, Sociology 205, and Special Studies 401.

364 Personnel Management
3 cr.
This course includes the technical functions and services provided by an organization’s Personnel/ Human Resources Department. Among the topics covered are human resource planning and systems, job analysis, job evaluation, recruiting, selection, performance appraisal, compensation, benefits, training and development, career planning, attitude surveys, occupational safety and health, employee rights, labor unions, international personnel relations, and equal employment opportunity. Prerequisite: Mgmt 361. Offered every year.

365 Industrial Relations
3 cr.
A course developed to present to the student historical knowledge of the labor movement, current status and importance in industry, and the legal status of labor governing the actions of management in a myriad of ways. Special emphasis given to the role of labor, management and government in collective bargaining and current industrial relations policies and practices. Prerequisite: Mgmt 361. Offered every year.

361 Human Relations
3 cr.
This is an advanced level course designed to aid the student in developing practical skills in managing interpersonal relationships in the workplace. The course will provide student with the tools and techniques necessary for active student participation in various group exercises include role playing, business games, and discussion groups in addition to more traditional instructional methods such as lecture and case analysis.

Topics covered include organizational socialization, employee motivation, group dynamics, interviewing, interpersonal perception and communications, supervision, and the management of change. Prerequisite: Mgmt 361. Offered every year.

463 Collective Bargaining
3 cr.
Study of the relations of federal and state legislation issues and administrative aspects of collective agreements, specific provisions including adjustment of grievances, conciliation, mediation and arbitration, collective bargaining and public policy. Prerequisite: Mgmt 361. Offered every second year.

466 Compensation Management
3 cr.
An advanced course involving treatment of major compensation issues. Coverage includes analysis of the contemporary concepts of wage and salary administration, such as cost of living and merit rating, appraisal of various pay approaches, such as incentive programs and profit sharing, structuring a wage program, analysis of the final effects such technically oriented practices have on the functional areas of management. Prerequisite: Mgmt 361. Offered every second year.

467 Human Resource Planning
3 cr.
This course provides the linkage between human resource management and the strategic direction of an organization. Topics covered include the environment and implementation of human resource planning, needs forecasting, performance and career management, as well as the human resource audit. Prerequisite: 364. Offered every year.

468 Training in Business and Industry
3 cr.
This course explores the training and development function in human resource management. There is coverage of the assessment of training needs, designing and conducting training programs, and evaluations of training effectiveness. Prerequisite: 364 and permission of the instructor. Offered every second year.

INTERNATIONAL BUSINESS CURRICULUM

For a concentration in international business, students should take IB 341, Intl Fin *, Econ 442, Mktg 443, Law 454. Students must also take 12 hours of credit in a language. Students can request a waiver of the language requirement if: (1) They successfully pass the level tests; (2) They complete a year of language study. Students are expected to be proficient through the 200 level of a language. Students pay for an independent service to the 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. Students should check with advisors about new courses.

International Business Certificate Program
An interdisciplinary certificate program in international business is offered by the School of Business and Administration in conjunction with the Modern Languages Department in the College of Liberal Arts and Sciences. Participants in the program complete a survey of a foreign language with their business studies. Requirements for the certificate include foreign language competency at the 360 level, and completion of 349 International Business Perspectives Strategies and Practices as well as 341 International Business. Students interested in this program should plan their program of studies in consultation with their advisors.

International Business Perspectives
3 cr
An understanding of the cultural, political, social, and philosophical differences involved in international practices and procedures. This course is team consultation with their advisors.

International Perspectives
1 cr
International Perspectives Dynamics
1 cr
International Perspectives
1 cr
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 personal functions.

Legal Process
3 cr
An introductory course exploring the nature of law, its sources, its relation to society and government, the judicial to the executive legislative functions, law as an instrument of social change and control, understanding of the legal rights and duties of persons and the concern of legal rights and duties to the administrator such as labor, environmental considerations, products liability, antitrust concerns, and price and merger.

Contracts
3 cr
Study of the law pertaining to the formation of contracts, the legal requisites of an enforceable agreement, the transfer of contractual rights and duties, the discharge of contracts, the relationship between principal and agent.

Commercial Transactions
3 cr
Study of the provisions of the Uniform Commercial Code with reference to the nature and legality of sales of goods, the security of sale contract, transfer of title to goods, warranties, nature, and kinds of commercial paper, requisites and meanings of negotiability, methods of transfer.

Law and Business Organizations
3 cr
Consideration of the nature, creation, and dissolution of the proprietorship, various types of partnerships, other unincorporated organizations, and the corporation. Duties, rights, remedies, and liabilities of owners and managers are studied.

Legal Aspects of Human Resource Management
3 cr
Survey of state and federal laws that impact on human resource management including fair employment laws, Title VII of the 1964 Civil Rights Act, Equal Pay Act, Fair Labor Standards Act. The course also provides students with an understanding of ERISA, workers’ compensation laws, OSHA, EEOC guidelines, and office of contracts compliance requirements.

Real Estate Law
3 cr
The principles of real property law and their application to the transfer of property rights. Topics include real estate applications of contract and agency law, the legal relationships among buyers and sellers, landlords and tenants and borrowers and lenders. Familiarity with the appropriate documentation (deeds, mortgages, leases, syndications, etc.) and selected elements of real estate brokerage.

Administration of Legal Systems
3 cr
Study of the legal system and the procedures by which legal rights and duties are effectuated and enforced. The course considers legal problems related to the system in the attainment of its objectives, administrative problems in the legal system. Offered as needed.

The Law of International Commercial Transactions
3 cr
This course introduces the student with an overall perspective of the basic legal problems involved in doing business with and in other countries. Topics covered include an introduction to foreign legal systems, study of various forms of business organization, and the relationships a business person must consider before doing business with persons in another country, study of the basic legal issues surrounding a control for the sale of goods, legal problems involved in letters of credit, insurance, risk of loss, antitrust aspects of the sale of goods, forms of dispute settlement, and the problems of enforcing judgments in and against foreign countries.

Management Curriculum
In accord with the objectives of the University and of the School, the Management Curriculum aims to:
1. Introduce students to fundamental concepts of management in organizations, private and public, for-profit and non-profit.
2. Provide students a breadth of knowledge of the major organizational functions and the communication skills necessary for effective managerial performance.
3. For a concentration in management, students should take Management 366, 367, Accounting 313, Marketing 474, MIS 481, and Communications 204.

Prerequisites
361 Principles of Management
3 cr
This course represents an initial introduction to the essential principles of management centered around the concept of management being a basic process which is distinct and applicable to all enterprises—planning, organizing, actuating, and controlling. It comprises the fundamental functions of management, making up the management process. These functions constitute the framework around which this course is built. Emphasis is given to problem solving, which is rapidly growing in managerial importance. Decision making, managerial creativity and the art of management are thoroughly developed.

Behavior in Organizations
3 cr
This course is an introductory treatment of organizational behavior. Students learn a number of theories, concepts, and applications regarding people-oriented managerial skills. Topics covered include motivation, personality, perception, group dynamics, performance appraisal, leadership and decision making, communication, conflict, organizational politics, organizational structure, managing change, and organizational development.

Operations Management
3 cr
This course introduces concepts which may be used to improve the effectiveness of goods-producing, and service producing organizations, public and private, profit and non-profit. Topics covered typically include an introduction to various types of production systems, inventory control, quality control, scheduling, forecasting. The course emphasizes that the primary function of the organization is productivity and quality improvement.

Public Administration
3 cr
This course introduces the student to the content of public administration and to the work of the public manager at federal, state, and local government levels. It also compares and contrasts public and private management and links management theory and practice. Lecture-discussions and practical methods are employed.

Administrative Organization
3 cr
A course presenting organizational concepts as they relate to the operation of an enterprise. Line staff, and functional relationships are thoroughly developed. Both formal and informal relationships are considered as they are developed and exist within an organization. Responsibility, delegation, centralization and decentralization of control, and related organizational problems are considered.

Introduction to Entrepreneurial Small Business Management
3 cr
This course 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 361 Offered as needed

491 Executive Action Simulation 3 cr
A course incorporating the Game Theory Approach. The teaching techniques of Case Method and Role Playing are combined in a simulated business environment in which the students make the decisions affecting the conduct of a business. Participants are divided into teams with key corporate duties being assigned and several teams compete against each other in an attempt to operate the "firm" on the optimum profitable basis. Prerequisites: Senior standing and 361. Open only to students in the School of Business and Administration. Offered every semester

492 Executive Policy 3 cr
Integrates concepts and skills from all functional areas of business and administration in decision making under conditions of uncertainty. Makes use of case histories and other information to allow students to analyze and problem solve with the organization as a whole. Prerequisites: Senior standing and 361. Offered as needed

493 Independent Study 3 cr
Student must initiate an original research project in a field of business of his choice. The project is then scrutinized by a Committee of three Faculty members. If the project is approved, the Dean will choose a faculty member to direct the project. The project must be completed within an academic semester. Prerequisite: Student must qualify as a University Scholar. Offered every semester

494 Field Study 3 cr
Organized group study under specific programs beyond the classroom. Participants will be required to utilize analytical and decision-making abilities in projects in an action setting under faculty supervision. Prerequisite Approval of the instructor. Offered every semester

MARKETING CURRICULUM

In accord with the objectives of the University and of the School, the Marketing Curriculum aims to:

1. To provide an understanding of the role of marketing in organizations, private and public, profit and non-profit
2. To develop skills in dealing with and applying fundamental marketing concepts
3. To develop communication skills necessary for effective performance in the field of marketing

For a concentration in marketing, students should take the following courses: Marketing 373, 374, 476, 477, Accounting 313, and either Communications 102 or 202

371 Principles of Marketing 3 cr
The emphasis throughout this course is on problem solving and decision-making in marketing. The basis for the course is a systematic analysis of consumer behavior, and the marketing process. Marketing policies and programs, marketing strategy and designing a market mix are stressed to give the student an insight into these areas, and the reduction of risks associated with the use of quantitative and qualitative market research techniques. Offered every semester

372 Sales Administration 3 cr
An introduction to the fundamentals of salespersonship and the problems confronted by the sales manager. Topics include production planning, pricing, packaging, qualitative and quantitative market analysis, and specific sales management functions of sales training, sales forecasting, supervising, and controlling salesmen. Prerequisite 371. Offered every year

374 Research Applications in Marketing 3 cr
This course examines the means and methods business management uses to get the necessary information for decision making involving what to produce, how much to produce, and how to distribute goods that are produced. The various types of marketing research—consumer research, motivational research, market analysis, sales analysis, and sales forecasting, product research, and advertising measurement are studied in some detail. Prerequisite 371. Offered every year

375 Physical Distribution Management 3 cr
This course deals with the physical distribution of goods. Topics treated are location analysis, inventory control, the total distribution cost concept, goods topics treated are location analysis, inventory control, the total distribution cost concept, goods, transportation, the total distribution cost concept, goods, transportation, and life cycle sales forecasting will be covered using computer simulations. Prerequisites 374, 377, Accounting 313. Offered every year

376 Marketing Management 3 cr
This course aims to develop skills in designing, conducting, and interpreting results of consumer research as well as an appreciation of management's problem solving processes and strategic planning decisions involving the consumer market. Among the topics considered are: social, psychological, and demographic characteristics of the individual consumer, group influences on consumer behavior, social and psychological characteristics of the individual consumer, group influences on consumer behavior, and product life cycle. The emphasis of student case studies is on consumer behavior, marketing action (segmentation, positioning, pricing), marketing strategy and consumer behavior. Prerequisite 371, 374. Offered every year

377 Strategic Marketing Planning 3 cr
This course employs a case methodology in the study of marketing and business strategy. A conceptual framework is used to study the relationships of marketing to other business functions, such as production, finance, research and development. Prerequisites: 371, 374. Offered every year

471 Marketing Research 3 cr
A comprehensive analysis of the historical evolution, operation and economic development of the railroads, motor carriers and air carriers of the United States. The Interstate Commerce Act, with its amendments and the public protection, state and federal, of the various carriers will be emphasized. Prerequisite 371. Offered every year

474 Purchasing Management 3 cr
Introduction to Purchasing and materials management. Topics covered include purchasing efficiency, inventory problems, pricing and time issues, and related economic theory. Students will participate in written case analyses as well as a term project involving value analysis. Prerequisites 371, Mgmt 361. Offered every year

475 Consumer Behavior 3 cr
This course aims to develop skill in designing, conducting, and interpreting results of consumer research as well as an appreciation of management's problem solving processes and strategic planning decisions involving the consumer market. Among the topics considered are: social, psychological, and demographic characteristics of the individual consumer, group influences on consumer behavior, social and psychological characteristics of the individual consumer, group influences on consumer behavior, and product life cycle. The emphasis of student case studies is on consumer behavior, marketing action (segmentation, positioning, pricing), marketing strategy and consumer behavior. Prerequisite 371, 374. Offered every year

476 Product Management 3 cr
This course examines various methods and tools to measure and evaluate marketing effectiveness with a focus on pricing strategies and the financial dimensions of product management. Product positioning and segmentation, new product development, and life cycle sales forecasting will be covered using computer simulations. Prerequisites 374, 377, Accounting 313. Offered every year

477 Strategic Marketing Planning 3 cr
This course employs a case methodology in the study of marketing and business strategy. A conceptual framework is used to study the relationships of marketing to other business functions, such as production, finance, research and development. Prerequisites: 371, 374. Offered every year

478 Industrial Marketing 3 cr
This course focuses on business-to-business marketing. It will demonstrate the differences between industrial and consumer marketing, how industrial marketers evaluate their marketing environments, including an understanding of customers and competitors. The course applies the elements of the marketing mix to industrial marketing and provides a framework for developing and evaluating strategies and plans for industrial markets. Prerequisites: 371, 374. Offered every year

DIVISION OF ECONOMIC SCIENCE

ECONOMIC SCIENCE CURRICULUM

121 Elements of Economics 3 cr
Economics 121 is an introductory course in economics intended to afford an understanding of how our economic system works, of the forces which affect the level, composition, and distribution of the output of the economy, and of the issues behind current economic problems. The course content will define concepts, provide background materials, and develop economic ideas necessary to an understanding of the policy issues constantly before a complex dynamic economy. Not counted toward a degree in the School of Business and Administration. Offered every year

221 Principles of Economics I 3 cr
The first course in economics for the student who plans to major or minor in economics. The course seeks to acquaint the student with concepts and the logical basis to economic reasoning. Emphasis is placed on understanding the behavior of households and firms under competitive and imperfectly competitive market conditions. Offered every year

222 Principles of Economics II 3 cr
This course is primarily concerned with aggregate economic relationships. The theory of the determination of national income is developed and attention is given to the measurement of national income accounts. Attention is given to monetary and fiscal policy and their implications. Prerequisite 221. Offered every semester

321 National Income Analysis 3 cr
A conceptual analysis of national income theory, its tools, its basic principles and its social and economic significance. The course treats the macroeconomic method of economic analysis. It is concerned with explaining the development and nature of national income aggregates. The basic principles of national income theory are developed and explained in order to place into focus the operations of the American economy and the many problems relating to it. Offered every year

322 Price and Production Economics 3 cr
An intensive study of the theory of demand, production and distribution. In addition, recent developments in the theory of imperfect competition and oligopoly are carefully examined. Offered every year

323 Public Finance 3 cr
A study of the organization and management of government revenues and expenditures with emphasis on American practices and policies at the various levels of government. Benefit-cost and
cost-effectiveness analysis with their implications for program and capital budgeting receive heavy consideration. The economic consequences of various tax structures and alternative social choice mechanisms are studied under tax theory. The study of labor supply and demand is introduced to the students. The theories and contributions of Keynes, Keynes, Friedman and Tobin, among others, are reviewed. The role of interest rate is reviewed along with wage-price controversies, international gold standard, and monetary policies. The purpose of the course is to begin developing in the graduating senior the ability to coordinate and apply the analytical knowledge he has acquired during the undergraduate study of economics and related fields of social science and business administration. Offered every year.

426 Monetary Theory and Policy 3 cr
This course presents the chief theoretical contributions on money. The policy implications of these theories, past and present, will be emphasized. Concentration will center upon policy proposals and controversies in the monetary field since World War II. The theories and contributions of Hicks, Keynes, Friedman and Tobin, among others, are reviewed. The role of interest rate is reviewed along with wage-price controversies, international gold flows, and the relationships between fiscal and monetary policies. Offered every year.

427 Theory of Economic Development 3 cr
The course is designed to acquaint students with the area of economic development. The subject matter of this course is divided into five major categories: the nature of development and problems of measurement, theories of development, factors and forces affecting economic growth, different approaches to a higher standard of living, and problems of domestic and international stabilization. Approach to this course encompasses detailed study as well as a strong emphasis on theoretical and critical analysis. Offered as needed.

429 Seminar in Economic Theory 3 cr
The purpose of the seminar is to provide a vehicle for the advanced student to investigate separate subject areas in the field of Economic Theory. The intention is to provide a sound basis for further study at the graduate level. Seminar procedure will stress written and oral reports. Prerequisites 321, 322 and permission of the instructor. Offered as needed.

442 International Economics 3 cr
This course is an introduction to international trade theory and the principles of international monetary economics as well as foreign trade policies. Topics to be discussed include the classical and neo-classical, theory of comparative advantage, foreign exchange markets and balance of payments, adjustment mechanisms, analysis of the consequences of trade regulation and international liquidity problems. Offered every second year.

ECONOMIC SCIENCE

SCHOOL OF EDUCATION

Administration
Dean
Dorothy A Frayer, Ph D
Associate Deans
Kenneth L Burrett, Ed D
Sr Mary Frances Grasgner, Ph D

HISTORY
Prior to 1929, teacher preparation courses were offered through a department of the College of Liberal Arts and Sciences, in that year the newly-organized School of Education granted its first degrees in programs of secondary education. The following programs have since been approved for certification by the Department of Education of the Commonwealth of Pennsylvania: music education in 1930, graduate education in 1936, elementary education in 1937, guidance, 1952, school administration, 1952, special education, 1964, reading specialists and reading supervisor, 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 Director of Admissions, Duquesne University, Pittsburgh, Pa 15282). The curriculum for the first two years is devoted to the broad learnings in general and basic professional education and beginning course work in a major discipline or area of concentration. The School of Education includes and maintains in its enrollment only those students who give definite indications of teacher potential. Students are, therefore, expected to demonstrate developing personal and professional characteristics, attitudes, and competencies which will recommend them as worthy candidates for the teaching profession. Evaluation and approval by the faculty is based on the student's development of:

1. A well-balanced personality as evidenced through personal appearance, health and vitality, emotional maturity, verbal fluency, self-confidence, cooperation, judgment and tact, adaptability and resourcefulness, cultural appreciation, and social relationships.
2. Professional attitudes and competencies as evidenced through interest in teaching, preparation in subject matter and in teaching methods and techniques, participation in laboratory experiences, including observation and student teaching, and the demonstration of necessary abilities and skills.

A 2.5 average is required for matriculation as a candidate for certification.

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 opportunity to qualify for:

1. The Instructional I (Provisional) Certificate to teach classes in the schools of Pennsylvania for six contract years.
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 programs leading to the Bachelor of Science in Education degree. A 2.0 grade point average is required for the degree. All programs are approved by the Pennsylvania Department of Education for the Instructional I (Provisional) Certificate.

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, for Catholic students, 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 thorough 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 classroom practice.

1. Planned observations in public and private schools, agencies, institutions and educational settings.
2. Teacher aide and tutorial experiences.

102
The following courses in the arts and sciences are an integral part of each program.

**Required Courses**
- Professional supervision from the University and placement in an approved setting for 12 credits.
- Entire semester in the sophomore year.
- Mid-year teachers in early childhood, elementary, and secondary levels.
- Logical and pedagogical foundations needed.
- Teaching Elementary Mathematics 3
- Teaching Secondary Social Studies 3
- Teaching Secondary Science 3
- Teaching Elementary Language Arts and Reading 3
- Teaching English 3
- Teaching Elementary Social Studies 3
- Specialized Programming for Young Children 3
- ED Reading & Language Arts 3
- Practicum 1
- Reading & Language Arts Practicum 1
- Practicum 1

**Early Childhood Education**
This is a cooperative program, approved by the Pennsylvania Department of Education, with Carlow College. Some of the professional courses are offered only on the Carlow campus. These 47 credits (semester hours), in addition to 42 specified under General Education, 12 credits in the Competency Core Curriculum, and 19 credits in electives, are required for the degree.

**Required Courses—Carlow College**
- Orientation to Early Childhood Education 3
- Child Development 3
- Curriculum & Methods for Early Childhood Education with Practicum 4
- Curriculum & Methods for Early Childhood Education with Practicum 4
- Specialized Programming for Young Children 3
- ED Reading & Language Arts 3
- Practicum 1
- Practicum 1

**Prerequisites for 307, 308 and 310**
*Prerequisite for 321*

**ELECTIVE COURSES: **
- University Core Requirements 6
- Math/Science Foreign Language 6
- Social Science Humanities 12
- University Core Requirements 6
- Anthropology Economics Geography History Political Science Sociology Psychology 6
- Philosophy Theology 6
- University Core Requirements 6
- Mathematics 6
- Electives 12

**MUSIC EDUCATION**
General and professional course work and professional education courses are required for this program. The courses are outlined in the School of Music section.

**SECONDARY EDUCATION**
In addition to the 42 credits (semester hours) in General Education and 27 in the Competency Core Curriculum, a student must complete the following 50 credits: 17-19 in Professional Preparation, 2-1 in electives and a minimum of 30 in Arts or Sciences Area to satisfy requirements for the degree and certification.

**Electives** 12

**EDUCATION** 47
- Teaching English OR Languages OR Art 1
- Teaching Grammar and Composition 1
- Teaching Health for Classroom Teachers 1
- Teaching Physical Education for Classroom Teachers 1
- Teaching Secondary Mathematics 3
- Teaching Secondary Science 3
- Teaching Secondary Social Studies 3
- Teaching Social Studies 3
- Teaching Physical Education for Classroom Teachers 1
- Teaching Health for Classroom Teachers 1
- Teaching Elementary Language Arts and Reading 3
- Teaching Literature OR Art 1
- Teaching Grammar and Composition 1
- Teaching Health for Classroom Teachers 1
- Teaching Physical Education for Classroom Teachers 1

**SPECIAL EDUCATION (MENTALLY AND/OR PHYSICALLY HANDICAPPED)**
This program is designed to prepare students for teaching pupils with mental and/or physical disabilities, including brain injured, emotionally and socially disturbed, learning disabled, mentally retarded and physically disabled.

**Professional Preparation**
(All Courses Required)

- Teaching English OR Languages OR Art 1
- Teaching Grammar and Composition 1
- Teaching Health for Classroom Teachers 1
- Teaching Physical Education for Classroom Teachers 1
- Teaching Health for Classroom Teachers 1
- Teaching Elementary Language Arts and Reading 3
- Teaching Literature OR Art 1
- Teaching Grammar and Composition 1
- Teaching Health for Classroom Teachers 1
234 Teaching Music for Classroom Teachers 2
276 Methods in Special Education 3
325 Teaching Reading in the Primary School 3
330 Teaching Elementary Language Arts and Reading 3
332 Teaching Elementary Mathematics 3
333 Teaching Elementary Science 3
366 Teaching the Mildly Handicapped 3
387 Teaching the Severely Handicapped 3
388 Vocational Education for the Handicapped 3
477 Management of Behavior and Instruction in Special Education 3
*491 Student Teaching–Special Education 12

No student may register for additional courses during the student teaching semester without permission.

TEACHER CERTIFICATION

Through satisfaction of degree and certification program requirements, and after successful completion of Pennsylvania Teacher Certification Testing Program, student will be eligible for the appropriate Pennsylvania Instructional I (Provisional) Certificate. This certificate is valid for six years of teaching. During that time, the certificate will be upgraded. The holder must complete 24 semester hours of post-baccalaureate study and three years of successful teaching in public or private schools in Pennsylvania. All programs are approved by the Pennsylvania Department of Education. Certification in Pennsylvania enables a student to meet certification requirements in various states. Application for the certificate must be made during the semester in which the student expects to be graduated.

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 some additional coursework beyond the 120 semester hours for a degree. After completing all other requirements, students may register, with appropriate advisement, for a nine- and six-credit student-teaching course. Student teaching in both areas is offered during the student’s final semester.

CLASS ATTENDANCE

The School of Education faculty has determined that the following policy will be in effect for the School of Education and will be adhered to by all professors who teach undergraduate courses. It is presumed that each student in a professional course will normally attend every session. The maximum number of cuts permitted is equated in hours, not in periods the class meets, in other words, a student may miss three hours of class time in a three-credit course.

STUDENT ORGANIZATIONS

The School of Education includes in its program opportunities for participation in student organizations related to professional education preparation. Students are encouraged to take an active part in these organizations, for such involvement is interpreted as reflecting social and educational development. The organizations are Duquesne University Chapter of the National Educational Honor Society and Duquesne University Chapter of the National Association of Teachers of English.

HONOR AWARDS

These awards, presented at the annual Honors Convocation, are open to undergraduates in the School of Education. Faculty Award for General Excellence in Early Childhood Education, Faculty Award for General Excellence in Elementary Education, Faculty Award for General Excellence in Secondary Education, Faculty Award for General Excellence in Special Education, American Education Week Award, National Education Association, American School Counselor Association, American Association of University Women, Pennsylvania Education Association, Society of Sigma Delta Pi, Pi Lambda Theta, Phi Delta Kappa, Alpha Delta Kappa, Gamma Epsilon Iota, Eta Sigma Kappa, Alpha Kappa Delta Epsilon, National Education Honor Society, Pi Sigma Alpha, Phi Delta Kappa, Alpha Kappa Delta Epsilon, National Professional Education Honor Society, Kappa Delta Epsilon, National Professional Education Honor Society, Kappa Delta Epsilon Chapter, Alpha Kappa Delta Epsilon Chapter, Kappa Delta Epsilon National Professional Education Honor Society, Kappa Delta Epsilon National Professional Education Honor Society President’s Award, Lawrence A. Roche Memorial Award, to a student for general excellence in the School of Education, Philip C. Nicholls Memorial Award, for outstanding achievement in the School of Education, Council for Exceptional Children Award, for outstanding work in the organization.

COURSE DESCRIPTIONS

EDUCATIONAL FOUNDATIONS AND PSYCHOLOGY

101, 102 Introduction to Education 1, II 2 cr each

101 provides instruction and hands-on experience with audio-visual, computer, and VCR materials. It includes field experience at selected and supervised schools. Introduces students to professional standards and competencies. 102 emphasizes foundational knowledge, behavioral methodology, and current thrusts in the profession. Includes field experience at selected and supervised schools. Introduces students to professional self-assessment.

202 Educational Psychology 3 cr

Examines affective and cognitive development, planning and teaching techniques, measurement and evaluation, and related theories in an experiential learning environment.

203, 204, 205, 206, 207 Field Experience 1 cr each

Classroom and other school experience as an aide or observer, one credit each semester for a maximum of five semesters.

215, 216 Developmental Foundations of Education I 4 cr

See description for 217, 218

217, 218 Developmental Foundations of Education II 4 cr

Developmental Foundations I and II examine the effects that values, classroom interactions, approaches to various teaching and learning styles, recognition of individual differences, and various curriculum designs including IEP’s and multicultural approaches, have on the physical, cognitive, affective, and social development of all students and the teacher. Concurrent field placements include case studies, directed observations, data collection, and teaching aids experience.

301 Foundations of Education 3 cr

Introduction to the study of the philosophical, social, and historical foundations of education and the relationships between the school and other institutions of society.

311 Instructional Psychology/Instructiional Computing 3 cr

Instructional Psychology is largely concerned with human learning as it occurs in an “educational” context. This course will be on student acquisition of knowledge and skill and how the competence is developed through the design of the conditions of learning. In Instructional Computing, students will review the components and functions of computer hardware and software, learn to evaluate software for integration into the standard curriculum, and develop skills in using computers for writing, planning, and evaluating.

313 Human Development/Exceptional Child 3 cr

Cognitive, physical, psychological, and social development over the life span. Human Development focuses on age-level characteristics, developmental theories and principles, and learning processes and implications pertaining to the child and adolescent in the school. Students will demonstrate an ability to successfully accommodate exceptional children in the regular classroom by planning, developing and implementing effective educational programs.

315, 316 Curriculum and Instruction I 5 cr

See description for 317, 318

317, 318 Curriculum and Instruction II 4 cr

Curriculum and Instruction I and II focus on the presentation, analysis, and demonstration of those generic competencies that directly apply to the design and implementation of effective teaching-learning practices in the classroom. The components specifically address such topics and techniques as educational taxonomies, instructional objectives, planning the lesson, classroom management, learning centers, materials utilization, evaluation of learning and grading. The field placement includes intensive teaching experience on site.

340 Self-Development for the Classroom 3 cr

Focuses on a philosophical-psychological approach to self-development, using classroom activities to promote personal awareness in the teacher and student.

351 Adolescent Development 3 cr

Explores the developmental processes, psychological, physical, and social, which affect student and student-teacher behavior and relationships in the classroom.

410 Interpersonal Management Techniques for Educational and Organizational Leaders 3 cr

Focuses on four major concerns for maximizing learning and minimizing conflict, they are the teacher’s personal awareness of feelings and emotions, interpersonal, societal, and educational values, understanding of group dynamics, and knowledge of managing classroom situations.

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.

485 Problems in Teaching Reading 3 cr

Reading difficulties in elementary and secondary schools, 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 mentally retarded.

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 through years in physical, intellectual, social, and emotional areas of growth. Methods of recording and assessing growth of young children will be examined and utilized and a term project based on readings and observations will be required. (Spring semester only)

307 Curriculum and Methods for Early Childhood Education with Practicum 4 cr
Study of curriculum 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 3-8 years. A weekly practicum in an early education classroom is an integral part of this course. Prerequisite EC 201 and 203 (Fall semester only)

308 Curriculum and Methods for Day Care With Practicum 3 cr
Examination of social needs, program designs, and implementation of day care services for children birth-5 years. Topics covered include research on working families, program design, environmental design and assessment, comprehensive curriculum planning, staffing strategies, parent communication, and research on impact of day care on young children and their families. Weekly practicum required in a child care classroom. Prerequisite EC 201 and 203 (Spring semester only)

310 Specialized Programming for Young Children 3 cr
Examination of history and current status of programs which provide compensatory, remedial, therapeutic or early intervention experience to young children. Curriculum design and implementation will be examined along with specific responsibilities of the early educator for mainstreaming, teaching and working in harmony with other professionals. Weekly practicum required in specialized setting. Prerequisite EC 201 and 203 (Fall semester only)

320 Reading and Language Arts 3 cr
The nature of reading, the pertinent research in the field, the selection of materials, methodologies, and teaching strategies are emphasized. (Fall semester only)

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 students teaching is completed. Pertinent topics related to ongoing professional development will be included. No other credits may be taken while the student is involved in 404 and 406 without special permission of the Director of Early Childhood Education.

ELEMENTARY EDUCATION

231 Teaching Physical Education for Classroom Teachers 1 cr
232 Teaching Art for Classroom Teachers 2 cr
233 Teaching Health for Classroom Teachers 1 cr
234 Teaching Music for Classroom Teachers 2 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.

325 Teaching Reading in the Primary School 3 cr
Major emphasis is on the pre-school, readiness, 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 first three years of a developmental reading program. Techniques of individualizing instruction, evaluating and reporting pupil progress are also studied.

326 Teaching Reading in Intermediate and Middle Schools 3 cr
Focuses on the transitional period in a developmental reading program in which reading becomes a tool to be used in each content area. In addition to continuing reading skills in the developmental reading program, specialized reading and study skills, necessary for students to function in social studies, science, language arts, mathematics, and other content areas, will be presented. Techniques of determining readiness of materials, individualizing instruction, evaluating and reporting pupil progress are also studied.

330 Teaching Elementary Language Arts and Reading 3 cr
Presents psychological principles and historical perspective in the language arts, in the foundation on which subject matter is presented. Emphasis is built on four skills—listening, speaking, reading, writing—as acquired by the child, combined with knowledge of the evaluative process, teaching methods, and materials. Provides 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.

332 Teaching Elementary Mathematics 3 cr
Theories, techniques, practices, and content pertaining to mathematics are presented. Emphasis is on exploratory and systematic instruction styles, games as an instructional tool, and a general survey of books and other printed materials which are available, considered in terms of interest, needs, and abilities of children.

340 Teaching Elementary Language and Reading 3 cr
Focuses on planning and teaching techniques to teaching language arts and reading experience.

409 Teaching Elementary Social Studies 3 cr
This is a competency-based experience for social studies/history majors that develops evaluation skills, knowledge of curricula, media and technological applications, and expands planning and questioning skills.

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 Teaching in Secondary Schools 6 cr
Student teaching in secondary education for students in the elementary or special education program who wish to complete requirements in two certification areas. Registration is concurrent with Ed 490-Elementary or Ed 490-Special Education.

497 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.

SPECIAL EDUCATION

These courses are designed to prepare students for teaching pupils with mental and/or physical disabilities, including brain injured, emotionally and/or behaviorally disturbed, learning disabled, mentally retarded, and physically disabled.
SPECIAL EDUCATION

Education

209 Foundations of Special Education
A survey of the educational, physical, psychological, and social characteristics of exceptional persons, an overview of special education methods and programs, introduction of legislative and legal aspects

211, 212, 213, 214 Field Experience
Classroom and other experiences in educational, social welfare, and vocational settings as an observer and participant. Enrollment with consent of Director of Student Teaching and School of Education faculty advisor. Students may choose 211 (Elementary) or 212 (Secondary) which involve the mildly handicapped, or 213 which is with the severely handicapped, or 214 which is with pre-vocational/vocational pupils

231 Teaching Physical Education for Classroom Teachers
1 cr

232 Teaching Art for Classroom Teachers
2 cr

233 Teaching Health for Classroom Teachers
1 cr

234 Teaching Music for Classroom Teachers
2 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

276 Methods of Special Education
3 cr
An introduction to management techniques utilized in programs for exceptional persons, information covering educational assessment procedures, design and implementation of individual educational programs and methods for individualizing instruction, examination of legislative and legal aspects

387 Teaching the Severely Handicapped
3 cr
Evaluation and integration of the various theories, methodologies, curricula, instructional techniques, and evaluation procedures for severely handicapped persons labeled brain injured, learning disabled, mentally retarded, physically handicapped, socially and emotionally disturbed. Prerequisites 209, 276

388 Vocational Education for the Handicapped
3 cr
Overview of pre-vocational, career, and occupational education program models for exceptional persons. Students will be given information and experiences enabling them to design and implement instructional programs appropriate to the vocational needs of mentally and physically handicapped persons. Prerequisites 209, 276

477 Management of Behavior and Instruction in Special Education
3 cr
Studies and experiences in the management of problem behaviors and instructional programs. Topics include behavioral and affective interventions, emergency procedures, multidisciplinary group process and parent involvement, community resources, and technological applications in the special needs curriculum. Students will develop and implement Student Teaching Readiness Assessment and Plan

490, 491 Student Teaching—Special Education
9-12 cr
A full semester of supervised classroom experience in a carefully selected school for mentally or physically handicapped pupils. Prerequisites: senior status, good academic standing, completion of required preprofessional courses, and recommendation of faculty

493 Student Teaching—Special Education
6 cr
Student teaching in special education for students in the elementary or secondary education program who wish to complete requirements in two certification areas. Registration is concurrent with Ed 490-Elementary or Ed 490-Secondary Education

SCHOOL OF MUSIC

Administration
Dean
Michael Kumer, M M Ed
Assistant to the Dean
David Iwinski, Jr . B A
Administrative Secretary
Theresa Bargas
Dean Emeritus
Gerald F Keenan, Ph D

History
Founded in 1926, the School of Music recently celebrated its sixtieth anniversary. The earliest course of study led to the Bachelor of Music degree. The Bachelor of Science in Music Education degree was added four years later. On April 29, 1967 the present music building was dedicated, on this occasion Van Cliburn was awarded an honorary Doctor of Music degree. The School of Music has been fully accredited by the National Association of Schools of Music since 1966.

The School of Music offers a comprehensive music education in tune with the realities of the times. Overlooking the city of Pittsburgh with its unique blend of old and new, with its thriving cultural life, the campus itself symbolizes the goal of a well rounded professional musician who is well equipped to contribute to the contemporary musical world.

To meet that goal, the School of Music aims to develop in each student competencies in individual performance informed by music scholarship, an intelligent and sensitive musicianship based upon studies in music theory and history. Music studies at Duquesne are enriched by the core curriculum, a sequence of liberal courses which place music studies within a broader cultural context.

Admission
Students who wish to major in music should apply through the Office of Admissions. Following this, an interview and audition should be scheduled through the Administrator of Music Enrollment. Specific audition requirements are mailed to auditionees. The audition consists of solo performance before a committee, a written theory exam, and an individual aural test. Students requesting scholarship assistance should apply through Financial Aid and complete the music talent award application at the time of the audition. Taped performances can be evaluated, but the audition process is not completed until the testing has been done. Students receive written confirmation of their status from the Office of Admissions.

It would be helpful for prospective music majors to have a background in theory, piano and certain aural skills prior to entrance. If deficiencies exist in any of these areas, prerequisite courses may be required at the discretion of the audition committee.

Visits to classes and personal interviews with the applied music staff are encouraged strongly and may be arranged by calling (412) 434-5064.

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 recording studio, 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 degree 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. Applied instrumental study as well as music courses designed for general students are available.

Students in the Bachelor of Music program major in piano, organ, voice, orchestral instruments, or guitar. They elect an emphasis in classical music, jazz, sacred music, or music technology. Students in the Bachelor of Science in Music Education program elect a concentration in choral music or instrumental music.

The curriculum is enhanced by the vital cultural life in the city of Pittsburgh, which was a factor in its recent ranking as America’s “most livable city.” The proximity of the School of Music to the city frequently brings these cultural events to the campus Workshops, master classes, and special performances are often presented by visiting artists who have included Burt Nagal, Wynn Marsalis, John Mack, Rebecca Penneys, and Barry Green.

Applied faculty in the School of Music include members of the Pittsburgh Symphony Orchestra as well as distinguished concert artists. Ensembles-in-residence include Con Spinto, a professional woodwind quintet, and the Pittsburgh New Music Ensemble. Other faculty are recognized in the academic and cultural communities for their activities as performers, conductors, composers, church musicians, clinicians, and music scholars. Interaction with these outstanding professional musicians is invaluable in the education of the developing professional musician.
Duquesne students also take advantage of the many performance opportunities afforded them by local music organizations. Students perform in the Pittsburgh Youth Symphony, The Pittsburgh Civic Orchestra, the Westmoreland Symphony, the McKeesport Symphony, and others.

**FACILITIES**

The School of Music has 73 pianos including 56 Steinway pianos. Piano majors practice in specially designated rooms that contain grand pianos, other practice rooms are supplied with studio upright pianos. Organ students have access to two Moeller organs and a Fischer practice organ, an electronic organ, a three manual Moeller organ, and a Furrer tracker organ. Two pipe organs by Kilgen 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 houses a microcomputer lab and a record/tape lab, record, audio, and video tape libraries, and a music curriculum collection. Apple II microcomputers, Macintosh computers, and the TAP Master Rhythm Reading System are used by all students for music theory and ear training practice. All students are introduced to state of the art MIDI and synthesis equipment and its use in performance, composition, and commercial applications. Students in piano class receive individual assistance and evaluation through connections to the instructor provided by a Kawai electronic piano system. Electric pianos are available to students for practice outside of piano class.

**STUDENT ORGANIZATIONS**

Chapters of the national music organizations Phi Mu Alpha Sinfonia and Mu Phi Epsilon contribute substantially to the students’ professional and social development. The Music Educators National Conference has an active student chapter which sponsors professional programs and attends and participates in the state, regional, and national activities of the association. There are active student chapters of the American Guild of Organists, the National Association for Music Therapy, and the American Honor Directors Association. A chapter of Pi Kappa Lambda, the national music honor society, was installed in March, 1988.

**HONOR AWARDS**

The Sebest Medal is presented to a senior for excellence in violin or piano upon recommendation of departmental committee. Andre Marchal Award is presented to the graduating organ student with the highest academic standing in performance. Jean Langlais Award is presented to the graduating organ student with the highest academic standing in Sacred Music. J. Corneth Tucci Piano Performance Award is competitive award provided annually to outstanding piano student. Mu Phi Epsilon Sterling Achievement Award is presented by Mu Phi Epsilon to an outstanding senior music student. Robert Egan Award for Academic Excellence, Richard Gray Award for Outstanding Service, are presented by the Music Therapy department to graduating senior students.

**CERTIFICATION**

**MUSIC EDUCATION/MUSIC THERAPY**

Students completing the course work in music education receive the B S in M Ed and may be recommended for certification to the PA Department of Education. Upon successful completion of a state level standardized test, graduates may receive the Instructional Level I - Music, K-12 certificate. Selection of students for this program depends upon completion of admissions and audition procedures and an interview with a departmental member. Candidates are expected to demonstrate leadership qualities, excellent communication skills, critical thinking and analysis ability and a genuine interest in a service oriented profession. Post-graduate certification course work in music education is available to those with B M degrees or B S in Education degrees. Audition and/or course requirements are available upon request. 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. This includes a six month internship。

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**Total Credits:** 132

### MAJOR IN PIANO

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**Total Credits:** 132
## MAJOR IN VOICE

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### Sophomore Year

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Total Credits 132

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## MAJOR IN ORCHESTRAL INSTRUMENTS

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Total Credits 132
### BACHELOR OF SCIENCE IN MUSIC EDUCATION CHORAL TRACK

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| **Junior Year**          |         |      |        |
| Mus 105,105              | Seminar | 0    | 0      |
| Mus 231                  | Applied Music Major | 2    | 2      |
| Mus 336                  | Theory  | 2    | 2      |
| Mus 233,234              | Solfege | 1    | 1      |
| Mus 251,252              | Ensemble| 2    | 2      |
| Mus 173                  | Clarinet Class Methods & Lab | 3    | 3      |
| Mus 301                  | Teaching Vocal Music | 2    |        |
| Mus 302                  | Teaching Instrumental Music | 2    |        |
| Mus 485                  | Music in Education | 3    |        |
| Ed                      | Education Elective | 3    | 6      |
| Gen                      | Core     | 6    |        |
|                         | Elective | 2    |        |
|                         | **Total Credits** | 18   | 18     |

| **Senior Year**          |         |      |        |
| Mus 105,105              | Seminar | 0    | 0      |
| Mus 231                  | Applied Music Major | 2    | 2      |
| Mus 336                  | Theory  | 2    | 2      |
| Mus 233,234              | Solfege | 1    | 1      |
| Mus 251,252              | Ensemble| 2    | 2      |
| Mus 173                  | Clarinet Class Methods & Lab | 3    | 3      |
| Mus 301                  | Teaching Vocal Music | 2    |        |
| Mus 325                  | Researching Band Methods | 1    |        |
| Mus 282                  | Trumpet Class Methods & Lab | 3    |        |
| Mus 485                  | Music in Education | 3    |        |
| Ed                      | Education Psychology | 3    | 3      |
| Gen                      | Core     | 2    |        |
|                         | Elective | 2    |        |
|                         | **Total Credits** | 17   | 17     |

### BACHELOR OF SCIENCE IN MUSIC EDUCATION INSTRUMENTAL TRACK

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| **Sophomore Year**       |         |      |        |
| Mus 105,105              | Seminar | 0    | 0      |
| Mus 231                  | Applied Music Major | 2    | 2      |
| Mus 231                  | Theory  | 2    | 2      |
| Mus 233,234              | Solfege | 1    | 1      |
| Mus 251,252              | Ensemble| 2    | 2      |
| Mus 251,252              | History & Literature of Music | 3    | 3      |
| Mus 382                  | String Class Methods | 2    |        |
| Mus 251,252              | Music Education Methods | 2    | 2      |
| Gen                      | Core     | 3    | 3      |
|                         | Elective | 2    |        |
|                         | **Total Credits** | 17   | 17     |

| **Junior Year**          |         |      |        |
| Mus 105,105              | Seminar | 0    | 0      |
| Mus 340                  | Orchestration | 2    | 2      |
| Mus 301                  | FLOBS and Lab | 1    |        |
| Mus 379,380              | Clarinet Class Methods & Lab | 2    | 2      |
| Mus 301                  | Low Brass Class Methods & Lab | 2    | 2      |
| Mus 379,380              | Conducting | 2    |        |
| Mus 301                  | Teaching Instrumental Music | 2    |        |
| Mus 325                  | Teaching Vocal Music | 2    |        |
| Mus 282                  | Researching Band Methods | 1    |        |
| Mus 485                  | Trumpet Class Methods & Lab | 1    |        |
| Mus 301                  | Researching Band Methods | 3    |        |
| Ed                      | Trumpet Class Methods & Lab | 2    |        |
| Gen                      | Music in Education | 3    |        |
|                         | Education Psychology | 3    | 3      |
|                         | Core       | 2    |        |
|                         | Elective   | 2    |        |
|                         | **Total Credits** | 17   | 17     |

| **Senior Year**          |         |      |        |
| Mus 105,105              | Seminar | 0    | 0      |
| Mus 105                  | Applied Music Major | 2    | 2      |
| Mus 105                  | Ensemble | 1    |        |
| Mus 105                  | Student Teaching Seminar | 1    |        |
| Mus 491                  | Student Teaching Seminar | 1    | 2      |
| Gen                      | Student Teaching Seminar | 12   |        |
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BACHELOR OF SCIENCE IN MUSIC THERAPY

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COURSE DESCRIPTIONS

PERFORMANCE

Applied Music 1-3 cr
- Private study of voice, piano, harpsichord, organ, guitar or orchestral instruments

115 Vocal Coaching 1-2 cr
- Individual work with pianist as a supplement to Opera Workshop and/or Applied Music

116, 117, 118, 119
- Vocal and Repertoire 2 cr each
  - Italian, German, French and English offered on a rotating basis each Spring Semester. All except English preceded by an introductory course in the fall, in the appropriate language

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 required

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

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

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 0-2 cr each
- The Large Ensembles include Pep Band, Wind Symphony, Concert Band, Orchestra, University Singers, and Duquesne Chorale

Small Ensembles 0-2 cr each
- The Small Ensembles include Trombone Choir, Brass Ensemble, Guitar Ensemble, Jazz Band, Percussion Ensemble, and various woodwind ensembles

116 Opera Workshop 0-2 cr
- A performing class in which students learn standard and other opera repertory in the original languages

MUSICIANSHIP

010 Fundamentals of Music 3 cr
- An introductory course designed for music majors and non-majors. Students will learn scales, key signatures, triads, intervals, chords, and develop skills in sight singing and musical dictation. Students enrolled in Fundamentals of Music must successfully complete this course or pass the entrance exams in Theory and Musicianship before enrolling in Eurhythmics, Theory I and Solfege I

121, 122 Dalcroze Eurhythmics 2 cr each
- Experiencing, analyzing, and creatively manipulating the metric/structural and the expressive/interpretative components of music through rhythmic movement, ear-training and improvisation

131, 132 Theory I and II 2 cr each
- These sequential courses are designed to acquaint the student with the harmonic materials of 20th-century music. The course is designed to acquaint the student with the harmonic and melodic elements of music from Baroque to Classical style

231 Theory III 2 cr
- This semester completes the study of materials of the Baroque and Classical style with harmonic and advanced modulation, then presents some of the most important elements of the Romantic and 20th-century idioms. Class meetings and the elements of teaching are the same as in 131 and 132

133, 134 Solfege 2 cr each
- These sequential courses are designed to develop students' competencies in the areas of intervalic relationships, melodic and rhythmic dictation as well as clef reading and sight singing.
MUSIC EDUCATION

010 Fundamentals of Piano, 1 & 2 2 cr each This course introduces students to basic piano skills including scales, triads, 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.

101, 102 Piano for Music Education, I & II 2 cr each This class provides students with functional competencies in piano which meet the certification requirements for the PA Dept of Education. It is required of all music education majors. Entrance to the class is on the basis of placement testing.

Class Piano I & II 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 Mus ED II. Also open to piano majors.

105 Voice for Music Educ 3 cr For all vocal and instrumental track majors. Fundamental techniques of singing, including posture, breath support, tone, diction, interpretation. All students will participate in a vocal lab emphasizing clinical experience.

106 Voice for Music Educ II 3 cr For vocal track majors. More advanced vocal techniques including an emphasis on style, memorization, accompanied performance, varied repertoire, and classification of voices. Instructional method materials for the elementary music classroom are explored. Students will participate in a vocal lab emphasizing clinical experience.

Class Voice 1 cr For non-vocal majors in the music education program and performance voice minors. Special attention is paid to developing individual vocal competences and knowledge of style and repertoire for the non-vocal major.

Class Voice II 1 cr For non-vocal majors in the vocal track and performance minors. Continuation of Class Voice I with emphasis on solo vocal performance skills and repertoire.

153 Instrumental Methods/Lab 2 cr each The development of technique on various instruments* with emphasis on the enhancement of teaching skills. A laboratory experience will provide ensemble performance experience.

JAZZ STUDIES

141 Jazz Studies 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 members of the group, and development of repertoire.

151 Evolution of Jazz Styles I 2 cr A study of the origin, development and styles of jazz music and its ramifications with an emphasis on recorded music as well as scores.

152 Evolution of Jazz Styles II 2 cr A study and analysis of recorded improvisation solos by major jazz artists from 1940 to the present.

251 Music Education Methods I 2 cr A multifaceted course leading to competencies in guitar, recorder, classroom instruments, multicultural musical mainstreaming. Clinical 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 Clinical experience included.

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. Clinical experience included. All 100 and 200 level courses are prerequisites.

302 Teaching Instrumental Music 2 cr A survey of methodology necessary for the development of, and the administration of, the band and orchestra program on the elementary, intermediate, and secondary levels. Practical application will be provided through field experience.

488 Music Education Seminar 1 cr For the advanced music education student. Introduction to Music Education research, stressing contemporary issues. A seminar project is required.

491 Student Teaching 12 cr For the senior music education student who has completed all required music and professional education classes satisfactorily and has been recommended by the faculty for student teaching. Practice teaching with approved cooperating teachers in instrumental and vocal classes, K-12 under the guidance of a university supervisor for a 14 week period. Students also attend on-campus seminars during this period. Additional coursework may not be scheduled concurrent with student teaching.

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.

Introduction to Clinical Experience 1 cr An introduction to the clinical setting with emphasis placed on communication and observation skills needed in order to facilitate entrance into the clinical setting.

108 Music In Therapy 2 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 which will be emphasized.
MUSIC THERAPY, SACRED MUSIC

124 Practicum 2 cr
Field placement in a clinical setting for a minimum of 15 hours per semester. Certified music therapists and other specially trained staff who work within the settings assist in the development and growth of the prospective music therapist.

307 Psychology of Music Teaching and Learning 3 cr
A study of physiological, psychological, and sociological aspects of music teaching and learning. Emphasis on current research.

308 Influence of Music on Behavior 2 cr
Reviews different treatment theories and their relationship to music therapy. Emphasizes the effects of music on behavior and total health. Develops a philosophy of music therapy with a background in holistic health.

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 3 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.

425 Clinical Internship 1 cr
Field placement in an NAMT approved clinical setting for a period of 6 months. Consultation with advisor working in conjunction with the approved supervisors from multiple settings across the US and Canada.

SACRED MUSIC

322 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.

403 Service Playing 1 cr
The objective of this course is to develop the service playing skills necessary to play for church services of all denominations through a study of applied harmony, counterpoint, hymnody, anthem accompaniments and conducting from the console. Students unable to enroll for this course will study this material in their applied music lesson.

410 Church Music Practicum 3 cr
Seminar in practical aspects of church music, establishing the music program in a church, graded choir systems, children's choirs, instruments in workshop, contracts, cantor systems, worship commissions, etc.

420 Hymnody 2 cr
A study of the church's heritage of song, the psalms, the great hymns of the Medieval Church, the heritage of Luther, Calvin and their followers, English hymnody, American contributions, twentieth-century hymnody with special emphasis on the theological framework for each major development in the history of hymns.

421 Gregorian Chant 2 cr
The history, notation and modal system of Gregorian chant. Class participation in the singing of chant. Chant as prayer and current liturgical application.

431, 432 Improvisation 2 cr each
A practical application of the basic tools of improvisation including the development of melodies at the organ, two and three part counterpoint, short ABA forms and chorale preludes with emphasis on their liturgical application.

451, 452 Organ Literature 2 cr each
A survey of organ literature and organ buildings as it relates to organ registration. The first semester treats organ music from the Renaissance through J.S. Bach. The second semester deals with the literature from 1750 to the present. Outside listening and readings will be required.

476 Organ Design and Maintenance 2 cr
A study of the basic concepts or organ construction with emphasis on the historical development of the organ and the mechanical operation of the pipes and console. Tuning, voicing, and esthetics of organ design will be discussed.

MUSIC TECHNOLOGY

141 Music Technology 2 cr
An introduction to music technology utilizing the resources of the Synthesizer and Recording Studio.

145, 146 Audio I & II 3 cr each
Introduction to the theory, tools, and techniques involved in audio design, practical experience with the resources of modern recording studios and the communications industry.

GENERAL

105 Seminar 0 cr
Registration for Seminar is required of all undergraduate Music majors during most semesters of full-time enrollment. Course matriculation guarantees availability for master classes, student club meetings, and guest lectures held during the Tuesday and Thursday "common hour" periods.

149 Ballet 2 cr
Fundamentals of ballet technique and practice, including barre and center floor work.

170 Enjoyment of Music 3 cr
An introduction to music appreciation especially designed for (but not limited to) non-music majors.
School of Nursing

Administration
Dean
Ruth C. Maszkiewicz, R N, Ph D
Associate Dean, Undergraduate Programs
Joanne F. White, R N, Ph D
Associate Dean, Graduate Program
Theresa L. Carroll, R N, Ph D
Director of Student Affairs
Patricia E. Mihalan, R N, M N Ed

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 of the Commonwealth of Pennsylvania approved the school and authorized Duquesne University to confer the degree of Bachelor of Science in Nursing and the degree of Bachelor of Science in Nursing Education upon graduates according to the appropriate curriculum. The program leading to the degree of Bachelor of Science in Nursing Education was designed to meet the specific needs of the registered nurse while the basic program leading to the degree of Bachelor of Science in Nursing was designed to meet the specific needs of the high school graduate. The School of Nursing continued to offer two separate programs leading to 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.

To date, more than 3000 students have graduated from Duquesne’s School of Nursing.

SCHOOL OF NURSING PHILOSOPHY AND DEFINITION OF NURSING
The philosophy of the School of Nursing evolves from that of Duquesne University. This philosophy provides a framework for a personal philosophy of life based on the Judeo-Christian frame of reference and supports a commitment to the values which give meaning to life.

In making explicit the philosophy that underpins the theoretical framework of nursing at Duquesne University, the concepts of man and health are related to nursing as a human science. Man is a unique creation of God whose defining characteristics are rationality, volition, and sentence. Further, man is wholistic and shares a mutually open existence with his environment.

Health is dynamic, contextual, and individual. It is experienced by the total person in all aspects of living. Active participation in one’s own health is required for the individual to actualize his/her health potential. All choices in life impact on one’s health.

The faculty believes that the academic discipline of professional nursing as a human science is primarily concerned with the health care of man and his family from conception to death. Nursing focuses on helping individuals and families to enhance the quality of living through the promotion of health. The nurse initiates interrelationships with clients and families to assist them in describing their health, evaluating alternatives, and mobilizing their resources for planning change. Central to nursing practice is the nurse/client/family process which is deliberate, systematic and individually designed. This is a shared process where decision making is focused on the freedom to choose within the context of the situation.

The nurse substantiates nursing practice through theories, concepts and research findings. The professional nurse is a creative and independent practitioner who tends satisfaction in initiating the process of nursing and who regularly evaluates self and plans for continuing self-growth. The professional nurse promotes the discipline of nursing and provides direction for the future of nursing through systematic inquiry.

The learning process is one in which the teacher and learner plan experiences, share knowledge and evaluate results. The emergence of new knowledge is encouraged through continuous inquiry and research. The evolving responsibilities with the nursing profession are based upon trends, technology, and characteristics of the population for whom health care will be delivered.

The uniqueness of the Duquesne University Baccalaureate Program is founded upon an appreciation and understanding of the philosophical beliefs about man-environment, health, nursing, and learning, and is reflected in the graduate’s practice of nursing. The graduate recognizes that the responsibility for the health situation is a shared process in which the nurse, client, and family actively participate.

The Duquesne University School of Nursing Baccalaureate Program graduates a generalist who is prepared to practice in a variety of settings. The program emphasizes nursing as a human science and provides a foundation for graduate study.

PROGRAM PURPOSES AND GOALS
The purposes of the program are:

1. To prepare the graduate to practice nursing as a human science in a variety of settings utilizing appropriate strategies to meet the complex and changing health needs of individuals/families/groups/community.
2. To provide the foundation for graduate education.

Within the philosophy and purposes of the School of Nursing, the faculty has formulated a curriculum that provides learning experiences to assist students to acquire specific knowledge and skills. The goals of this program are that upon completion of the program, the graduate:

1. Promotes the rights, responsibilities, and dignity of man in health care
2. Synthesizes knowledge from the related sciences, the humanities and nursing theories in applying the nursing process
3. Utilizes political, cultural, and social processes in promoting the health of individuals within their environment
4. Utilizes the nursing process in the promotion of health with client/family/groups along the life continuum in a variety of settings
5. Synthesizes principles of the learning process to promote the health of clients, families, and groups
6. Initiates health care from the perspective of the client/family/group/community’s value system
7. Utilizes knowledge of ethical and legal dimensions in making nursing practice decisions
8. Utilizes the research process in planning nursing care with the client/family/group
9. Accepts responsibility and accountability for nursing practice
10. Assumes the role of advocate in participating with other health care providers and consumers in the promotion of health

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 acquired in this program provides a basis for the graduate to progress to positions of increasing responsibility and to undertake graduate study.

The curriculum is designed to provide a strong liberal arts and science base. The course offerings in the natural, biological and human sciences and the University core courses support the philosophy that provides the basis for the conceptual 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. Learning opportunities are provided in hospitals, in homes, and in the community.

The faculty of the School of Nursing conducts all professional nursing courses and also guides and directs the practicum learning experiences. A variety of hospitals and agencies cooperate with the School of Nursing to provide a wide selection of excellent practicum settings.

Upon the successful completion of their program of studies, graduates will be eligible to write the examination for licensure in the state in which they wish to practice.

The faculty reserves the right to make changes in the curriculum and program requirements which are believed to be in keeping with the changing health needs of society and/or the best interest of the students and the School to maintain quality professional nursing education.
ADMISSION REQUIREMENTS

ADMISSION OF HIGH SCHOOL GRADUATES

Students who are interested in applying for admission to the School of Nursing should request an application from the Office of Admissions, Duquesne University, Pittsburgh, PA 15282. The specific entrance requirements for admission are:

1. The applicant’s high school curriculum must include a minimum of 16 units distributed as follows (1 unit = 1 year):
   - English: 4 years required
   - Social Studies: 3-4 years recommended
   - Language: 2 years recommended
   - Math & Science: 4 years required
     - Biology: 1 year
     - Chemistry: 1 year
     - Algebra: 1 year
   - One additional year is also required in science or math

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.

3. The primary consideration for admission is the secondary school academic record. This is considered to be the minimum criterion of success at Duquesne University. It is the desire of the Admissions Committee to admit those candidates who possess qualities of character and intellect and who show promise of development into useful and contributing citizens.

4. 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.

In specific instances, and at the discretion of the Committee on Admissions, these equivalent requirements may be accepted in lieu of the foregoing precise requirements. See the section on Admissions for other University requirements.

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.N. degree.

Specific information concerning the acceptance of transfer credits, eligibility for CLEP testing and challenge examinations can be obtained by contacting the R.N. Program Chairman within the School of Nursing.

Admission Requirements—

R.N./B.S.N. Program

Students who are interested in applying for admission to the R.N./B.S.N. Program should request an application from the Office of Admissions, Duquesne University, Pittsburgh, PA 15282.

- High school diploma or equivalent
- Graduation from an accredited associate degree or diploma nursing program (2 S.P.A. minimum)
- Verification of current licensure as a registered nurse in Pennsylvania
- Present or past experience in nursing
- Verification of active malpractice insurance
- Fulfillment of science and math prerequisites to the nursing clinical courses
- Personal interview with the R.N./B.S.N. Program Chairman in the School of Nursing

TRANSFER STUDENT ADMISSION

See the section on Admissions for further University requirements.

Admission criteria for transfer students

1. A cumulative Q.P.A. of 2.5 from the transferring institution.
2. 1 unit of chemistry and 1 unit of algebra, which can be from either a secondary school or postsecondary institution.
3. Personal interview with a representative of the School of Nursing.

Provisions affecting placement

1. No transfer student can be accepted into nursing 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. Thus, time limit may be waived in specific instances.

SECOND DEGREE PROGRAM

Applicants holding a baccalaureate with a major other than nursing must follow transfer student admission procedures. They should also arrange for a personal interview with a representative of the School of Nursing.

TEMPORARY TRANSFER

With prior written approval, a nursing student may take courses during the summer at an accredited college or university other than Duquesne University. A student wishing to do this will become a temporary transfer student, providing he or she receives the necessary clearance from both institutions.

1. A student must bring to the School of Nursing, Office of Student Affairs for the catalog description of courses he or she wishes to take and the schedule for the summer session in which they are given. This request will be evaluated for course equivalency and 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 Student Standing Committee.
3. A candidate for the Bachelor’s degree must complete the last 30 credits (exclusive of challenge credits) toward the degree at Duquesne University.
4. The student is responsible for earning a minimum of a C grade, or its equivalent if he or she expects to receive advanced standing. The student must arrange to have an official copy of the transcript of grades earned at the institution in which he or she received temporary transfer sent to the office of Student Affairs in the School of Nursing in order to receive advance standing. This transcript must be sent immediately upon completion of the course. Credit can only be given on occasion for courses that are repeated.

ADDITIONAL EXPENSES* AND REQUIREMENTS

Student Liability Insurance (Professional) (annually) $25.00
Uniforms, nurse’s cap, duty shoes, identification pin $120.00
Transportation from and to clinical agencies (weekly) $10.00
School of Nursing pin, upon graduation (if desired) cost varies
Physical examinations, diagnostic procedures, and immunizations
- 1st year (including chest x-ray) $150.00
- 2nd-4th year $50.00
Physical Assessment Kit $40.00
Senior Assessment Examination $25.00
*All expenses are approximate

Certification in Cardio-Pulmonary Resuscitation (CPR) is a pre-requisite to all nursing clinical courses. Students must show evidence of current CPR certification prior to entering the clinical area. Certification in Basic Life Support (BLS) is also a pre-requisite for the nursing clinical courses. Students must show evidence of this certification prior to entering the community clinical course.

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 August 1 before proceeding to the clinical practicum.

The School of Nursing provides information on required school uniforms to students prior to entering the clinical area. Nursing students enrolled in clinical courses must purchase liability insurance in the amount of $1,000,000/3,000,000 professional and $1,000,000 personal 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.

STUDENT ORGANIZATIONS

Each nursing student is a member of the general student body and may select and participate in any of the campus organizations. There are numerous social sororities and organizations as well as professional organizations. These organizations exist for the promotion of the scholarly and professional interests of members.

Alpha Tau Delta (meaning “through force of character”) is a national professional fraternity for persons in nursing. Theta Chapter was chartered on the Duquesne University campus April 21, 1938. Eligibility is limited to full-time students who have completed a minimum of one semester in the School of Nursing with a cumulative quality point average of 2.5.

Student Nurses Association of Pennsylvania The Student Nurses Association of Pennsylvania (SNAP) is a constituent of the National Student Nurses Association, Inc. (NSNA). The purpose of SNAP is to assume responsibility for contributing to nursing education, to provide programs representative of fundamental and current 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 and registered nurses enrolled in undergraduate programs of nursing.

Class Organizations Each class is an officially recognized group that is an integral part of 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 is the international nursing honorary society. The Duquesne University Nursing Honor Society was granted a chapter of Sigma Theta Tau. Epsilon Phi, in November of 1981. Membership is open to students, faculty, and alumni who meet the criteria for election.
GRADUATION REQUIREMENTS

General University requirements for graduation are in the Academic policies section of this catalog. In addition, specific School of Nursing requirements are:

1. Completion of 124 credits
2. A minimum cumulative overall-quality point average of 2.0
3. Successful completion of all clinical practicum courses
4. Completion of the required curriculum plan
5. 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
6. Submission of an application for the degree

No student is considered a degree candidate until he/she files an application for the degree on a form provided by the Registrar.

Degree requirements must be completed within 10 years after initial enrollment. At the end of the 10-year period, the student's record is re-evaluated in terms of the curriculum in effect at that time, and the student is advised of any additional requirements for graduation. The responsibility for fulfilling degree requirements rests with the student.

RECOMMENDED COURSE SEQUENCE

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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 Award are awarded annually to two outstanding seniors chosen by the Faculty. The Mary W. Tobin Gold Medal is awarded by the Theta Chapter of Alpha Tau Delta National Professional Fraternity for persons in nursing. It was established in 1945 to honor Mary Tobin on the occasion of her retirement from the University. The Dean Johnson Memorial Award established in 1963 commemorates Dean Johnson’s contributions to the growth of the School of Nursing.

Four new awards were presented for the first time in 1983. The first award on behalf of Miles Laboratories, Inc. is awarded annually to the outstanding graduating senior in the area of acute care nursing. The award is called the Miles Laboratories Award for Excellence in Nursing Practice in the Acute Care Setting. The second award is called the Lanza Award for Excellence in Home Health Nursing, and is sponsored by Lanza, Hospital Equipment for the Home. This award is presented annually to the graduating senior demonstrating outstanding ability in the area of community health. The third award is sponsored by the United States Air Force. This award, the Air Force Leadership in Nursing Award, is presented to the graduating senior best demonstrating outstanding leadership qualities (in general), contributions to the nursing program and/or class, and evidence of community service and commitment to the profession. The fourth award is for general excellence in the area of nursing research and is awarded to a graduating senior. This award is sponsored by Sigma Theta Tau—Epsilon Phi Chapter.

Most recently, three new awards have been added. The Community Health Education Award, established in 1983, 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, and the Nursing Alumni Award, established in 1987, is awarded to a graduating senior for excellence in scholarship, professional commitment, and implementation of Duquesne’s philosophy.

SENIOR DIAGNOSTIC ASSESSMENT EXAMINATION

A senior diagnostic assessment examination is required of all second semester seniors. The purpose of this battery of tests is to provide a mechanism for feedback to students in helping identify strengths and weaknesses in preparation for the registered nurse licensing examination.

SCHOOL OF NURSING

GRADUATION REQUIREMENTS

In addition, specific School of Nursing requirements are in the Academic policies section of this catalog. In addition, specific School of Nursing requirements are:

1. Completion of 124 credits
2. A minimum cumulative overall-quality point average of 2.0
3. Successful completion of all clinical practicum courses
4. Completion of the required curriculum plan
5. 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
6. Submission of an application for the degree

No student is considered a degree candidate until he/she files an application for the degree on a form provided by the Registrar.

Degree requirements must be completed within 10 years after initial enrollment. At the end of the 10-year period, the student’s record is re-evaluated in terms of the curriculum in effect at that time, and the student is advised of any additional requirements for graduation. The responsibility for fulfilling degree requirements rests with the student.

RECOMMENDED COURSE SEQUENCE

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<td>BI 101 Thnk/Wrtg, Acctv Lewis</td>
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<td>BR 118 Res of Human Thtr</td>
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<td>BI 114 Soc Pol &amp; Pd Econom/Sys</td>
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<td>N101 Principles of N340 Social &amp; Mktng</td>
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<td>N221 Humn Dev/Nurs</td>
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<td>N200 Pathol for UC/Inv</td>
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<td>N203 Intro to Res &amp; Prac</td>
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<td>N210 Nurs Care of the Adult</td>
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<tr>
<td>N211 Nurs Care of the Child</td>
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</table>

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 Award are awarded annually to two outstanding seniors chosen by the Faculty. The Mary W. Tobin Gold Medal is awarded by the Theta Chapter of Alpha Tau Delta National Professional Fraternity for persons in nursing. It was established in 1945 to honor Mary Tobin on the occasion of her retirement from the University. The Dean Johnson Memorial Award established in 1963 commemorates Dean Johnson’s contributions to the growth of the School of Nursing.

Four new awards were presented for the first time in 1983. The first award on behalf of Miles Laboratories, Inc. is awarded annually to the outstanding graduating senior in the area of acute care nursing. The award is called the Miles Laboratories Award for Excellence in Nursing Practice in the Acute Care Setting. The second award is called the Lanza Award for Excellence in Home Health Nursing, and is sponsored by Lanza, Hospital Equipment for the Home. This award is presented annually to the graduating senior demonstrating outstanding ability in the area of community health. The third award is sponsored by the United States Air Force. This award, the Air Force Leadership in Nursing Award, is presented to the graduating senior best demonstrating outstanding leadership qualities (in general), contributions to the nursing program and/or class, and evidence of community service and commitment to the profession. The fourth award is for general excellence in the area of nursing research and is awarded to a graduating senior. This award is sponsored by Sigma Theta Tau—Epsilon Phi Chapter.

Most recently, three new awards have been added. The Community Health Education Award, established in 1983, 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, and the Nursing Alumni Award, established in 1987, is awarded to a graduating senior for excellence in scholarship, professional commitment, and implementation of Duquesne’s philosophy.

SENIOR DIAGNOSTIC ASSESSMENT EXAMINATION

A senior diagnostic assessment examination is required of all second semester seniors. The purpose of this battery of tests is to provide a mechanism for feedback to students in helping identify strengths and weaknesses in preparation for the registered nurse licensing examination.
One time Students may repeat nursing didactic courses The clinical component of all nursing practice must obtain a pass grade in the clinical portion average meets required standards who, in its opinion, has not progressed satisfactorily

Descriptions of courses in liberal arts and sciences may be found in the College of Liberal Arts and Sciences section, page 44. Descriptions of University core courses may be found on page 36

100 Orientation to Professional Nursing 3 cr
This course introduces students to the discipline of nursing as a human science, and provides the framework for explaining the practice of professional nursing according to the philosophy of Duquesne University School of Nursing. Students explore the assumptions about man and environment beginning with the valuing process and self-esteem as a means of valuing self. In addition, students examine beliefs about man, environment, and health and how they make a difference in how one practices nursing.

Professional nursing is explored from the historical aspect as it relates to present and emerging roles. The relationship of nursing research and theory is examined with a concentration on the nursing theories of Rogers, King, and Watson. Students begin to investigate how nursing theories serve as a basis for the practice of nursing.

222 Human Development Throughout the Life Continuum 4 cr
This course builds upon the major concepts of health, human, and nursing. The student studies human development from birth through death. Emphasis is placed on an individual's physical, 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 of clients encountered in various clinical settings and for the promotion of health, Prerequisite Bases for Human Thought and Action

233 Introduction to Research in Nursing 1 cr
This basic course is designed to introduce the student to the nature of inquiry, the historical evolution of nursing science, the role of the nurse as a consumer of research, and the utilization of the library as a means of fostering the consumer role. Prerequisite Orientation to Professional Nursing

252 Nutrition for Health Promotion 4 cr
This course focuses on nutrition and the nursing role in health promotion for 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 their relation to health. Prerequisites Principles of Chemistry

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 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 develop an understanding of the interrelationship of these theoretical components in man's experience of health. The professional role is explored within the framework of the nursing process. Prerequisites: CPR Certification, Orientation to Professional Nursing, Anatomy & Physiology I, Anatomy & Physiology II (concurrent), Human Development Throughout the Life Continuum, Basic Communications in Nursing (or 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 communica- tion, and learning ways to change one's pattern of relating. This course is foundational to nursing practice as interaction is essential to the nurse/client/family process. It is given in all professional courses in the Nursing Process to enable students to begin to apply theory with clients in a long-term setting. Prerequisite Orientation 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 changes. This course is the first major clinical nursing course. Prerequisites: Health Promotion Through the Life Continuum, Health Promotion through the Nursing Process

320 Nursing Care of the Adult Client I 7 cr
This course is the first major clinical nursing course which provides students with opportunities to explore adult clients' breathing, cardiac, perfusion, and sensory/motor patterns. Integrated throughout the course content are oncological and rehabilita-tional care of the client where loss and grief are addressed. The focus of the course is on the individualized care of hospitalized adult clients ranging from early adulthood to the elderly through utilization of the nursing process. Students demonstrate understanding of nursing theories through the plan of care for each client. Students care for clients who represent varied ethno-cultural traditions, providing a rich opportunity to explore the impact of these values and traditions on health care.

Students begin to use the principles of teaching and learning as they participate in implementing a formal teaching plan with the client. Students participate in health promotion of the adult through education and interaction. The focus is on proper management of client care, including goal setting and evaluation of goal attainment. Students begin to incorporate available nursing research into the nursing process. Prerequisites: Health Promotion Through the Nursing Process, Basic Communications in Nursing, Comprehensive Physical Assessment of the Adult and Child, Pharmacology, Nutrition, Nutrition for Health Promotion, Pathology (concurrent)

330 Foundations of Gerontic Nursing 2 cr
This course builds upon the knowledge of the concepts of human growth and development throughout the life continuum, based on foundational courses, and upon all previous learning. The course is designed to examine the aging process from a gerontic nursing perspective focusing on the older adult. Learners examine normal changes of aging, health assessment, and common health problems of the older adult. Selected economic, legal, ethical, socio-cultural, and/or political issues are discussed and analyzed. Emphasis throughout the course is placed on health promotion of the older adult. Prerequisites Human Development Throughout the Life Continuum, Health Promotion through the Nursing Process

350 Comprehensive Physical Assessment of The Adult And Child 2 cr
This course builds on the knowledge of health assessment of individual patterns, the head to toe body surface assessment and the practice of basic assessment experienced in the Nursing Care of the Adult Client I. The design of this course provides students with the knowledge and skill involved in the performance of a comprehensive physical assessment. A systems approach is utilized to teach students to perform a comprehensive physical assessment throughout the assessment phase of the nursing process. Students learn to recognize the normal and the alterations indicative of a potential health problem. Concentration is on the physical assessment of the adult, with an overview of the physical assessment of the child. Clinical application of this knowledge and skill is afforded in Nursing Care of Adult Client II taken concurrently. The course enhances students ability to synthesize knowledge of body systems for the purpose of viewing man as a holistic being and for exploring appropriate nursing interventions. Prerequisites: Health Promotion Through the Nursing Process

360 Nursing Care of the Adult Client II 7 cr
This clinical nursing course builds on all previous learning, and provides students with opportunities to explore the adult client's responses to health alterations in ingestion, excretion, mobility and sexuality patterns. Oncological and rehabilitation nursing care of adult clients continues to be integrated. The focus of the course is on the individualized care of adult clients with family ranging from early adulthood to the elderly through utilization of the nursing process. Students continue to demonstrate understanding of various nursing theories throughout the plan of care for each client with their family. Students care for clients with family representing varied ethno-cultural traditions in the acute care set-
SCHOOL OF NURSING

NURSING ELECTIVES

260 Ways of Healing 3 cr
This course is a non-clinical nursing elective. Ways of Healing explores many of the ways in which clients and families cope with the process of healing which are not thought to be medically traditional. Belief systems are looked at and how they affect life with emphasis on the healing process and beliefs that exist around unconscious or unexpected healing and look at the relationship to man’s belief systems which are a reflection of how man participates with his own health. Students study, in depth, two ways of healing: holofied and visual imagery techniques. The application of these techniques to the Nurse/Client/Family Process is explored. Seven other ways of healing are explored through group presentations: psychic surgery, hypnotic, spiritual healing, healer/seeker, astrological, and laying on of hands. Prerequisite: Orientation to Professional Nursing

299 Nursing and Spirituality 3 cr
Nursing and Spirituality is a non-clinical nursing elective. Students explore the universal and timelessness of the spiritual dimension of human nature. Case histories in nursing are investigated which focus on spiritual needs encountered in the nurse/client/family relationship.

300 Health Education 3 cr
This course focuses upon the nurse’s role as health educator and allows the student to explore the dynamic world of health education in today’s society. The major issues confronting the nurse as a teacher are emphasized and the growth and development of the student is facilitated 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.

Critical Care Nursing 3 cr
This course is built upon medical-surgical concepts. Critical Care Nursing continues to examine the processes of life, valuing, change, inquiry, caring and Nurse/Client/Family process. In an acute care setting, these processes will be further explored in relation to man’s unidirectional movement as lived through health patterns. The course emphasizes the student’s ability to perform indepth assessment and demonstrate a holistic approach in providing care to the client with complex medical-surgical problems. Only students who have suffered during the summer and only by special permission. Prerequisite: Transcultural Nursing of the Adult Client I and II.

399 Health Care of Women 3 cr
Health Care of Women is a nursing elective that provides students with an opportunity to explore many of the prevalent health experiences of women in contemporary society in the United States. This course investigates aspects of women’s health and choices relative to the quality of their lives. It provides students with an opportunity to analyze health promotion for women from a historical and nursing perspectives and provides them with the knowledge of health resources available to meet the specific needs of women.

396 Communicating with Children Through Play 3 cr
Communicating with Children through Play is a non-clinical elective for any student who is interested in pre-school-aged, school-aged and adolescent children. The focus of this course is on play as an ever changing life experience. Emphasis is placed on play as a means of understanding children’s behavior, as a valuable resource for anticipatory guidance with children, and as a means for the child to work through some of his/her immediate life stressors.

The participants will expand their perspectives of children’s play as a form of communication by observation and evaluation of children’s play by utilizing selected techniques. The selected play techniques that will be presented are: Drawings (draw-a-man, draw-a-family, draw-a-house-tree-person), Pigeon’s Question, Three Wishes, Story Completion, Make-up a Story, Puppet Play, and Therapeutic Play Interviews. Prerequisite: Human Development Through the Life Continuum.
their interrelationships as developed in the student's previous sciences, humanities, and nursing courses. Emphasis is placed on the development of Lemenger'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: N262 Health Promotion Through the Nursing Process.

**Promotion Through the Nursing Process**

Promotion Through the Nursing Process

Emphasis is placed on the assessment and analysis of selected cultural diversities as related to transcultural health care systems. Various issues of Lemenger's model of transcultural nursing and dent's previous sciences, humanities, and nursing their interrelationships as developed in the student's previous sciences, humanities, and nursing courses. Emphasis is placed on the development of Lemenger'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: N262 Health Promotion Through the Nursing Process.

**Choosing the Living in Dying**

Choosing the Living in Dying is a non-clinical nursing elective. The focus of the course is on dying as an evolutionary life experience. Emphasis is placed on the quality of living throughout the dying process. The learners will expand their perspectives of the dying process and current issues in America related to that process. Meaning is enhanced through the sharing of thoughts, feelings, and perceptions within the group process.

Prerequisite: N481 Political Accountability in Nursing.

Political Accountability in Nursing is a non-clinical nursing elective course which examines the nature and purpose of political involvement from a nursing perspective. A political system model is utilized to study the politics of nursing within the workplace, other organizations, and the community at large. Governmental structures and political systems will be considered in relation to their impact on nursing and health care. Key concepts which form the basis of political activity are analyzed, and strategies for political action are presented. Current issues and historical events are included. Prerequisite: N262 Health Promotion Through the Nursing Process.

**490 Senior Nursing Seminar**

This senior nursing seminar focuses upon clients' experiencing a wide range of health-related problems throughout the life continuum. The synthesis of nursing theory and related science bases is accomplished through utilization of case studies and faculty/student led discussions. Inquiry and decision making are emphasized within the framework of the nurse/client/family process. This course is offered only in the spring. Prerequisite: N490 Senior Nursing Seminar.

**Nursing Care of the Childbearing Family, Nursing Care of the Child and Family**

499 Directed Study in Nursing

The course in Directed Studies provides students with the opportunity to pursue an area of individual interest in nursing which is consistent with the curriculum. Students will have the opportunity to generate goals related to the area of interest they wish to pursue and to formulate and implement a plan for achieving these goals.

**PHILOSOPHY AND OBJECTIVES**

The School of Pharmacy, as an integral part of the University, embodies as its own, the mission and goals set forth by the University.

The School of Pharmacy has many important missions, but the primary mission of the School is to prepare practitioners for life-long careers in pharmacy and allied health sciences. Academic training must build sufficient knowledge and skill to allow graduates to practice in the present environment and to grow and adapt as the practice environment changes.

The competency-based curriculum in pharmacy represents a composite of educational experiences that results in a well-educated and well-trained professional. An important part of the School's curriculum is to provide undergraduate students with a well-rounded and broad education which will inspire a permanent interest in learning and stimulate qualified undergraduate students to continue their education at the graduate level.

In order to be a competent pharmacist, the student must become a therapeutic specialist who has knowledge of drugs and their actions and can apply this knowledge to improve patient therapy outcomes and understanding. Further, the pharmacist must possess skills and knowledge to manage a professional practice. The comprehensive and specialized nature of the curriculum offers the pharmacy graduate a choice of occupations within the profession and its closely allied fields, as well as an adequate foundation for the continuation of studies on a graduate level in many areas.

Within the profession of pharmacy, a graduate may become a community pharmacist, hospital pharmacist, industrial pharmacy practitioner, consultant pharmacist, or a pharmacist in government service. Many pharmacists find employment with pharmaceutical companies as medical service representatives or in research, development, manufacturing, quality assurance, or marketing positions. Others become involved with the wholesale sector of the drug distribution system. Graduates in pharmacy are well-qualified to become officers of drug law enforcement agencies. In recent years, pharmacists have entered the fields of nuclear pharmacy and drug information and/or poison control. Many pharmacists find employment as chemists or biologists in industrial and research organizations in allied fields. Others enter the profession of teaching. Additional study is required for those who wish to continue their study in other health professions leading to a second professional degree or an advanced degree in the basic pharmaceutical and medical sciences.

The School of Pharmacy directs the professional program leading to the degree of Doctor of Pharmacy. It is specifically designed to prepare graduates to assume the duties and responsibilities dictated by the clinical, educational, and administrative facets of their respective positions. Upon program completion, the graduate practitioner will merge into the profession capable of promoting and enhancing rational drug therapy. In addition, the individual will be capable of functioning proficiently as both an administrator of pharmacy services and as a pharmacist educator. Utilizing personal experience and an established data base, the graduate will be capable of participating in, and promoting, pharmacy research in the hospital and university setting.

The Graduate School of Liberal Arts and Sciences of Duquesne University offers programs through the Department of Pharmaceutical Sciences, leading to the Doctor of Philosophy degree in pharmaceutical chemistry and medicinal chemistry, and the Master of Science degree in the fields of pharmacaceutics, pharmaceutical chemistry, medicinal chemistry, pharmacology-toxicology, and a joint degree program leading to a Master in Business Administration/Master of Science in Industrial Pharmacy.
DEGREES
The School of Pharmacy offers a program leading to the undergraduate degree, Bachelor of Science in Pharmacy. Descriptions of advanced degrees offered by the faculty of the School of Pharmacy are found in other publications available from the School of Pharmacy office.

PROGRAMS
PHARMACY
The School of Pharmacy offers a Bachelor of Science in Pharmacy degree upon completion of the undergraduate professional program. The first two years encompass many courses offered by the College of Liberal Arts and Sciences, in addition to several professional courses. The latter three years of study are taught mainly by the pharmacy faculty, with electives being available from both faculty and all other schools of the University. Students are enrolled in the School of Pharmacy for all years. Transfer students are enrolled according to qualifications in the first, second or third year of the five-year sequence. Legal requirements of all states are met with regard to graduation from an accredited college of pharmacy. Licensure in the several states may be acquired by meeting specific additional requirements of each particular state.

Residency Requirements
The pharmacy curriculum has been designed to provide a sequence of courses leading to professional competence. The minimum time period in which this may be accomplished has been determined by the faculty to be three years of full-time residency. This residency requirement for the final years of the professional curriculum is in accordance with a policy statement ratified by the American Association of Colleges of Pharmacy and followed by all colleges of pharmacy in establishing minimum residency requirements, as well as guidelines for professional education. The residency requirement is applicable to all students regardless of advanced standing status.

Curriculum
A minimum of 30 credits in the combined general education areas of humanities and social sciences, in accordance with ACPE accreditation requirements, is required for graduation from the School of Pharmacy. Effective for the Class of 1992 (entering in Fall, 1987) and thereafter, Pharmacy students must meet the requirements of the University Core Curriculum. For Pharmacy students, seven required University Core courses satisfy 21 credits of the 30-credit ACPE General Education requirement for the B.S. in Pharmacy degree. The University Core courses and, where appropriate, the Social Science and Humanities designations, as determined by the faculty of the School of Pharmacy, follow:

101 Thinking and Writing
102 Imaginative Literature and Critical Writing
131 Bases of Human Thought and Action
134 Social, Political, and Economic Systems
151 The Shaping of the Modern World
161 The Arts and the Human Experience
182, 183, 184, 185, 186 Theology (choose one course)

Pharmacy students must take an additional 9 credits of General Electives, chosen in consultation with their academic advisor, to meet the 30-credit ACPE General Education requirement. Coursework offered by the following departments in the College of Arts and Sciences and Schools of the University is approved for meeting the additional 9-credit General Electives requirement:

- Pharmacy
- Natural Science
- Physical Science
- Economics
- Fine Arts

In adherence to ACPE accreditation requirements on general education, the School of Pharmacy faculty has ruled that general electives must be non-science, non-math, non-professional coursework.

SCHOOL OF PHARMACY

PHARMACY CURRICULUM
For the Class of 1992 (entering Fall, 1987) and thereafter

First Year

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<thead>
<tr>
<th>Fall Semester</th>
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<tr>
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<tr>
<td>121 General Chemistry I</td>
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<td>101 Thinking &amp; Writing</td>
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<td>101 Pharmacy Orientation</td>
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<td>112 General Biology II</td>
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<tr>
<td>122 General Chemistry II</td>
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<td>102 Imaginative Literature and Critical Writing (University Core)</td>
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<tr>
<td>161 The Arts and the Human Experience</td>
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Second Year

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<td>201 General Physics I</td>
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<td>131 Bases of Human Thought and Action (University Core)</td>
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<td>151 The Shaping of the Modern World</td>
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<td>161 The Arts and the Human Experience</td>
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<td>206 Organic Chemistry II</td>
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<td>141 Social, Political, Economic Systems (University Core)</td>
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<td>161 Arts and the Human Experience (University Core)</td>
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<td>220 Human Anatomy &amp; Physiology I</td>
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Third Year

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<tr>
<td>317 Human Anatomy &amp; Physiology II</td>
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<td>301 Basic Pharmaceuticals-Pharmacy Math I</td>
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<td>309 Biochemistry-Nutrition</td>
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<tr>
<td>230 Pharmacy Law</td>
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<tr>
<td>302 Basic Pharmaceuticals II</td>
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<tr>
<td>319 Medical Microbiology-Immunology</td>
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310 Analysis of Drug Substances | 4 4 |
326 Pharmacy Administration | 3 3 |
4 4 16 7 18

Fourth Year

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<td>305 Pharmaceuticals-Biopharmaceutics</td>
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<td>313 Medicinal Chemistry-Natural Products I</td>
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<td>325 Pharmacy Management</td>
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<tr>
<td>322 Pharmacology-Drug Mechanics II</td>
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<tr>
<td>306 Pharmaceuticals-Pharmacokinetics IV</td>
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<tr>
<td>314 Medicinal Chemistry-Natural Products II</td>
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<td>431 Behavioral Aspects of Illness</td>
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Fifth Year

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<tr>
<td>440 Therapeutics</td>
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<tr>
<td>323 OTC Drugs</td>
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<tr>
<td>430 Patient Counseling &amp; Education</td>
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<td>333 Drug Literature Resources</td>
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<tr>
<td>324 Public Health-Emergency Treatment</td>
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<tr>
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<tbody>
<tr>
<td>441 Practical Pharmacy I- Clinical Clerkship</td>
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<td>432 Practical Pharmacy II - Community</td>
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<td>433 Practical Pharmacy III- Hospital</td>
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<td>434 Practical Pharmacy IV- Optional</td>
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D*—Didactic hours, L*—Laboratory hours, C*—Credit hours

Courses are to be completed in the designated sequence. Minimum credits for B.S. in Pharmacy Degree—163. Sufficient elective courses must be taken to satisfy the minimum credit requirements. Changes may be made in some parts of the curriculum because of a result of faculty evaluation of the Pharmacy curriculum.
AREAS OF CONCENTRATION

Sex credits in Professional Pharmacy Electives is the minimum requirement for graduation. During the fourth year (earlier if possible) each pharmacy student is urged to select an area of concentration from one of the following areas: Community Practice, Institutional Practice, Industrial Pharmacy, Nuclear Pharmacy, or Pre-Graduate Study.

Independent Study in the School of Pharmacy is considered professional elective course work and may be used in any of the areas of concentration. Students may make their own selection of courses in consultation with their advisors. The following courses are approved for the respective areas of concentration:

1. Community Practice
   - 471—Selected Topics in Prescription Drug Counseling
   - 481—Pharmacy Sales and Marketing
   - 482—Community Pharmacy Practice
   - 483—Aging and Health Care
   - 561—General Toxicology
   - 566—Clinical Toxicology

2. Institutional Practice
   - 483—Aging and Health Care
   - 491—Hospital Pharmacy Management
   - 514—Parenteral Therapy
   - 515—Clinical Oncology
   - 519—Physical Assessment
   - 501—Manufacturing Pharmacy
   - 539—Nuclear Sciences
   - 540—Advanced Bionucleonics and Radiopharmaceuticals
   - 541, 542 Radiopharmaceuticals
   - 561—General Toxicology
   - 563—Pathology
   - 566—Clinical Toxicology
   - 569—Toxins

3. Industrial Pharmacy
   - 501—Manufacturing Pharmacy
   - 502—Pharmaceutical Regulations and Development
   - 504—Regulatory Aspects of Industrial Practice
   - 510 Advanced Pharmacokinetics I
   - 520—Spectral Methods
   - 524 Advanced Medicinal Chemistry I and II
   - 539—Nuclear Sciences
   - 540—Advanced Bionucleonics and Radiopharmaceuticals
   - 541, 542 Radiopharmaceuticals
   - 561—General Toxicology
   - 563—Pathology
   - 566—Clinical Toxicology
   - 569—Toxins

4. Nuclear Pharmacy
   - 539—Nuclear Sciences
   - 540—Advanced Bionucleonics and Radiopharmaceuticals
   - 489—Problems in Health Physics (offered by Physics Department)

Pharmacy students who select the Nuclear Pharmacy area of concentration, may spend part of the required B.S. in Pharmacy practicum in a nuclear pharmacy and/or nuclear medicine setting.

5. Pre-Graduate Study
   - Students who select this option must consult with the chairman of the department of their area of interest in order to select courses most adaptable to the program they desire to pursue. A combined B.S. in Pharmacy/M.S. program is available to qualified students.

The following courses offered by the Graduate Department of Pharmaceutical Sciences are available to qualified upperclassmen in the School of Pharmacy:

- 501—Manufacturing Pharmacy
- 502—Pharmaceutical Formulation and Development
- 504—Regulatory Aspects of Industrial Practice
- 510—Advanced Pharmacokinetics I
- 522—Spectral Methods
- 524 Advanced Medicinal Chemistry I and II
- 539—Nuclear Sciences
- 540—Advanced Bionucleonics and Radiopharmaceuticals
- 541, 542 Radiopharmaceuticals
- 561—General Toxicology
- 563—Pathology
- 566—Clinical Toxicology
- 569—Toxins

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Pharmacy students who select the Nuclear Pharmacy area of concentration, may spend part of the required B.S. in Pharmacy practicum in a nuclear pharmacy and/or nuclear medicine setting.

- 504—Regulatory Aspects of Industrial Practice
- 510—Advanced Pharmacokinetics I
- 522—Spectral Methods
- 539—Nuclear Sciences
- 540—Advanced Bionucleonics and Radiopharmaceuticals
- 541, 542 Radiopharmaceuticals
- 561—General Toxicology
- 563—Pathology
- 566—Clinical Toxicology
- 569—Toxins

Pharmacy students who satisfactorily complete the nine-credit requirement of the Nuclear pharmacy area of concentration, are awarded a certificate. Also, students who satisfactorily complete the nine-credit requirement of the Nuclear pharmacy area of concentration, are awarded a certificate. Thus, a prorated charge is derived from the total costs of all laboratory operations throughout the professional years.

SCHOLARS PROGRAM

Any student designated as an Admissions Scholar upon entrance to the University and to the School of Pharmacy, or who has obtained a cumulative average of 3.50, is named to the School of Pharmacy Scholars Program. Selection is made annually on the basis of academic standing. No application is required. Scholars are recognized annually at the fall social gatherings, and are encouraged to investigate Advanced Placement, CLEP, and Challenge Examination opportunities, faculty research projects in which they may participate, and independent study and graduate-level course offerings.

SPECIAL FEES

Pharmacy Activities Fee

Instituted by student request, this fee of $30 a semester for a minimum of six semesters, covers such miscellaneous items as local and national Academy of Students of Pharmacy dues and journal subscription, laboratory jacket, towels and name pins, class gifts, and support of the pharmacy student newsletter, Pharmun, and partial travel expenses for one required field trip to a pharmaceutical manufacturing firm. Payment is made at request of each semester. This prorated fee is assessed only to those students in the last three years of the pharmacy program.

School of Pharmacy Fee

All students enrolled in the undergraduate program of the School of Pharmacy are required to pay a fee designated by the University. This fee, which is assessed for each semester that a student is enrolled in the School of Pharmacy, assists with the special operating expenses of the School of Pharmacy.

REGULATIONS

Students in the School of Pharmacy 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 Pharmacy insists on strict adherence to the following regulations:

1. Class Attendance
   - Regular class attendance in the School of Pharmacy is normally required for maximum educational advantage. The responsibility for all course material rests wholly with the student. Under no circumstances will class attendance be used as the sole basis for altering a grade in a course. This principle shall not modify the prerogative of each instructor to establish specific policies.
for attendance at tests, examinations, class lectures, deadlines for reports, and other specific school or course requirements. A student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstances is responsible for notifying the Office of the Dean of the School of Pharmacy. The student should supply a written verification of the above. A student who is absent for cause is expected to complete all of the work in all courses. It is the student's responsibility to make up all assignments in all courses and to be familiar with any instructions which may have been given during the absence. Handicapped students requiring special assistance are urged to notify the class instructor before or at the first class.

2 Academic Standards. All students who are admitted to the School of Pharmacy must maintain a 2.0 QPA (quality point average) in the required courses in the professional pharmacy curriculum, throughout the program. Students who do not achieve a 2.0 QPA by the end of the first professional year may be admitted to the second year on a probationary basis. No student will be admitted to the third, fourth, or fifth years of the program with less than a 2.0 QPA in all courses and in professional courses, shall have a 2.0 QPA in the pre-pharmacy science and math courses. A student will not be admitted to the fifth year of the program without successful completion of all required courses in Pharmacy I, II, III, IV.

3 Required Programs. Pharmacy students in the fourth year of the curriculum are required to participate in one industrial visit arranged by the School. The faculty of the School of Pharmacy may require Pharmacy student attendance at other seminars and special programs.

4 Health Requirements. Any School of Pharmacy student entering studies in a hospital or other institutional setting may be required to conform to the health requirements of that institution.

STUDENT ORGANIZATIONS

The Academy of Students of Pharmacy whose membership includes all pharmacy students registered in the last class of the School of Pharmacy, aims to promote their interests, academic, social and professional. Under its auspices, many worthwhile events are arranged during the school year. The executive committee meets regularly with the Dean and the faculty moderator to act as liaison between students and faculty. The annual membership fee includes one year's student membership in the American Pharmaceutical Association and a year's subscription to its journal. Interested pharmacy students enrolled in their first and second years at the University are also eligible for membership and are encouraged to become actively involved in ASP.

The Alpha Beta Chapter of Rho Chi, national pharmacy honor society at Duquesne University, was organized to promote the advancement of the pharmaceutical sciences. A student who has completed three years of work at the University level and has achieved a B average is eligible for membership. A minimum of 20 percent of the class enrollment may be admitted to membership.

Faculty, graduate students in the pharmaceutical sciences, and Doctor of Pharmacy students may also be invited to join.

The Phi Lambda Sigma, a national professional pharmaceutical society, was chartered at Duquesne University in 1980. The society recognizes and encourages leadership in the profession of pharmacy. The society selects members who have completed at least two and one-half years in the pharmacy program and have demonstrated exemplary leadership qualities.

The Tau Chapter of Lambda Kappa Sigma, an international pharmaceutical fraternity for women, was established at Duquesne University in 1932. The organization numbering among its members some of the most outstanding women in pharmacy. Its purpose is to promote the profession of pharmacy and to create a center of culture and enjoyment for its members.

The Beta Gamma Chapter of Phi Delta Chi, an international pharmaceutical fraternity, was chartered at Duquesne University in 1960. The fraternity endeavors to integrate academic, social and professional activities and thereby foster the highest professional and personal ideals among its members. Membership is open to students in pharmacy.

The Delta Epsilon Chapter of Kansas Psi Pharmaceutical Fraternity was chartered in 1967. This international fraternity strives to develop industry, sobriety, and fellowship and to foster high ideals, scholarship, and pharmaceutical research while supporting all projects advancing the profession of pharmacy. Membership is open to students in pharmacy.

Class Organization. Each of the five classes is an officially recognized organization in the School of Pharmacy. Each class elects its own officers and conducts its own programs and affairs as its membership deems desirable toward achieving its goals. All students are included in these organizations.

HONOR AWARDS

American Institute of the History of Pharmacy Award. A recognition certificate and gift publications are awarded annually by the American Institute of History of Pharmacy for superior achievement in pharmacist-historical study or activity.

McKesson American Pharmaceutical Association Award. A plaque provided by the McKesson Company is presented annually to the graduate who has made the most significant contribution to the Academy of Students of Pharmacy at Duquesne University.

Bristol Award. A plaque and a standard reference book recommended annually by the Bristol Laboratories, Inc., Syracuse, N.Y., to a Doctor of Pharmacy candidate for excellence in scholastic achievement.

Bristol Award. A plaque and a standard reference book is awarded annually by the Bristol Laboratories, Inc., Syracuse, N.Y., to the graduate who has in the opinion of the faculty attained unusual distinction in the work of pharmaceutical administration.

Sam A. Corey Award. An award presented annually to a graduating Pharmacy student who has demonstrated considerable involvement in community professional programs.

Faculty Award. The faculty of the School of Pharmacy may present an appropriate award to an outstanding member of the graduating class who has displayed exceptional qualities of academic excellence and a QPA of over 3.75.

Morrice H. Finkelpoel Award. An award of $25 is presented annually to a student who intends to practice Community Pharmacy.

Galen Society Award. The Galen Society of Pittsburgh annually offers two $25 awards to the two members of the graduating class who have achieved the highest standing in the departments of pharmacology and pharmaceutical chemistry.

Samuel W. Curtis Award. Annually an award of $50 is presented to a graduating student who has shown outstanding ability and interests in the field of pharmaceutics.

Faculty Award. A replica of an Early American gold medal is presented annually to a graduating student who has demonstrated excellence in pharmacy practice.

Lemmon Company Award. A certificate and award of $150 to the graduating senior who has completed the degree program through unusual and extraordinary perseverance and determination in the opinion of the faculty.

McNeil's pharmaceutical student of the year award.

Pennsylvania Pharmaceutical Association Award. A certificate of recognition and one-year membership in the PPA is awarded annually to the graduate who has been most actively involved in pharmacy organizations.

1. Conneti Tuco Award. An award is presented to the graduating student who has demonstrated excellence in pharmaceutical education.

Sandoz Doctor of Pharmacy Award. A commemorative plaque and $100 which is provided by Sandoz, Inc., East Hanover, N.J., is awarded annually to an outstanding Doctor of Pharmacy graduate.

Mylan Award for Excellence in Pharmacy. An award presented annually to an academically superior B.S. Pharmacy graduate who has demonstrated the highest level of achievement in the provision of drug information services and professional motivation and promise.

Upjohn Research Award. A plaque and monetary award are presented annually to a graduating Pharm. D. student who has demonstrated

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Roche Pharmacy Communications Award. A personalized plaque is awarded annually to the graduating student who has shown exceptional ability in patient communication through course work and application.


Academy of Students of Pharmacy Annual. A certificate of recognition is presented to the graduating student who has demonstrated through service, reporting and activity, an avid interest in organization work.

Student Perceptor of the Year Award. An appropriately designed plaque is awarded annually by the Syntex Laboratories, Inc, of Palo Alto, California to the preceptor who, in the opinion of the Pharmacy Interns, best exemplifies professionalism, ethics, and clinical practice.

Upjohn Award. A suitably inscribed plaque and $100 are awarded annually by the Upjohn Company, Kalamazoo, Michigan, in recognition of outstanding public service by a graduating student.

Western Pennsylvania Society of Hospital Pharmacists Award. An annual award of $50 is presented to the graduating senior who demonstrates outstanding ability and interest in the area of Hospital Pharmacy.

Lemmon Company Award. A certificate and award of $150 to the graduating senior who has completed the degree program through unusual and extraordinary perseverance and determination in the opinion of the graduating class.

Pennsylvania Pharmaceutical Association Award. A certificate of recognition and one-year membership in the PPA is awarded annually to the graduate who has been most actively involved in pharmacy organizations.

1. Cornetti Tuco Award. An award is presented to the graduating student who has demonstrated excellence in pharmacotherapy.

Sandoz Doctor of Pharmacy Award. A commemorative plaque and gift which is provided by Sandoz, Inc., East Hanover, N.J. is awarded annually to an outstanding Doctor of Pharmacy graduate.

Mylan Award for Excellence in Pharmacy. An award presented annually to an academically superior B.S. Pharmacy graduate who has demonstrated the highest level of achievement in the provision of drug information services and professional motivation and promise.

Upjohn Research Award. A plaque and monetary award are presented annually to a graduating Pharm. D. student who has demonstrated superi-
or research activities, as determined by the faculty.

**GRADUATION REQUIREMENTS**

A committee of the faculty will review the record of each candidate for graduation to ascertain full compliance with specific School of Pharmacy curricula requirements and the general University Graduation Requirements, as stated in the Academic Policies section of this catalog. This committee will then recommend candidates for faculty certification for graduation or for remedial work to be fulfilled prior to the granting of the degree. Communications pertaining to this certification may be entered in the Office of the Dean.

**STATE LICENSING PENNSYLVANIA**

A candidate for licensure as a Registered Pharmacist in the Commonwealth of Pennsylvania must meet the following requirements before he/she may be admitted to the licensing examinations which are conducted by the Pennsylvania State Board of Pharmacy during the academic year.

1. Character—be of good moral character
2. Professional Training—have a degree in Pharmacy granted by a School or College of Pharmacy, which is accredited by the American Council on Pharmaceutical Education
3. Practical Experience—any person enrolled as a student in a pharmacy in an accredited college may at the end of the second year of college file with the Pennsylvania State Board of Pharmacy an application for registration as a pharmacy intern.

To assure proficiency in the practical aspects of pharmacy, the State Board shall by regulation prescribe internship requirements which must be satisfactorily completed prior to sitting for the licensure exam and to issuance of a Pharmacist's License.

Specific information concerning practical experience requirements as well as all other requirements concerning licensure may be obtained from the State Board of Pharmacy, Department of State, Box 2649, Transportation and Safety Bldg., 6th Floor, Harrisburg, Pennsylvania 17120.

**STATES OTHER THAN PENNSYLVANIA**

According to law, the licensing of an applicant seeking to become registered as a pharmacist is under the sole jurisdiction of the state in which he/she seeks to practice. Although the requirements for licensure in the Commonwealth of Pennsylvania are similar to those of other states, differences may exist. Space limitations preclude a complete listing of the requirements of other states and the District of Columbia. The candidate for licensure in another state is advised to consult the Board of Pharmacy in that particular state for complete and current information.

**CAREER GUIDANCE CENTER**

A Guidance Center has been established within the School of Pharmacy to keep students informed about the latest career opportunities available to those possessing a pharmacy education and to attract high school and college students to the profession.

The Center consists of faculty members, School of Pharmacy alumni, and pharmacy practitioners. It provides upon request speakers for career day programs and information to high school counselors on all matters relating to a pharmacy education and career.

Pharmaphiles containing career information on pharmacy are also available through the Guidance Center. Inquiries should be directed to the Pharmacy Career Guidance Center, School of Pharmacy, Duquesne University, Pittsburgh, Pennsylvania 15282.

**RESEARCH FOUNDATION**

The Hugh M. Muldoon and Pharmacy Alumni Foundation of Duquesne University, established in 1950 to celebrate the twenty-fifth anniversary of the founding of the School of Pharmacy, is an increasingly valuable aid in helping to the aims of the University and of the School of Pharmacy. The Foundation provides funds for improving the instructional and research facilities of the School; it assists in the advancement of pharmacy by providing scholarship assistance to Pharmacy students and by supporting the training of undergraduate and graduate students in industrial and research procedures. It helps to extend the knowledge from research being conducted under the auspices of the School Contributions are solicited from graduates and others interested in the work of the School. They may be addressed in care of the School of Pharmacy.

**COURSE DESCRIPTIONS**

The courses of instruction are numbered in accordance with a plan uniform throughout the University

- University courses numbered 300 are Freshman courses, 200 Sophomore, 300 Junior, 400 Senior. Courses described in this section are required in the professional curriculum and those courses offered by the School of Pharmacy faculty as a University service. Courses numbered 300 are graduate level courses in which qualified undergraduate students may be enrolled with the permission of the instructor of the course. Credit for these courses cannot be used to satisfy requirements for a second degree. Most courses in the 800 series are generally restricted to Doctor of Pharmacy candidates.

**DEPARTMENT OF PHARMACEUTICAL CHEMISTRY AND PHARMACEUTICS**

**Chairman** Lawrence H. Block, Ph.D

**Faculty** Professors Block, Borke, Feldman, Galinsky, Kay, Associate Professor Ganggee, Assistant Professors Collins, Harrold, Shukla, Instructor Wolf

**101 Pharmacy Orientation** 1 cr. Introduction to the profession of pharmacy. Discussion of various aspects of pharmacy education and professional practice. Pharmaceutical organizations and the pharmacist are discussed. The pharmaceutical literature is reviewed and a brief history of pharmacy is presented. Lecture, one hour.

**301 Basic Pharmaceutics—Pharmacy Math I** 4 cr. A study of the basic physicochemical principles applicable to an understanding of drugs and the pharmaceutical systems in which they are contained. Subject areas include solubility and solutions, pH, diffusion, osmotic, drug stability, packaging, storage, and administration, physicochemical evaluation of pharmaceutical products. The clinical applications of pharmaceutics must be covered. The pharmaceutical literature is reviewed and a brief history of pharmacy is presented. Lecture, one hour.

**302 Basic Pharmaceutics II** 4 cr. A continuation of Pharmaceutics I. Prerequisite: Pharmaceutics I. Lecture, three hours, Recitation, conference, and laboratory, four hours.

**305 Pharmaceutics—Biopharmaceutics** 3 cr. A study of the physico-chemical, biological, and pharmaceutical factors which affect absorption, distribution, metabolism, and excretion of drugs in man. Emphasis is placed on the utilization of biopharmaceutical and pharmacoagent knowledge in problems of bioavailability and bioequivalence of drug products. The determination of appropriate drug dosage regimens. Prerequisite: Basic Pharmaceutics II. Lecture, three hours.

**306 Pharmaceutics—Pharmacokinetics** 4 cr. A continuation of Pharmaceutics III with emphasis on pharmacokinetics and on drug delivery systems. Prerequisites: Pharmaceutics III. Lecture, three hours, Laboratory, four hours.

**309 Biochemistry—Nutrition** 4 cr. A course designed to integrate basic biochemistry with the application to selected clinical cases. Emphasis is placed on metabolism of carbohydrates, lipids, and proteins as the source of energy derived from foods, certain aspects of nutrition are discussed. The function of enzymes, vitamins, and hormones is presented in relation to their role in metabolism. Clinical applications, including laboratory tests encountered on patients' charts, parental nutrition, and pertinent clinical cases which illustrate the interrelationship of biochemistry with pathophysiology of the drug therapy. Prerequisites: Organic Chemistry I, II. Lecture, three hours, Laboratory, three hours.

**310 Analysis of Drug Substances** 4 cr. A survey course covering the basic principles of analytical chemistry, statistics as applied to pharmaceutical research, the analytical process, problem solving and data interpretation. Examples used come from pharmaceutical manufacturing, clinical and biochemical analysis, pharmacokinetics, pharmacology and drug therapeutics. Prerequisites: General Chemistry I, II. Lecture, four hours.

**313 Medicinal Chemistry—Natural Products I** 4 cr. Relationship of the chemical structure of the biologically active natural and synthetic drug molecules. Emphasis is on underlying principles as well as on specific therapeutic agents. Organization is by pharmacological classification, with chemical structure related. Route of action, drug disposition (absorption, distribution, metabolism, and excretion) and chemical incompatibilities are considered for each class. Prerequisites: General Chemistry I, II and Biochemistry Lecture, four hours.

**314 Medical Chemistry—Natural Products II** 4 cr. A continuation of Medicinal Chemistry I. Lecture, four hours.

**499 Independent Study and Research** 1-3 cr. /sem.

To stimulate interest in furthering a student's education, the School of Pharmacy uses this course as a vehicle to provide the means whereby those who wish to be involved in a programmed self-study educational experience may do so. To accomplish this aim, the student in cooperation with a specific instructor chosen by the student, will develop a course of study that will realistically be able to fill the learning objectives stated by the student. The student and instructor will meet at stipulated regular time intervals for guidance and evaluation of progress being made by the student. Contact School of Pharmacy office for restrictions on total credits allowed and on eligibility for registration.
DEPARTMENT OF PHARMACOLOGY-TOXICOLOGY

Acting Chairman  J  Douglas Bricker, Ph D
Faculty Professors Riley, Winne, Associate Professors Bricker, Fochtman, Pilewski, Instructor Wahba

1 Drug Abuse  1 cr
A course designed to present the pharmacological and toxicological properties of substances of abuse. The major classes of drugs are described with direct reference to toxic and adverse effects. The myths and misconceptions commonly attributed to substances of abuse are clarified. The philosophy of the course is to present an objective picture of the "drug abuse era" in this country. The course is intended for all students beginning their college study. Admission to this course for students who have completed Pharmacology-Drug Mechanisms I or its equivalent is by approval of the instructor.

2 Basic Pharmacology  3 cr
A course dealing with the major classes of therapeutic agents, designed for students with a limited background in biological sciences. Drugs are considered from the pharmacodynamic point of view and include basic mechanisms of action. Important drug interactions as they relate to patient care are included. Not open to Pharmacy Students. Prerequisites: Six credits of biological science, including physiology.

3 Social Diseases  4 cr
Causes, course of diseases, prevention, treatment and social effects of venereal diseases. Awareness and common sense should be awakened in students by the course. Open to students who have completed Pharmacology-Drug Mechanisms I only with the permission of the instructor. Lecture, one hour

130 History of Pharmacy  2 cr
A survey of the origins of science, medicine, and pharmacy from earliest recorded events to the present with emphasis on the nineteenth and twentieth century pharmacy in the United States. Lecture, two hours.

220 Human Anatomy and Physiology I  4 cr
A lecture course dealing with the structure and function of the various cells, tissues and organ systems of the body. Emphasis is on the complexities of regulation and integration of function of these organ systems. Prerequisites: General Biology I. Lecture, four hours.

317 Human Anatomy and Physiology II  4 cr
A continuation of the Human Anatomy and Physiology I lecture series, with laboratory. The laboratory portion of the course deals with gross anatomy, a histological study of tissues, and the clinical appraisal of physiological functions. Lecture, three hours; Laboratory, three hours.

318 Pathophysiology  3 cr
A lecture presentation of the cellular, organ and systemic changes associated with the human disease process. Also discussed are the physiological responses of the body's organ systems to the disease process and the contribution these responses make to the production of signs and symptoms that are normally associated with each disease state. Prerequisites: Human Anatomy and Physiology I, I I. Lecture, three hours.

319 Medical Microbiology—Immunology  4 cr
Course deals with the general characteristics and morphology of bacteria, the important staining techniques, methods of growing bacteria on artificial media, testing the effects of chemotherapeutic agents on pathogenic bacteria, and immunology. Emphasis includes discussions of the important bacterial, rickettsial, viral, and protozoal diseases along with wound infections, their causes, symptoms, and treatment. Lecture, three hours; Laboratory, three hours.

321 Pharmacology-Drug Mechanisms I  4 cr
A course in the mechanisms and pharmacodynamic actions of drugs. Side effects, toxicity, drug interactions and the rational for therapeutic use in relation to the body's state of health and disease. Prerequisites: Human Anatomy and Physiology I, I I and Pathophysiology. Lecture, four hours.

322 Pharmacology-Drug Mechanisms II  4 cr
A continuation of Pharmacology-Drug Mechanisms I. Lecture, four hours.

323 OTC Drugs  2 cr
A course designed to familiarize students with the pharmacological and toxicological properties of over-the-counter drugs. The course will prepare the student to recognize and choose appropriate OTC drugs, to select the proper nonprescription drug for a particular disease state, and to determine if treatment with a nonprescription drug is appropriate. Prerequisites: Pharmacology-Drug Mechanisms I, I I. Lecture, two hours.

324 Public Health-Emergency Treatment  3 cr
A discussion of public health measures such as immunization, water purification, sewage disposal, distribution of individuals and objects, control of rodents and insects, and the relationship of these to the spread of disease. Health statistics, disaster preparedness, and the health effects of environmental pollutants are also discussed. In the first hour of this course, the student is taught how to render first aid in cases of emergency, while awaiting the arrival of a physician. Special emphasis is placed on emergencies which the pharmacist is most likely to experience: epileptic seizures, heart attacks, fainting, diabetic coma, and others. Lecture, three hours.

471 Selected Topics in Prescription Drug Counseling  3 cr
A lecture course, with product discussions and demonstrations, intended to increase student knowledge of patient prescription drug counseling. The course will assist the student in organizing and presenting information to the patient based on an understanding of the similarities and dissimilarities between drug products of the same class, mechanism of action, administration, need for compliance, storage directions, potential side effects and adverse reactions, and when and why the patient should contact a pharmacist on medication problems. Lecture, with demonstrations, three hours.

DEPARTMENT OF PHARMACY ADMINISTRATION

Co-Acting Co-Chairpersons: Vincent J. Giannetti, Ph D., and Marilyn F. Harris, Ph D.

Pharmacy Law  3 cr
A course designed to acquaint the student with the principles of law and its relationship to pharmacy, Federal, State, and local laws and regulations pertinent to the handling and sale of drugs, cosmetics, narcotics, poisons, and alcohol are discussed. A review of antitrust laws, trade regulations, and court decisions is made to the pharmacist. Prerequisites: Elements of business law and civil responsibilities of the pharmacist are also covered. Lecture, three hours.

262 International Health Issues  3 cr
The course will explore factors that influence health care in diverse countries. Topics covered include a comparison of health services, the role of international agencies from the perspective of developed and developing countries, the constitutional, administrative and financial influences on health care, health priorities in the context of general needs. Lecture, three hours.

325 Pharmacy Management  4 cr
A course designed to familiarize students with the fundamentals of personnel, inventory, and financial management decisions with the overall objective of improving pharmacy practice efficiency. Lecture, four hours.

326 Pharmacy Administration  3 cr
A course designed to familiarize the student with the diverse social, political, economic, and legal forces that influence the practice of pharmacy. The course considers the persons, places, and activities involved in providing health care services with special emphasis on the role of the community pharmacist. Lecture, three hours.

430 Patient Counseling and Education  3 cr
A course designed to examine current counseling and educational techniques in terms of how they relate to patient education regarding personal health problems and compliance with medication regimens. The course will examine in detail basic interviewing techniques. Lecture—Laboratory, two hours.

431 Behavioral Aspects of Illness  2 cr
A course designed to examine the current theory and research in the psycho-social correlates and consequences of illness and health. Topics will include the general areas of social research, the nature of psycho-somatic medicine, the impact of social environment upon health, and the impact of illness upon the emotional and social functioning of the beholder. Prerequisite: Introductory course in sociology and/or psychology is highly recommended. Lecture, two hours.

432 Practical Pharmacy II—Community  3 cr
Required of all final-year Pharmacy students and involving placement in an operating community pharmacy with a pharmacist-preceptor. Off-campus placement is necessary. Note: Calendar change for fifth-year Pharmacy students may be required.

433 Practical Pharmacy III—Hospital  3 cr
Required of all final-year Pharmacy students and involving placement in an operating hospital pharmacy with a pharmacist-preceptor. Off-campus placement is necessary. Note: Calendar change for fifth-year Pharmacy students may be required.

434 Pharmacy IV—Optional  3 cr
Required of all final-year Pharmacy students and involving placement in an operating pharmacy or related practice setting with a pharmacist-preceptor. Off-campus placement is necessary. Note: Calendar change for fifth-year Pharmacy students may be required.

481 Pharmacy Sales and Marketing  2 cr
An introduction to the pharmaceutical manufacturer's role in marketing drug products. The concepts, elements, and functions involved in the marketing of a drug are analyzed. A general survey of the marketing process, the competitive environment, and the marketing environment is provided. Lecture, two hours, Practicum, one hour.

482 Community Pharmacy Practice  3 cr
The course considers the operational aspects of a community pharmacy with emphasis on the business or commercial matters pertinent to a successful operation. Lecture, three hours.

483 Aging and Health Care  3 cr
A course designed to introduce the student to the field of gerontology. Emphasis will be on the aging process and the special health care needs of the elderly from a multidisciplinary perspective, including the biological sciences, psychology, and pharmacology. Lecture and clinical pharmacy. Lecture, three hours.

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431 Behavioral Aspects of Illness  2 cr
A course designed to examine the current theory and research in the psycho-social correlates and consequences of illness and health. Topics will include the general areas of social research, the nature of psycho-somatic medicine, the impact of social environment upon health, and the impact of illness upon the emotional and social functioning of the beholder. Prerequisite: Introductory course in sociology and/or psychology is highly recommended. Lecture, two hours.
DEPARTMENT OF CLINICAL PHARMACY

Chairman Thomas J Mattei, Pharm D
Faculty Associate Professors Eder, Freedy, Guadici, Lech, Livengood, Mattei, Porrier, Rihn, Assistant Professors Patricia Keys, Schatz, Instructor Karnack

333 Drug Literature Resources 1 cr
This course is intended to acquaint the student with various drug information resources and how to appropriately utilize these references in responding to information requests. The course will review the primary and secondary literature, indexing and abstracting systems, the systematic search process, principles of literature evaluation, and the approach for answering common drug information questions.

Lecture, one hour; Laboratory, one hour

440 Therapeutics 6 cr
A course designed to provide the student with the information necessary to demonstrate competency related to the therapeutic principles of selected disease states. Prerequisites Pharmacology-Drug Mechanisms I, II and Medicinal Chemistry-Naturals Products I, II Lecture, six hours

441 Practical Pharmacy—Clinical Clerkship 3 cr
An educational process designed to provide the student with clinical experiences necessary to demonstrate competency in the areas of providing patient education, ascertaining drug histories, participating in the selection and monitoring of therapeutic modalities, and other pharmacist-related functions.

The fifth-year Pharmacy student will be assigned to a member of the clinical faculty and a given practice site. Note: Calendar change for fifth-year Pharmacy students may be required. Prerequisite Therapeutics

491 Hospital Pharmacy Management 3 cr
A course designed to introduce the student to hospital pharmacy resource management and to services frequently associated with hospital pharmacy. Lecture, three hours

810 Hospital Pharmacy Administration 3 cr
The students are drawn into active discussions involving the administration of modern hospital pharmacy services. Literature, report assignments, and case studies complement the lecture and discussion material. Restricted to Pharm D students. Lecture, three hours

804 Drug Literature Evaluation 2 cr
The course will provide an overview of various issues of study design and the use of descriptive and inferential statistics. Lectures include a discussion of the structure of experimental designs, randomization, control groups and the role of statistics in experimental design. Principles will be applied by evaluating selected articles from the primary literature. The student will be expected to evaluate the appropriateness of study design, statistical tests and the extrapolation of results to clinical practice.

Lecture, two hours

806 Drug Information Resources 2 cr
This course is structured to familiarize the student with the various primary and secondary literature sources of pharmacology and medicine. The student is prepared to utilize the indexing, abstracting and select on-line computer systems associated with clinical practice. Each student participates in the activities of the Drug Information Center to allow for practical application of material presented in the classroom.

Lecture, two hours

811 Drug Induced Diseases 2 cr
The adverse effects of drug administration on various body systems are reviewed. Emphasis is placed on methods for their proper recognition, monitoring, evaluation and management. Discussion is directed toward the mechanism, incidence and clinical presentation of these consequences of drug therapy.

Lecture, two hours

812 Clinical Pharmacokinetics 3 cr
The course is designed to discuss the major parameters affecting the clinical pharmacokinetics of specific drug entities. Lecture material will be applied in the design of patient-specific dosage regimens for actual patient cases. Computerized applications in clinical pharmacokinetics are an integral component of the case studies.

Lecture-laboratory, three hours

814 Parenteral Therapy 3 cr
A lecture/laboratory course designed to present the principles of sterilization, aseptic processing and membrane filtration in the preparation of parenteral products and intravenous admixtures in pharmacy practice. Emphasis on the principles of fluid and electrolyte therapy, acid-base balance and total parenteral nutrition is included in lecture. Lecture, three hours, Pre-laboratory and laboratory/demonstration.

815 Clinical Oncology 2 cr
The course will provide insight into the pathophysiology, diagnosis, and treatment of cancer. The pharmacist's role in the total management of the cancer patient is emphasized. Principles for clinical monitoring, palliative and symptomatic management, management of complications from cancer and its treatment, nutritional support, considerations for handling of antineoplastics, clinical considerations for use of antineoplastics and the multidisciplinary approach to cancer will be discussed.

Selected cancers such as breast, leukemia and Hodgkin's disease will be covered. The objectives of the course will be fulfilled through lectures, readings, class discussions and patient followups.

Lecture, two hours

SCHOOL OF PHARMACY

817 Advanced Therapeutics I 5 cr
The course is designed to introduce the student to the therapeutic principles of selected disease states. Includes lecture, prospective and retrospective review of case histories and rounding with clinical faculty on patient assignments. Restricted to Pharm D students. Lecture, five hours

818 Advanced Therapeutics II 5 cr
A continuation of Advanced Therapeutics I. Restricted to Pharm D students. Lecture, five hours

819 Physical Assessment 2 cr
The course is designed to present the assessment techniques and basic knowledge of physical assessment utilized in monitoring the therapeutic effects of drugs. The Bates Physical Exam Videotapes are incorporated into the course.

Lecture-discussion, two hours

899 Research—Pharm D 2 cr
A report of experimental, administrative or behavioral investigative procedures and outcome carried on by the student under faculty advisement. Independent research. Restricted to Pharm D students.

691, 692 Seminar in Clinical Pharmacy 1 cr each
Oral presentation by graduate students, faculty and possibly visiting lecturers on topics of current, clinical, scientific and professional interest. Participation is required of all students in the Pharm D Program during each semester of registration. Restricted to Pharm D students.

DEPARTMENT OF CLINICAL PHARMACY
Reserve Officers’ Training Corps

DEPARTMENT OF MILITARY SCIENCE (ARMY OFFICERS’ COMMISSIONING PROGRAM)

PROGRAMS
The Army Reserve Officers’ Training Corps (ROTC) Program has been a member of the “Duquesne Family” since 1936. It is a completely voluntary program which is open to male and female students at Duquesne It provides students with the opportunity to earn a commission as an officer in the U.S. Army, U.S. Army Reserves or Army National Guard. After commissioning, students serve as an officer in the Reserves or National Guard while pursuing their chosen civilian careers or compete for active duty. The program is structured to give the student a variety of practical experiences in leadership and management of resources while learning about the military profession and the role it plays in our system of government. Four-year and two-year programs are offered, both of which are taken in conjunction with a student’s required or normal course of study leading to a degree

FOUR YEAR
The four-year program is divided into two parts: the Basic Course and the Advanced Course. The Basic Course is usually taken in the freshman and sophomore years during which time the student would take ROTC classes as they would any other college courses. There is no military service obligation. The freshmen and sophomore courses follow an adventure, skill learning and leadership track which is designed to enhance self-confidence, provide new experiences, and place students in realistic leadership situations. Freshmen learn survival techniques, how to handle and fire a rifle, and to navigate cross-country using a compass. Sophomores learn about leadership, decision-making and problem-solving techniques. The course is designed to provide the student with the tools for a self-analysis of his/her management capabilities and the methods for improvement.

MILITARY SCIENCE CURRICULUM
THE BASIC COURSE
(Military Science Levels I and II)

DIRECT ENTRY INTO THE ADVANCED COURSE
Students may receive placement credit for MS I and II and be granted direct entry into the Advanced Course. This placement credit may be granted for:
.
1. Completion of Army Basic Training or its equivalent in the Navy, Air Force, Coast Guard or Marine Corps.
2. Attendance at a service academy for one or more years.
3. Completion of equivalent level training in Navy or Air Force ROTC.

EARLY COMMISSIONING
Many students are able to complete the requirements for commissioning prior to graduation through the direct entry concept. These students may be commissioned upon completion of the Advanced Course, permitting them to serve in salaried positions with the National Guard or Reserves while completing their degree work.

SIMULTANEOUS MEMBERSHIP PROGRAM (SMP)
This program permits students to participate in the Army ROTC Advanced Course and serve in a Reserve or National Guard unit as an officer trainee at the same time. The advantage to SMP is that the student will receive regular drill pay from the Reserve or National Guard as well as the $100 per month living allowance for participating in the Army ROTC.

TWO-YEAR PROGRAM
This two-year program is designed primarily for transfer students and students who did not participate in ROTC as freshmen or sophomores. Any student with at least two academic years remaining (undergraduate and/or graduate) is eligible. Students may qualify for this program and enrollment in the Advanced Course by successfully completing a paid summer camp at Fort Knox, KY.

ARMY ROTC SCHOLARSHIPS
Army ROTC offers three and two-year scholarships which are awarded on a competitive basis. ROTC students, as well as those students not currently participating in ROTC, are eligible to apply. Each scholarship pays for tuition, textbooks, laboratory fees and other purely academic expenses. Scholarship recipients also receive a tax-free subsistence allowance of $100 each month during the school year while on scholarship status. For details, see the ROTC Scholarship listing in the Financial Aid Section of this catalog on page 17.

THE ADVANCED COURSE
(Military Science Levels III and IV)

MILITARY SCIENCE CURRICULUM
THE BASIC COURSE
(Military Science Levels I and II)

DIRECT ENTRY INTO THE ADVANCED COURSE
Students may receive placement credit for MS I and II and be granted direct entry into the Advanced Course. This placement credit may be granted for:
.
1. Completion of Army Basic Training or its equivalent in the Navy, Air Force, Coast Guard or Marine Corps.
2. Attendance at a service academy for one or more years.
3. Completion of equivalent level training in Navy or Air Force ROTC.
LEADERSHIP LABORATORY
Military Science (MS) 500 Cadet Corps Laboratory. This class is scheduled both semesters, meeting once a week for two hours. The Cadet Commander uses the lab to disseminate information and to organize the activities of the Corps of Cadets. All students are required to attend unless a conflict exists between this class and their academic course work.

VOLUNTARY ADVENTURE AND SOCIAL ACTIVITIES
In an urban environment, it is often not possible to provide students with the kind of surroundings suitable for the conduct of such activities as rappelling and small unit tactics. Therefore, off-campus sites on weekends are utilized in order to effectively apply techniques taught in the classroom.

Some weekend or evening events are set aside for social activities which incorporate exposure to military customs and traditions. These events include a Dining-In, the Military Ball, and Awards Ceremony.

Part VIII: Directories

DIRECTORS AND OFFICERS*

THE DUQUESNE CORPORATION

*This information has been provided by the Office of the Secretary of the University.

OFFICERS OF THE UNIVERSITY

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tbody>
<tr>
<td>President</td>
<td>John E Murray Jr, J D, S J D</td>
</tr>
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<td>Michael Weber, Ph D</td>
</tr>
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<td>Sean Hogan, M P A</td>
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Term Members

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<tr>
<td>Meyer Berger</td>
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<td>Robert J. Buckley</td>
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<td>Margaret Mary Coleman</td>
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<td>Robert A. del' ALPHA</td>
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<td>John F. Donahue</td>
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<td>Francis R. Duffy, C S Sp</td>
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<tr>
<td>George T. Farrell</td>
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<td>Herman Fineberg</td>
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<tr>
<td>Edward I. Goldberg, Esq</td>
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<td>Carl G. Grefenstette</td>
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<td>T. N. Rendall Harper</td>
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<td>John J. Henry</td>
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<td>Charles D. Horne</td>
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<td>Robert E. IRR</td>
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<td>John M. Jendzura, C S Sp</td>
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<tr>
<td>Joseph A. Katarnick, Esq</td>
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<td>Aaron P. Levinson</td>
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Ex-Officio Members

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<tr>
<td>Norman E. Bevan, C S Sp</td>
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<td>Most Rev. John B. McDowell, D.D.</td>
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Associate Members

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<td>Murry P. Berger</td>
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<tr>
<td>Francis A. Devlin</td>
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<tr>
<td>M.M.</td>
<td>Duquesne University</td>
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<tr>
<td>A.D.</td>
<td>Carnegie-Mellon University</td>
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<tr>
<td>Renee Ann Keil</td>
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<tr>
<td>Thomas J. Kikta</td>
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<tr>
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<tr>
<td>M.M., M.M.A., D.M.A.</td>
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<td></td>
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<tr>
<td>Anne Elgar Kopta</td>
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<tr>
<td>Stephen Kovacev</td>
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<tr>
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<tr>
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<tr>
<td>M.A., Stanford University</td>
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<tr>
<td>Charles E. Lirette</td>
<td>Adjunct Professor of Trumpet</td>
<td>B.M., Oberlin College</td>
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<tr>
<td>M.G.</td>
<td>Member, Pittsburgh Symphony</td>
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<tr>
<td>Donald Luzzi</td>
<td>Adjunct Professor of Percussion</td>
<td>B.M., University of Michigan</td>
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<tr>
<td>Elizabeth Moll</td>
<td>Adjunct Professor of Solfege</td>
<td>B.M.E., Indiana University</td>
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<td>Vincent J. Monteleone</td>
<td>Adjunct Professor of Trumpet</td>
<td>B.S., M.M., Duquesne University</td>
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<tr>
<td>John G. Malone</td>
<td>Adjunct Professor of Guitar</td>
<td>B.A., University of Pittsburgh</td>
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<tr>
<td>Jeffrey Mangone</td>
<td>Adjunct Professor of Double Bass</td>
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<tr>
<td>John Q. Moyer</td>
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<tr>
<td>Louis Munkacy</td>
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<td>Diploma, Liszt Academy of Music</td>
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<td>M.A., M.S., Juilliard School of Music</td>
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<tr>
<td>Joseph H. Negrin</td>
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<td>B.M., University of Pittsburgh</td>
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<tr>
<td>Beverly N.</td>
<td>Adjunct Professor of Piano</td>
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<td>B. S.</td>
<td>Duquesne University</td>
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<tr>
<td>Carolann Shankovich</td>
<td>Adjunct Professor of Voice</td>
<td>B.S., Indiana University of Pa</td>
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<td>B. S.</td>
<td>University of Michigan</td>
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<tr>
<td>Gerald Unger</td>
<td>Adjunct Professor of Percussion and Chair of Percussion Department</td>
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<tr>
<td>Allen Sher</td>
<td>Adjunct Professor of Violoncello</td>
<td>B.A., Brooklyn College</td>
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<tr>
<td>Roger Sherman</td>
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<td>Matthew Shimer</td>
<td>Professor Emeritus of Brass and Chair of Brass Department</td>
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<tr>
<td>Natasha Smukovsky</td>
<td>Adjunct Professor of Piano</td>
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<tr>
<td>Lisa Silko Span</td>
<td>Adjunct Professor of Piano</td>
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<tr>
<td>Benjamin Spiegel</td>
<td>Adjunct Professor of Bassoon</td>
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<tr>
<td>Ann Labousinsky Steele</td>
<td>Associate Professor of Organ, Chair of Organ and Sacred Music</td>
<td>B.M., Eastman School of Music</td>
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<tr>
<td>M.M.</td>
<td>University of Michigan</td>
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<tr>
<td>Diploma (Mention Maximum), Schola Cantorum</td>
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<td>Gladys Stein</td>
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<tr>
<td>David Stock</td>
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<td>Rev. Moshe Taube</td>
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</table>
Ensembles in Residence

Children's Festival Chorus
Con Spinto Woodwind Quartet
Pittsburgh New Music Ensemble

Faculty—School of nursing

School of Nursing

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Ruth C. Mąskiewicz, R.N., Ph.D
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Ensembles in Residence

Children's Festival Chorus
Con Spinto Woodwind Quartet
Pittsburgh New Music Ensemble

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<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Location</th>
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<tbody>
<tr>
<td>Allen H Dicken</td>
<td>Memorial Hospital of Bedford County</td>
<td>Everett, PA</td>
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<tr>
<td>Nick DiSilvio</td>
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<td>Pittsburgh, PA</td>
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<tr>
<td>George A. Dorundo</td>
<td>Westmoreland Hospital</td>
<td>Greensburg, PA</td>
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<td>James J Druschel</td>
<td>Westmoreland Hospital Association</td>
<td>Greensburg, PA</td>
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<td>Leo Einloth</td>
<td>Robinson Pharmacy</td>
<td>Pittsburgh, PA</td>
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<td>William Engelt</td>
<td>Allegheny Valley Hospital</td>
<td>Natrona Heights, PA</td>
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<td>Jay E Feld</td>
<td>The Medicine Shoppe</td>
<td>New Castle, PA</td>
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<tr>
<td>Kenneth Ferrett, Pharm D</td>
<td>Allied Health Services, Inc</td>
<td>Morgantown, WV</td>
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<tr>
<td>Jeffrey W Flowers</td>
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<td>Thomas J Fowler</td>
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<tr>
<td>Ronald J Franck</td>
<td>Avalon Community Pharmacy</td>
<td>Avalon, PA</td>
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<td>John Fris</td>
<td>Ebensburg Center</td>
<td>Ebensburg, PA</td>
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<tr>
<td>Daniel Fritz</td>
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<td>Pittsburgh, PA</td>
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<td>Anthony (Steve) Gerdano</td>
<td>Temple Pharmacy</td>
<td>Kane, PA</td>
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<td>Marshall Goldstein</td>
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<td>Richard S. Goldstein</td>
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<tr>
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<td>Ronald G. Hertsh</td>
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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 Greater 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, the Parkway West. From the east, the Pennsylvania Turnpike and state routes 22 or 30 intersect with 376, the Parkway East. Both the Parkways East and West lead to downtown Pittsburgh.