Directory

ADDRESS—University 600 Forbes Avenue Pittsburgh, Pa. 15282
Telephone Call specific Centrex (Direct Dial) number (see following), for other offices call 434 6000
ADMISSION—Director of Admissions Administration Building First Floor
Telephone (412) 434 6220/6221/6222
ADVISORS
College of Liberal Arts and Sciences College Hall, Room 215
Telephone (412) 434 6394/6395/6396
School of Business and Administration, Rockwell Hall Room 403
Telephone (412) 434 6277/6278
School of Education, Caneven Hall, Room 214
Telephone (412) 434 6118/6119
School of Music Room 315
Telephone (412) 434 6083
School of Nursing, College Hall Room 637D
Telephone (412) 434 6346/6347
School of Pharmacy, Mellon Hall of Science, Room 421
Telephone (412) 434 6385/6385
ROTC—College Hall, Fourth Floor
Telephone (412) 434 6614/6614/6615
CAMPUS MINISTRY—Administration Building, First Floor
Telephone (412) 434-6020
CAREER PLANNING AND PLACEMENT—Administration Third Floor
Telephone (412) 434-6645/6654/6646/6647
CASHIER—Payment of Tuition and Fees Administration Building, Ground Floor
Telephone (412) 434 6585/6586/6587/6588
CHAPLAIN—Administration Building, Ground Floor
Telephone (412) 434-6020/6021
DEAN OF STUDENTS—Duquesne Union Third Floor
Telephone (412) 434-6657/6658/6659
FINANCIAL AID—Loan Scholarship Student Employment Applications
Administration Building, Ground Floor
Telephone (412) 434-6007/6008/6009
FOREIGN STUDENT ADVISOR—Duquesne Union, Third Floor
Telephone (412) 434 6657
HEALTH SERVICE—Duquesne Towers, Second Floor
Telephone (412) 434 7822/7823
IDENTIFICATION CARDS—Office Services, Rockwell Hall Lower Level
Telephone (412) 434 6191
INFORMATION CENTER—for University Events, Duquesne Union, Third Floor
Telephone (412) 434 6632/6633
LEARNING SKILLS PROGRAM—Administration Building, Third Floor
Telephone (412) 434 6661/6662/6663
PSYCHOLOGICAL COUNSELING—Center for Testing and Research
Telephone (412) 434 6561/6562/6563
PUBLIC SAFETY—Public Safety Building
Telephone (412) 434 6001/6002/6003
REGISTRAR—For Transcripts and Records, Rockwell Hall
Telephone (412) 434 6214 (Transcripts) 434 6215 (Records)
RESIDENCE LIFE—for Housing, Duquesne Towers
Telephone (412) 434 6655/6656 (Second Floor Billing Contract)
434 7802/7803/7804 (First Floor Room Assignments)
STUDENT HEALTH INSURANCE—Administration Building, Second Floor
Telephone (412) 434 6058/6059
TESTING BUREAU—Administration Building, Third Floor
Telephone (412) 434 6204/6208

Duquesne University
Pittsburgh, Pennsylvania

UNDERGRADUATE CATALOG
1982-1983

Published annually, in July, by Duquesne University, 600 Forbes Avenue, Pittsburgh, Pennsylvania 15282

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Duquesne University admits students of any sex, race, color, national and ethnic origin to all rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of sex, race, color, national or ethnic origin, veteran's status or non-performance related handicap in the administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other University-administered programs

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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.
### ACADEMIC CALENDAR


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<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 17</td>
<td>Friday</td>
<td>Latest Date for Fall Semester Pre-Registration with Pay-By-Mail Option</td>
</tr>
<tr>
<td>August 26</td>
<td>Wednesday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>August 27</td>
<td>Thursday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>August 28</td>
<td>Friday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>August 29</td>
<td>Saturday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>August 29</td>
<td>Saturday</td>
<td>Latest Date to Register without Late Fee</td>
</tr>
<tr>
<td>August 31</td>
<td>Monday</td>
<td>Fall Semester Begins</td>
</tr>
<tr>
<td>September 5</td>
<td>Saturday</td>
<td>Latest Date to Register and for Change of Schedule</td>
</tr>
<tr>
<td>September 7</td>
<td>Monday</td>
<td>Holiday Labor Day</td>
</tr>
<tr>
<td>September 12</td>
<td>Saturday</td>
<td>Latest Date for 80% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>September 19</td>
<td>Saturday</td>
<td>Latest Date for 40% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>September 25</td>
<td>Friday</td>
<td>Latest Date for December '81 Graduates to Apply for Graduation</td>
</tr>
<tr>
<td>September 26</td>
<td>Saturday</td>
<td>Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>October 16</td>
<td>Friday</td>
<td>Latest Date for Undergraduates to remove Temporary I Grades from Spring Semester and Summer Session 1981, Grades not removed on or before this date convert to F's</td>
</tr>
<tr>
<td>October 23</td>
<td>Friday</td>
<td>Latest Date to Submit Mid-term Grades</td>
</tr>
<tr>
<td>October 23</td>
<td>Friday</td>
<td>Due Date for Instructors to Submit Undergraduate I Grade Removal Grades</td>
</tr>
<tr>
<td>October 26</td>
<td>Monday</td>
<td>Latest Date for December Graduates to submit Thesis Outline</td>
</tr>
<tr>
<td>October 30</td>
<td>Friday</td>
<td>Latest Date for Undergraduates other than First Semester Freshmen to Withdraw with W grade</td>
</tr>
<tr>
<td>November 1</td>
<td>Sunday</td>
<td>Holiday All Saints Day</td>
</tr>
<tr>
<td>November 17</td>
<td>Tuesday</td>
<td>Pre-Registration for Spring Semester Begins Other Dates Nov 18, 19, 20, 21, 30, Dec 1, 2, 3, (W, H, F, S, M, T, W, H)</td>
</tr>
<tr>
<td>November 21</td>
<td>Saturday</td>
<td>Latest Date Before Thanksgiving Holidays</td>
</tr>
<tr>
<td>November 30</td>
<td>Monday</td>
<td>First Class Day After Thanksgiving Holidays</td>
</tr>
<tr>
<td>December 4</td>
<td>Friday</td>
<td>Latest Date for Spring Semester Pre-Registration with Pay-By-Mail Option</td>
</tr>
<tr>
<td>December 7</td>
<td>Monday</td>
<td>Latest Date for December '81 Graduates to submit Thesis and Take Comprehensives</td>
</tr>
<tr>
<td>December 8</td>
<td>Tuesday</td>
<td>Holiday Immaculate Conception</td>
</tr>
<tr>
<td>December 11</td>
<td>Friday</td>
<td>Latest Date for First Semester Freshmen to Withdraw with W grade</td>
</tr>
<tr>
<td>December 16</td>
<td>Wednesday</td>
<td>Final Examinations Begin Other Dates Dec 17, 18, 19, 21, 22 (H, F, S, M, T)</td>
</tr>
<tr>
<td>December 22</td>
<td>Tuesday</td>
<td>Fall Semester Ends Latest date for December Graduating Students to pay accounts and complete degrees</td>
</tr>
<tr>
<td>December 22</td>
<td>Tuesday</td>
<td>Latest Date for Graduate Students to Remove I Grades for the 1981 Spring Semester and Summer Session</td>
</tr>
<tr>
<td>December 22</td>
<td>Tuesday</td>
<td>Latest Date for Spring Semester Pre-Registration without Pay-By-Mail Option</td>
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</tbody>
</table>

#### SPRING SEMESTER—1982

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>December 4</td>
<td>Friday</td>
<td>Latest Date for Spring Semester Pre-Registration with Pay-By-Mail Option</td>
</tr>
<tr>
<td>January 7</td>
<td>Thursday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>January 8</td>
<td>Friday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>January 9</td>
<td>Saturday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>January 9</td>
<td>Saturday</td>
<td>Latest Date to Register without Late Fee</td>
</tr>
<tr>
<td>January 11</td>
<td>Monday</td>
<td>Latest Date to Register and for Change of Schedule</td>
</tr>
<tr>
<td>January 16</td>
<td>Saturday</td>
<td>Latest Date to Declare Pass/Fail. No remission of tuition for a reduced class schedule obtained after this date</td>
</tr>
<tr>
<td>January 22</td>
<td>Friday</td>
<td>Latest Date for May '82 Graduates to Apply for Graduation</td>
</tr>
<tr>
<td>January 22</td>
<td>Friday</td>
<td>Latest Date for May '82 Graduates to Submit Thesis Outline</td>
</tr>
<tr>
<td>January 23</td>
<td>Saturday</td>
<td>Latest Date for 80% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>January 30</td>
<td>Saturday</td>
<td>Latest Date for 40% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>February 6</td>
<td>Saturday</td>
<td>Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>February 15</td>
<td>Monday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>February 15</td>
<td>Monday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>February 26</td>
<td>Friday</td>
<td>Latest Date for Undergraduates to Remove Temporary I Grade from the Fall 1981 Semester I Grades not removed on or before this date convert to F</td>
</tr>
<tr>
<td>March 5</td>
<td>Friday</td>
<td>Latest Date for Instructors to Submit I Grade Removal Grades for Fall '81 Semester</td>
</tr>
<tr>
<td>March 5</td>
<td>Friday</td>
<td>Latest Date for Reporting Mid-term Grades</td>
</tr>
<tr>
<td>March 12</td>
<td>Friday</td>
<td>Latest Date for Undergraduates other than First Semester Freshmen to Withdraw with a W Grade</td>
</tr>
</tbody>
</table>
March 29  Monday  Latest Date for May '82 Graduates to Submit Thesis and Take Comprehensives
March 30  Tuesday  Pre-Registration for '82 Fall Semester Begins  Other dates March 31, April 1, 2, 3, 5, 6 (W, H, F, S, M, T)
April 6  Tuesday  Last Class Day before Easter Holidays
April 14  Wednesday  First Class Day after Easter Holidays
April 14  Wednesday  Latest Date for May '82 Graduates to Pay Accounts
April 23  Friday  Latest Date for First Semester Freshmen to Withdraw with W Grade
April 28  Wednesday  Final Examinations Begin  Other dates April 29, 30, May 1, 3, 4 (H, F, S, M, T)
May  4  Tuesday  Latest Date for Graduate Students to Remove '81 Fall Semester I Grades
May  4  Tuesday  Spring Semester Ends  Latest Date for May '82 Graduating Students to complete Degrees
May  7  Friday  Honors Day Baccalaureate Exercise
May  7  Friday  Graduation Mass
May  8  Saturday  Commencement Exercises
May 20  Thursday  Holiday Ascension Day
July 16  Friday  Latest Date for Fall Semester Pre-Registration with Pay-By-Mail Option

1982-83
FALL SEMESTER—1982

(To Be Announced)
August 11  Wednesday  Latest Date for Fall Semester Pre-Registration with Pay-By-Mail Option
August 25  Wednesday  Final Registration
August 26  Thursday  Final Registration
August 27  Friday  Final Registration
August 28  Saturday  Final Registration
August 28  Saturday  Latest Date to Register Without Late Fee
August 28  Saturday  Latest Date to Cancel Fall '82 Registration without Penalty
August 30  Monday  Fall Semester Begins
September 4  Saturday  Latest Date to Register and for Change of Schedule
September 6  Monday  Latest Date to Declare Pass/Fail No remission of tuition for reduced class schedule after this date
September 11  Saturday  Latest Date for 80% Tuition Remission for TOTAL WITHDRAWAL from the University
September 17  Friday  Latest Date for December '82 Graduates to Apply for Graduation
September 18  Saturday  Latest Date for 40% Tuition Remission for TOTAL WITHDRAWAL from the University
September 25  Saturday  Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University
October 15  Friday  Latest Date for Undergraduates to remove Temporary I Grades from Spring Semester and Summer Session

October 22  Friday  Latest Date for May '82 Graduates to Submit Thesis and Take Comprehensives
October 22  Friday  Pre-Registration for '82 Fall Semester Begins  Other dates March 31, April 1, 2, 3, 5, 6 (W, H, F, S, M, T)
October 25  Monday  Latest Date for December Graduates to Submit Thesis Outline
October 29  Friday  Latest Date for Undergraduates other than First Semester Freshmen to Withdraw with W Grade
November 1  Monday  Holiday All Saints Day
November 2  Tuesday  Thanksgiving Observance
November 16  Tuesday  Latest Date to Submit Mid-Term Grades
November 20  Saturday  Latest Date to Register Without Late Fee
November 29  Monday  Latest Date to Register and for Change of Schedule

1982-83
SPRING SEMESTER—1983

(To Be Announced)
December 23  Thursday  Latest Date for Spring Semester Pre-Registration with Pay-By-Mail Option
January 6  Thursday  Final Registration
January 7  Friday  Final Registration
January 8  Saturday  Final Registration
January 8  Saturday  Latest Date to Register Without Late Fee
January 10  Monday  Latest Date to Cancel Spring '83 Registration without Penalty
January 15  Saturday  Spring Semester Begins

April 23  Friday  Latest Date for May '82 Graduates to Pay Accounts
April 28  Wednesday  Final Examinations Begin  Other dates April 29, 30, May 1, 3, 4 (H, F, S, M, T)
May  4  Tuesday  Latest Date for Graduate Students to Remove '81 Fall Semester I Grades
May  4  Tuesday  Spring Semester Ends  Latest Date for May '82 Graduating Students to complete Degrees
May  7  Friday  Honors Day Baccalaureate Exercise
May  7  Friday  Graduation Mass
May  8  Saturday  Commencement Exercises
May 20  Thursday  Holiday Ascension Day
July 16  Friday  Latest Date for Fall Semester Pre-Registration with Pay-By-Mail Option

December 6  Monday  Holiday Immaculate Conception
December 8  Wednesday  Latest Date for First Semester Freshmen to Withdraw with W Grade
December 10  Friday  Latest Date for December '82 Graduates to Submit Thesis and Comprehensives
December 16  Thursday  Latest Date to Register Without Late Fee
December 22  Wednesday  Latest Date for Undergraduates to Remove I Grades from the Spring Semester and Summer Session
December 23  Thursday  Latest Date for Spring Semester Pre-Registration without Pay-By-Mail Option

January 6  Thursday  Final Registration
January 7  Friday  Final Registration
January 8  Saturday  Final Registration
January 8  Saturday  Latest Date to Register without Late Fee
January 10  Monday  Latest Date to Cancel Spring '83 Registration without Penalty
January 15  Saturday  Spring Semester Begins
<table>
<thead>
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<tr>
<td>January 21</td>
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<td>Reading Day</td>
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<tr>
<td>February 15</td>
<td>Tuesday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>February 25</td>
<td>Friday</td>
<td>Latest Date for Undergraduates to Remove Temporary I Grade from the Fall '82 Semester I Grades not</td>
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<tr>
<td></td>
<td></td>
<td>removed on or before this date convert to F's</td>
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<td>March 29</td>
<td>Tuesday</td>
<td>Last Class before Easter Holidays</td>
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<tr>
<td>April 6</td>
<td>Wednesday</td>
<td>First Class Day after Easter Holidays</td>
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<tr>
<td>April 6</td>
<td>Wednesday</td>
<td>Pre-Registration for '83 Fall Semester Begins April 6-14, incl (H, F, S, M, T, W, H)</td>
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<tr>
<td>April 8</td>
<td>Friday</td>
<td>Latest Date for May '83 Graduates to Submit Thesis and Take Comprehensives</td>
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<td>Latest Date for May '83 Graduates to Pay Accounts</td>
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<tr>
<td>April 27</td>
<td>Wednesday</td>
<td>Final Examinations Begin Other dates April 28, 29, 30, May 2, 3 (H, F, S, M, T)</td>
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<tr>
<td>May 3</td>
<td>Tuesday</td>
<td>Latest Date for Graduate Students to Remove '82 Fall Semester I Grades</td>
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<tr>
<td>May 3</td>
<td>Tuesday</td>
<td>Spring Semester Ends Latest Date for May Graduating Students to complete Degrees</td>
</tr>
<tr>
<td>May 6</td>
<td>Friday</td>
<td>Honors Day Exercises</td>
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<td>May 6</td>
<td>Friday</td>
<td>Graduation Mass</td>
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<tr>
<td>May 7</td>
<td>Saturday</td>
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<tr>
<td>May 12</td>
<td>Thursday</td>
<td>Holiday Ascension Day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Latest Date for Fall Semester Pre-Registration with Pay-By-Mail Option</td>
</tr>
<tr>
<td>August 12</td>
<td>Friday</td>
<td>Latest Date for Fall Semester Pre-Registration without Pay-By-Mail Option</td>
</tr>
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</table>
All Degrees and Programs Offered in the University

<table>
<thead>
<tr>
<th>SCHOOL BACHELOR'S DEGREE</th>
<th>MASTER'S DEGREE</th>
<th>DOCTORATE</th>
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</thead>
<tbody>
<tr>
<td>Bachelor of Science</td>
<td>Master of Science</td>
<td>Doctor of Philosophy</td>
</tr>
<tr>
<td>Bachelor of Arts</td>
<td>Master of Arts</td>
<td>Doctor of Education</td>
</tr>
<tr>
<td>Bachelor of Business</td>
<td>Master of Business</td>
<td>Doctor of Law</td>
</tr>
<tr>
<td>Bachelor of Education</td>
<td>Master of Education</td>
<td>Doctor of Medicine</td>
</tr>
<tr>
<td>Bachelor of Engineering</td>
<td>Master of Engineering</td>
<td>Doctor of Dental Medicine</td>
</tr>
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<td>Bachelor of Computer</td>
<td>Master of Computer</td>
<td>Doctor of Dental Surgery</td>
</tr>
<tr>
<td>Bachelor of Electrical</td>
<td>Master of Electrical</td>
<td>Doctor of Optometry</td>
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<tr>
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<td>Master of Environmental</td>
<td>Doctor of Podiatric Medicine</td>
</tr>
<tr>
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<td>Master of Environmental</td>
<td>Doctor of Podiatric Surgery</td>
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<td>Master of Environmental</td>
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<td>Master of Environmental</td>
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<tr>
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<td>Master of Environmental</td>
<td>Doctor of Podiatric Medicine</td>
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</tbody>
</table>

HISTORY

Duquesne University first opened its doors as 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 area 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 France, the Marquis de Duquesne, who first brought Catholic services to the city while it was under French dominion. Duquesne's great period of student growth after World War II, along with the necessity of refurbishing a make-shift 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 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 is one of several major private, Catholic, urban universities in the United States. The University has nearly 7,000 students enrolled in its eight schools: College of Liberal Arts and Sciences (1878), 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

While Duquesne University can look with pride at the remarkable transformation of the campus effected by its physical development and expansion program, it has never lost sight of its primary role as an educational institution and its responsibilities to the students who form the Duquesne family. 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 his fellow man.

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. Coupled with a broad spectrum of non-academic activities and programs, the curriculum at Duquesne University seeks 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.

THE UNIVERSITY SETTING

Located adjacent to downtown Pittsburgh, Duquesne University's modern hilltop campus is readily accessible to the business, entertainment and shopping centers of the city.
while still enjoying the privacy and peace of its own self-enclosed 39-acre site. Long noted as one of the world's greatest steel-producing centers, Pittsburgh combines the features of big-city living with many of the charms and personal characteristics of a much smaller town. The third largest corporate headquarters center in the U.S. behind New York and Chicago, Pittsburgh was also shown, in a recent federal study of urban life, to have more cultural institutions and events per capita than any other American city. Although most visitors and new residents who come to the city are conditioned by the old "Smokey City" image, they soon learn that the Pittsburgh which emerged from its nationally acclaimed "Renaissance" redevelopment program is not only a city of clean air and streets, safe neighborhoods, and a bustling economy, but that Pittsburgh, more than any other American city, has developed a strong civic identity and sense of pride in its rebirth as a modern urban community.

Students from Duquesne and the other colleges and universities in the city can choose from a wide range of cultural events and institutions. The world-renowned Pittsburgh Symphony Orchestra, Pittsburgh Opera, and Pittsburgh Ballet Theatre all perform regularly in the elegant Heinz Hall for the Performing Arts. The theatregoer can choose from productions of the Pittsburgh Public Theatre, local college drama departments and programs, and a wide variety of summer and after-dinner club theatres. In the summer, the American Wind Symphony offers open-air concerts on Pittsburgh's riversides. Other seasonal events include the Three Rivers Shadyside arts festivals, and the International Folk Festival, three prestigious events which draw national attention.

Duquesne students can visit such points of interest as Highland Park Zoo, the Conservatory-Aviary, Buhl Planetarium, Pittsburgh History and Landmarks Museum, Duquesne Incline and Phipps Conservatory. Directly across the river from campus is Mount Washington, Pittsburgh's highest point, which offers a spectacular view of the city and its surroundings, particularly at night. Market Square, a redeveloped area in the heart of downtown Pittsburgh, and the Oakland-Shadyside area in the eastern end of the city are two of the major entertainment and nightlife centers.

The success of the various professional and major college sports teams has won for Pittsburgh the title of "City of Champions." The 1971 and 1979 World Champion Pirates and the four-time Super Bowl Champion Steelers play at Three Rivers Stadium. The Penguins (National Hockey League), Spirit (Major Indoor Soccer League), and Duquesne Dukes nationally known basketball team, the 1977 Eastern Eight champions, all perform in the nearby Civic Arena, one of the largest indoor sports arenas in the United States and the only one in the world with a retractable dome. Facilities for such participatory sports as tennis, golf, hiking, skiing, skating, and many others are available throughout the Pittsburgh area.

**PHYSICAL FACILITIES**

**The Administration Building,** "Old Main," was the first building constructed on the Duquesne campus, dedicated in 1884. Recently renovated, it houses the Executive Offices of the University, Office of Admissions, Campus Ministry, Business Offices, Testing Bureau, Career Planning and Placement Office, Learning and Counseling Center, Financial Aid Office, and the Division of University Relations. Adjoining the building is the University Chapel, which offers daily Mass, and the **Campus Theatre.**

**Assumption Hall,** the oldest residence hall on campus, was dedicated in 1956. A four-story structure with a 279-student capacity, the facility has its own chapel and recreation area, and offers both double and single rooms.

**Canevin Hall,** the oldest classroom building on campus, was built in 1922 and completely renovated in 1988. A four-story building, it houses the School of Education, Curriculum Library, Reading Clinic, Guidance and Counseling Clinic, and the Institute of Formative Spirituality.

**College Hall,** a six-story classroom and office building dedicated in 1970, is the seat of the College of Liberal Arts and Sciences and the Graduate School of Liberal Arts and Sciences, housing 12 of their individual departments and faculties. The School of Nursing is located on the sixth floor. Special instructional facilities include journalism, speech, psychology, numerical analysis, multi-media, and practice skills laboratories, along with two lecture halls.

**The Counseling Center** houses the University's Center for Training and Research in Phenomenological Psychology, a facility operated by Duquesne's renowned Department of Psychology.

**The Duquesne Towers,** a 17-story, air-conditioned double-tower residence for 1,200 men and women in separate wings, was dedicated in 1970. The facility features an indoor Olympic-sized swimming pool with a sundeck, offices of the Residence Life Division, the Campus Health Services area, a 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 Dean of Students, the Athletic Department, and various student organizations and interest groups. Facilities include three separate dining areas, a ballroom and student lounge, the campus bookstore, the campus information center, and a recreation center which features eight bowling lanes, pocket billiards, table tennis, table soccer, a music listening room, pinball, a rathskellar, and an arts and crafts center.

**The G & G Building,** in addition to housing various administrative offices of the University, is the site of some undergraduate classes and is the center of the College of Liberal Arts and Sciences Concentrated Studies Program. Also housed is the University's Vocations Office and the Military Science Department.

**The Gymnasium** is used as a practice facility by various inter-collegiate athletic teams of the University and as the center for indoor sports of the University's intramural sports program. The gym features a modern, fully 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, is the center for outdoor intramural activity. 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 Library Resource Center,** dedicated in 1978, is a modern, attractive five-story structure whose completion signaled the crowning achievement of the University's expansion and redevelopment program. Housed in over 100,000 square feet of space is a collection of over 402,000 bound volumes, more than 3,600 periodicals, and an extensive microprint and audiosvisual collection. The facility also contains a number of special collections, including the African Collection on African culture, society and politics, the Rabbi Herman Happon Collection on Medieval Christian and Jewish intellectual and religious thought, the Silverman Collection of world literature in phenomenology, and the University Archives. With seating capacity for approximately 1,000 patrons, including graduate study carrels and conference facilities, the new Library constitutes a highly functional facility that should remain responsive to the needs of the Duquesne community for many years to come. Architects for the Library Resource Center, Gerard Associates, were cited by the Pittsburgh Chapter of the American Institute of Architects for creative design in their renovation and expansion of the original structure, an old garage and warehouse constructed in the 1920s, into the present facility. The Music School and College Hall also resulted from conversions of older structures.

**Richard King Mellon Hall of Science,** an attractive, four-story structure dedicated in 1968, houses the Departments of Biological Sciences, Chemistry, Physics, and the...
School of Pharmacy Designed by one of the world's most renowned architects, Mies van der Rohe, the building won the "Laboratory of the Year" award in 1969. Instructional facilities include two large amphitheatre-style lecture halls with seating capacities of 248 each.

The Music School, dedicated in 1967, has 73 pianos, including 56 Steinways, five organs, and over 300 orchestral and band instruments available for student use. The school offers training and degrees in conservatory and music education, jazz and sacred music, as well as an innovative program in music therapy. Individual and group practice areas are available in the building, along with acoustically equipped classrooms. Performances are given throughout the school year in the recital hall, and the school hosts the annual Mid-East Instrumental Music Conference.

Rockwell Hall, dedicated in 1958, is a 10-story structure which houses the School of Business and Administration and the Law School. Its Business Simulation Laboratory contains 12 conference rooms equipped with television cameras and microphones for observation and recording of activity in the individual rooms. The Law School's library is the most accessible facility of its kind in the city, with Monday through Saturday hours from 7 a.m. to midnight, and Sunday hours from 10 a.m. to midnight. Rockwell Hall also houses a snack bar, the Business School's student study lounge, the University's Systems Center, and Peter Mills Auditorium. The School of Law will relocate in the Fall of 1982 to newly renovated facilities in the former campus library building.

St. Ann's Hall, dedicated in 1964, is a two-wing, three-story women's 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 Hall, a 14-story residence, provides housing for non-Duquesne students from other Pittsburgh academic 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.

University Hall, a newly renovated building, serves as headquarters for the University's Communications facilities, including the television studio, and WDUQ-FM, [the campus radio station and an affiliate of the Public Broadcasting System (PBS)]. Also housed in the building is the Women's Recreation Center, including a gymnasium and slimnastics room.

University Safety Building is headquarters for the University's Public Safety Office.

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

Membership
American Association of Collegiate Registrars and Admissions Officers
American Council on Education
Association of College Admissions Counselors

Catholic Educational Association of Pennsylvania
National Association for Independent Colleges and Universities
National Association of Student Personnel Administrators
National Catholic Educational Association
National Commission on Accrediting
Pittsburgh Council on Higher Education

College of Liberal Arts and Sciences
Accreditation
American Chemical Society
Membership
American Conference of Academic Deans
American Society of Journalism School Administrators
Association of American Colleges

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
Pennsylvania Department of Education
Membership
American Association of Colleges of Teacher Education
Council for Exceptional Children
Pennsylvania Association for Teacher Educators
Pennsylvania Association of Colleges for Teacher Education
Pennsylvania Association of Liberal Arts Colleges for the Advancement of Teaching
Pennsylvania Association for Retarded Citizens

School of Music
Accreditation
American Association of Music Therapy
National Association of Schools of Music
National Association of Music Therapists
Membership
National Catholic Music Educators Association

School of Nursing
Accreditation
National League for Nursing
Pennsylvania State Board of Nurse Examiners
Membership
American Association of Colleges of Nursing
National League for Nursing (Council of Baccalaureate and Higher Degree Programs)
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 some major areas offered by these two schools. Other undergraduate schools also schedule occasional evening courses but it is not possible to complete their degree requirements through evening attendance alone.
Prospective evening undergraduate students should consult with the office of the Dean of the school in which they are interested for information about the opportunity for evening study on a continuing basis.

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.
College of Liberal Arts and Sciences

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

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

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

CURRICULAR REQUIREMENTS

English Composition Proficiency at the 102 level
Modern or Classical Language Proficiency at the 202 or 212 level
Natural Sciences (Biology, Chemistry, Earth Sciences, Computer Science, Physics, Mathematics) Nine Credits One two-semester sequential course must be completed
Social Sciences (Political Science, Psychology, Sociology) Nine credits At least two disciplines must be represented
History, Literature Nine credits Both disciplines must be represented
Philosophy, Theology Nine credits Both disciplines must be represented
Communications Three credits (Journalism, Linguistics, Speech)
Completion of Major Program As determined by department (Minimum of 24 credits)
Completion of Minor Program As determined by department offering the minor (Minimum of 12 credits above the introductory courses)

Students who major or minor in a basic area automatically satisfy the area requirements for that discipline. Courses taken in an interdisciplinary minor do not satisfy area requirements.

A maximum of 12 non A & S credits may be applied to the BA/BS degree with the exception of certain approved inter-school minors which may extend this number to 15 or 18 credits.
A student's major and minor programs may not be chosen from the same department (Modern Language majors may minor in another language)

**ACADEMIC REQUIREMENTS**

Completion of 120 credits
A minimum cumulative over-all quality point average of 2.0
A minimum cumulative quality point average in the major of 2.0
Removal of I and F grades in major and required courses
Completion of sequential courses in proper sequence
Completion of the residence requirement The last 30 credits must be taken at the University
Submission of application for the degree No student is considered a degree candidate until he files an application for the degree on a form provided by the Registrar
Any course taken as a Temporary Transfer at another institution must be approved before the classes are taken

**DEGREES**
The College confers two undergraduate degrees Bachelor of Science and Bachelor of Arts Students who complete the major in biology, chemistry, and computer science and physics receive the B.S degree Students who complete the major in classics, economics, English, history, journalism, modern languages, philosophy, political science, psychology, sociology, speech, 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

**Special Programs**

**CONCENTRATED STUDIES PROGRAM**

Concentrated studies is a special developmental education program 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 college level courses during their freshman year and thereafter complete their education at Duquesne in the traditional manner

Courses offered in the program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>001,002</td>
<td>BASIC LANGUAGE SKILLS</td>
<td>4 cr</td>
</tr>
<tr>
<td>003</td>
<td>BASIC CONCEPTS OF PSYCHOLOGY</td>
<td>4 cr</td>
</tr>
<tr>
<td>004</td>
<td>HISTORY OF THE UNITED STATES</td>
<td>4 cr</td>
</tr>
<tr>
<td>005,006</td>
<td>FOUNDATIONS OF LANGUAGE</td>
<td>4 cr</td>
</tr>
<tr>
<td>007</td>
<td>PHYSICAL GEOLOGY</td>
<td>4 cr</td>
</tr>
<tr>
<td>008,009</td>
<td>STUDY SKILLS</td>
<td>1 cr</td>
</tr>
</tbody>
</table>

**COOPERATIVE EDUCATION**

The University sponsors a Cooperative Education Program. Its purpose is two fold 1) to provide students with opportunities in which they can apply classroom learning to practical work and business settings, while learning and gaining the types of experience unavailable in any classroom, and, 2) to offer employers a source of talented students who can serve in pre-professional capacities as full-or-part-time employees, and who will be prime candidates for full-time employment after graduation

The program is open to any upper class students who have a minimum 2.5 quality point average. The full-time co-op student is limited to a four or six month work period (or tour), during which he would be a 40 hour a week paid employee of the cooperating employer The work tour can be repeated with the same or a different cooperating employer upon the student's completion of a full semester of academics after the first work tour

The part-time co-op (or parallel co-op) student is in effect a part-time employee, while carrying a full academic load at the University. Parallel co-ops can be engaged in semester after semester. Students in either program register for a credit course, Cooperative Work Experience, College of Arts and Sciences, which carries one to nine credits. Full-time co-op students also have the option of registering for one or more academic courses during their co-op work tour

For additional information contact the College Cooperative Education Advisor, or the Director, Career Planning and Placement

**PROGRAM IN WORLD LITERATURE**
The Departments of Classics, English, and Modern Languages jointly offer a World Literature program—with both major and minor sequence. 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

**COURSE OFFERINGS**

**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**

<table>
<thead>
<tr>
<th>Department</th>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classics</td>
<td>Any of the current offerings in Classical Literature, either in translation or in the original language, at the 200 level or above</td>
<td>4 cr</td>
</tr>
<tr>
<td>English</td>
<td>Any of the current course offerings in Literature at the 333-400 level, as approved by the department chairman</td>
<td>4 cr</td>
</tr>
<tr>
<td>Modern Languages</td>
<td>Any of the current offerings in Modern Languages, either in translation or in the original language, above the 302 level</td>
<td>4 cr</td>
</tr>
</tbody>
</table>

**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

**PRE-LAW**

Students who intend to prepare for a career in law may select any subject area for the undergraduate major. They will be expected to meet degree requirements in the major department, as well as admission requirements of the law school of their choice

**PRE-PROFESSIONAL HEALTH EDUCATION**

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 faculty committee on Pre-Medical Education assists the medically-oriented student

**INTER-SCHOOL MINORS**

Inter-school minors are available in Business and Administration, Education, Music, and Pharmacy. For complete details students should consult the Director of Academic Advisement
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 a minimum of 15 credits if the following criteria have been met:
- The courses are recorded on an official transcript from an accredited institution of higher learning. The grades must be C or better.
- The student has completed one semester at Duquesne with a C+ average, or better.

MAJORS
The College of Arts and Sciences offers the following majors:
- Biochemistry
- Biology
- Chemistry
- Classics
- Classical Civilization
- Computer Science
- Criminal Justice
- Economics
- English
- French
- German
- Gerontology
- History
- Journalism
- Liberal Arts/Engineering

MINORS
- American Government
- American Literature
- Art History
- Biochemistry
- Biology
- Business and Administration
- Chemistry
- Classical Civilization
- College Administration
- Comparative Government
- Computer Science
- Criminal Justice
- Earth Science
- Economics
- Education
- English Literature
- French
- General Speech Communication and Theatre
- German
- Gerontology
- Greek
- History
- International Relations
- Italian
- Journalism
- Latin
- Mathematics
- Music
- Pharmaceutical Sales
- Philosophy
- Physics
- Psychology
- Russian
- Social Communication
- Social Services/Human Services
- Sociology
- Spanish
- Speech Pathology/Audiology
- Theatre/Media
- Theology
- World Literature
Course Descriptions

ART DIVISION

Director: Mrs. Patricia S. Ingram

Survey and period courses in the history of Western art are offered by the Art Division of the Classics Department to introduce the concepts of art history to those who wish to extend their visual perimeter 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 courses. The prerequisites are six credits of introductory and survey courses at the 100 level or their adjudged equivalent.

101 UNDERSTANDING ART

A study of the techniques and styles of architecture, sculpture, painting, and the graphic arts in Western society, with an emphasis upon increasing the student's comprehension of our visually oriented culture. Suggested preliminary for all upper division art history courses.

102 INTRODUCTION TO MODERN ART

An attempt to render accessible to the spectator the realities formulated by the artists of the last two decades. Formal analysis of the art object and examination of the motivational forces which shaped its creation lead to an overall view of the structural framework of twentieth century painting and sculpture.

111 HISTORY OF ART ANCIENT TO MEDIEVAL WORLD

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

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

206 GREEK ART

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

207 ROMAN ART

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

208 FRENCH ART

A survey which discusses ideas, schools, and styles in the history of French art from the Roman occupation to the present. Areas of emphasis are Carolingian, Romanesque, Gothic, Renaissance, Rococo, and Modern art. (Offered in alternate years)

209 SPANISH ART EL GRECO TO PICASSO

An examination of a selected group of art objects created in Spain. The aim of this course is to define the dramatic intensity of the imagery, forms, and content of these art objects. (Offered in alternate years)

312 LATE MEDIEVAL ART

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

321 15TH CENTURY RENAISSANCE ART

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

A survey of the visual arts in the 19th century. The visual arts not only reflect the dramatic changes in the artists' use of form, color, line, texture and light, but also emphasize the changing political, religious, and social values in society.

332 ART OF THE 20TH CENTURY

A chronological study of 20th century painting and sculpture which "looks beyond visual perception and tries to find the essence and meaning of reality." From cubism to conceptual art, from Picasso to Pollock and Pop, this course offers a thorough exploration of the visual arts of the 20th Century.

341 AMERICAN PAINTING AND SCULPTURE

An examination of the forms created by American painters and sculptors from the early 17th through the late 20th century. A special class intent involves arriving at a clear understanding of America's concept of reality during these years, particularly in the 20th century.

342 AMERICAN ARCHITECTURE

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, including Falling Water, are scheduled.

370, 371, 372, 373, 374, 375, 376 SPECIAL STUDIES IN ART HISTORY

An occasional course in this series is offered when special interests of students and faculty can be served. Courses offered include The Image of Women in Art, Picasso, Impressionism, Egyptian Art.

431 SELECTED READINGS VARIABLE TOPICS

In-depth research, using the resources of Pittsburgh area libraries and of source material relevant to the history of Western Art. Prerequisite: Permission of instructor.

DEPARTMENT OF BIOLOGICAL SCIENCES

Chairman: Howard G. Ehrlich, Ph.D.

Biology is the scientific exploration of life in its many forms and details. Being one of the closest of all disciplines to ourselves, it is, therefore, a basic element in a balanced liberal education and offers both intellectual insight and knowledge vital to societies facing serious problems having biological implications.

The undergraduate program is basic and flexible, providing a core of experience around which continuous, future personal development may be centered. It 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 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 follow technical level opportunities in pure and applied research and service in hospitals, universities, private industry, and civil service. Diverse opportunities are available in specialty sales, pharmaceutical, medical, atomic energy research and chemical laboratories, food technology and processing, fisheries, oceanography, conservation, health services, space biology, agricultural technology, food and drug administration, environmental services, and other industries and agencies.

REQUIREMENTS FOR THE MAJOR

A minimum of 31 semester hours is needed. Majors are required to take General Biology 111, 112 and to select other courses so that a balance is achieved with experience in biology of inheritance, structure, and function at the molecular, cellular, and organismal levels. Within that context, students may follow their preferred interest in subject matter selection and concentration. The specific program selected is individually formulated with the student through consultation with an advisor. Courses 107, 108, 201, 202, 206, 207, 208, and 220 will not be counted toward a major in biology.

Extraddepartmental requirements: Calculus 115, General Chemistry 121, 122, Organic Chemistry 205, 206 or 221, 222, General (or Analytical) Physics 201, 202 or 211, 212

Students also should consider extradepartmental electives in chemistry and mathematics.

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 courses 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 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** 3 cr each

Study of the living world of which man is an integral part. It includes considerations of organization, activity, growth, reproduction, inheritance, environmental influences and other interrelationships. This course is designed to provide the non-scientist with the basic 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

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

Illustrates 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. Prerequisites: Biology 201 (or concurrent registration). Laboratory

206 **ENVIRONMENTAL BIOLOGY** 3 cr

This course deals with the biological background for understanding environmental problems, then considers population, energy and resources, land use, pollution, and then the social economic and legal aspects of the amelioration of environmental abuses. Not for Biology Major credit. Lecture

207 **ANATOMY AND PHYSIOLOGY** 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 organic chemistry desirable. Not for Biology Major credit. Lecture

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. Laboratory

220 **SEX AND SEXUALITY** 3 cr.

Consideration of sex and reproduction as universal biological functions with special emphasis on physiological and psychological basis of human sexuality. The course also aims to examine sexual functioning, sexual behavior and sex therapy. Not for Biology Major credit. Lecture

226 **GENETICS** 4 cr

See description under Major Courses.

MAJOR COURSES

111, 112 **GENERAL BIOLOGY** 4 cr each

Introduction to the scientific study of life at the molecular, cellular and organismal level. It involves consideration of relevant structure, function, development, reproduction, inheritance, evolution and ecology. This course provides the basic information and concept necessary to understanding living systems, their activity and interrelationships. 111 is prerequisite to 112. Lecture and laboratory

203 **MICROBIOLOGY-A** 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, chemotherapy, industrial, agricultural, and marine microbiology are presented. Prerequisite: Biology 111, 112, and organic chemistry (or concurrent registration). Lecture and laboratory

204 **MICROBIOLOGY-B** 4 cr.

Introduction to viruses and immunochemistry, with emphasis on host-parasite interactions and patterns of infectious diseases in populations. Prerequisite: Biology 111, 112, and organic chemistry (or concurrent registration). 203 is not prerequisite to 204. Lecture and laboratory

226 **GENETICS** 4 cr.

A study of the mechanisms of inheritance and their resulting effects on individuals and populations, including their implications in the life of man. Principles and details, methods and applications are illustrated with specific examples drawn from a wide range of species, from microorganisms to man. Prerequisites: 107, 108, or 111, 112. Lecture and laboratory

232 **VERTEBRATE MACROSTRUCTURE** 4 cr.

A comparative study of the gross structure of vertebrates and the relationship of that structure to function and evolution. Prerequisites: 111, 112. Lecture and laboratory

238 **VERTEBRATE MICROSTRUCTURE** 4 cr.

A study of tissue and organ structure and the relationship of that structure to function. Prerequisites: 111, 112 and 232 or permission of the instructor. Lecture and laboratory.
244 ANIMAL DEVELOPMENT 4 cr
A comparative study of the morphological and physiological aspects of animal development emphasizing current experimental approaches. Prerequisites 111, 112. Lecture and laboratory.

250 PLANT DEVELOPMENT 4 cr
Examines the unique features of representative types of plants, as revealed by interrelationships of form, function and morphogenesis. Prerequisites 111, 112. Lecture and laboratory.

306 PLANT PHYSIOLOGY 4 cr
Varied studies of the growth requirements and regulatory mechanisms of important plant types, with emphasis upon environmental control. Prerequisites 111, 112 and 250. Lecture and laboratory.

312 ANIMAL PHYSIOLOGY 4 cr
Examination of the physiological mechanisms of body function in animals, including consideration of the basic components of biological control systems and the manner in which various organ systems contribute to the maintenance of physiological homeostasis. Prerequisites Biology 111, 112. Lecture and laboratory.

318 PHYSIOLOGY OF REPRODUCTION 4 cr
The course includes the anatomy, histology, physiology, biochemistry and endocrinology of vertebrate reproduction. The main emphasis is on the physiology of puberty, estrous and menstrual cycle, conception, pregnancy and parturition. The physiological basis of fertility and infertility also are included. Prerequisites 111, 112 and 232 or 244. Lecture and laboratory.

324 REGULATORY PHYSIOLOGY 4 cr
A treatment of physiological and environmental regulations with emphasis on neuroendocrine integration and adaptation. Prerequisites 111, 112, and 312 or 444. Lecture and laboratory.

330 INVERTEBRATE BIOLOGY 4 cr
The morphology, systematics, life histories and ecology of invertebrate animals, with emphasis on diversity of forms. Prerequisites 111, 112 or equivalent. 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 instructor. Laboratory.

411 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 inter-disciplinary 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. Not open to students with previous similar course. Lecture, and laboratory.

444 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. Not open to students with previous similar course. Lecture and laboratory.

Descriptions of the Following Courses are Provided in the Graduate School Catalog

503 CELL AND ELECTRON MICROSCOPY 3 cr
505 MOLECULAR GENETICS 3 cr
507 LABORATORY TECHNIQUES 3 cr
511 COMPARATIVE VERTEBRATE PHYSIOLOGY 3 cr
512 MAMMALIAN PHYSIOLOGY 3 cr
513 GENERAL ENDOCRINOLOGY 3 cr
516 ANIMAL BEHAVIOR 3 cr
520 EXPERIMENTAL EMBRYOLOGY 3 cr
523 INVERTEBRATE PHYSIOLOGY 3 cr
524 IMMUNOLOGY 3 cr
526 PATHOGENIC MICROBIOLOGY 3 cr
528 MICROBIAL PHYSIOLOGY 3 cr
531 BIOLOGY OF FUNGI 3 cr
535 MICROBIOLOGY SEMINAR 1 cr
573 BEHAVIORAL ECOLOGY 3 cr
577 EVOLUTIONARY ECOLOGY 3 cr
580 URBAN ECOLOGY 3 cr

DEPARTMENT OF CHEMISTRY

Chairman Andrew J. Glad, III, 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 immediate employment, are open to the chemistry major. 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, and management positions in the chemical and related industries, the space industry, the health professions, education and the environmental sciences. The major in biochemistry centers around the core of basic chemistry courses while also providing advanced courses in biochemistry and electives in biology.

REQUIREMENTS FOR THE CHEMISTRY AND BIOCHEMISTRY MAJORS

Thirty-two semester hours are required. All students must take 121, 122, 221, 222, 321, 323, and 421. Mathematics 115, 116, Physics 201, 202 or 211, 212, Biology 111, 112, proficiency in German, Russian or French at the 202 or 212 level is required.

If a student elects 111, 112, and 121, 122 chemistry courses, the credits for the 111, 112 will not apply to the total required for the degree. Courses 101, 102, 205, 206 will not be counted toward a major.

Chemistry Major: All students must take 322, 324, 422 and Mathematics 215
Biochemistry Major: All students must take 401, 524. In addition, Chemistry 525 and 526 should be taken as electives. Students planning to enter a graduate chemistry department should take 322, 324.
Students who intend to work in industry after graduation are strongly advised to take 548 Industrial Organic Chemistry, and 549 Principles of Polymer Science

To meet the American Chemical Society's requirements for Professional Certification, the Chemistry Major must elect two additional courses from the following: 401, 523, 524, 537, 538, 545, 546, 548, 549, 572, Mathematics 216 or 308, Biology 505, Pharmacy Sciences 539 and Physics 306, one of these must be a laboratory course. This laboratory requirement can also be fulfilled with 490. The Biochemistry Major must take 322, 324, and 422 for certification. Course descriptions of the 500 level courses can be found in the Graduate School catalogue.

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.

101, 102 Chemistry and Society

The impact of chemistry on society reaches every phase of life. The course attempts to provide a link between chemistry and the changes in our technological society. In the first semester, the basic concepts of chemistry are developed for the non-science student and applied to current topics such as air and water pollution, energy, pesticides, etc. The second semester deals with the biochemistry of living systems. Chemical principles are used to explain the normal life processes of photosynthesis, respiration, etc. as well as abnormal conditions such as drug action, poisons, etc. on metabolic processes. Students with a good high school background do not require the first semester as a prerequisite, others should see the instructor before registering for the second semester. Lecture, three hours.

111, 112 Principles of Chemistry

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, of carbohydrates, lipids, proteins, nucleic acids, enzymes, vitamins, etc. Biochemistry is treated in terms of the digestion and metabolism of nutrients, the function 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.

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

The theoretical background is developed from the standpoint of the electronic structure of molecules and the accompanying energy considerations. The introduction and the physical and physical (including spectral) 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, six hours.

321, 322 Physical Chemistry

A study of the structure and properties of the vanous states of matter, thermodynamics, thermochimistry, kinetics and an introduction to chemical physics. Prerequisites Physics 202 or 212, Chemistry 122. Mathematics 116. Lecture, four hours.

323, 324 Physical Chemistry Laboratory

Lecture portion of Chemistry 321, 322, four hours.

326 The Computer in Chemistry

The computer will be introduced as a tool in the solution of problems from the fields of analytical, biological, inorganic, organic and physical chemistry. The student will progress from the use of the computer as a black box problem solver to the design and coding of programs to solve problems in his field of interest. Experimental design and analysis will be introduced by laboratory programs which permit the computer to simulate laboratory equipment in the production of experimental data. Prerequisite Chemistry 321. Lecture, three hours.

401 Introductory Biochemistry

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. Lecture, three hours, Laboratory, four hours.

421 Analytical Chemistry

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

A survey of the basic principles required for understanding inorganic chemistry including atomic and molecular structure, crystal structure, non-aqueous solvents and coordination compounds. Prerequisite 322. Lecture, three hours, Laboratory, four hours.

490 Undergraduate Research

Selected students work on a research problem under the direction of a staff member. Maximum 2 credit hours.

524 Molecular Basis of Biochemistry

A discussion of the chemistry of amino acids and proteins from the viewpoint of structure, physical chemistry and analysis. An introduction to enzyme chemistry is also included in the course. Prerequisite 401.

Department of Classics

Chairman Lawrence E. Gachas, Ph.D.

The study of Classics is a unique discipline. It is not the study of a language or a literature alone. It is rather the investigation of one of the world's inspired civilizations, the Graeco-Roman world. As such, it offers the student insight into the broadest aspects of human existence set in a perspective deep enough from his own to expand significantly his understanding and appreciation of humanity's aspirations, failures, and occasional triumphs.

Requirements for the Majors

The Department offers four major programs: Classical Latin, Classical Greek, Classical Languages (knowledge of both Latin and Greek required), and Classical Civilization (no knowledge of Greek/Latin required). Credits applied to any major must be at the 200 level or above.

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

2) The Classical Greek major requires at least eighteen credits in Greek as well as six credits in ancient history or ancient literature courses in English.
3) The Classical Languages major requires at least twenty-four credits in Latin and Greek (with a minimum of twelve credits in each) in addition to six credits of ancient history or ancient literature courses in English. The Survey of Sanskrit Literature (211-212) may be substituted for the twelve credits of either Latin or Greek.

4) The Classical Civilization major is an individually designed program of twenty-four credits of ancient literature, history, art, and archaeology. Students majoring in Classical Civilization create programs with the close advice and the approval of the Classics Department to fit their backgrounds, interests, and career objectives. Majors should formulate programs with balanced history and literature components. They are strongly encouraged to fulfill the College language requirement in either Latin or Greek. All courses in Greek or Latin at the 200 level or above apply to the Classical Civilization Major.

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.

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 in translation from Greek authors.

105, 106 BASIC SANSKRIT
3 cr each
A study of the fundamentals of Sanskrit grammar and syntax combined with exercises in translation. Some previous foreign language experience is desirable.

107, 108 ELEMENTARY ECCLESIASTICAL LATIN
Study of the fundamentals of Latin grammar and syntax as represented in Scripture and Church Fathers.

201, 202 INTERMEDIATE CLASSICAL LATIN
3 cr each
Survey of major Latin authors.

203, 204 INTERMEDIATE CLASSICAL GREEK
3 cr each
Survey of major Greek authors.

205, 206 INTERMEDIATE ECCLESIASTICAL LATIN
3 cr each
Selected readings from Biblical and Christian Latin literature.

207, 208 BIBLICAL AND PATRISTIC GREEK
3 cr each
Selected readings 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, Kathasantasagara, Manavadharmasastra, Rigveda, and Meghaduta.

The following will be taught as Latin or Greek courses or, for those students who are qualified, as combination Latin and Greek courses. Each course will cover an individual author or group of authors or a genre. Each course may be repeated as long as a different author or work is read.

301 PRE-FIFTH CENTURY
The Iliad, the Odyssey, the Homeric Hymns, Hesiod, Pindar, and Greek lyric poetry

302 FIFTH CENTURY
Herodotus, Thucydides, Aeschylus, Sophocles, Euripides and Anistophanes

303 FOURTH CENTURY
Greek orators, Plato, Aristotle, Xenophon, Menander

304 ALEXANDRIAN PERIOD
Apollonius Rhodius, Theocritus, Callimachus and the lesser Alexandrian authors

305 ROMAN REPUBLIC
Plautus, Terence, Cicero, Lucretius, Catullus, Caesar, and Sallust

306 AUGUSTAN LITERATURE
Livy, Vergil, Horace, Ovid, Propertius, and Tibullus

307 IMPERIAL LITERATURE
Seneca, Lucan, Petronius, Martial, Plutarch, Tacitus, Juvenal, Piny the Younger, Seutonius, Apuleius, and Lucian

308 POST CLASSICAL LITERATURE
Post classical, medieval, renaissance and neo-Latin authors

309 STUDIES IN GENRE
Selected genre of Greek and/or Latin literature

400 INDEPENDENT READINGS AND RESEARCH
Var cr

CLASSICS COURSES IN ENGLISH (NO GREEK OR LATIN REQUIRED)

121 GENERAL ETYMOLOGY
A study of Greek and Latin words to facilitate the comprehension of modern English as it is written by our acknowledged modern masters.

122 ETYMOLOGY OF SCIENTIFIC TERMS
Introduction to Greek and Latin elements of scientific terminology.

123 CLASSICAL MYTHOLOGY
A presentation of the major myths of Greece and Rome with special attention to contemporary interpretations of myth and the influence of myth on art and literature.

124 WORLD MYTHOLOGY
Investigation of the dominant themes of non-Classical mythologies with special reference to Near Eastern, Celtic, Teutonic, African, and American Indian myths.

230 ANCIENT THEATRE
An examination of the origins and development of ancient tragedy and comedy. Readings from the works of Aeschylus, Sophocles, Euripides, Anistophanes, Menander, Plautus, Terence, and Seneca.

231 ANCIENT EPIC
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
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, Lucian, Petronius, and Apuleius.

233 ANCIENT SATIRE
Investigation of the satirical element in classical literature with special reference to the writings of Lucian, Lucilius, Horace, Persius, Martial, and Juvenal.
240 GREEK RELIGION 3 cr
An examination of the continuity of Greek religious experience from ancient times to the present and of the interconnection of ancient Greek religious ritual, moral experience and religious thought

241 ROMAN RELIGION 3 cr
A study of Roman religious beliefs and practices with attention to the development of hero cults, oriental mystery religions and philosophical sects as alternatives to traditional religion

242 ANCIENT LAW 3 cr
An historical survey, including the contributions of the Babylonians and the Greeks, of Roman 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 Sever to the death of Justinian.

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

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.

250 THE CLASSICAL TRADITION IN AMERICA 3 cr
A study of the influences of Greco-Roman civilization on American cultural life, with special emphasis on its influence on American literature.

261 CONTEMPORARY LITERATURE AND CLASSICS 3 cr
An investigation of the influence of ancient myth on 20th century French, German, Italian, English, and American Literature.

300 SEMINAR 1-3 cr
Topics variable.

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

302 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)

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 the social and institutional aspects in the development of American medicine.

COLLEGE ADMINISTRATION
This program is designed to introduce liberal arts students to the fundamentals of college and university administration. The program includes two essential features, first, it provides theoretical background and a framework of general understanding of college management; second, it provides field experience or internship in the areas of greatest interest to the participating students. The minor program will consist of 15 credit hours, 12 in coursework and 3 in internship.

202 COLLEGE PERSONNEL ADMINISTRATION 3 cr
An overview of the process for administering a college personnel program, including personnel management, fringe benefits, labor relations and affirmative action. This course will be roughly divided into four segments dealing with the above basic components of a comprehensive personnel program as they are administered in a college or university.

204 STUDENT SERVICES ADMINISTRATION 3 cr
This course explores the process of human development and the dynamics of organizational structure and administration of such services as Residence Life, Counseling, Health Services, Orientation, Union, Activities and Organizations. Parallel to personal development, students will be given the opportunity to become involved in the dynamics of organizational structure and administration. Within this framework they will learn social organization and structure, systems analysis, group dynamics, and leadership theory and effectiveness. The application of these leadership skills may be attained through practical experiences, independent studies, and classroom discussions.

206 AUXILIARY ENTERPRISES ADMINISTRATION 3 cr
A study of the Administration, Management and Operation of Auxiliary Enterprises which focuses upon these questions: What are Auxiliary Enterprises? Who do they serve? What services do they provide? How are they funded? Managed? Do they meet the objectives of the University? How do you measure their effectiveness?

207 HIGHER EDUCATION ADMINISTRATION I 3 cr
An overview of college administration which will introduce the basic concepts and techniques of planning, budgeting, management, measurement, evaluation, institutional research and record keeping.

208 HIGHER EDUCATION ADMINISTRATION II 3 cr
A continuation of Higher Education I, which will concentrate on managerial behavior techniques, as they apply to College Administration. An in-depth study of the Admissions process will analyze the Administrative, Counseling and Marketing aspects of College Administration.

209 FINANCE MANAGEMENT 3 cr
A study of the various financial aspects of administering an institution of higher learning.

210 INTERNSHIP 3 cr
Provides an opportunity for a supervised program of study by active participation in an area of the University. Repeatable. Pre-requisite: A minimum of two courses in College Administration.

DIVISION OF COMPUTER SCIENCE
The curriculum in Computer Science is designed to allow maximum flexibility in direction. There are three areas of concentration: scientific applications, business applications, and computer systems engineering.
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REQUIREMENTS FOR THE MAJOR
A minimum of 30 semester hours is required for a major. These must include the core courses 111, 112, 201 and 202 with the remaining courses selected from those numbered 300 and above. Extra departmental requirements English 385 Professional and Technical Writing, Math 115, 116. Contact the Computer Science Division for extradepartmental requirements in particular area of concentration.

REQUIREMENTS FOR THE MINOR
A minimum of 18 semester hours is required for the minor. These must include the core courses 111, 112, 201 and 202 and 6 hours of computer science selected from courses numbered 300 and above.

Note: Many of the courses in the Computer Science Division may be taken as electives by those not enrolled in the major or minor programs. Any such selections, however, must be cleared through the advisor by a representative of the Computer Science Division.

101 INTRODUCTION TO COMPUTER SCIENCE/BASIC 3 cr
An introductory course for those who have had no prior computer science courses or those seeking a general introduction to computers. Machine language, assembly language and Basic are among the topics covered. Not counted toward the computer science major.

102 COBOL 3 cr
Structured programming principles and techniques are introduced using the COBOL language. Topics discussed are top-down techniques, program and project documentation, file structures and the organization of programming languages.

111 FORTRAN 3 cr
Elements of FORTRAN skills to construct algorithms for efficient solution of computational problems are presented. This core course is required of those interested in taking additional computer science courses.

112 ADVANCED PROGRAMMING 3 cr
Advanced programming techniques using FORTRAN 77 and an introduction to Pascal. This course develops the student’s skills in the use of procedure oriented languages. Prerequisite 111 Fortran.

201 MACHINE LANGUAGE PROGRAMMING 3 cr
A survey of various machine configurations. Topics include number systems, machine language programming, assemblers and macro-assemblers. Prerequisite 111 Fortran.

202 DATA STRUCTURES 3 cr
Introduction to the theory of graphs and trees and their realization as computer programs. A thorough study of data structures and algorithms for their manipulation. Prerequisite 111 Fortran.

301 COMPUTER LOGIC 3 cr
Basic concepts used in the design and analysis of digital systems. Required course for 302. Prerequisite 201 Machine Language Programming.

302 COMPUTER ORGANIZATION 3 cr
An introduction to current system structures of control, communications, memories, processors and I/O devices. Prerequisite 201 Machine Language Programming, 301 Computer Logic.

305 INTRODUCTION TO FILE PROCESSING 3 cr
This course is designed to introduce concepts and techniques of structuring data on bulk storage devices, to provide experience in the use of bulk storage devices and to provide the foundation for applications of data structures and file processing techniques. Prerequisite 102 Cobol, 202 Data Structures.

306 INTRODUCTION TO OPERATING SYSTEMS 3 cr
I/O Hardware, properties of magnetic tapes, discs, drums, associative memories, virtual address translation techniques, batch processing, time sharing, scheduling, resource allocation are among the topics covered. Prerequisite 201 Machine Language Programming, 202 Data Structures.

307 NUMERICAL METHODS OF LINEAR SYSTEMS 3 cr
This course deals with basic algorithms of numerical computation of linear algebra. The use of mathematical subroutine packages are included. This course is identical to Math 307. It may be used to satisfy either a Math of Computer Science requirement but not both. Prerequisite 111 Fortran.

308 NUMERICAL METHODS OF CLASSICAL ANALYSIS 3 cr
Introduces the basic algorithms of numerical computation, their theoretical foundations, and practical applications. Programming assignments are made to demonstrate the algorithm, the related theory, the benefits and the pitfalls of the method. Identical to Math 308. May be used to satisfy either a Math of Computer Science or not both. Prerequisite 111 Fortran and Math 215.

309 COMPUTERS AND SOCIETY 3 cr
A course designed to keep the student abreast of the current state of the art of computer science and technology and of the role that computers play in society. This seminar format course will discuss the uses and misuses of computers in society and will underline the basic assumptions, values and ethics which should govern the use of computer systems.

311 DATA BASE MANAGEMENT SYSTEMS DESIGN 3 cr
Introduction of data base concepts and approaches to data base management. Topics include choice and design of data structures, design of user oriented languages for updating and retrieving information constraints and problems associated with the use of generalized data management systems. Prerequisites 102 Cobol and 202 Data Structure.

312 ARTIFICIAL INTELLIGENCE 3 cr
Introduction to the theory of abstract mathematical machines. Structured and behavioral classification of automata. Finite state automata, theory of regular sets, turning machines are among topics considered. Prerequisite 202 Data Structure.

313 SOFTWARE DESIGN AND DEVELOPMENT 3 cr
An overview of system software. Examination of design and development of macro assemblers, compilers and control program functions. Prerequisite 302, 306.

315 THEORY OF PROGRAMMING LANGUAGES 3 cr
Comparative study of properties and applications of several higher level programming languages. Prerequisite 112 Advanced Programming and 202 Data Structures.

419 INTRODUCTION TO MICRO AND MINI COMPUTERS 3 cr
An introduction to the designs of micro and mini computers. Exploration of assembler and specialized languages for small computers. Prerequisites 201 Machine Language Programming and 301 Computer Logic.

420 COMPUTER SIMULATION 3 cr
The fundamentals of simulation via digital and analog computers will be presented. Modern development and solutions by numerical and analytical methods will be discussed in depth with emphasis on practical applications. Prerequisite Fortran 111.

421 APPLICATIONS IN DATA PROCESSING 3 cr
Data handling in terms of coding, preparation, acquisition, summarization, and tabulation and analysis using packaged programs. Prerequisite Fortran 111.

423 INFORMATION SYSTEMS 3 cr
Application of information systems to various areas as education, business, medicine, law and public administration. Any one of the areas will be studied in detail. Prerequisite 202 Data Structures.
491-499 SELECTED TOPICS IN COMPUTER SCIENCE  1-3 cr
Topics selected in consultation with the advisor and the division

DEPARTMENT OF ECONOMICS
Chairman  Geza Grosschmid J  U  D

REQUIREMENTS FOR THE MAJOR
Twenty-four semester hours are required for a major. These credits must include 221, 222, 231, and 232
Extra departmental requirements  Mathematics 225 in the Mathematics Department of
the College  Students planning to do graduate work in Economics are advised to take calculus.

REQUIREMENTS FOR THE MINOR
Eighteen semester hours are required for a minor in Economics  These credits must
include 121, 221, and 222 plus nine elective credits, or 221 and 222 plus 12 elective credits. It is strongly recommended that students having economics as a minor consult
with the Economics Department for advisement.

Course Descriptions are provided in the School of Business and Administration
Section of this Catalog on Pages 88 to 104

DEPARTMENT OF ENGLISH
Chairman  Joseph J  Keenan, Ph  D

The chief purpose of the English program is to develop the student's powers to think
critically about his life. To this end the Department's curriculum unifies 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, but it also provides the liberal preparation which is sought by the business world for
such areas as personnel, advertising, and management.

Prerequisites—English Composition 101 (or its equivalent) is a prerequisite for admission
to English Composition 102, English Composition 102 (or its equivalent) is a pre-
requisite for admission to all other courses offered by the department.
The English Department further advises that two 200 level courses should be taken
before the student attempts any 300 or 400 level course (except for 307 and 308).

REQUIREMENTS FOR THE MAJOR
The major is an individually-designed program of 24 hours of English Department courses
above the 100 level. Each English major, with the close advice and approval of a member
of the English faculty, designs a program to fit his background, interests, and career
objectives.

REQUIREMENTS FOR THE MINOR
A minimum of 12 credit hours beyond the freshman level of which no more than six hours
may be taken at the 200 level.
There are four separate emphases that the student may follow:
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. Writing  203 and nine hours in 300 level Writing Workshops
4. 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
English Composition 101 or by virtue of superior national test scores will be invited to
participate in the English Honors program at the discretion of the Department Honors
Committee.
These students may apply Honors course credits to either an English major or minor,
or they 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.

101, 102 ENGLISH COMPOSITION  3 cr each
Practice in effective writing. Review of principles of grammar and rhetoric, introduction to literary
types and forms. 101 is prerequisite to 102.

103 ENGLISH COMPOSITION HONORS  3 cr
An honors counterpart to 102. Composition and introduction to literary types and forms. Participation
by invitation only.

201, 202 ENGLISH LITERATURE SURVEY  3 cr each
Representative masterpieces of English literature in their literary and historical contexts.

203 ADVANCED WRITING  3 cr
Designed to build upon writing skills learned in freshman composition centered chiefly on develop-
ment of style and accuracy. Enrollment with instructor's permission only.

205 AMERICAN LITERATURE SURVEY I—BEGINNING TO CIVIL WAR  3 cr
Representative selections from major American authors treated in both their literary and their histori-
cal contexts

206 AMERICAN LITERATURE SURVEY II—AFTER CIVIL WAR  3 cr
Representative selections from major American authors treated in both their literary and their histori-
cal contexts.

207 THE NOVEL  3 cr
Introduction both to various types of novels and to the 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
An historical survey of major dramatic forms through a selection of representative works by major
playwrights from the classical tradition of Greece and Rome to The Theatre of the Absurd.

210, 211 READINGS IN WORLD LITERATURE I, II  3 cr each
A survey of major literary works of the Western world from Homer to Cervantes (210) and from
Moliere to Camus (211) with emphasis on continental traditions. The course explores both the
thematic preoccupations of Western writers and the development and evolution of literary forms.
212, 213 ENGLISH LITERATURE HONORS 3 cr each
Honors counterparts to 201, 202. Major British writers from Chaucer to Eliot. Participation by invitation only.

300 HONORS SEMINAR 3 cr
Special areas treated in these seminars will vary and will be designated in the schedule of courses each semester. Enrollment in the Honors Seminar is by invitation of the Honors Committee of the Department of English.

307 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.

308 APPLIED LINGUISTICS 3 cr
Practical uses of structural linguistics in the teaching of composition and literature.

370, 371, 372, 373, 374, 375, 376, 377, 378, 379 SPECIAL STUDIES IN ENGLISH OR WORLD LITERATURE 3 cr each
Two or three courses in this sequence are offered every semester by the English Department to meet the current interests of both the students and the faculty. Examples of courses regularly offered are Science Fiction, Literature, Myth, and the Modern World, The English Bible as Literature, Comparative Literature, The Film as Literature, Modern Comparative Drama, Modern Short Story, Far Eastern Literature, Forms of Fantasy.

380, 381, 382, 383, 384, 385, 386, 387, 388, 389 WRITING WORKSHOPS 3 cr each
Courses in this sequence are offered each semester in a workshop format designed to develop students' creative and/or technical writing skills. Examples of courses regularly offered are Playwriting, Poetry Workshop, Fiction Workshop, Writing for Business and Industry, Professional and Technical Writing. Admission by instructor's permission only.

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

Medieval Studies

409 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 LITERATURE 3 cr
Survey including non-Shakespearean drama, Sidney, Spenser, Shakespeare, Marlowe and minor figures.

414 SEVENTEENTH CENTURY ENGLISH LITERATURE 3 cr
Survey of drama, prose and poetry to 1660.

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

419 RENAISSANCE SPECIAL TOPICS 3 cr
Studies in Renaissance thought and aesthetic in the works of one or more of its great writers. Spenser, 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

433 SHAKESPEARE I 3 cr
Comedies and romances.

434 SHAKESPEARE II 3 cr
Tragedies and histories.

439 SHAKESPEARE SPECIAL TOPICS 3 cr
Studies in Shakespeare relating his works to those of his contemporaries or concentrating on the problems of Shakespeare: biographical, aesthetic, and critical. Specific works and approaches to be selected by the instructor.

Eighteenth Century Studies

441 ENGLISH CLASSICISM 3 cr
Developments of neo-classical literature from the Restoration to the death of Pope. Primary attention given to Dryden, Swift and Pope.

442 LATE EIGHTEENTH CENTURY ENGLISH LITERATURE 3 cr
Johnson and his circle, the development of the novel, the aesthetic movement.

449 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

451 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.

452 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.

459 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 LITERATURE 3 cr
Selective study of authors representing the major literary types and trends from about 1890 to 1930. Hardy, Moore, Butler, Conrad, Yeats, Hopkins, and Joyce.

462 CONTEMPORARY LITERATURE 3 cr
469 TWENTIETH CENTURY SPECIAL TOPICS  3 cr
Studies in Twentieth Century thought and aesthetic in the works of one or more of its major writers such as Yeats, Joyce, Eliot, or through the ideas and attitudes conveyed in one of the dominant genres of the Twentieth Century

American Studies
471 EARLY AMERICAN LITERATURE  3 cr
A study of the literature of America’s Colonial and Federalist periods, emphasizing the political and bellettristic writings of an emerging nation

472 AMERICAN ROMANTICISM  3 cr
A study of the Romantic movement in America with emphasis on Emerson, Thoreau, and Poe

473 AMERICAN REALISM  3 cr
The rise of realistic fiction subsequent to the Civil War through the end of the century with emphasis on Twain, James and Howells

474 MODERN AMERICAN LITERATURE  3 cr
A study of American prose and poetry from the end of World War I to the present, including Frost, Fitzgerald, Hemingway, Faulkner, Bellow, etc

480-489 AMERICAN LITERATURE SPECIAL TOPICS  3 cr
Studies designed to reflect particular current interests of faculty and students alike. Topics can be drawn from a wide range of areas such as historical background, aesthetics, theme and motif, from specific studies of major authors or from tracing the development of dominant literary genres

499 DIRECTED STUDIES  3 cr

DEPARTMENT OF HISTORY
Chairman James G Lydon, Ph D
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 service. Most importantly, 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
At least 24 credits in addition to 111, 112, or 113, 114. Of these 24 credits, at least six credits must be taken in American and six credits in European history. At least six credits from the sophomore survey courses, 211, 212, 221, 222, 231, 232 (twelve credits from this level are recommended), and three credits of an undergraduate historiography course, 481, 483, or 484. Transfer students may apply for equivalency.

The stated requirements aim to provide the student with a structured program of learning within which considerable flexibility is encouraged. 111, 112 acquaints the student with the basic themes of world history, 113, 114 deals with the history of the West. A variety of second-year survey courses supply essential knowledge of the major periods of European and American history. Upper and advanced-level courses provide intensive studies of historical methodology of the major cultural areas of the world and of significant themes in history. 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 should consult with the department’s undergraduate advisor. The student is required to take 12 hours beyond 111, 112 or 113, 114 including either 221, 222 or 231, 232, the remaining six credits should be scheduled with the advice of the Department advisor.

Introductory Surveys
111, 112 APPROACHES TO WORLD HISTORY  3 cr each
A survey of world history covering important aspects of human evolution. The first semester deals with prehistory and the major civilizations. The second semester concentrates on major trends significant to the development of the contemporary world.

113, 114 WESTERN CIVILIZATION  3 cr each
An introductory survey of the origins and characteristics of European Civilization, emphasizing the personalities and events and institutions that have made the West the dominant global power today.

211 THE ANCIENT WORLD  3 cr
A survey of the ancient cultures and their contribution to civilization with emphasis on the Greeks and the Romans.

212 EUROPE IN THE FEUDAL AGE  3 cr
The world of the Middle Ages—a survey of medieval men’s political, social, and cultural activities.

221 EUROPE FROM RENAISSANCE TO REVOLUTION  3 cr
The history of Europe from the fourteenth through the eighteenth centuries—the era of transition and change from the medieval to the modern world.

222 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.

231 DEVELOPMENT OF THE UNITED STATES TO 1877  3 cr
The historical development of American institutions, ideas, and society from earliest times to 1877.

232 DEVELOPMENT OF THE UNITED STATES SINCE 1877  3 cr
The historical development of American institutions, ideas, and society since 1877.

Topical and Area Surveys
243 HISTORY OF WESTERN LAW  3 cr
Primary emphasis will be placed on the rise of customary law, especially its development in England into Common Law.

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

245 GREEK HISTORY  3 cr
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 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

253 THE MIDDLE EAST FROM MUHAMMED TO NAPOLEON 3 cr
A historical survey of the Near East from the rise of Islam to the decline of the Ottoman state, with particular attention to political, social, and cultural trends

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, traditionism and western influences, in the area

255, 256 HISTORY OF ASIA I AND II 3 cr each
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

261 LATIN AMERICA COLONIAL PERIOD 3 cr
From the Age of Discovery through the revolutions of the early 19th century

262 LATIN AMERICA NATIONAL PERIOD 3 cr
From the revolutions to the present, with emphasis on Argentina, Brazil, Chile, and Mexico

263 THE COLONIAL PERIOD—WESTERN HEMISPHERE 3 cr
A comparative examination of the economic, social, and political factors influencing European expansion to 1860

265 ENGLAND BEFORE 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

269, 270, CHINA 3 cr
A survey of social, economic, political, and cultural changes before and after the establishment of the People’s Republic of China

274 CHURCH HISTORY I 3 cr
A religious and historical exploration of 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

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

276 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 inter-action 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

278 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

279 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

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 the social and institutional aspects in the development of American 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

371 HISTORY OF TECHNOLOGY AND MATERIAL CULTURE 3 cr
Explores the tools and physical resource of human civilizations It is a study of the man-made physical world around us The course will consider eras of material scarcity and plenty, technological revolutions which change the course of history, and the development of historical forms of material survival

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

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

American Political and Diplomatic History

351 DIPLOMATIC HISTORY OF UNITED STATES I 3 cr
From the Revolution to 1890 with the emphasis upon the establishment of the nation and its diplomatic methods and goals
352 DIPLOMATIC HISTORY OF UNITED STATES II
The second half of the course will be Diplomatic History of the United States 1890 to present. Emphasis is upon involvement of the United States in both World Wars and its role as an imperial power.

357 HISTORY OF THE AMERICAN PRESIDENCY
Primarily an investigation and evaluation—personal, political, contemporary, and historical—of each president with some attention to the growth of the office.

358 CIVIL WAR AND RECONSTRUCTION
An intensive study of the American experience before and after the War for the Union.

360 CONSTITUTIONAL HISTORY OF THE UNITED STATES
An analysis of the Supreme Court and constitutional development, stressing the major controversies in the field.

361, 362 HISTORY OF THE UNITED STATES' POLITICAL PARTIES
A detailed examination and analysis of the origins, leadership, and operation of the major political parties in the U.S.

363 CULTURAL HISTORY OF MEDIEVAL EUROPE
The development of the body of literature, secular and religious, from the decline of the Roman Empire to the Renaissance.

365 THE ORIGINS OF THE MODERN MIND
Intellectual changes between 1300 and 1800 that set the stage for the modern temper.

366 THE MODERN MIND
The major ideological tendencies of modern European thought and their connection to society and politics, and to the major philosophic and scientific currents of the nineteenth and twentieth centuries.

367 THE IMPACT OF SCIENCE ON SOCIETY
The economic, social and cultural consequences of the rise of modern science.

368, 369 THE AMERICAN MIND I, II
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.

372, 374 DIPLOMATIC HISTORY OF THE FAR EAST
Western imperialism in Asia, rise of Asian nationalism, analysis of international problems in current tension areas.

377 EUROPEAN EMPIRE IN THE NINETEENTH CENTURY
Examines the growth of the great colonial empires in the nineteenth century and their decline before the forces of nationalism.

378 EUROPEAN DIPLOMATIC HISTORY 1870-1960
A study of European international politics since 1870, with emphasis upon the major developments, their origins and historic significance, and the evolving styles of diplomacy.

379 REVOLUTIONS IN THE MODERN WORLD
An analysis of the major political and social revolutions in Europe since 1789, the nature of the revolutionary phenomenon, and the inevitable counter-revolutionary trend.

380 EUROPEAN FASCISM
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.

Social and Economic History

370 CURRENT HISTORY
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.

384 FAMILY AND SOCIETY IN HISTORY
Interactions 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.

385 WOMEN IN HISTORY
The too often neglected history of one-half of the human race, with special emphasis on the life experience of women in past ages.

387 FRONTIER, ENVIRONMENT, AND FUTURE
A historical view of man's attempts to create new societies, concentrating upon ecological issues, frontier experiences, and utopian or futuristic ventures.

389 SOCIAL HISTORY OF MODERN EUROPE
An examination of major demographic, economic, and social trends in modern European history.

391 SOCIAL HISTORY OF RUSSIA
The study of the development, role, and interrelations of the social classes in Russia and the Soviet Union, and in East Central and Southeastern Europe.

392 THE EAST EUROPEAN ETHNIC (IMMIGRANT) EXPERIENCE
The examination of the social and economic conditions and cultural milieu that the various waves of East European immigrants left behind in Europe and found in America, and the study of their inter-ethnic relationships and adjustment to American society.

393 ECONOMIC HISTORY OF THE UNITED STATES TO 1865
Investigates the economic factors in the development of the U.S. and their impact on social and political issues.

394 UNITED STATES' LABOR HISTORY
Concentrates chiefly on the relations between worker and employer from the early craftsmen to the industrial union member.

395 URBAN HISTORY UNITED STATES
The rise of urban America, from the colonial period to World War I.

396 HISTORY OF AMERICAN IMMIGRATION SINCE 1880
Focuses on the nature and problems of the more recent immigrant, his cultural contributions, the effects of selectivity and changing native attitudes.

397 REFORM IN MODERN AMERICA
A study of political, economic, and social reform movements in the United States since the late nineteenth century.

398 ECONOMIC HISTORY OF THE UNITED STATES SINCE 1865
Investigates the economic development of the United States after the Civil War, emphasizing its impact on social and political issues as background for current economic problems.
399 THE SEARCH FOR IDENTITY—UNITED STATES SINCE 1945 3 cr
A discussion of selected contemporary issues, foreign and domestic, which illustrate the identity crisis in the U.S.

HISTORIOGRAPHY

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

483 SPECIAL PROBLEMS IN EUROPEAN HISTORY 3 cr
Emphasizes the conflict among historians over interpretations of significant events in European history

484 SPECIAL PROBLEMS IN AMERICAN HISTORY 3 cr
Emphasizes the conflict among historians over interpretations of significant events in American history

DEPARTMENT OF JOURNALISM
Chairman Nancy C. Jones, Ph.D.

Ten courses are required for a major in journalism. The journalism curriculum concentrates upon the development of communicative skills for creative and responsible positions in such areas of mass communication as advertising, broadcasting, newspapers, public relations, magazines, and specialized publications. A transfer student must take at least 12 credits from the Department to graduate as a Journalism major.

REQUIREMENTS FOR THE MAJOR
Twenty-seven semester hours are required for a major. Required courses are 167, 267, 268, 367, 369, 372 or 376, 466 or 468 or 470 or 476.

REQUIREMENTS FOR THE MINOR
Eighteen semester hours credit are required for a minor. Credits must include 167, 267, 268, and nine other journalism credits approved by the head of the Department of Journalism. Minors do not qualify for the Department's Professional Internship program.

167 INTRODUCTION TO MASS COMMUNICATIONS 3 cr
An introduction to the role, principles, and responsibilities of newspapers, broadcasting, magazines, advertising and public relations. Course open to non-majors. (Offered both semesters)

199 LANGUAGE FOR JOURNALISTS 3 cr
Aimed at improving and polishing language skills of prospective or beginning majors. Emphasis on word usage, grammar, spelling. Introduction to style and copy symbols. Open to Freshmen and Sophomores.

267 BASIC REPORTING AND WRITING I 3 cr

268 BASIC REPORTING AND WRITING II 3 cr
Advanced writing of the more complex types of news stories. Applied practice in laboratory sections. Typing ability required. Prerequisite 267.

330 PUBLIC RELATIONS PRINCIPLES 3 cr
Study of the principles, history and practices of public relations in business, educational and social welfare institutions and government. Analysis of PR programs. Ethics and responsibilities. Open to Juniors, Seniors and non-majors.

331 PUBLIC RELATIONS PRACTICES 3 cr
Case studies in public relations programs in industry, education, social welfare and trade associations. The application of techniques through the design and implementation of a program. Open to Junior and Senior majors. Prerequisites 267, 268 and 330 or approval of Department.

367 RADIO-TELEVISION PRINCIPLES AND WRITING 3 cr
A lecture-laboratory course in the study and application of writing principles and practices for radio and television. Two hours lecture, two hours laboratory. Open to non-majors. Prerequisites 267, 268, or approval of Department.

369 ADVERTISING PRINCIPLES AND WRITING 3 cr
A lecture-laboratory course in the study and application of writing principles and practices for advertising. Two hours lecture, two hours laboratory. Open to non-majors. Prerequisites 267, 268, or approval of Department.

370 DEVELOPING THE BROADCAST PROGRAM 3 cr
Creation, development and presentation of the radio and television program including documentaries, panels, dramatic and non-dramatic programs. Theory and practice of direction. Two hours lecture, two hours laboratory. Prerequisite 367 or approval of Department.

371 MASS COMMUNICATIONS AND PUBLIC OPINION 3 cr
A study of the nature of public opinion and the mass communications process, effects of propaganda, and barriers to effective communication. Open to Juniors and Seniors.

372 COMMUNICATIONS LAW 3 cr
A study of the legal rights, responsibilities and ethics of the mass media. Open to Juniors and Seniors.

375 EDITING 3 cr
A lecture-laboratory course in editing and presenting the written word for the mass media. Prerequisite 267 or approval of Department.

376 HISTORY OF THE MASS MEDIA 3 cr
Concentrated lecture-discussion course in historical context of major social influences affecting American Journalism from the colonial press period to contemporary society. Open to Juniors and Seniors.

378 PHOTOGRAPHY FOR JOURNALISM 3 cr
A lecture-laboratory course in the preparation and use of photography for publication. Fundamentals of camera work, developing, printing, print evaluation and editorial uses of photography. Emphasis on fundamentals. Prerequisite 267 or approval of Department.

379 GRAPHIC COMMUNICATIONS 3 cr
A laboratory-demonstration course to introduce students to all elements of the graphic design process related to the production of publications for print. Use of grid, transfer type and borders, greeking, paper, color overlays, line and clip art, preparing a key, and photos. Open to Juniors and Seniors. Prerequisites 267, 268, 375 or approval of Department. (This course recommended prior to 380.)

380 SPECIALIZED PUBLICATIONS 3 cr
A study of association, business, industrial, professional and religious communications with emphasis on the internal and external publications in industry. Prerequisites 167, 267, 268, 375.
tions agency, association, industrial,

A supervised observation-experience program of study and assignments to an assigned public relations agency or industrial advertising department in conjunction with the Business/Professional Advertising Association, Pittsburgh Chapter. Prerequisites 167, 267, 268.

409 ADVANCED WRITING FOR ADVERTISING 3 cr
A lecture-laboratory course in copywriting and design for advertising. Two hours lecture, two hours laboratory. Prerequisite 369.

411 MAGAZINE ARTICLE WRITING 3 cr
A lecture-laboratory course in writing for the general and specialized magazine. Two hours lecture, two hours laboratory. Open to Juniors and Seniors. Prerequisite 267.

413 ADVANCED WRITING FOR RADIO AND TELEVISION 3 cr
A lecture-laboratory course in writing for Radio and Television. Two hours lecture, two hours laboratory. Prerequisites 367, 370.

420 INTERNATIONAL COMMUNICATIONS 3 cr
A study of world news systems and an analysis of their roles as instruments of world understanding. Open to Juniors and Seniors.

440 WRITING REVIEWS/CRITICISM 3 cr
Analysis, discussion and writing of reviews/criticism 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 267, 268 or approval of Department.

441 SECONDARY SCHOOL COMMUNICATIONS 3 cr
Function of publications and broadcasting in the secondary school. Role and responsibilities of school press advisors. Teaching of Journalism on the high school level. Course is directed at students seeking a Pennsylvania teacher's certificate in communication with emphasis in high school journalism. Open to Juniors and Seniors. Prerequisites 167, 267.

466 PROFESSIONAL INTERNSHIP ADVERTISING 3 cr
A supervised observation-experience program of study and assignment to an assigned advertising agency or industrial advertising department in conjunction with the Business/Professional Advertising Association, Pittsburgh Chapter. Prerequisites 167, 267, 268, 367, 369, 372 or 376, 409 (Offered both semesters).

468 PROFESSIONAL INTERNSHIP BROADCASTING 3 cr
A supervised observation-experience program of study and assignment to an assigned commercial/educational broadcasting station in the Pittsburgh area. Prerequisites 167, 267, 268, 367, 369, 370, 372 or 376, 413 (Offered both semesters).

470 PROFESSIONAL INTERNSHIP NEWSPAPERS 3 cr
A supervised observation-experience program of study and assignment to a member newspaper of the Pennsylvania Newspaper Publishers Association in Allegheny County. Prerequisites 167, 267, 268, 367, 369, 375, 372 or 376, 405 (Offered both semesters).

476 PROFESSIONAL INTERNSHIP PUBLIC RELATIONS 3 cr
A supervised observation-experience program of study and assignments to an assigned public relations agency, association, industrial, or non-profit educational group in the Pittsburgh area. Prerequisites 167, 267, 268, 330, 331, 367, 369, 375, 372 or 376, 380 (Offered both semesters).

485 INDUSTRIAL ADVERTISING 3 cr
Deals with the principles and practices of industrial marketing communications. Emphasis will be placed on trade-paper ads, direct-mail advertising, descriptive product folders, sales letters and presentations. Examination will be made of related crafts such as commercial art, typography, printing, plate-making and media selection. Prerequisites 167, 267, 268, 367, 369.

490 INDIVIDUAL PROJECTS IN MASS COMMUNICATIONS 1-3 cr
Individual research projects in the mass media. Open to Junior and Senior majors only. Prerequisite Permission of instructor and department chairman.

DEPARTMENT OF MATHEMATICS
Chairman Charles A. Loch, M.A.
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. Exceptionally able seniors are encouraged to seek departmental approval to include 500 level mathematics courses listed in the graduate catalog. Extradepartmental Requirements: Computer Science 101 Basic or 111 Fortran.

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. Exceptionally able seniors are encouraged to seek departmental approval to include 500 level mathematics courses listed in the graduate catalog. Extradepartmental Requirements: 20 hours in science 211, 212 General Analytical Physics and Computer Science 101 Basic or 111 Fortran must be taken. 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 115 and 14 additional credits selected from courses numbered above 115. 116 must be included.

For science majors, 215, 216, 315, 321 are recommended.

For economics and social science majors, 222 or 308, 225 or 301, 306 are recommended.

101 ELEMENTARY MATHEMATICS 3 cr
A remedial course in the fundamentals of algebra, including the solution of equations and inequalities. Not to be counted toward a major, minor or the mathematics/science area requirements.

103, 104 FINITE MATHEMATICS I, II 3 cr each
A course meeting the needs of non-science students in the College for an introduction to matrices and their applications, linear programming, probability and statistics, computer and other relevant topics. Not counted toward a major or minor.
This course is designed for elementary education students in the School of Education. Not to be counted as a prerequisite for the mathematics/science area requirement.

The course includes solutions, existence of solutions, and applications of differential equations, trigonometry, integration, series, geometry of space, functions of several variables, and multiple integration.

A traditional course in college algebra for students who are not prepared for 111. Not counted toward a major or minor. Credit will not be allowed for both this course and 105.

The course includes solutions, existence of solutions, and applications of differential equations. Prerequisite 215.

A unified course in analytic geometry and calculus. Considers theory of limits, functions, differentiation, integration, series, geometry 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.

An introduction to computer science in programming electronic digital computers, operating systems and compilers. Machine language and an assembly language are presented and used to solve several problems. Prerequisite One year of high school algebra. Not counted toward a major. Not offered on a regular basis but available on request.

A basic course in probability theory and descriptive and inferential statistics for non-majors. Prerequisite High school algebra. Not counted toward a major.

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 116 or equivalent.

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

A study of linear transformations and matrices, and models. 307 is identical to Computer Science 307 in which 111 Fortran is required. 307 may be used to satisfy a mathematics or a Computer Science requirement but not both.

A computer oriented course in numerical analysis introducing elementary techniques for numerical solution of problems. A knowledge of Fortran or equivalent language is assumed. This course is identical to Computer Science 308. It may be used to satisfy a Math requirement or a Computer Science requirement but not both. Prerequisite 215, Fortran 111.

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

A course and introduction to programming electronic digital computers, operating systems and compilers. Math 222 is identical to Computer Science 222.

This is a survey of the historical development of mathematics. Prerequisite One year of College Mathematics, preferably including one semester of calculus. Not counted toward a major or minor.

This is an honors course. Topics selected in consultation with staff.

A rigorous study of the calculus and its foundation. Prerequisite 216.

A survey of elementary topics including topological spaces, compactness, connectedness, convergence and separation axioms. Prerequisite 215. Not offered in regular sequence, but available on request.

A computer oriented course in numerical analysis introducing elementary techniques for numerical solution of problems. A knowledge of Fortran or equivalent language is assumed. This course is identical to Computer Science 308. It may be used to satisfy a Math requirement or a Computer Science requirement but not both. Prerequisite 215, Fortran 111.

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

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This is an honors course. Topics selected in consultation with staff.

A rigorous study of the calculus and its foundation. Prerequisite 216.
REQUIREMENTS FOR THE MAJOR

A minimum of 36 credits is required. The major may concentrate on either Design or Production. All majors must complete 101 Introduction to Instructional Media, 407 Medical Photography and 408 Internship. The Design concentration must include 106 Creative Media, 204 Interpersonal Communications, 301 Scriptwriting for Media Production, 304 Development of the Health Care Program, 402 The Director—The Producer, and 404 Management of a Media Facility. The Production concentration must include 103 Introduction to Video Production, 201 Cinematography, 203 Audio, TV Mechanics and Lighting, 203 Graphics, 378 Photography, and 406 Advanced Video Production.

Suggested minors are biology, chemistry, or computer science.

101 INTRODUCTION TO INSTRUCTIONAL MEDIA 3 cr
Introductory course to familiarize student with equipment, instructional technology, and process of selection, utilization, and evaluation of media resources. Required.

103 INTRODUCTION TO VIDEO PRODUCTION TECHNIQUES 3 cr
Concepts and applications of television production in a work setting environment, with emphasis on studio considerations, lighting, camera operation, film and tape, VTR, cassettes, and special effects.

106 CREATIVE MEDIA 3 cr
Investigation into aesthetics of visual communication. Implications of the theories of visual thinking and psychology of media in the development of visual messages. Motivation, attention, organization, cuing, reinforcement, and response are characterized.

201 CINEMATOGRAPHY 3 cr
Students learn basic skills and techniques in motion pictures production through lectures, demonstrations, field trips, and hands on experience.

203 AUDIO, TV MECHANICS AND LIGHTING 3 cr
Investigation into the types of record equipment, microphones, impedances, public address systems, mixing sound and music for multi-media productions. Hands on experience in the mechanics of TV equipment, trouble shooting, and operation of wave form monitors and vectoscopes. Extended exploration into creative and practical aspects of lighting.

204 INTERPERSONAL COMMUNICATIONS 3 cr
Designed to investigate the various aspects of interpersonal communications. Primary consideration will be given to face human interaction in a variety of situations.

206 GRAPHICS 3 cr
Provides basic experience in planning and producing graphic materials for television, display, classroom lectures. Includes experience in layout, lettering, and color.

301 SCRIPTWRITING FOR MEDIA PRODUCTIONS 3 cr
Techniques of preparing storyboards and scripts for various media formats includes research of material, development of shooting script. Analysis of professional scripts and programs.

304 DEVELOPMENT OF HEALTH CARE PROGRAMS 3 cr
A look at the instructional design of health care programs and the approach to instructional decision making. Purpose, content, method, audience, medium.
Spanish 301, 302, 401, 402, 453, 454 Majors will discuss their courses with their advisors.

Elementary and intermediate courses must be taken in sequence. It is recommended that students not take advanced courses out of progression. Credit toward the major or minor will not be given for 201, 202, 211, 212, or 239, 240 which are intermediate level courses. 302 is the recommended prerequisite to all courses numbered 312 and above.

It is recommended that majors in the Department include a course in the art of the country in whose language they specialize as well as one course of literature in translation in the literature of a country other than that of their major.

A maximum of 12 transfer credits will be accepted toward the major.

Junior Year Abroad Majors are strongly encouraged but not obliged to participate in programs approved in advance by the Department.

Further information may be obtained at the Department office.

REQUIREMENTS FOR THE MINOR

The minor program consists of a minimum of 12 semester hours at the 300 level and above.

490 INDEPENDENT FIELD STUDY (All Languages)
Var cr
The student will participate, under the supervision and guidance of the instructor, in selected tours to various foreign countries to undertake independent study on selected and approved projects involving the exploration and study of history, life, work, arts, and culture. Prerequisite: Prior permission of the instructor and Department Chairman.

French

101, 102 ELEMENTARY FRENCH 3 cr each
Fundamentals of oral and written French. Three hours lecture and one hour laboratory each week.

111, 112 ELEMENTARY FRENCH FOR READING 3 cr each
The course will stress basic grammar and structure for reading comprehension.

115, 116 FRENCH FOR MUSICIANS 3 cr each
Specially designed for majors and minors in music to provide them with those skills in French to meet their professional requisites. Registration limited to students in the School of Music. This course does not allow for continuation at the 200 level or higher.

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, 202 INTERMEDIATE FRENCH 3 cr each
An intensified review and continuation of 101, 102. Prerequisite: 102 or equivalent.

211, 212 INTERMEDIATE FRENCH FOR READING 3 cr each
Prerequisite: 102 or 112.

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, 302 FRENCH CONVERSATION AND COMPOSITION 3 cr each
302 or its equivalent is the recommended prerequisite to 312. Prerequisite: 202 or equivalent.

320-345 PRO-SEMINAR IN FRENCH LITERATURE AND CULTURE 3 cr each
All courses numbered 320 through 345 are pro-seminars in literature and culture. The following courses represent current pro-seminar offerings. They will be offered on a rotated basis and/or as circumstances warrant from semester to semester. All pro-seminars carry three credits a semester. Recommended prerequisite: French 302 or its equivalent.

320 STYLISTICS 326 THE LITERATURE OF THE EXISTENTIALIST MOVEMENT
321 PHONETICS 321 PHONETICS
322 THEATRE DE L’AVANT-GARDE 327 THE SYMBOLIST MOVEMENT IN FRENCH POETRY
323 MAUPASSANT 328 FRENCH POETRY MIDDLE AGES TO 19TH CENTURY
324 BALZAC 329 17TH CENTURY FRENCH LITERATURE
325 REALISM AND NATURALISM 330 FRENCH PROSE FICTION-19TH CENTURY

460-475 SEMINAR IN FRENCH LITERATURE 3 cr each
All courses numbered 460 through 475 are seminars in literature, designed to offer the advanced undergraduate student the opportunity to study various aspects of literature in greater depth. The following courses represent current seminar offerings. They will be offered on a rotated basis and/or as circumstances warrant from semester to semester. All seminars carry three credits a semester. French 462 and 463 are recommended prerequisites for these courses.

460 HISTORY AND CULTURE OF FRANCE SINCE THE REVOLUTION 466 19TH-CENTURY FRENCH POETRY
461 HISTORY OF THE FRENCH LANGUAGE 467 19TH-CENTURY FRENCH NOVEL
462 CHANSON DE ROLAND THROUGH 17TH CENTURY 468 19TH-CENTURY FRENCH THEATRE
463 18TH CENTURY TO MODERN PERIOD 469 20TH-CENTURY FRENCH POETRY
470 20TH-CENTURY FRENCH NOVEL 471 20TH-CENTURY FRENCH THEATRE
472 SARTRE AND CAMUS 473 LE NOUVEAU ROMAN
473 LE NOUVEAU THEATRE

480 DIRECTED READINGS Var cr
Readings of literary texts under close faculty supervision, for majors only and only with permission of the Department. Variable credit.
German

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>101, 102 ELEMENTARY GERMAN</td>
<td>3 cr</td>
</tr>
<tr>
<td>111, 112 ELEMENTARY GERMAN FOR READING</td>
<td>3 cr</td>
</tr>
<tr>
<td>115, 116 GERMAN FOR MUSICIANS</td>
<td>3 cr</td>
</tr>
<tr>
<td>201, 202 INTERMEDIATE GERMAN</td>
<td>3 cr</td>
</tr>
<tr>
<td>211, 212 INTERMEDIATE GERMAN FOR READING</td>
<td>3 cr</td>
</tr>
<tr>
<td>239, 240 READINGS IN MODERN GERMAN AUTHORS</td>
<td>3 cr</td>
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<tr>
<td>251 COMMERCIAL GERMAN</td>
<td>3 cr</td>
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<tr>
<td>301, 302 GERMAN COMPOSITION AND CONVERSATION</td>
<td>3 cr</td>
</tr>
<tr>
<td>320-345 PRO-SEMINAR IN GERMAN LITERATURE AND CULTURE</td>
<td>3 cr</td>
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<tr>
<td>320 HISTORY OF GERMAN CULTURE FROM THE FRANKS TO HITLER</td>
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<td>324 POPULAR TRADITION IN GERMAN LITERATURE THE FAIRY TALE, THE HEROIC TALE</td>
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<tr>
<td>326 WOMEN FIGURES IN GERMAN LITERATURE FROM GOETHE TO BOLL</td>
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<td>327 GERMAN WOMEN AUTHORS AND CRITICS</td>
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<td>328 INTRODUCTION TO GERMAN DRAMA</td>
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<td>329 INTRODUCTION TO GERMAN POETRY</td>
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<td>330 MODERN GERMAN PROSE</td>
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<tr>
<td>331 MODERN GERMAN THEATRE</td>
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<tr>
<td>460, 475 SEMINAR IN GERMAN LITERATURE</td>
<td>3 cr</td>
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The following courses represent current seminar offerings, they will be offered on a rotated basis and/or as circumstances warrant from semester to semester. All seminars carry three credits a semester. Recommended prerequisite German 302.

<table>
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<tr>
<th>Course</th>
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<tr>
<td>460 GERMAN LITERATURE TO LESSING</td>
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<td>461 GERMAN LITERATURE FROM LESSING TO THE PRESENT</td>
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<tr>
<td>462 ADVANCED GERMAN STYLISTICS</td>
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<td>464 GERMAN ROMANTIC LITERATURE</td>
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<tr>
<td>465 MODERN GERMAN NARRATIVE HESSE, MANN, KAFKA</td>
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<tr>
<td>466 TOLERANCE IN 18TH CENTURY GERMAN LITERATURE LESSING, SCHILLER</td>
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<td>467 THE AGE OF GOETHE</td>
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<td>468 GOETHE'S FAUST</td>
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<td>469 CONCEPT OF LOVE IN THE GERMAN MEDIEVAL EPIC AND LYRIC</td>
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<td>470 LITERATURE OF ENLIGHTENMENT</td>
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<tr>
<td>471 STURM UND DRANG</td>
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<tr>
<td>480 DIRECTED READINGS</td>
<td>Var cr</td>
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</table>

Reading of literary texts under close faculty supervision, for majors only and only with permission of the Department. Variable credit.

Italian

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>101, 102 ELEMENTARY ITALIAN</td>
<td>3 cr</td>
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<tr>
<td>201, 202 INTERMEDIATE ITALIAN</td>
<td>3 cr</td>
</tr>
<tr>
<td>301, 302 ITALIAN CONSERVATION AND COMPOSITION</td>
<td>3 cr</td>
</tr>
<tr>
<td>314, 315 INDIVIDUAL STUDY</td>
<td>Var Cr</td>
</tr>
</tbody>
</table>

Prerequisite 202 or equivalent. All courses numbered 320 through 345 are pro-seminars in literature and culture. The following courses represent current pro-seminar offerings. They will be offered on a rotated basis and/or as circumstances warrant from semester to semester. All pro-seminars carry three credits a semester.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>320 HISTORY OF ITALIAN CULTURE FROM HITLER TO THE PRESENT</td>
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<tr>
<td>321 HISTORY OF ITALIAN CULTURE FROM THE FRANKS TO HITLER</td>
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<tr>
<td>322 COMMERCIAL ITALIAN</td>
<td></td>
</tr>
<tr>
<td>323 PIRANDELLO, SVEVO, PAVESE</td>
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<tr>
<td>324 INTRODUCTION TO ITALIAN POETRY (LEOPARDI, CARDUCCI, PASCOLI, D'ANNUNZIO)</td>
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<tr>
<td>325 INTRODUCTION TO ITALIAN POETRY (UNGARETTI, SABA, MONTALE, QUASIMODO)</td>
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Russian

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>101, 102 ELEMENTARY RUSSIAN</td>
<td>3 cr</td>
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</table>

Fundamentals of oral and written Russian. Three hours lecture, one hour laboratory each week.
201, 202 INTERMEDIATE RUSSIAN	 3 cr each
An intensified review and continuation of 101, 102. Prerequisite: 102 or equivalent.

301-302 RUSSIAN CONVERSATION AND COMPOSITION	 3 cr each
Prerequisite: 202 or equivalent.

314, 315 INDIVIDUAL STUDY	 Var Cr
Prerequisite: 202 or equivalent.

320-345 PRO-SEMINAR IN RUSSIAN LITERATURE AND CULTURE	 3 cr each
All courses numbered 320 through 345 are pro-seminars in literature and culture. The following courses represent current pro-seminar offerings. They will be offered on a rotated basis and/or as circumstances warrant from semester to semester. All pro-seminars carry three credits a semester. The recommended prerequisite: Spanish 302 or equivalent.

320 CHEKHOV
323 RUSSIAN FOLKLORE

321 19TH CENTURY RUSSIAN SHORT STORY
324 CONTEMPORARY RUSSIAN LITERATURE

322 COMMERCIAL RUSSIAN

Spanish

101, 102 ELEMENTARY SPANISH	 3 cr each
Fundamentals of oral and written Spanish. Three lecture hours, one hour laboratory each week.

111, 112 ELEMENTARY SPANISH FOR READING	 3 cr each
The course will stress basic grammar and structure for reading comprehension.

120 INTENSIVE SPANISH	 6 cr
Fundamentals of oral and written Spanish. 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, 202 INTERMEDIATE SPANISH	 3 cr each
An intensified continuation of 101 and 102. Prerequisite: 102 or equivalent.

211, 212 INTERMEDIATE SPANISH FOR READING	 3 cr each
Prerequisite: 102 or 112.

220 INTENSIVE SPANISH	 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 READINGS IN MODERN SPANISH AUTHORS	 3 cr
Selection from modern works of literature. Does not carry credit toward major or minor. Prerequisite: 202 or equivalent.

240 READINGS IN MODERN SPANISH-AMERICAN AUTHORS	 3 cr
Selection from modern works of literature. Does not carry credit toward major or minor. Prerequisite: 202 or equivalent.

301, 302 SPANISH CONVERSATION AND COMPOSITION	 3 cr each
302 or equivalent is the recommended prerequisite to all courses above 302. Prerequisite: 202 or equivalent.

320-345 PRO-SEMINAR IN SPANISH LITERATURE AND CULTURE	 3 cr each
All courses numbered 320 through 345 are pro-seminars in literature and culture. The following courses represent current pro-seminar offerings. They will be offered on a rotated basis as circumstances warrant from semester to semester. All pro-seminars carry three credits a semester. The recommended prerequisite: Spanish 302 or equivalent.

320 MODERN SPANISH-AMERICAN WOMEN AUTHORS
326 CONTEMPORARY SPANISH-AMERICAN NOVEL

321 BORGES AND THE SHORT STORY IN SPANISH AMERICA
327 HISTORY OF SPANISH CULTURE

322 SPANISH REALISM AND THE 19TH CENTURY NOVEL
328 MODERN SPANISH THEATRE

323 LITERATURE OF SPANISH ROMANTICISM
324 THE GENERATION OF 98

325 CONTEMPORARY SPANISH NOVEL

401 SPANISH LITERATURE FROM THE CID THROUGH THE SIGLO DE ORO	 3 cr

402 SPANISH LITERATURE FROM THE 18TH CENTURY TO THE PRESENT	 3 cr

453, 454 TRENDS IN LATIN AMERICAN LITERATURE	 3 cr each

460-475 SEMINAR IN SPANISH LITERATURE	 3 cr each
All courses numbered 460 through 475 are seminars in literature, designed to offer the advanced undergraduate student the opportunity to study various aspects of literature in greater depth. The following courses represent current seminar offerings. They will be offered on a rotated basis as circumstances warrant from semester to semester. All seminars carry three credits a semester. Recommended prerequisite: Spanish 401-402 or equivalent.

460 THE QUIJOTE
463 LORCA AND THE GENERATION OF 1927

461 SPANISH LITERATURE SINCE THE CIVIL WAR
464 THE LITERATURE OF THE SIGLO DE ORO

462 AVANT-GARDE SPANISH-AMERICAN THEATRE
465 MODERNISMO SPAIN AND SPANISH AMERICA

466 THE AGE OF ENLIGHTENMENT

480 DIRECTED READINGS
Readings of literary texts under close faculty supervision, for majors only and only with permission of the Department. Vanable credit.

Swahili

101, 102 ELEMENTARY SWAHILI	 3 cr each
Fundamentals of oral and written Swahili. Three lecture hours and one hour laboratory each week.

201, 202 INTERMEDIATE SWAHILI	 3 cr each
An intensified continuation of 101 and 102. Prerequisite: 102 or equivalent.
DEPARTMENT OF PHILOSOPHY

Chairman John Sallis, Ph D

The program offered by the Department of Philosophy is designed to be a basic part of the student's liberal education. It is intended to introduce students to philosophical thinking, past and present, to provide a discipline for asking the basic questions of life and to help students begin relating their other academic subjects to one another and to human experience. The Department, made up of professors who have different philosophical interests, attempts to develop the capacity for independent thinking on all issues.

REQUIREMENTS FOR THE MAJOR

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.

REQUIREMENTS FOR THE MINOR

Five courses are required for a minor; one from the Introductory Courses (104 to 107), two from the Basic Courses (200 to 217), and two from the Historical Sequence and Advanced Courses (300 and 400 levels).

Introductory Courses

104 INTRODUCTION TO PHILOSOPHY 3 cr

A first-hand study of selected philosophical texts from both traditional and existential perspectives with the aim of introducing students to the nature of philosophical thinking, and to the variety of philosophical issues, areas, methods, and theories.

105 ETHICS 3 cr

An introduction to ethical theories of past and present time. Contemporary moral issues will be considered in the light of these theories.

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

This 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 a rigorous science, etc. are considered.

202 PHILOSOPHY OF BEING 3 cr

The approaches of philosophers such as Aristotle, Aquinas, Kant, Hegel and Heidegger. God, world and man: Being, essence and existence. Time and history. Being and the possibility of metaphysics in contemporary thought.

203 PHILOSOPHY OF RELIGION 3 cr

Introduction to the nature of religious experience. Topics such as religious symbolism, 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 Dostoyevski.

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 Being and Time by Heidegger, Phenomenology of Perception by Merleau-Ponty, and Being and Nothingness by Sartre.

206 SOCIAL PHILOSOPHY 3 cr

A systematic examination concerning the critical theories of modern society. Emphasis upon seminal thinkers, including Rousseau, Comte, Mill, Marx, Durkheim, Weber, Simmel, Mannheim, Horkheimer, Habermas, Lefebvre, and Bell, etc.

210 PHILOSOPHY OF FEMINISM 3 cr

A philosophical study of "the second sex," emphasizing phenomenology as a method which attempts to be free from prejudice, includes a discussion of some contemporary ethical and legal issues concerning the equality of women.

211 MARXISM 3 cr

A study of the political philosophy of Karl Marx as one of the major directions in social thought. Engels, Lenin, and contemporary Marxism.

212 POLITICAL PHILOSOPHY 3 cr

Fundamental political questions will be explored. For example, Utopian state, freedom, justice, the origins of political society, war and empire and revolution may be considered. Possible authors include Plato, Aristotle, Aquinas, Machiavelli, Hobbes, Locke, Rousseau and Hegel.

213 PHILOSOPHY AND AMERICAN POLITICAL THOUGHT 3 cr

A study of the philosophy of liberal democracy, using such writings as those of the founding fathers, their predecessors, and followers. Locke, Montesquieu, Paine, Jefferson, Madison, Hamilton, Lincoln. Consideration will be given also to contemporary developments in liberal democratic thinking.

214 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 methods and gives attention to the sexual origin of our consciousness of values.

215 PSYCHOANALYSIS AND PHILOSOPHY 3 cr

Psychoanalysis has had an impact upon and been affected by modern philosophy. This course will study the presuppositions and implications of Freud's thought and that of some other thinkers, such as Sartre, Marcuse, Ricoeur.

216 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.

217 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.
218 SPECIAL TOPICS 1-3 cr

220 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.

223 PHILOSOPHY OF HISTORY 3 cr
A philosophical examination of the possibility of meaning in history in the light of the contemporary crisis of human existence. Attention will be given to authors such as Augustine, Dante, Hegel, Marx, Nietzsche, and Heidegger.

224 PHILOSOPHY OF SPORT 3 cr
A philosophical examination of the nature of sport. Particular focus will be upon the ontological, ethical, and aesthetic status of the phenomenon of sport.

225 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 concept of the transcendent and the problem of evil.

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
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
This 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
Puntism, Enlightenment, Transcendentalism, Pragmatism, with emphasis on key figures in American Philosophy Pierce, Dewey, James, Royce, Santayana, Whitehead, etc.

323 ORIENTAL PHILOSOPHY 3 cr
Introduction to Oriental thought through a study of its major ideas. Such traditions as Confucianism, Taoism, Buddhism, Hinduism will be discussed.

325 CONCENTRATED PHILOSOPHICAL READINGS 3 cr
This course is an in-depth study of one or several philosophers such as Plato, Aristotle, Aquinas, Occam, Descartes, Kant, Wittgenstein, Strawson, Heidegger, etc., varying in subject matter from time to time.

Advanced Courses

312 PHILOSOPHICAL ANTHROPOLOGY 3 cr
The course examines several philosophical conceptions of man, under the guiding question, “What is man?”. Man’s place in the world, his relationship to society, the impact of science and the historical consciousness. The course should be of interest to social science majors in addition to philosophy majors and minors.

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 the mathematics and interpretation, and other issues will be discussed in relation to past and contemporary philosophical and scientific thought.

314 PHILOSOPHY OF NATURAL SCIENCES 3 cr
A study of the philosophical implications of the methodology and conceptual framework of modern and contemporary science. Contrast between Newtonian and contemporary physics regarding such philosophical questions as the nature of matter, space-time, technique and technology.

401, 402 THOMISM 3 cr each
Courses 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 (Mantain, Gilson and the school of Marechal and Rahner).

403 PHILOSOPHY OF GOD 3 cr
This course introduces students to selected texts and basic themes in types of religious experience such as Babylonian, Greek, and Judeo-Christian. It emphasizes such questions as: What is the Holy? What is the 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 there human 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, 417 ANCIENT THINKER 3 cr each
A course devoted to detailed study of a single ancient thinker, such as Plato or Aristotle.

418, 419, 420, 421, 422 MEDIEVAL THINKER 3 cr each
A leading Medieval thinker or thinkers, such as Augustine, Aviceina, Maimonides, Bonaventure, will be studied.

423, 424, 425, 426, 427, 428 MODERN THINKER 3 cr each
In depth examination of the work of a single or a group of historically modern authors e.g., rationalism (Descartes, Spinoza, Leibniz), empiricism (Locke, Berkeley, Hume), Kant, Hegel, Nietzsche.

429, 430, 431, 432, 433, 434 CONTEMPORARY THINKER 3 cr each
Concentration upon a single contemporary philosopher e.g., Husserl, Heidegger, Sartre, Merleau-Ponty, Whitehead, Wittgenstein.

435 SENIOR SEMINAR 3 cr
DEPARTMENT OF PHYSICS

Chairman Walter S. Skinner, M. S.

The program in the Department of Physics aims at not only providing today's students with a fundamental background in physics and its interrelationships with other sciences and disciplines, but also providing a suitable flexibility of program which will best fit the graduate for the challenge of today. While the Department is hopeful that students majoring in Physics will continue their professional growth, it is also realized that professional growth is not confined to a single path. The undergraduate program, therefore, provides the student not only the essential background for success in graduate studies but also with fundamental qualifications which equip the student for available positions in a research institution, government agency, or private corporation in any of the many fields which are based on the science of Physics.

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, 429, 430, 473, 474 (483, 484, or 485 may be substituted for 474 with departmental approval)

Extradepartmental Requirements: Chemistry 121, 122 or Biology 111, 112, Mathematics 115, 116, 215, 216, 308, Computer Science 111, and two years of a 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 THE EARTH SCIENCE MINOR

The minor consists of a prerequisite sequence of 101 and 102, which must be taken as the first courses, and 12 credits chosen from 203, 204, 205, 206, 303, 304, 305, 307, as available to the curriculum. Not all courses are taught each semester and some are on alternate years. Earth Science 101 is prerequisite to all courses unless waived by the instructor.

201, 202 GENERAL PHYSICS 4 cr each

Designed to give the student a basic knowledge and understanding of mechanics, properties of matter, heat, wave motion, sound, magnetism, electricity, light, and modern physics through the use of modern day examples and applications. At the completion of this course, the student should have attained a working knowledge of physics, its techniques and reasoning such that the knowledge of physics gained may be applied to future work in the sciences or other fields of endeavor. Prerequisite: Mathematics 103, 104 or the equivalent. Students who have completed Mathematics 116 and pre-engineering 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 used as a basis, and classroom demonstrations are generously employed to help the student grasp concepts by showing concrete examples. No mathematics beyond basic high school algebra is required.

211, 212 GENERAL ANALYTICAL PHYSICS 4 cr each

This is a general introduction to the basic physical theories and concepts. An attempt is made to develop in the science student the quantitative approach of the physicist to the physical universe. Some of the topics which may be included are vectors, Newton's Laws of Motion, the motion of a particle in space, momentum, energy, rigid body motion, fluids, gravity, wave motion, the first and second laws of thermodynamics, electricity and magnetism, optics. Co-requisite for 211: Mathematics 116. Lecture, three hours, Laboratory, two hours.

301 THERMODYNAMICS 3 cr

This is an intermediate level course covering the fundamental principles of thermodynamics, kinetic theory and statistical mechanics. The following is a partial list of items generally included: temperature, thermodynamic systems, work, heat, the first and second laws of thermodynamics, ideal gases, entropy, Maxwell's equation, the kinetic theory of ideal gas, and the basic concept of statistical mechanics. Prerequisites: 212, Mathematics 215.

306 APPLIED ELECTRONICS LABORATORY 2-3 cr

This course seeks to combine a treatment of the principles of modern electronic instrumentation with practical laboratory experience. Topics which will be included are passive and active electronic components, electronic measuring instruments, power supplies, amplification, feedback and control, impedance matching, linear and digital devices. Emphasis will be on proper use of instrumentation rather than on advanced principles of design. Prerequisite: Permission of instructor.

329 ADVANCED LABORATORY I 1 cr

This course is concerned with electromagnetic phenomena and basics of modern electronics. A set of programmed experiments is performed and analyzed by the students. Subjects covered are the use of electronic instruments, dynamics in electric and magnetic fields, electric circuits. Prerequisite: 212 or 202 and consent of instructor.

330 ADVANCED LABORATORY II 1 cr

A continuation of Advanced Laboratory I and includes the following items: basic semiconductor electronic devices, transistor amplifiers and oscillators, the klystron and microwave optics. Prerequisite: 329 or consent of instructor.

361 MECHANICS 4 cr

An intermediate course in the application of Newtonian Mechanics to simple systems. A short introduction to Vector Calculus precedes the main discussion. The topics normally covered are dynamics of a mass point, systems of particles, generalized coordinates and Lagrange's Equations. Other topics which may be included are normal modes, rigid bodies, two bodies with a central force, and waves on a string. Prerequisites: 212, Mathematics 215.

372 ELECTROMAGNETISM 4 cr

The following topics are usually discussed: electrostatics, energy relations in electrostatic fields, dielectrics, currents and their interaction, magnetic properties of matter, AC circuits, Maxwell's equations, reflection and refraction of electromagnetic waves, dipole and plane sheet radiation. Prerequisites: 212, Mathematics 215.

402 OPTICS 3 cr

This course introduces the student to classical principles of geometrical and physical optics and shows how these are applied in the construction of optical instruments. Reflection, refraction, interference, diffraction, and polarization phenomena are treated, as well as an introduction to quantum optics. Prerequisite: 202 or 212, or consent of instructor.
429-30 ADVANCED RESEARCH
This is a one year course in which the student selects a research project, develops it, and prepares a report on the results. The student is also required to present results of his work at a department seminar or an appropriate scientific meeting if deemed advisable. A research topic is selected from those suggested by members of the Physics Department or other science faculty members. Work is carried out in close coordination with the selected advisor, although all work must be the student's own. No grade is given at the end of the first semester but a final grade is assigned at the completion of the project in the Spring Semester.

473 ATOMIC PHYSICS 3 cr
This course provides an introduction to special relativity and quantum theory with applications drawn mainly from modern theories of the atom. Topics usually included are quantum theory of heat radiation, the uncertainty principle, quantum theory of the hydrogen atom, many-electron atoms, atomic spectroscopy. Prerequisites: 212 and consent of instructor.

474 QUANTUM MECHANICS 3 cr
A basic introduction to the dynamics of quantum phenomena. Some of the topics covered are Schrödinger Equation, oscillators, hydrogen atom, linear operators, Hermitian Matrices, observables, conservation theorem, spin, angular momentum and perturbation theory. The course will emphasize application to simple systems. Prerequisites: 212, Mathematics 215.

483, 484, 485, 486 SPECIAL TOPICS 1-3 cr each
Designed to allow the Physics major flexibility in scheduling, this course may include the following.

483 NUCLEAR PHYSICS 3 cr
Many of the experimental and theoretical aspects of the atomic nucleus are discussed. Some of the usual topics are two-nucleon systems, radioactive decay, alpha, beta and gamma decay, radiometric dating, interaction of radiation with matter, nuclear structure, nuclear reactions, and nuclear fission. Prerequisites: 202 or 212.

484 INTRODUCTORY SOLID STATE PHYSICS 3 cr
Basic properties of materials are discussed from both the phenomenological and microscopic approaches. Typical topics are the geometric structure of solids, waves and diffractions, thermal properties, the free electron model, band theory, superconductivity, magnetic properties and magnetic resonance. Prerequisites: 212 and consent of instructor.

485 RELATIVISTIC MECHANICS 3 cr
This course is an introduction to the Special and General Theories of Relativity. A list of topics which may be discussed are absolute space, Einsteinian Kinematics, Einsteinian Optics, spacetime and four-vectors, relativistic particle mechanics. Prerequisites: 212, Mathematics 215.

486 SHOP TECHNIQUES 1 cr
A basic introduction to machine shop practices necessary to experimentalists in all fields. Some of the areas covered are shop equipment and its use, materials, soldering and welding techniques, mechanical drawing and schematics, electronics construction techniques and practical application.

487 PROBLEMS IN PHYSICS 1-4 cr
Special topics and problems in physics and related subjects suitable for independent work.

488 ADVANCED PROBLEMS IN PHYSICS 1-4 cr
Problems of a more sophisticated nature.

Earth Science

101 PHYSICAL GEOLOGY 3 cr
(Prerequisite to all Earth Science courses)
This introduction to the geological processes and materials will concentrate on the makeup of our planet and the materials involved. Study will also include physical features and the processes of the earth, as presently understood, which have created those features. Geologic relation to environment is also examined.

102 HISTORICAL GEOLOGY 3 cr
A study of the earth’s history which relates tectonic movements of the crust. Mountain building processes and life history with their interrelations will be discussed. Evolution of local features will be discussed also with the relationship to plate tectonics.

103 PHYSICAL GEOLOGY LABORATORY 1 cr
An introduction to the identification of rocks and minerals by composition and appearance and the interpretation of topographic maps. The use of maps to identify the cause of drainage and some effects of water and erosion will be experienced. Mapping tools will be introduced, as will some field equipment.

104 HISTORICAL GEOLOGY LABORATORY 1 cr
An accompaniment for ES 102, providing an introduction to sedimentation and the use of fossil identification. Columnar sections, Aerial Geologic maps, and Aerial Photos will be used.

203 ASTRONOMY 3 cr
Introduction to the study of astronomy and the basics of observation. Study will include telescopic types and the known universe as identified from present study. Course will, if possible, include arrangements with Buhl Planetarium and Allegheny Observatory. Star types and distances will also be examined.

204 METEOROLOGY 3 cr
Elementary study of meteorology and weather systems in the local area as well as the world patterns. Observation and prediction will be practiced when practical. Local and U.S. Weather Bureau services will be used and analyzed when possible.

205 PLANETARY GEOLOGY 3 cr
A systematic study of the geology of other planets and satellites in the solar system. Methods of study used to obtain information on these bodies will be examined along with the latest available information from scientific probes.

206 GEOPHYSICS 3 cr
An introduction to geophysics and its methods and uses. Study will include the use of geophysics to determine the nature of the earth’s interior and various crustal processes such as structure, mountain building and plate tectonics. Prerequisite—Physical Geology or major in Physics.

303 OCEANOGRAPHY 3 cr
An introduction to the marine environment including the geology and ecology. Attention is paid to the importance of dangers to the ecosystem. Characteristics of oceanic waters and circulation patterns will be discussed. Summer courses may be combined with one of several universities offering facilities.

304 ENVIRONMENTAL EARTH SCIENCE 3 cr
An examination of the problems of ecology and the impact of modern living on the systems of the earth which are necessary for plant and animal life. The individual effects of both natural and man-made pollution and their results, geologically, as well as possible cures. An advance over 101, 102 with an effort to have the student gain a balanced, non-hysterical appreciation of cause, effect, and search for solution.
DEPARTMENT OF POLITICAL SCIENCE

Chairman William E. Markus, M. Ed.

Political science is concerned with developing the person. Through the study of the science of politics, students will develop their analytical and intellectual skills. Political science graduates pursue careers in many diverse fields including governmental administration and service, teaching careers at various levels, law, and business.

REQUIREMENTS FOR THE MAJOR

Twenty-four semester hours are required for a major in political science in addition to 101. These credits must include 208, 309, and 405 or 406.

A maximum of 12 transfer credits can be applied to the 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 following 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 233 and a minimum of nine credits from among 240, 241, 242, 301, 302, 326, 403, 407, and 414
2. Comparative Government 268 and a minimum of nine credits from among 306, 315, 318, 321, 406, and 413
3. International Relations 309 and a minimum of nine credits from among 312, 320, 402, 404, and 409

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 Intro to Political Science is prerequisite to all courses

101 INTRODUCTION TO POLITICAL SCIENCE

An investigation of the most fundamental concepts involved in the study of political society.

208 COMPARATIVE POLITICAL SYSTEMS

A systematic, multifocused analysis of selected political systems.

233 AMERICAN NATIONAL GOVERNMENT

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.

240 AMERICAN POLITICAL PARTIES

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.

241 THE AMERICAN PRESIDENCY

A study of the role of the President at the center of the decision-making process in the American political system.

242 THE AMERICAN CONGRESS

An investigation of the operation of the Congress of the United States within the American system of government.

301 STATE AND LOCAL GOVERNMENT

A study of the position of the state and local governments in the Federal Union.

302 MUNICIPAL GOVERNMENT

A study of the role of local government in the state and federal systems.

306 COMPARATIVE COMMUNIST POLITICAL SYSTEMS

A comparative analysis of the political systems existing in the Soviet Union, Communist China, and Yugoslavia.

309 INTERNATIONAL RELATIONS

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

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.

315 POLITICS OF THIRD WORLD COUNTRIES

A topical study of the politics of the emerging nations including nationalism, political integration, political parties, and the role of the military and elite.

318 NATIONALISM

A study of the dynamics of nationalism with emphasis on the role of nationalism in current world political problems. Includes the development of nationalism in Europe.

320 UNITED STATES FOREIGN POLICY

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

An analysis of political developments in the communist regimes of Eastern Europe with special emphasis on the role of the Supreme Court in the American system of government, concentrating upon the study of selected key court decisions. Prerequisite: 223

326 CONSTITUTIONAL LAW

An intensive investigation of the role of the Supreme Court in the American system of government, concentrating upon the study of selected key court decisions. Prerequisite: 223

402 SOVIET FOREIGN POLICY

An analytical study of Soviet foreign relations since 1917, with special emphasis upon the post-Stalinist era.
The undergraduate program of the Department of Psychology is designed 1) to introduce prospective further study in graduate school prepares students for careers in mental hospitalization conceived as a human science, a natural science, and within a historical perspective as essential to the humanizing process, 3) to prepare the professionally oriented areas of psychology and critically evaluate and reformulate these in the context of psychology. For majors only.

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.

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 course advisor.

The psychology department has set up a dual advisement system. Departmental academic advisor and the faculty academic advisor. Prospective majors should consult the departmental academic advisor concerning the special procedure followed for the declaration of the major. A minimum of 15 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 or 226, 280, 328, 340, 352, 361, 390, plus 400 level courses 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 Center for Training and Research in Phenomenological Psychology located at the Chapel end of Centennial Walk.

103 INTRODUCTION TO PSYCHOLOGY
(Prerequisite to all courses) 3 cr
Introduction to fundamental concepts and methods of psychology, examined from both traditional and phenomenological perspectives. Prerequisite for all other departmental courses.

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

223 INTRODUCTION TO EXISTENTIAL PHENOMENOLOGICAL PSYCHOLOGY
3 cr
Introduction to a human-science alternative to psychology as a natural science. Prerequisite for 356 and 410, required for majors and minors.
225 DEVELOPMENTAL PSYCHOLOGY I (INFANCY AND CHILDHOOD) 3 cr
Growth and development of the child, with emphasis on personality development

226 DEVELOPMENTAL PSYCHOLOGY II (ADOLESCENCE AND MATURITY) 3 cr
Development from adolescence, through adult stages, to coping with death

230 PSYCHOLOGY OF COMMUNITY EXPERIENCE 3 cr
Experience of community phenomena, e.g., individuals versus group priorities, intimacy vs privacy

280 HISTORY OF PSYCHOLOGY I 3 cr
Overview of figures and issues in the history of psychology, from precursors to present

328 PSYCHOLOGY OF PERSONALITY 3 cr
Critical examination of major theories of personality

340 SOCIAL PSYCHOLOGY 3 cr
Foundations of social processes, attitudes, values and roles, public opinion, propaganda and communication, personal participation in society

352 ABNORMAL PSYCHOLOGY 3 cr
Examination of theories and data on disordered human existence

356 RESEARCH PSYCHOLOGY THEORY AND PRACTICE 3 cr
Review of theory and practice of traditional and human-sciences research Includes student projects Prerequisite 220, 223, permission of department head for non-majors

361 PSYCHOLOGY OF IDENTITY AND FULFILLMENT 3 cr
The ways in which identity is lived individually and collectively Designed to be personally relevant to the life of the student Open to juniors and seniors only

370 PSYCHOLOGY OF AESTHETIC EXPERIENCE 3 cr
Theoretical and empirical explorations of aesthetic experience

390 HISTORY OF PSYCHOLOGY II 3 cr
Intensive study of selected historical figures in dialogue with contemporary themes Reading of primary sources Prerequisite 280

391 APPLIED PSYCHOLOGY PRACTICUM 3 cr
An applied psychology setting provides opportunity for working directly with professionals Settings have included psychiatric hospitals and community centers Majors only, permission of Department head Repeatable once

392 THE INDIVIDUAL AND HIS 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 live, embodied relation of person to world and others Emphasis is 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

425 DEVELOPMENTAL PSYCHOLOGY III (ADULTHOOD AND OLD AGE) 3 cr
Development from adolescence, through adult stages, to coping with death

430 GERONTOLOGY 3 cr
A human-sciences examination of the approach, methods, data, and current issues of clinical psychology Permission of department head for non-majors

431 THEORIES OF GROWTH AND DEVELOPMENT 3 cr
A critical examination of the major theories of growth and development Permission of department head for non-majors

432 GESTALT PSYCHOLOGY 3 cr
Contributions of Gestalt psychology (especially the works of Koffka, Kohler, and Goldstein) to traditional and human-science psychology Permission of department head for non-majors

450 CONTEMPORARY ISSUES IN CLINICAL PSYCHOLOGY 3 cr
A human-sciences 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 graduate study, advanced coursework completed Permission of faculty member and department head required

490 SPECIAL TOPIC 1-4 cr
A visiting professor presents his/her specialty, or a regular faculty member presents highly specialized studies or an experimental course Repeatable Prerequisites vary with the instructor Permission of department head for non-majors

DEPARTMENT OF SOCIOLOGY
Chairman Chester A. Jurczak, Ph.D

Undergraduate instruction in sociology contributes to the liberal education of students regardless of major and to the preprofessional training leading to graduate work in sociology and social work, urban affairs, urban planning, and criminology Helping students in practical ways to live effectively and to become effective in practical attacks on social problems is another objective of the department

Sociology studies all of this formally in courses designed to give students a sense of direction, a selective taste of materials and methods, and motivation so that they can devote some of their energies to independent observation and experimentation, and develop their own concepts about how society functions

AREAS OF CONCENTRATION

Sociology The orientation of sociology is independent in the sense that it is concerned with what men in groups try to achieve and how successful they are Sociology is oriented around the problem of what men in groups actually do, how they interact to meet needs where they are
Recommended courses 101, 102, 201, 202, 205, 211, 214, 304, 306, 308, 309, 312, 313, 315, 323, 325, 326, 341, 468, 492

Criminal Justice Founded in a broad-based liberal arts curriculum, this program is designed to provide the student with the opportunity to develop his potential as a professional in many areas of the criminal justice field, including probation, parole, investigation, corrections, and research
Recommended courses 101, 213, 310, 335, 345, 360, 364, 365, 366, 467, 484

Gerontology As the size and characteristics of the "elderly" segment of the population have changed, there has been increased interest in the study of the aging process, its effects on the individual and society, and its meaning for the future The Gerontology program is designed to develop the knowledge and skills required for a student's preparation as a professional in this specialty area
Recommended courses 101, 250, 317, 318, 324, 330, 331, 410, 411

Social Services/Human Services The principle that is the basis for this program is that classroom learning provides the foundation out of which effective social/human services may be built Preparation for professional training and skill development is the emphasis Recommended courses 101, 203, 212, 314, 319, 320, 321, 322, 450, 451
REQUIREMENTS FOR THE MAJOR
A minimum of 24 semester hours, not including 101 is required for a major in Sociology, these credits must include 201 and 304 In consultation with the undergraduate academic advisor, the major may select a concentration in general Sociology, Criminal Justice, Gerontology, or Social Services/Human Services The suggested course numbers for these concentrated areas are listed above with the corresponding titles and descriptions in the following section

REQUIREMENTS FOR THE MINOR
A minimum of 12 semester hours, not including 101, is required for a minor, 450, 451, 488 and 492 are reserved for majors only Minors may select a concentration in one of four areas above in consultation with the department advisor

Sociology 101 is a prerequisite to all courses except 102 and 203, 102 can be substituted for 101 as a prerequisite for 211 and 306 All 300 and 400 courses are for juniors and seniors only

Sociology

101 SURVEY OF SOCIOLOGY 3 cr
A broad survey of the social and cultural aspects of environment

102 SURVEY OF ANTHROPOLOGY 3 cr
Introduction to the field of anthropology, both physical and cultural

201 SOCIOLOGICAL THEORIES 3 cr
A study of selected European and American theorists For sociology majors and minors only

202 SOCIOLOGY OF SOCIAL PROBLEMS 3 cr
Study of person-structure-change framework applicable to contemporary social issues

205 PERSON AND SOCIETY 3 cr
Exploration of socialization, the person's interaction with structure and culture, small groups and collective behavior

211 COMPARATIVE CULTURES 3 cr
A study of selected world cultures focusing on their structures, functions, and normative systems

214 SOCIOLOGY OF THE CHILD AND ADOLESCENT 3 cr
Discussion of the child and adolescent socialization process in American society

304 METHODS IN SOCIOLOGY 3 cr
Discussion and application of techniques and research procedures used in sociological research

306 PERSONALITY AND CULTURE 3 cr
A cross cultural examination of human social systems in terms of their relevance to personality development and interaction

308 ETHNIC GROUPS 3 cr
Comprehensive survey of roles performed and problems faced by ethnic groups

309 WOMEN IN SOCIETY 3 cr
The role of women in culture and the study of women's movements for liberation

312 SOCIOLOGY OF SPORTS 3 cr
Study of the institutions of sports and their relation to American culture and other institutions

313 SOCIOLOGY OF SEXUAL BEHAVIOR 3 cr
Discussion of sociological studies of sexual behavior

315 SOCIAL DEVELOPMENT—INFANCY TO DEATH 3 cr
Study of the socializing process from the infant state to the dying state

323 MEDICAL SOCIOLOGY 3 cr
Study of the impact of values and related structures on health maintenance, personnel and institutions, discussion of the social system of health organizations

325 FAMILY SYSTEMS 3 cr
Comparative study of the family, the interaction of the family with other community institutions

326 URBAN SOCIETY 3 cr
Analysis of the metropolitan complex of central city, suburbs, and urban fringe, and its impact of structures within its environs

341 SOCIOLOGICAL MEASUREMENT 3 cr
Discussion of techniques and problems in sociological measurement

488 FIELD RESEARCH 3 cr
Sociological research emphasizing the survey technique

492 SELECTED READINGS 1-3 cr
For sociology majors only

Criminal Justice

213 DELINQUENCY AND SOCIETY 3 cr
A study of the phenomenon, theories and causation of juvenile delinquency

310 JUVENILE LAW 3 cr
A survey of those aspects of the legal system that relate to the identification, processing and rehabilitation of the juvenile offender

335 CRIMINOLOGY 3 cr
A study of sociological explanations of criminality, correlates, causation, and criminogenic conditions

345 PROCESSING JUVENILE OFFENDERS 3 cr
Study of the movement of juvenile offenders through the criminal justice system—police, prosecution, courts, and corrections

346 PROCESSING ADULT OFFENDERS 3 cr
Study of the movement of adult offenders through the criminal justice system

360 POLICE RESEARCH AND ANALYSIS 3 cr
Study of the public policy and practical implementation of funding trends in providing for the needs of the criminal justice system

364 POLICE COMMUNITY RELATIONS 3 cr
Discussion of the context of police—community relations, their interaction improvement and change strategies
365 CRITICAL ISSUES IN LAW ENFORCEMENT (POLICE) 3 cr
Analysis of police in a free society, ethnic tension, police discretion, civil disobedience, police conduct and integrity

366 CRIME PREVENTION 3 cr
Study of contemporary crime prevention programs involving criminal justice agencies, citizens and community politics

467 CORRECTIONAL CASEWORK AND COUNSELING 3 cr
Study of the counseling styles and individualized models for offender classification, and group and process models of counseling

484 EVALUATIVE RESEARCH IN CORRECTIONS 3 cr
Study of techniques for using research to make corrections more effective

Gerontology
250 PUBLIC WELFARE AND THE AGED 3 cr
A survey of public welfare policies and agencies, their services and effectiveness in dealing with the aged in American society

317 AGED AND SOCIAL SERVICE 3 cr
Study of problems associated with the elderly and the social services developed to assist them

318 AGING—AN OVERVIEW 3 cr
Introduction to the sociological, social work, legal, sociopsychological, public health, and psychiatric aspects of the aged person in America

324 SOCIAL ASPECTS OF DEATH AND DYING 3 cr
A study of American values, behavior custom practices and other institutional practices related to dying and death with special attention to the older Americans

330 COMMUNITY RESOURCES FOR THE AGED 3 cr
Review of public and private community resources, retirement communities, foster care arrangements, and other arrangements of area agencies on aging

331 RETIREMENT—SOCIAL AND CULTURAL ASPECTS 3 cr
Discussion of pre-retirement plans, retirement choices, and retirement problems

410 SOCIOLOGY OF AGING 3 cr
Discussion of the socialization, role, subcultural, and problem aspects of aging

411 AGING AND HEALTH 3 cr
Discussion of medical aspects of aging, diseases of aging, and health maintenance

Social Services/Human Services
203 SURVEY OF SOCIAL WORK 3 cr
Survey of the history and areas of social work—casework, group work and community organization, public and private welfare programs

212 THE HELPING PROCESS 3 cr
Discussion of the social process of helping others, ranging from the consideration of the professional, the population a person serves and the dynamics of the interaction. The perspective is person-social

314 SOCIAL WORK METHODS 3 cr
Study of case study, study-diagnosis-therapy process, interviewing, counseling, and program planning. Prerequisite Sociology 203. For sociology majors and minors only

319 SOCIAL LEGISLATION—SOCIAL SECURITY TO PRESENT DAY 3 cr
Study of the provision of social legislation applicable to client needs in a social work situation

320 COMMUNITY AGENCY RESOURCES AND REFERRAL 1 cr
Study of the various agencies which have been established to provide for needs of social work clients

321 PROCESS II INTERVENTION SKILLS 3 cr
Discussion of social work skills, practice in field evaluated

322 PROCESS III GROUP WORK AND COMMUNITY ORGANIZATION 3 cr
Examination of group processes and community organization strategies utilized in social work

450 FIELD WORK I 3-6 cr
Internship in a social work agency, criminal justice or gerontology setting. Majors only

451 FIELD WORK II 3-6 cr
Internship in a social work agency, criminal justice or gerontology setting. Majors only

DEPARTMENT OF SPEECH COMMUNICATION AND THEATRE
Chairman Eva C. Robotti, M.A.
The program provides training essential to the several areas of speech communication. The department offers both its majors and interested students from other fields the opportunity to choose courses from a particular area of concentration or the whole range of the discipline.

AREAS OF CONCENTRATION
Social Communication This focuses on the theories and techniques of human communication on both the personal and societal levels. The student of social communication examines the concepts and procedures which govern men's interactions as individuals and as parts of the mass. He also learns the practical arts of critical analysis and persuasive communication.

This training is excellent preparation for careers in law, government, administration, personnel, public relations, industrial communications, advertising, sales, social work, and all fields which involve human symbolic interaction.

Recommended courses 101, 102, 204, 206, 208, 302, 304, 311, 402, 411

Theatre/Media The Theatre/Media concentration combines Aesthetic Communication skills, theatre history and theatre performance skills with media theory and skills. This concentration prepares the student for the fields of applied communication theatre, radio, television and public relations. Along with classroom theory and practice, students will have an opportunity to obtain practical experience on and backstage in Red Masquers productions and by participating in on-and-off-the-air work at WDUQ (90.5), Duquesne's twenty-five thousand watt National Public Radio affiliate.

Recommended courses 140, 190, 204, 251, 263, 264, 280, 351, 363, 364, 365, 370, 380, 385, 390, 391, 400, 450, 460, 470, 471, 490

Speech Pathology/Audiology The profession of Speech Pathology/Audiology is concerned with impairments in the processes of communication—speech, language, and hearing. Upon completion of graduate education, a speech pathologist or audiologist may
provide clinical services or work in basic and applied research. He or she may be employed in schools, hospitals, laboratories, community service centers, or colleges and universities. Speech pathology and audiology is a rapidly growing field, and the demand for trained personnel far exceeds the supply.

This area of concentration at Duquesne is a pre-professional program designed to prepare the student for graduate study in speech pathology and audiology. The student concentrating in Speech Pathology/Audiology may be eligible to register for Speech 322, 422 with a 3.00 GPA in his/her major, completion of all required courses and the permission of the department chairman.

Required courses 120, 140, 204, 220, 320, 321, 420, 426
Co-requisites Psychology 225, 352
Advised Mathematics 225

Prospective Speech Pathology majors should declare the major before they begin their junior year.

REQUIREMENTS FOR THE MAJOR

A minimum of 30 semester hours is required for a major in Speech Communication and Theatre. Majors will be required to enroll in three of the following courses: 101, 102, 140, 190. Speech Pathology/Audiology concentrates will be required to enroll in Speech 120, 140, 204, 220.

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

REQUIREMENTS FOR THE MINOR

The minor consists of 18 credits: six credits in required introductory courses and 12 additional credits. There are four emphases that the student may follow:

1. Social Communication 101, 102, plus 12 credits in any of the following: 204, 206, 208, 304, 311, 402, 411
3. Speech Pathology/Audiology 120, 220, plus 12 additional credits. Courses 320, 426 are required, the remaining six credits may be taken in any of the following: 321, 420, 425
4. General Speech Communication and Theatre 190 and either 101 or 102, with 12 additional credits apportioned in the following manner: six credits in any of the following: 204, 206, 302, 304, 311, 402, plus six credits in any of these: 140, 251, 263, 264, 260, 351, 363, 364, 365, 370, 380, 385, 390, 391, 451, 460, 471, 490

Suggested activities for majors and minors in Speech Communication and Theatre include the Red Masquer Dramatic Organization, WDUQ Radio and Television, the Debate Team, the Duke (student newspaper), and United Nations Organization. Suggested courses for fulfilling Communication Area requirements for non-Speech majors: 101, 102, 140, 190.

400 INDEPENDENT STUDY (All areas of concentration) 1-3 cr

The student will work on a selected project under the supervision and guidance of a faculty member. 

Prerequisite: Permission of the instructor and Department Chairperson. May be taken twice.

Social Communication

101 PROCESS OF COMMUNICATION I 3 cr

Examines how man, a being who must believe, communicates his beliefs and how he utilizes certain kinds of beliefs which have proven fundamental through the ages to assist or exploit his fellow man.

204 INTERPERSONAL COMMUNICATION 3 cr

Designed to investigate the various aspects of interpersonal communication. Primary consideration will be given face-to-face human interaction in a variety of situations.

302 ORGANIZATIONAL COMMUNICATION 3 cr

Stresses the acquisition and application of skills that will bring success in an organizational setting. Prerequisite: 204 or 206.

304 PERSUASION 3 cr

A study and application of principles and practices that influence people's beliefs and actions. Prerequisite: Either 101 or 102 or permission of the instructor.

311 PROCESS OF COMMUNICATION II 3 cr

Develops more completely and philosophically the rhetorical perspective established in “Process of Communication I” by applying that particular perspective to contemporary systems of belief. Prerequisite: 101 or permission of the instructor, recommended 304.

402 ARGUMENTATION AND DEBATE 3 cr

A course in applying the principles and methods of critical deliberation to a significant contemporary social issue. Emphasis will be on advocating, defending, and refuting a proposition of policy. Prerequisite: 102 or permission of the instructor.

411 COMMUNICATION AND IMAGINATION 3 cr

Examines how the triumph of beliefs dominated by imagination over beliefs dominated by science has changed our understanding of communication.

Speech Pathology/Audiology

120 DEVELOPMENT OF LANGUAGE 3 cr

Focus will be on the acquisition of sound, meaning and grammar systems from infancy through childhood with emphasis on the comparative analysis of theories of communication development. Physical, neurological, psychological, and social bases of language will be discussed. Socio-linguistic differences will be discussed with reference to Black language and regional variations.

121 SIGN LANGUAGE (MANUAL COMMUNICATION) 1 cr

Sign language systems used by and with the deaf and hearing impaired will be presented in an overall introductory methods course. Participants will be able to demonstrate ability to fingerspell and use basic signs in simple phrases and sentences. Aspects of current trends in Deaf Awareness will be included.

140 PHONETICS 3 cr

An approach to the English language based upon the fundamentals of vocal and articulatory speech sounds as systematized by the International Phonetic Association.
204 INTERPERSONAL COMMUNICATION  
3 cr  
Designed to investigate the various aspects of interpersonal communication. Primary consideration will be given to face-to-face human interaction in a variety of situations.

220 INTRODUCTION TO PROBLEMS IN SPEECH  
3 cr  
A survey of various speech disorders, their causes, recognition, and possible therapy.

320 CLINICAL TECHNIQUES IN SPEECH PATHOLOGY  
3 cr  
This course will focus upon the clinical management of speech and hearing problems. Past and current therapeutic approaches and techniques will be presented in relation to disorders of speech and hearing. Different organizational procedures and practices will also be included. Prerequisite: 220 or permission of the instructor.

321 ANATOMY AND PHYSIOLOGY  
3 cr  
This course will study the basic neurological, skeletal, and muscular structures involved in the speech and hearing process. Prerequisite: 220 or permission of the instructor.

322 SPEECH PATHOLOGY/AUDIOLOGY EXternship  
3 cr  
Provides opportunities for observation of various aspects of clinical work. Directed readings and field trips are included. For Speech Pathology/Audiology concentration majors only. Written permission of department chairman required. Open to juniors and/or seniors.

420 SPEECH PROBLEMS OF THE EXCEPTIONAL CHILD  
3 cr  
This course will investigate 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 in speech remediation, will be explored. Prerequisite: 220 or permission of the instructor.

422 SPEECH PATHOLOGY/AUDIOLOGY CLINICAL PRACTICUM  
3 cr  
Provides an opportunity for active participation with professionals in their work in varied settings. For Speech Pathology/Audiology concentration majors only. Written permission of department chairman required.

425 AURAL REHABILITATION  
3 cr  
The human communication systems are presented including acoustic and visual components. Communication problems of the hearing impaired are discussed with regard to amplification, residual hearing, visual perception, and manual communication. Programs of rehabilitation for individuals with mild to profound hearing impairments are reviewed.

426 HEARING AND AUDIOLOGY  
3 cr  
This course will consider the nature of sound, the process of hearing, and hearing impairment. The different types, causes, and the measurement of hearing impairment will be discussed. Exposure to audiometric testing will also be available. Prerequisite: 220 or permission of the instructor.

Theatre/Media  

140 PHONETICS  
3 cr  
An approach to the English language based upon the fundamentals of vocal and articulatory speech sounds as systematized by the International Phonetic Association.

190 INTRODUCTION TO THEATRE ARTS  
3 cr  
A survey of theatre as an art form, involving the selective integration 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 craftsmen, the course will work up to a sampling of the various modes and forms of drama in terms of exigencies or production.

204 INTERPERSONAL COMMUNICATION  
3 cr  
Designed to investigate the various aspects of interpersonal communication. Primary consideration will be given to face-to-face human interaction in a variety of situations.

251 RADIO ANNOUNCING  
3 cr  
Application of the principles of good speech to the announcing of news, sports, weather and commercials, and to the art of interviewing.

263 STAGECRAFT  
3 cr  
Stagecraft is a detailed examination and application of the methods and materials in the area of set construction, scene painting, and property construction to increase the awareness of accepted building, design, and safety practices in technical theatre. Prerequisite: 190 or permission of the instructor.

264 SCENE DESIGN  
3 cr  
Scene Design is a study of the preparation and presentation of set design. The study will include rendering techniques, scale models, drafting techniques, designing within a budget, the use of lighting, and designing for different types of performance spaces.

280 ACTING I  
3 cr  
A study of the basic principles, theories, and techniques of acting, including various problems confronted by the actor in the creation and interpretation of a role.

351 TELEVISION ANNOUNCING  
3 cr  
Continuation of Radio Announcing but with the added skills necessary to TV. Prerequisite: 251.

363 MAKEUP FOR THEATRE, TELEVISION AND FILM  
3 cr  
This course involves a detailed study of the use of makeup for all performing media. Included is facial anatomy, designing, tools and application.

364 LIGHTING FOR THEATRE, TELEVISION AND FILM  
3 cr  
Techniques, principles and practices in lighting theatre, television and film productions.

365 COSTUME DESIGN  
3 cr  
Costume design is an examination of the techniques used to create costumes for the performing arts. Included is history of costumes, style, fabrics and presentation/execution of the design.

370 ORAL COMMUNICATION OF LITERATURE  
3 cr  
An approach to literature in terms of its oral traditions with special emphasis on techniques preparatory to the act of oral presentation.

380 ACTING II: STYLES  
3 cr  
An advanced course dealing with the principles and techniques of various acting styles with major concentration on the oral communication of a dramatic role. Prerequisite: 280 or permission of the instructor.

385 STAGE DIRECTING  
3 cr  
Studies principles, theories, and practices involved in the staging of a play for performance, emphasizing problems of staging and interpretation confronting the director. Prerequisite: 190.

390 DEVELOPMENT OF THE THEATRE I  
3 cr  
A study of the origin and development of theatre and drama from pre-Greek civilizations to the seventeenth century, investigated in light of the particular world view which it expresses.
The essentials of developing dramatic productions for television scripted commercials, serious and
comic performances, acted and taped. Prerequisite: 190 plus permission of the instructor.

460 THEATRE PRACTICUM 1-3 cr
Students involved in the production of plays may receive credit for practical on and off stage work at
various off-campus sites. Included is theatre management. Prerequisite: Permission of instructor and
department chairman is required.

470 ADVANCED ORAL COMMUNICATION OF LITERATURE 3 cr
A continuation of 370 with special emphasis on techniques for the oral presentation of specific literary
genres. Prerequisite: 370.

471 ORAL COMMUNICATION OF BIBLICAL LITERATURE 3 cr
A course devoted to the consideration of the Bible in terms of the spoken language with its accom-
paining oral interpretative connotations and techniques. Prerequisite: 370 or permission of the in-
structor.

490 AMERICAN THEATRE AND DRAMA 3 cr
Survey of the major American theatrical movements and dramatic literature from the-Colonial period
to the present with emphasis on the twentieth century. Playwrights, designers, and theatrical com-
panies are studied as reflections of American culture.

DEPARTMENT OF THEOLOGY
Chairman: Rev. Francis X. Malinowski, C.S.Sp., Ph.D.
Duquesne's Department of Theology affirms that the academic study of man's religious
experience is essential to a complete education of man. The Department fulfills its role in
theological studies by the pursuit of the following aims: 1) it emphasizes Catholic Theology,
in dialogue with other Christian traditions, non-Christian traditions and Judaism, as the
key element in Duquesne's commitment to Catholic education on the university level,
2) it acknowledges the fact of man's universal search for religious meaning and experi-
ence, an explanation of advanced techniques of biblical interpretation with opportunity for the
student to practice such techniques,
3) it aspires to a fruitful encounter with other university disciplines, since the
department is convinced that theology's concerns are related to all vital human issues.

Accordingly, the Department has organized its courses into three divisions: Biblical

REQUIREMENTS FOR THE MAJOR
The major program consists of a minimum of 27 credits beyond the 100 level. These must
include 201, 213, 214, 220, 498; the remaining credits will be chosen in consultation with the
student's advisor.

REQUIREMENTS FOR THE MINOR
A minor consists of four courses beyond the 100 level. The department has also prepared
suggested sequences which may be helpful to a student wishing to concentrate in a
certain area of theology, e.g., Biblical Studies, Roman Catholic Theology, World
Religions, Religion and Culture, Christianity in History, etc. These sequences are available
in the department upon request.

COURSE INFORMATION
The numbering of the course indicates the level of approach.

100 These courses are of the basic, survey type, wherein emphasis is on breadth
rather than on depth, and serve as background for other courses.

200-300 These courses treat of subject matter in a specific area of theology and in
greater depth than in the 100 category.

400 Selected topics are dealt with at a more advanced level, independent research
is required.

Biblical Studies
114 INTERPRETING THE BIBLE 3 cr
A presentation of tools necessary to understand the Old and New Testament as ancient literary
works, affording a unified view of historical events, as well as the prominent religious experiences
reflected in these events, emphasis on practical interpretation of biblical passages.

213 INTRODUCTION TO THE OLD TESTAMENT 3 cr
A presentation of the Old Testament writings in their dynamic context of culture, politics, and geog-
raphy, as well as an introduction to their literary modes, theologies, and themes, including practical
approaches to interpreting key passages of the Old Testament.

214 INTRODUCTION TO THE NEW TESTAMENT 3 cr
A presentation of the books of the New Testament from the point of view of their literary makeup,
historical origins, and testimony, and theological content, practical approaches in interpreting key
passages of the New Testament.

313 ARCHAEOLOGY AND THE BIBLE 3 cr
An illumination through archaeology of the historical setting, the cultural background, and the events
described in the Bible, a general introduction to the techniques of archaeological investigation and a
study of the principal archaeological sites in Palestine.

321 JESUS IN THE GOSPELS 3 cr
A portrait of the person of Jesus, elements of such a portrait drawn exclusively from an in-depth study
of the four gospels, with ample usage of accepted scholarship on who Jesus says He is and who
others say He is.

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,

414 THEOLOGY OF THE NEW TESTAMENT 3 cr
A presentation of the major theological traditions of the New Testament, emphasizing the diversity of
Christian beliefs and practices, as well as the underlying unifying principles of the early Christian
experience, an explanation of advanced techniques of biblical interpretation with opportunity for the
student to practice such techniques.

490 FIELD EXPERIENCE IN BIBLICAL ARCHAEOLOGY 6 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.
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 Judaism, Christian teaching, a discussion of the relationship of the human person to self, others, the world, and the Divine as the basis for humanness, a study of the issues involved in these four relationships, e.g., freedom, grace, contemplation.

235 HISTORY OF CHRISTIAN WORSHIP 3 cr
The meaning of ritual and worship in Christianity, an analysis of the major steps in the development of the Eucharist, esp. in the western tradition, the impact of the Reformation on the meaning and form of Christian worship, a discussion of some symbols and devotions in Roman and Protestant Christianity.

241 STUDIES IN BLACK THEOLOGY 3 cr
A study of the literature and development of black theology as it has evolved in the United States, the Caribbean, and on the African continent, with special emphasis on the evolution in the United States, a discussion of the relationship of Christianity and other religions to the "black experience."

260 ORIGINS OF PROTESTANTISM 3 cr
An introduction to the thought of the principal reformers, Luther, Calvin, Zwinger, Wesley, a study of speculative and practical forces operative in the fifteenth-sixteenth centuries which gave rise to the reforming movement, the formulation of Protestant Orthodoxy.

271 EASTERN CHRISTIAN THEOLOGY 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 days as they shape its distinctive spirit and mentality and as they are interpreted in the Eastern Churches.

274 CHURCH HISTORY I 3 cr
A religious and historical examination 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.

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 IN CHRISTIANITY 3 cr
Survey of the Old and New Testament views of women and a history of the status of women in the Roman Catholic and major Protestant traditions with emphasis on the contemporary role and spirituality of women in Christianity.

346 DEATH, CULTURE, AND THEOLOGY 3 cr
A Christian theological response to a broad scope of dying and death issues as encountered in various cultures (e.g., African, Asian, North American) and as interpreted through the various disciplines (e.g., literary, medical-legal, sociological) an exploration of how the perception of death influences the quality of life.

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, an integration of these concepts into a contemporary moral and ethical system.

352 VALUE OF HUMAN LIFE AND CURRENT ETHICAL PROBLEMS 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.

361 QUESTIONS IN PROTESTANT THEOLOGY 3 cr
An analysis of current issues in Protestant theology, e.g., the authority of Scripture, the mission of the Church, the relationship between the historical study of the gospels and dogmatic Christology, the question of God-in-process, the Spirit and teaching authority.

370 EARLY CHRISTIAN THOUGHT 3 cr
A study of the early Christian thinkers with emphasis on the Apostolic Fathers, the Apologists, Origen, Athanasius, the Cappadocian Fathers, Tertullian, and Augustine as they interpret Christian revelation and lay ground for the systematic development of Catholic theology.

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 Ruysbroeck, Catherine of Siena, Theresa of Avila, John of the Cross, Venerable Liberman.

Roman Catholic Theology

106 RATIONAL FOUNDATIONS OF THE CATHOLIC FAITH 3 cr
An investigation of the reasonableness of the Catholic Faith, beginning with an inquiry into the existence of God and the possibility of His intervention in human affairs, study of the Gospels as reliable documents, of Christ's claim to be God, His life, works, and especially His resurrection, of His founding of Church and its identity today.

201 INTRODUCTION TO THEOLOGY AND THEOLOGICAL METHOD 3 cr
An inquiry into, and an analysis of, the resources of theology faith, revelation, inspiration, and Church teaching, a presentation of the various approaches to theological study and the schools of theological thought in Christianity.

202 CATHOLICISM 3 cr
An explanation of the major beliefs and practices of Roman Catholicism, including the nature and work of the God-Man as well as the privileges of Mary, study of the nature of the Church and its inerrancy in teaching, consideration of the norms of morality, the Commandments, the sacraments, and the spirit of Catholicism.

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 new bond between God and man and the new era in the spiritual destiny of mankind 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., belief and unbelief, Christian and secular humanism, the future with reference to hope, heaven, hell, afterlife, reincarnation, and resurrection, sin in a secular age, suffering and evil, the occult, the charismatic movement within the Church.

250 MORAL PERSPECTIVES IN HUMAN DEVELOPMENT 3 cr
A Catholic perspective of the basic issues involved in the formulation of moral values within 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", an application of these principles to modern problems, e.g., homosexuality, drugs, consumerism.
256 GOD AND HIS MEANING
A theological understanding of the problem 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
Judeo-Christian tradition with special focus on Catholic development

301 MARRIAGE
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
An analysis of the Church’s role in the development of man 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
A practical treatment of the seven sacraments in relation to their significance for the Christian’s daily
spiritual growth and fulfillment, consideration of man’s needs for ritual and symbol, discussion of
recent revisions and developments in sacramental theology

442 THEOLOGICAL ANTHROPOLOGY
A study of man in his unique dignity as image of God and as responsible for the development of the
universe, his experience of sin and alienation, and his liberation of divine grace given through his
union with the Risen Christ

475 THEOLOGY AND CATECHESIS
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 back-
ground of the contemporary catechetical renewal

491 EXPERIENCE IN THE TEACHING OF RELIGION
One semester of supervised experience in teaching religion in a high school environment in conjunc-
tion 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

498 SEMINAR IN THEOLOGY
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 THE PHENOMENON OF RELIGIOUS EXPERIENCE
An examination of the dimensions of mankind’s religious experience, e.g., mystical, ritual, mythical,
ethic, and scriptural, an analysis of the likeness and differences of how the Divine is sensed and
responded to in varied geographical, cultural, and chronological contexts

240 THE RELIGIOUS EXPERIENCE OF AFRO-AMERICANS
An examination of the dimensions of the religious experience of Afro-Americans, e.g., its history, its
relationship to African origins, to slavery, to racism, to Christianity and to Christian denominations, an
analysis of special elements in that experience, e.g., Black Churches, preaching, music and the
“American Way of Life”

245 RELIGION AND CULTURE: SOME PERSONAL DIMENSIONS
An explanation of the place of religion in the growth and fulfillment of modern man, of how religion
influences the meaning of human existence in work, leisure, art, love, life, and death

280 WORLD RELIGIONS
A survey of the history, beliefs, practices, and contemporary influence of the major religions of the
world: Hinduism, Buddhism, Confucianism, Taoism, Mencius, Shintoism, African traditions, Judaism,
Christianity, and Islam, a discussion of a basic methodology for understanding religions

283, 284 JEWISH THOUGHT AND RELIGION
A survey of the history, beliefs, practices, and contemporary influence of the major religions of Bible
and the Talmud (Fall semester), and in medieval and modern Jewish thinkers (Spring semester), an
analysis of the forces and events which helped to shape this development 283 is not a prerequisite
for 284

342 RELIGION AND SOCIAL ISSUES
A study of the influence of religious convictions in confronting major social issues of today’s world,
e.g., population growth, famine, ecology, liberation and revolution, truth as a social issue, wealth,
taxation, and stewardship

343 RELIGIOUS IMPACT OF SECULAR THINKERS
A study of the effect that modern secular thinkers (e.g., Marcuse, McCluhan, Hefner, Toffler,
Kohlberg, Skinner) have had on the religious consciousness and behavior of the present age, a
discussion of certain areas of culture most affected by this secular impact

372 RELIGIOUS THEMES IN LITERATURE
An exploration of the relationship between the imagination and the intellect, the artistic and the
scientific, in the expression of fundamental theological concepts in significant literary works—past
and present, English and continental (in translation)—of Western man as they explicitly or implicitly
express man in his relationship to himself, other men, and God

373 RELIGION IN AMERICA
An analysis of the role of religion in the discovery, colonization, constitutional development, immigration
trends, and growth of the American republic, with an emphasis on some uniquely American religious
phenomena, e.g., religious liberty, indigenous American religious movement, civil religion, black reli-
gious experience

481 ISLAM
An analysis of Islam as a religious, political, and cultural entity, Mohammed and the Arabian setting,
history, beliefs, practices, and divisions within Islam, the Koran and Hadiths, the contemporary Muslim
world

482 RELIGIONS OF INDIA
An analysis of significant religious groups in India such as Hindus, Jains, Buddhists, Parsees,
Muslims, Sikhs, and Christians, a study of the origin, development, beliefs, practices, and interrela-
tionships among the religions and interaction between religion and Indian culture

483 RELIGIONS OF CHINA AND JAPAN
An analysis of the religious, spiritual, and humanistic movements of China and Japan, a study of the
origin, development, beliefs, and practices of Confucian humanism, Taoism, Chan/Zen Buddhism,
Shinto, Chinese Communism, and the „new religions” of Japan

492 INDEPENDENT STUDY IN THEOLOGY
A critical analysis by an individual student of selected topics in the areas of biblical studies, Christian
studies, Roman Catholic theology or selected religious studies, or of some outstanding authors and
their works under the direction of a faculty member
School of Business and Administration

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 established 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 general 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.

5. Sufficient knowledge in a professional area so that they can assume positions of responsibility with a background of learning-method and learning-impulse that will enable them to progress rapidly.
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.

BUREAU OF RESEARCH AND COMMUNITY SERVICES
Activity complementing direct instruction takes place in five ancillary units grouped under the Bureau of Research and Community Services. 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.

Bureau of Research
The Research Bureau carries out an independent research program, and cooperates with divisions of the School in facilitating the research of individual faculty members. Through the University Press, the Bureau issues monographs and other publications. Time contract research is undertaken for business, community, and governmental agencies. The Bureau is a member of the Association for University Business and Economic Research, and maintains an interchange of publications with similar organizations in other universities throughout the country.

Center for Administration of Legal Systems
The Center serves as the focal point for research activity in the administration of law. It is also the coordinating agency for education and training programs of a non-credit nature for persons currently employed within the legal system. Such programs are tailored to meet the needs of specific groups and agencies. The Center calls upon professionally trained practitioners from the local community as well as full-time faculty to instruct in these programs.

Center for Economic Education
The Center is charged with the responsibility of initiating and promoting economic education in the society at large. It is also the coordinating agency for education and training programs of a non-credit nature for persons currently employed within the legal system. Such programs are tailored to meet the needs of specific groups and agencies. The objectives, content, time and length of all programs are cooperatively determined with the agency involved. The Center calls upon professionally trained practitioners from the local community as well as full-time faculty to instruct in these programs.

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. This 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 from various schools and departments of the University or visiting foreign professors.

FOUR YEAR SAMPLE PROGRAM

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<th>Course</th>
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<tr>
<td>101 English Comp</td>
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<td>102 English Comp</td>
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<tr>
<td>109 College Algebra</td>
<td>3</td>
<td>111 Calculus</td>
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<tr>
<td>141 Economic Geography</td>
<td>3</td>
<td>142 Economic Devel</td>
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<tr>
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<td>3</td>
<td>161 Computer Science</td>
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**DIVISION OF QUANTITATIVE SCIENCE**

**Chairman**  Arthur G. Wentz, M.B.A., Ph.D.

**ACCOUNTING CURRICULUM**

**CPA Requirements**

Students who desire to become certified public accountants in Pennsylvania and who have graduated from a four-year program in a college approved by the State Board of Education may sit for the CPA 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.

**311, 312 INTERMEDIATE ACCOUNTING** 3 cr each

This course is primarily concerned with an investigation and analysis of the accounting problems and practices of the corporation, with detailed study of the component elements of the balance sheet and income statement. Basic topics are accepted and alternative methods in the accounting cycle, financial statements, their form, content and use, accounting problems of the corporation, detailed analysis of the balance sheets accounts, determination of net income, statement of sources and uses of working capital. Prerequisites 211, 212.

**313 MANAGERIAL ACCOUNTING** 3 cr

A study of the technique 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 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. Prerequisites 211, 212.

**314 ADVANCED ACCOUNTING** 3 cr

This course applies fundamental theory to a number of important activities in business. Activities studied are partnerships, special sales procedures, consolidations and fiducaries. Prerequisites 311.

**315 COST ACCOUNTING** 3 cr

Basic cost accounting procedures are discussed from the following viewpoints: cost principle, 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 stressed. Prerequisites 211, 212.

**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.

**412 INTRODUCTORY INCOME TAX ACCOUNTING** 3 cr

This course is a study of basic tax and procedure affecting primarily 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 312 or 313.
413 BUSINESS 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 data base concepts, file storage considerations, development methodology, design, implementation and management considerations of business data systems. The course presumes a familiarity with basic computer programming and accounting 211, 212.

419 SEMINAR IN ACCOUNTING 3 cr
This course is designed to develop a student's ability in technical expression, deepen his understanding of accounting theory, and acquaint him with 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.

FINANCE CURRICULUM

Students who desire to function in finance, either in the world of private business, government bodies, or in the area of securities, are encouraged to select from the several groups of courses that place emphasis on specific material leading to that end. The professional designation of Chartered Financial Analyst (CFA) is used by those in the securities industry. The designation in the life insurance area for professional personnel is (CLU) or Chartered Life Underwriter. The completion of the Real Estate course and others will satisfy the educational requirements necessary to sit for the Pennsylvania Real Estate Sales License.

331 BUSINESS FINANCE 3 cr
The aim of this course is to combine the study of internal and external sources of funds with the tools of financial management in order 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. Prerequisites Accounting 211, 212, or the equivalent.

332 MONEY AND BANKING 3 cr
To develop knowledge about the role of financial institutions in our society as they perform their function of either the creation of the medium of exchange or of taking existing funds from sources of excess to sources of supply. 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 used within the business society. Also, thorough the media of a research paper, the student has the opportunity to develop a major area in detail. Emphasis is primarily on the role money and banking take in relationship to business entities. Prerequisite 331.

333 FINANCIAL MANAGEMENT 3 cr
Financial Management is a "follow-up" course to 331-Business Finance. It is designed for all business students. The course is designed to provide a theoretical or conceptual framework that a financial manager can use to reach decisions in the real world. Material is presented with the purpose of involving the student in the fundamental decisions and compromises of the financial manager as he faces choices between risk and return. Reading material, case material, and a research project are tools to be used. Prerequisite 331.

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 aid the decision-maker in making decisions under constraints of uncertainty. Methods of alleviation, avoidance, and insurance are studied. Attention is given not only to the traditional forms of insurable hazards, but also to explicit 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 process. Prerequisite 331.

335 BUSINESS FINANCIAL PROBLEMS 3 cr
The aim of this course is to provide a vehicle through which the student can take material from previous courses and apply it to the financial nature and that from other disciplines and through its utilization solve problems primarily of a financial nature. It also provides the student with an opportunity to learn to write and deliver professional opinions on how to solve business problems. While the course is primarily taught through the case technique, other methods are also used. The student is expected to be able to identify problems, reach conclusions, recommend solutions, and identify techniques on how they might be implemented. Prerequisite 331.

336 SECURITY ANALYSIS 3 cr
An intensive study of the analytic techniques applicable to the selection of the various types of securities of private as well as public entities. Consideration is given to the markets in which these securities are traded and the types of information that are useful necessary to the decision-making process of the investor. As an attempt is made to measure the value of a particular security, several models are examined in seeking the appropriate value in establishing the relative worth of a security. The merits of both the fundamental and technical approach to security analysis are considered for their contribution to the analysis of security. Prerequisite 331.

337 INVESTMENT ANALYSIS 3 cr
It is the aim of this course to present material that will be useful to the student in developing an understanding of the various types of investments which may be available for portfolio investment. Discussion of the various risks that a portfolio be subject to and further the importance of the various risks to the various types of portfolio holders is undertaken. The basic elements of portfolio theory as it has been developed by Markowitz and others is presented. Various quantitative and descriptive approaches that are used in portfolio development are investigated. Techniques for measuring the effectiveness of the portfolio are illustrated. Prerequisites 331, 336, or special permission of the instructor without 336.

431 FINANCIAL COMMERCIAL TRANSACTIONS 3 cr
The aims of the course are two-fold: 1) to make the student aware of the various types of transactions which are used in business and the basic elements of the transactions, 2) to look at the problem of working capital management from the point of view of the models available as they relate to the management of cash, accounts receivable, marketable securities, and various inventories. Consideration is given to the decision-making process for these assets under cases of both certainty and uncertainty, examining the models, their uses, and limitations. Prerequisite 331.

432 CREDIT MANAGEMENT 3 cr
This course will be taught in such a manner as to give to the student a thorough understanding of the function of credit management. In order that the student be afforded a maximum opportunity to grasp the information as presented in the literature and in the classroom, cases, problems, and field experience may be assigned. Through these vehicles, the student will have the opportunity to integrate the knowledge gained from text material and other financial sources with that of other disciplines in arriving at a logical, sound credit decision. Prerequisite 331.

433 FINANCIAL MARKETS 3 cr
An extensive and intensive study of the markets in which the financing of needs takes place. Study is made of the markets for borrowing and lending of capital, both short-term and long-term. Financial institutional structures are given emphasis as they act and interact when serving as sources of
intermediaries and users of funds. Research by the student is required to afford the student the opportunity to concentrate on an intensive effort upon an individual topic. Prerequisite: 331

434 LIFE INSURANCE
A study is made of the risks of death and longevity as they occur in personal and business situations. Analyses are made of various forms of life-insurance and annuity contracts and their uses, with emphasis upon their functions as instruments of estate creation and administration. Uses of insurance in connection with partners and key men, and in connection with bank loans, are explored. Attention is also given to accidental and health coverages, group plans, pensions, and regulation of the industry. Prerequisite: 331

435 PROPERTY AND LIABILITY INSURANCE
A study of business and personal applications of casualty, fire, and liability coverages in the form of both insurance and bonding, including the fields of workmen's compensation, landlords' and tenants' liabilities, burglary, robbery, and theft, automobile, credit and title insurance, fire and related lines, fidelity and surety bonding, and relevant aspects of inland and ocean marine. Prerequisite: 331

436 ADVANCED CASE PROBLEMS IN FINANCE
The aim of this course is to provide a vehicle through which the student can take material from prior courses and employ it in solving the more complex situations arising from comprehensive problem-solving situations. Emphasis is given to the decision-making process in such areas as asset management, budgeting, financial structure, organizational format, and advanced theoretical material being employed in the business world. The vehicle used may be case material, actual field experience, comprehensive literature assignments, or any combination. Prerequisites: 331, 335, or special permission of the instructor.

437 FUNDAMENTALS OF REAL ESTATE
A study of the problems involved in financing residential, commercial, and industrial real estate from the points of view of both owner and lender. Methods of financing covered include use of individual and business equity, loans secured by mortgages, land contracts, sale-and-lease-back arrangements, and cooperatives, syndicates, and real-estate trusts. Attention is given to procedures for originating, servicing, and foreclosing loans and mortgage arrangements by principals, agents, and mortgage bankers. Case problems either in class or in the field are used to illustrate the techniques employed in determining the feasibility of a location. Special attention is given to an intensive research project in some area of interest to the student as related to real estate. Attention is also given to the requirements necessary to sit for the Pennsylvania Real Estate Sales License. Prerequisite: 331.

438 SEMINAR IN Finance
The topics will vary, depending upon current developments and the needs and interests of the students. As a part of the course requirement, the student will be expected to develop a research paper upon some significant aspect of finance. The course should be taken by students who have completed most of the courses required in the concentration area.

QUANTITATIVE METHODS CURRICULUM
Students in the undergraduate School of Business and Administration complete a basic sequence in Quantitative Methods. This sequence is concerned with the application of mathematics, statistics, and electronic data processing to the analysis of business and economic problems. The objective of the program is to increase the student's knowledge and understanding of the uses of mathematics, statistics, and computers as aids in decision-making. The basic sequence is comprised of these courses: 181, 281, 282, and 381. Prior to entry into the sequence, Mathematics 109 and/or 111 in the College may be required of those students failing to satisfy entry requirements with respect to competence in basic algebra and calculus.

In addition to the basic sequence, a number of electives are offered for students wishing to include quantitative management science techniques in their areas of concentration.

181 INTRODUCTION TO COMPUTERS
An introduction to the basic concepts of computer programming in algebraic and representational language. The course introduces the algorithmic approach to problem-solving and continues through the development of flowcharts and programs, using the Fortran language. Brief treatment is also given to other business related languages. Prerequisite: Mathematics 109 in the College or equivalent.

281, 282 PROBABILITY AND STATISTICS
This sequence includes the basic ideas of descriptive statistics, inductive statistics, and probability. Among the topics covered are frequency distributions, measures of central tendency, measures of dispersion, sets and set operations, elementary probability theory, probability distributions, sampling distributions, statistical estimation, testing of hypotheses, time series analysis, simple linear regression, and correlation. Prerequisites: 181 and Mathematics 111 in the College or equivalent.

381 INTRODUCTION TO DECISION SCIENCES
The application of the scientific method of problem-solving to business problems. The course includes various models and the methods of applying them to business situations. The models covered include linear programming, simulation, queuing, and inventory optimization. The use of library computer programs will be emphasized. Prerequisites: 281, 282.

DIVISION OF BEHAVIORAL SCIENCE
Chairman: Serge Grosset, Ph.D.

PROGRAM GUIDE
The present combination of required courses and free electives gives the student a solid foundation in business and, at the same time, allows him to follow his inclination in a special field of endeavor. At the same time, the greater the freedom of choice, the greater the need for helping the student in selecting courses in a meaningful way. Students should be aware that they can use this freedom either:

1. To broaden their cultural background by expanding in many different fields of knowledge, or
2. To establish, with the help of their advisor, a background of specialized knowledge in the field in which they have their strongest interest.

Several Study Programs—combining a concentration in Business (24 credits) with a judicious choice of electives from the College (27 credits)—are given as illustrations of the flexibility and the depth possible under the present program. Presently Study Programs are offered in:

- Industrial Relations
- Law Administration
- Production
- Transportation and Traffic
- International Business
- Marketing Management
- Public Administration
- Environment and Ecology

The listing of these Study Programs is only indicative, not inclusive; others may be structured, and the suggested areas can be modified according to the occupational objectives and preferences of the student.
INTERNATIONAL BUSINESS CURRICULUM

141 PHYSICAL AND ECONOMIC GEOGRAPHY 3 cr
This course examines the present and potential products of the world's major geographic regions. The course concerns itself essentially with man's utilization of natural resources in earning a living. Attention is given to the geographical foundations and operations of major industries including agriculture, manufacturing, extractive activities, and transportation. Principal domestic and world trade movements are analyzed.

142 ECONOMIC DEVELOPMENT OF EUROPE AND AMERICA 3 cr
A survey of the evolution of Western economic institutions and business practices. The origin of capitalism, the Commercial and Industrial Revolutions, the rise of the bourgeoisie, and the spread of capitalism are examined. A study is also made of the institutional development and productive growth of the United States economy. Emphasis is placed on analyzing economic issues, particularly the evolution of business institutions, within a historical context.

441 INTERNATIONAL BUSINESS 3 cr
A study of the techniques of international trade. Emphasis is given to the contract, overseas equipment, customs procedure in this country and abroad, marine insurance, packing for overseas trade, financing exports and import shipments, foreign exchange, and carriage of goods by air. Prerequisites: Mkgt 371, Econ 221, 222.

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 neoclassical theory of comparative advantage, foreign exchange markets and balance of payments, adjustment mechanisms, analysis of the consequences of trade regulation and international liquidity problems. Prerequisites: 221, 222.

LAW ADMINISTRATION CURRICULUM
This curriculum is designed to prepare professionals to aid in the solutions of one of society's most critical problems, that of the administration of legal systems. Future executives in court management, correctional institutions, and control systems (law enforcement) receive a broad interdisciplinary educational experience with the basic core coursework in the School of Business and Administration. Other coursework may be appropriate to fit a student's career objective. Counselors and school officers should be consulted.

PRE-LEGAL CURRICULUM
The curriculum of the School of Business and Administration meets the requirements for registration for general purposes of the State Board of Law Examiners in Pennsylvania, and of the State Education Department of New York. Coursework in the various areas of the School of Business and Administration provides good preparation for the professional study of law.

251 LEGAL PROCESS 3 cr
An introductory course exploring the nature of law, its sources, its relation to society and government, relation of the judicial to the executive and legislative functions, law as an instrument of social change and control, understanding of the legal rights and duties of persons. Acquaintance with areas of legal concern to the administrator such as labor, environmental controls, products liability, anti-trust concerns such as pricing and mergers.

353 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. Prerequisite: 251.

354 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 formality of sale contract, transfer of title to goods, warranties, nature and kinds of commercial paper, requisites and meaning of negotiability methods of transfer. Prerequisite: 251.

355 LAW OF 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. Prerequisite: 251.

453 ADMINISTRATION OF LEGAL SYSTEMS 3 cr
Study of the legal system and the procedures by which legal rights and duties are effectuated and enforced, current problems and issues related to the system in the attainment of its objectives, administrative problems in the legal system. Prerequisite: 251.

MANAGEMENT CURRICULUM
In accord with the objectives of the University and of the School, the Management Curriculum aims are
1. To acquaint students with managerial concepts and practices in both profit and non-profit organizations.
2. To offer an opportunity for some degree of specialization to those students who are interested in a study program in management.

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 comprise the fundamental functions of management. Prerequisite: 281, 282.

362 BEHAVIORAL SCIENCE 3 cr
This course is an introduction to the scientific study of behavior. It incorporates concepts from the disciplines of anthropology, psychology, sociology, economics, law, and political science, as well as from the newer fields of organization theory, game theory, and decision theory. This interdisciplinary approach to behavior provides an integrative framework for transfer to any organizational setting. Prerequisite: 281, 282.

363 PRODUCTION MANAGEMENT 3 cr
A follow up course to Principles of Management in which all important phases of management are developed. Topics such as purchasing, inventory control, motion and time study, plant layout, pricing, etc., are covered. Other related organizational problems are considered. An intermediate course to be used as a basis for further specialized treatment of management areas in the advanced courses. Prerequisites: 361 and 281, 282.
364 PERSONNEL MANAGEMENT 3 cr
A course presenting techniques of manpower management. Involves study of recruiting, interviewing, screening, training programs, merit rating, wage payment plans, safety, disciplinary programming, etc. Current practice is presented in the form of case material. Prerequisite: 361

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. Presents the role of labor, management and government in collective bargaining and current industrial relations policies and practices. Prerequisite: 361

461 HUMAN RELATIONS IN ADMINISTRATION 3 cr
An advanced course treating of the human aspect as it is encountered in the industrial organization. Involves an analysis of behavioristic patterns of individuals as individuals and as members of work groups. Deals with motivation, goals, needs, frustrations, etc. as they relate to the industrial situation. Prerequisite: Senior standing and 361

462 PUBLIC ADMINISTRATION 3 cr
This course introduces the student to the context of public management 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 participative methods are employed. Prerequisite: 361

463 COLLECTIVE BARGAINING 3 cr
Study of the relation of federal and state legislation to collective bargaining, analysis of substantive issues and administrative aspects of collective agreements, specific provisions including adjustment of grievances, conciliation, mediation and arbitration, collective bargaining and public policy. Prerequisite: 361

464 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 a firm. Authority, responsibility, delegation, centralization, and decentralization of control and other related organizational problems are considered. Prerequisite: 361

465 DEFENSE MANAGEMENT 3 cr
A three-hour study of management practices in one of the largest, most complex organizations in the world. The U.S. Department of Defense. The course highlights the interaction of planning, programming, budgeting, coordinating, decision making, and procurement within DOD. Discusses DOD’s application of accepted management of business concepts. The importance of effective management at all levels will be emphasized in view of the impact of all defense operations.

466 WAGE AND SALARY ADMINISTRATION 3 cr
An advanced course involving treatment of the major wage administration problems. Coverage will include such related and diverse facets of compensation as analysis of the contemporary concepts of wage and salary administration, such as cost of living and merit rating, appraisal of various payment 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: 361

491 EXECUTIVE ACTION SIMULATION 3 cr
A course incorporating the Games 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.

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 analysis and problem solving with the organization as a whole. Prerequisites: Senior standing and 361

493 INDEPENDENT SCHOLARLY 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 as director of the project. The project must be completed within an academic semester. Prerequisite: Student must qualify as a University Scholar.

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. Approval of the instructor.

MARKETING CURRICULUM

In accord with the objectives of the University and of the School, the Marketing Curriculum aims are:

1. To develop an understanding and appreciation of distribution in our economy.
2. To explore the many basic activities involved in the marketing concept and in matching products to markets.
3. To provide an area of specialized study for those students who wish to pursue the Marketing phase of business.

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 customer behavior, and the development of marketing policies and programs. Marketing strategy and designing a marketing mix are stressed to give the student an insight into these areas, and the reduction of risks is emphasized through the use of quantitative and qualitative market research techniques.

372 MARKETING PROBLEMS 3 cr
This course employs the case method illustrative of typical marketing problems such as merchandising, advertising, selection of channels of distribution, and development of new products. These problems are analyzed as they affect different middlemen in the marketing structure including manufacturers, wholesalers, jobbers, brokers, agents, and similar functionaries. Theories of marketing are subjected to the test of practical examples so that the student may develop a more realistic grasp of the principles involved and the value of the practitioner’s judgments. Current marketing developments are studied. Prerequisite: 371.

373 SALES ADMINISTRATION 3 cr
An introduction to the fundamentals of salesmanship and the problems confronted by the sales manager. Topics include such areas as production planning, pricing, package, qualitative and quantitative market analysis, and specific sales management functions of selection, training, equipping, compensating, supervising, and controlling salesmen. Prerequisite: 371.
471 MARKETING RESEARCH
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 research—are studied in some detail. Prerequisite 371

472 TRANSPORTATION
A comprehensive analysis of the historical evolution, operation and economic development of the railroads, motor carriers, water carriers and air carriers of the United States. The Interstate Commerce Act, with its amendments and the public regulation, state and federal, of the various carriers will be emphasized. Prerequisites 371, 221, 222

473 TRAFFIC MANAGEMENT
This course deals with the organization and functioning of traffic departments of industrial concerns. Topics treated are organization of shipping departments, car records for the control of private cars, claims, routing, service and rating departments, regulations governing packing, shipping and sales, shippers' relations with carriers, freight and express tariffs, delays in transit, receipt and delivery of property. Intensive work in the rate structures of the United States will be an important item. Prerequisites 221, 222

DIVISION OF ECONOMIC SCIENCE

Chairman: Geza Grosschmid, J U D

ECONOMIC SCIENCE CURRICULUM

121 ELEMENTS OF ECONOMICS
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.

221 PRINCIPLES OF ECONOMICS I
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.

222 PRINCIPLES OF ECONOMICS II
This course is primarily concerned with aggregative economic relationships. The theory of the determination of national income is developed and attention is given to the construction of national income accounts. Attention is given to monetary and fiscal policy and their implications. Prerequisite 221.

321 NATIONAL INCOME ANALYSIS
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. Prerequisites 221, 222.

322 PRICE AND PRODUCTION ECONOMICS
An intensive study of the theory of demand, production and distribution. In addition, recent developments in the theory of imperfect competition and oligopoly are carefully examined. Prerequisites 221, 222.

323 PUBLIC FINANCE
A study of the organization and management of government revenues and expenditures with emphasis on American practices and policies at the various levels of government. Benefit-cost and cost-effectiveness analysis with their implications for program and capital budgeting receive heavy consideration. The economic consequences of various tax structures and alternative social choice mechanisms are studied. Prerequisites 321 or 322.

324 COMPARATIVE ECONOMIC SYSTEMS
A comparative study of capitalism, socialism, communism and other economic systems with emphasis on analysis rather than mere description of the economics of various countries. Prerequisites 221, 222.

325 URBAN ECONOMICS
Urban economics is intended to afford an understanding of how the urban economy works, of the forces which affect the level, composition, and distribution of the output of the urban economy, and of the economic issues behind current urban problems. The course analyzes the processes, stages and determinants of urban economic growth and development. Urban economics focuses on the problems and policy in the urban economy. Income inequality, manpower, local public finance, housing and land use patterns, and transportation. A particular emphasis of the course is to provide the student with the theoretical tools and show their application to the dynamic, complex urban economy. Prerequisites 221, 222.

420 LABOR ECONOMICS
Analysis of the principles for wage and employment determination in contemporary American economy under non-union conditions as well as under collective bargaining. The institutional development underlying labor supply and demand is studied with direct emphasis on its impact on employment and production, on the general wage-level and on wage differentials, on the distribution of national income and on general social welfare. The course also includes a comparative study of problems in labor economics in American and other democratic countries. Prerequisites 221, 222.

421 HISTORY OF ECONOMIC THOUGHT
Shows the development of economic thought from the Age of Mercantilism to 1890. Major emphasis is placed upon the writings of Mises, Petty, Quesnay, Smith, Ricardo, Malthus, Marx, Jevons, and the Austrian School. It offers a study of the fundamental concepts of the writers and the influence of institutional conditions upon their philosophy. Major emphasis is placed upon value and distribution theory as it developed. Prerequisites 221, 222.

422 MODERN ECONOMIC THEORY
A brief review of classical tradition emphasizing Smith, Ricardo, and Mill, and Marxist socialism showing their influence upon the evolution of Twentieth Century economic theory. Emphasis is placed primarily upon the writings of Marshall, Schumpeter, and Keynes, applying their theories to the problems of contemporary economic policy. Special emphasis is given to economic growth and development and the essentials of welfare economics in today's society. Prerequisites 221, 222.
423 BUSINESS CYCLES AND FORECASTING 3 cr
This course is designed to study the process of economic change. Analyses of Seasonal, Cyclical, and Secular movements will be undertaken. Theoretical and empirical aspects will be covered. Forecasting techniques will also be studied. Prerequisites 221, 222.

424 BUSINESS AND PUBLIC POLICY 3 cr
A study of the regulatory techniques used by government to influence and modify business behavior. This course also includes an analysis of market structure, conduct and performance considerations pertaining to the firm and the industry. Emphasis is given to the anti-trust laws and special regulatory problems. Prerequisites 221, 222.

425 CURRENT ECONOMIC ISSUES 3 cr
A seminar-like discussion of the state of the nation’s economy and its current problems on the basis of critical examination of professional journal articles and economic reports by official and private sources (such as the President’s Council of Economic Advisers). 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 his undergraduate study of economics and related fields of social science and business administration. Prerequisites 221, 222.

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 controversy 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. Prerequisites 221, 222.

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 conveniently divides itself into five major categories: the nature of development and problems of measurement, theories of development, factors and forces affecting economic growth, different approaches to a higher standard of living, and problems of domestic and international stability. Approach to this course encompasses detailed study as well as a strong emphasis on theoretical and critical analysis. Prerequisites 221, 222.

429 SEMINAR IN ECONOMICS 3 cr
The purpose of the seminar is to provide a vehicle for the advanced student to investigate separate subject areas in the field of 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.
School of Education

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, 1936, elementary education, 1937, guidance, 1952, school administration, 1952, library science, 1956, special education, 1964, reading specialist 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 (applying 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 relationship.
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.

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 certificated in Early Childhood Education by pursuing courses at the Carlow College campus.

The School has developed broad and diversified professional laboratory experiences designed to provide opportunities for observing and working with children and youth, these include:

1. Programs in neighborhood and community centers, hospitals, recreational and youth organizations, and summer camps
2. Planned observation in public and private school classrooms
3. Group observation in schools and institutions dedicated primarily to the care of exceptional children
4. Teacher-aide or tutorial service in public and private schools
5. Student teaching in a public or private school for an entire semester or year

All of these experiences are completed under professional supervision from the University and from the public or private school or off-campus agency.

COURSE REQUIREMENTS

GENERAL EDUCATION
The following courses in the arts and sciences are an integral part of each program:

Credits

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>42</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Area</td>
<td></td>
</tr>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>English Elective</td>
<td>3</td>
</tr>
<tr>
<td>Communication Area (Speech, Journalism, English)</td>
<td>3</td>
</tr>
<tr>
<td>Any Combination of Mathematics/Science/Foreign Language</td>
<td>12</td>
</tr>
<tr>
<td>Social Science</td>
<td>12</td>
</tr>
<tr>
<td>(Anthropology, Economics, Geography, History, Political Science, Sociology, and Psychology)</td>
<td></td>
</tr>
<tr>
<td>Philosophy/Theology</td>
<td>6</td>
</tr>
<tr>
<td>Catholics-minimum of 3 Theology credits</td>
<td></td>
</tr>
</tbody>
</table>

PROGRAMS

The School of Education offers programs leading to the Bachelor of Science in Education degree. All programs are approved by the Pennsylvania Department of Education for the Instructional I (Provisional) Certificate.

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 a period of six years
2. Admission to graduate programs in education

These programs cannot be completed on a part-time basis. The last 30 credits must be earned at Duquesne University. The minimum number of credits for graduation is 120.
COMPETENCY CORE CURRICULUM
The Competency Core Curriculum consists of 27 credits beginning with Introduction to Education in the freshman year, Developmental Foundations I, II in the sophomore year and concluding with Curriculum and Instruction I, II in the junior year. The Competency Core Curriculum focuses on the philosophical, psychological and pedagogical foundations needed by entry-level teachers, extensive involvement in field experiences beginning with the freshman year, and an on-going process of individual advisement and counseling regarding teaching and career decisions.

The Competency Core Curriculum is predicated on four domains: 1) Becoming a person, 2) Becoming a student of education, 3) Becoming an educational theorist, and 4) Becoming a practitioner. The Competency Core Curriculum, as the title implies, is a competency based program that is developmentally designed to prepare education students to be entry-level teachers in elementary, secondary and special education.

Courses (Required in all programs)*
<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>215,216 Developmental Foundations of Education I</td>
<td>4</td>
</tr>
<tr>
<td>217,218 Developmental Foundations of Education II</td>
<td>4</td>
</tr>
<tr>
<td>315,316 Curriculum and Instruction I</td>
<td>8</td>
</tr>
<tr>
<td>317,318 Curriculum and Instruction II</td>
<td>8</td>
</tr>
</tbody>
</table>

*In Early Childhood Education, 315,316 and 317,318 are not required.

EARLY CHILDHOOD EDUCATION
As this program has been cooperatively developed by Duquesne University and Carlow College for Pennsylvania Department of Education approval, some of the professional courses in Early Childhood Education are offered on the Carlow campus. These 49 credits (semester hours) in addition to 42 specified under General Education, 11 in the Competency Core Curriculum, and 18 electives are required for a degree.

Professional Preparation (Required Courses)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>*301 Child Development</td>
<td>4</td>
</tr>
<tr>
<td>*304,305 Early Childhood Education I &amp; II</td>
<td>8</td>
</tr>
<tr>
<td>*307 Curriculum Development for Early Childhood Education</td>
<td>2</td>
</tr>
<tr>
<td>*308 Curriculum Development for Day Care</td>
<td>2</td>
</tr>
<tr>
<td>*310 Curriculum Development for Specialized Early Childhood Education</td>
<td>2</td>
</tr>
<tr>
<td>*402 Language Development &amp; Reading</td>
<td>4</td>
</tr>
<tr>
<td>220 Teaching Art in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>321 Music for Classroom Teacher</td>
<td>2</td>
</tr>
<tr>
<td>331 Teaching Elementary Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>332 Teaching Elementary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>*452 Early Childhood Education Teaching Seminar</td>
<td>2</td>
</tr>
<tr>
<td>*375 Field Placement in Early Childhood Education</td>
<td>4</td>
</tr>
<tr>
<td>*451 Student Teaching</td>
<td>10</td>
</tr>
</tbody>
</table>

| Electives | 18 |

*Required courses taken at Carlow College

ELEMENTARY EDUCATION
The following 38 credits (semester hours) in Professional Preparation and 13 in electives combined with the 42 credits specified in General Education and 27 in the Competency Core Curriculum comprise this curriculum.

Professional Preparation (All Courses Required)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>220 Teaching Art in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>321 Music for the Classroom Teacher</td>
<td>2</td>
</tr>
<tr>
<td>325 Teaching Reading in the Primary School</td>
<td>3</td>
</tr>
<tr>
<td>326 Teaching Reading in Intermediate and Middle Schools</td>
<td>3</td>
</tr>
<tr>
<td>330 Teaching Elementary Language Arts and Reading</td>
<td>3</td>
</tr>
<tr>
<td>331 Teaching Elementary Social Studies</td>
<td>3</td>
</tr>
<tr>
<td>332 Teaching Elementary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>333 Teaching Elementary Science</td>
<td>3</td>
</tr>
<tr>
<td>484 Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>*491 Student Teaching</td>
<td>12</td>
</tr>
</tbody>
</table>

*No student may register for additional course work during the student teaching semester without permission

Electives 13

MUSIC EDUCATION
General and professional course work and professional education courses required for this program are outlined in the School of Music section, page 128

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 51 credits, 17 in Professional Preparation, four in Electives, and a minimum of 30 in an Arts or Sciences Area to satisfy requirements for the degree and certification.

Professional Preparation (All Courses Required)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>497 Reading in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>Specific Methods Course</td>
<td></td>
</tr>
<tr>
<td>215 Teaching Secondary Grammar and Composition OR</td>
<td>2</td>
</tr>
<tr>
<td>316 Teaching Secondary Mathematics and Science OR</td>
<td></td>
</tr>
<tr>
<td>318 Teaching Secondary Foreign Languages OR</td>
<td></td>
</tr>
<tr>
<td>319 Teaching Secondary Social Studies</td>
<td></td>
</tr>
<tr>
<td>*491 Student Teaching</td>
<td>12</td>
</tr>
</tbody>
</table>

*No student may register for additional course work during the student teaching semester without permission

Electives 4

Arts or Sciences Area (Minimum for certification)

<table>
<thead>
<tr>
<th>Credits</th>
<th>Major Field Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Supporting Courses</td>
</tr>
<tr>
<td></td>
<td>Mathematics, chemistry,</td>
</tr>
<tr>
<td></td>
<td>and physics</td>
</tr>
<tr>
<td></td>
<td>Mathematics and physics</td>
</tr>
<tr>
<td></td>
<td>Journalism, speech</td>
</tr>
<tr>
<td></td>
<td>Speech, English</td>
</tr>
<tr>
<td></td>
<td>English, journalism</td>
</tr>
</tbody>
</table>

Major
Biology Consult with Biology Department
Chemistry Consult with Chemistry Department
Communication
English Emphasis Consult with English Department
Journalism Emphasis Consult with Journalism Department
Speech Emphasis Consult with Speech Department
General Science
Minimum of eight credits in biology, chemistry, and physics and additional courses to total a minimum of 18 semester hours in one field of science.

Latin
Consult with Classics Department

Mathematics
Consult with Mathematics Department

Modern Languages
Consult with Modern Languages Department

Physics
Consult with Physics Department

Social Studies
Economics, geography, history, political science, sociology

SPECIAL EDUCATION (MENTALLY AND/OR PHYSICALLY HANDICAPPED)
These 48 credits (semester hours) in Professional Preparation and three in Electives in addition to the 42 credits in General Education and the 27 in the Competency Core Curriculum are required for the degree.

Professional Preparation (All Courses Required) 48
309 Foundations of Special Education 3
220 Teaching Art in the Elementary School 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
374 Music for Exceptional Child 3
376 Methods Special Education I 3
377 Methods Special Education II 3
486 Teaching Mildly Handicapped 3
487 Teaching Severely Handicapped 3
488 Vocational Education for Handicapped 3
491 Student Teaching 12

Electives 3

*No student may register for additional course work during the student teaching semester without permission

TEACHER CERTIFICATION
Through completion of a degree, a student will be eligible for a Pennsylvania Instructional I (Provisional) Certificate to teach a subject or in an area for which the curriculum pursued is designed. This certificate is valid for six years of teaching, during that time, to convert the certificate to the Instructional II (Permanent) form, 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, and certification in Pennsylvania enables a student to meet certification requirements in various other states. Application for the certificate must be made through the Dean's Office during the semester in which the student expects to be graduated.

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 credit units, not in periods the class meets, in other words, three cuts for 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 professional organizations, for such interest is interpreted as reflecting social and educational development. The organizations are Duquesne University Chapter of the Council for Exceptional Children, state and national student organizations in Special Education Kappa Delta Epsilon, national education sorority Kappa Phi Kappa, national education fraternity

HONOR AWARDS
These awards, presented at the annual Honors Day Convocation, are open to undergraduates in the School of Education.

Faculty Award for General Excellence in Early Childhood Education
Faculty Award for General Excellence in Elementary Education
Faculty Award for General Excellence in Secondary Education
Faculty Award for General Excellence in Special Education
Kappa Delta Epsilon National Professional Education Sorority Award for outstanding member of Alpha Kappa Chapter
Kappa Delta Epsilon National Professional Education Sorority President's Award
Kappa Phi Kappa National Professional Education Fraternity Award for outstanding member of Beta Phi Chapter
Lawrence A. Roche Memorial Award to a junior student for general excellence in the School of Education
Philip C. Niehaus Memorial Award for outstanding achievement in the School of Education
Council for Exceptional Children Award for outstanding work in the organization

EDUCATIONAL FOUNDATIONS AND PSYCHOLOGY

101 INTRODUCTION TO EDUCATION 3 cr
An overview of professional education programs and careers, introduces students to the competency-based format of undergraduate curriculums and gives them opportunities to meet faculty and staff in informal information-giving and counseling relationships

201 CHILD DEVELOPMENT 3 cr
Behavior and personality characteristics of children from birth to adolescence as they relate to school and home situations

202 EDUCATIONAL PSYCHOLOGY 3 cr
Examines affective and cognitive development, planning and teaching techniques, measurement and evaluation, and related theories in an exponential learning environment
values, understanding of group dynamics, and knowledge of managing classroom situations. The components 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 multi-cultural approaches, have on the physical, cognitive, affective and social development of all students and the teacher. These components provide for the demonstration of competency in the understanding, the analysis and the managing of these effects. Concurrent with these components is a field placement that requires case studies, directed observations, data collection and teacher aide experience.

301 FOUNDATIONS OF EDUCATION
Introduction to the study of the philosophical, social, and historical foundations of education and the relationships between the school and other institutions of society. Required for all types of state certification.

315, 316 CURRICULUM AND INSTRUCTION I
See description for 317, 318

317, 318 CURRICULUM AND INSTRUCTION II
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. These components also include a concurrent field placement that continues the directed observations and data collection initiated in the Developmental Foundations components and introduces the student to the evaluation of the teaching-learning situations observed and to the self-evaluation process of his/her own development in the four domains of the Competency Core Curriculum. The field placement for these final components culminates in the mini-instruction experiences in an actual classroom.

351 ADOLESCENT DEVELOPMENT
Examines the developmental processes, psychological, physical, and social, which affect student and student-teacher behavior and relationships in the classroom.

410 INTERPERSONAL CLASSROOM MANAGEMENT FOR TEACHERS
Focuses on four major concerns for maximizing learning and minimizing conflict, the four areas 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.

478 YOUTH AND DRUG ABUSE
Problems of drug abuse and today’s youth, including drugs used, the primary toxic and psychological effects, historical and legal aspects. Methods of teaching drug abuse at various levels in the school system are covered, together with availability of literature and visual aids and demonstrations of drugs.
physical education A one-credit field placement in an early childhood setting accompanies the course

308 CURRICULUM DEVELOPMENT FOR DAY CARE 2 cr
Curriculum planning and program design for day care programs serving children from birth to eight years. Special topics explored include parent involvement and communication, legal and health requirements, equipment selection, staffing patterns and relationships, and current research on the impact of day care in the development of the young child Content areas in 307 will be applied to the day care classroom A one-credit field placement in a day care setting accompanies the course

310 CURRICULUM DEVELOPMENT FOR SPECIALIZED EARLY CHILDHOOD EDUCATION 2 cr
Historical development and current status of early childhood programs designed to provide compensatory, remedial, therapeutic, or early intervention experiences to young children and their families Curriculum design and implementation for such programs will be examined in depth, and content areas in 307 will be applied to the specialized setting A one-credit field placement in a specialized setting accompanies the course

375 (a, b, c, and d) FIELD PLACEMENT IN EARLY CHILDHOOD EDUCATION 1 cr each
On-site experience in 375a is provided in primary classrooms, in 375b, it is in day care centers, in 375c, it will involve specialized early childhood programs, and in 375d, it is in primary classrooms as part of 402 All experiences are in local schools and provide opportunity for interaction with students and the use of a variety of methods, materials, and techniques

402 LANGUAGE DEVELOPMENT AND READING 4 cr
Emphasis is given to a well-planned oral expression program as a base for successful development of language skills, including reading Current status of reading curricula appropriate to the primary level will be examined in a variety of settings A one-credit field placement in a primary classroom accompanies the course

451 STUDENT TEACHING IN EARLY CHILDHOOD EDUCATION 10 cr
The student teaching experience is considered to be one of the most important single elements of the program The prospective teacher is involved in a pre-school primary setting where he/she shares the teacher role, applies and constructs theory and develops his/her own teaching style Prerequisites Senior status, good academic standing, and completion of required professional courses No other credits may be taken while the student is involved in 451 and 452

452 EARLY CHILDHOOD EDUCATION TEACHING SEMINAR 2 cr
Classroom discussion of student teaching experiences, as well as the shared analysis of goals, program designs, and curricula of various early childhood programs in which student teaching is completed

ELEMENTARY EDUCATION

220 TEACHING ART IN THE ELEMENTARY SCHOOL 3 cr
Designed to acquaint the student with materials, methods, and techniques used in relating arts and crafts to purposeful learning activities, with particular attention given to the needs of the mentally retarded child

321 MUSIC FOR THE CLASSROOM TEACHER 2 cr
The aim of this course is to assist the student in gaining an appreciation of the importance of music in the lives of children, a knowledge of fundamental principles of instruction in music, and a familiarity with the variety of musically enriching experience

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

326 TEACHING READING IN INTERMEDIATE AND MIDDLE SCHOOLS 3 cr
Focuses on the transitional period in a developmental reading program in which reading becomes a tool to be used in each content area In addition to continuing reading skills in the developmental reading program, specialized reading and study skills, necessary for students to function in social studies, science, language arts, mathematics, and other content areas, will be presented Techniques of determining readability of materials, individualizing instruction, evaluating and reporting pupil progress are also studied

330 TEACHING ELEMENTARY LANGUAGE ARTS AND READING 3 cr
Presents psychological principles and historical perspectives in the language arts, the foundation on which a good language arts program should be built Four skills—listening, speaking, reading, writing—as acquired by the child, combined with knowledge of the evaluative process, teaching methods, and materials, provide a realistic approach to teaching language arts and reading experience

331 TEACHING ELEMENTARY SOCIAL STUDIES 3 cr
Provides a combination of theoretical and practical models which furnish multi-level approaches to problem-solving, materials, activities, and resources inherent in a good social studies program

332 TEACHING ELEMENTARY MATHEMATICS 3 cr
Theories, techniques, practices, and content pertaining to mathematics are presented Emphasis is on exploratory and systematic instructional styles, games as an instructional strategy

333 TEACHING ELEMENTARY SCIENCE 3 cr
Study of the sciences, techniques, practices, and content of the science area Accent is on discovery and inquiry instructional styles, organizing for learning

484 CHILDREN'S LITERATURE 3 cr
A general survey of books and other printed materials for children, criteria for the evaluation and analysis of children's books, types of books available, considered in terms of interests, needs, and abilities of children

491 ELEMENTARY STUDENT TEACHING 12 cr
Student teaching in an approved public elementary school under the direct supervision of a cooperating teacher Prerequisites Senior status, good academic standing, and completion of required professional courses

SECONDARY EDUCATION

215 TEACHING SECONDARY GRAMMAR AND COMPOSITION 2 cr
Deals with various approaches to teaching grammar, language, and composition, also provides opportunities for students to develop and use the different techniques in mini-teaching situations

316 TEACHING SECONDARY MATHEMATICS AND SCIENCE 2 cr
Designed to acquaint the student with methods and materials for teaching specific models, research and field-based activities are expected
317 INNOVATIVE PRACTICES AND SKILLS IN SECONDARY TEACHING 3 cr
Provides experiences in process education, inquiry teaching, curriculum development, testing, measurement, group processes, reading problems, use of varied materials, and new teaching methods.

318 TEACHING SECONDARY FOREIGN LANGUAGES 2 cr
Explores a variety of approaches for teaching foreign languages, grammar, structure, verbal exercises, and literature germane to the specific language to be taught will be discussed.

319 TEACHING SECONDARY SOCIAL STUDIES 2 cr
This is a competency-based experience for social studies/history majors that develops evaluation skills, knowledge of curriculums, media and technological experiences, and methods, expands planning and questioning skills.

364 METHODS SEMINAR IN SECONDARY TEACHING AND TECHNIQUES LABORATORY 3 cr
This is a learning experience that uses videotape technology to aid students toward mastery of five teaching competencies planning, questioning, using varied materials and techniques, working with small groups, and evaluation. Evaluation is done via self-analysis, peer evaluation and instructors' feedback.

491 SECONDARY STUDENT TEACHING 12 cr
Student teaching in an approved public secondary school under the direct supervision of a cooperating teacher. Prerequisites: Senior status, good academic standing, and completion of required professional courses.

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

211, 212, 213, 214 FIELD EXPERIENCE 2 cr each
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. Student will choose between 211 (Elem) and 212 (Sec) which is a field experience with the mildly handicapped while 213 is with the severely handicapped and 214 is vocational/pre-vocational. The latter two are mandatory.

309 FOUNDATIONS OF SPECIAL EDUCATION 3 cr
Survey of the social, psychological, and physical characteristics of the various types of exceptional children and of methods for meeting their educational needs, includes field trips to schools and classes which specialize in the education of the typical child.

374 MUSIC FOR THE EXCEPTIONAL CHILD 3 cr
Singing and rhythmic movement activities are basic to this course. It also includes folk dance, listening, and instrumental (percussion instruments) experiences.

376 METHODS IN SPECIAL EDUCATION I 3 cr
An introduction to the educational management techniques utilized in programs for exceptional persons. Information covering assessment procedures, general classroom management, designing individual educational programs, and prescriptive teaching will be included. Prerequisites: 309, 325, 332.

377 METHODS IN SPECIAL EDUCATION II 3 cr
A sequel to 376-Methods in Special Education I in which skills in consulting with parents, specific classroom management procedures, and individual tutoring skills are introduced. Participants will be required to tutor a student at a selected site one full morning a week. Prerequisite: 376.

486 TEACHING THE MILDLY HANDICAPPED 3 cr
Evaluation and integration of the various theories, methodologies, curriculum content, instructional techniques, and evaluation procedures for the mildly handicapped.

487 TEACHING THE SEVERELY HANDICAPPED 3 cr
Evaluation and integration of the various theories, methodologies, curriculum content, instructional techniques, and evaluation procedures for the severely handicapped.

488 VOCATIONAL EDUCATION FOR THE HANDICAPPED 3 cr
An overview of the pre-vocational, vocational, career, and occupational education programs designed to be used 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: 485, 487.

491 STUDENT TEACHING—SPECIAL EDUCATION 12 cr
A full semester of supervised classroom experience at a carefully-selected school for mentally and/or physically handicapped pupils. Prerequisites: Senior status, good academic standing, and completion of required professional courses.
School of Music

HISTORY
Duquesne University, recognizing that it was most fortunately situated to offer outstanding opportunities for professional preparation in music, in 1926 established a School of Music with a four-year course of study leading to the Bachelor of Music degree. The music education program was approved by the Pennsylvania Department of Education in 1930. In 1959 the School became an associate member of the National Association of Schools of Music and in 1966 was elected to full membership. On April 29, 1967 a new air-conditioned music building was dedicated. Van Cliburn was awarded an honorary Doctor of Music degree on this occasion.

PHILOSOPHY AND OBJECTIVES
The administration and faculty of the School of Music believe that the development of the artistic personality is entirely compatible with the objectives of scholars in all fields. It is felt that the best place to educate music students to take their place in society is in a situation where they have an opportunity to share their academic courses in classes with students from other schools of the University. The great advantage of a solid musical preparation and the opportunity to participate in nationally recognized organizations and in performances of professional caliber are available to all students.

The faculty of musical scholars and artists with whom Duquesne students work believes that fine talents are best encouraged and developed in an atmosphere that is friendly while at the same time committed to the development of excellence. The faculty, selected with care, includes the names of concert and opera soloists, members of the Casals Festival Orchestra, the Pittsburgh Symphony, nationally known composers, authors, arrangers, conductors, clinicians, and music educators. The Pittsburgh Symphony, Pittsburgh Opera, chamber music and concert series, WDUQ (the Duquesne University radio station) and the high level of interest on the part of other radio and television stations in the arts serve as unusual stimuli to the eager music student.

The Symphony Band, in its many performances on and off campus, presents a wide variety of standard and contemporary repertoire.

The Symphony Orchestra offers fine opportunities for students interested in orchestral literature. Association with teachers who are members of the Pittsburgh Symphony is an exceptional advantage.

The School also maintains various vocal and instrumental ensembles that are receiving national recognition for the excellence of their performances.

The objectives of the School of Music are to educate teachers and performers of music who should possess a sensitive and intelligent musicianship, and who will be equipped, by reason of their general and professional education, to accept positions in fields of performance, education, or therapy.

ADMISSION
Students who are interested in applying for admission to the School of Music should request an application from the Office of Admissions, Duquesne University, Pittsburgh, Pennsylvania 15282. After applications have been processed, candidates will receive a notice requesting that they contact the Office of the School of Music to arrange an appointment for an audition and a theory entrance examination. Specific instructions concerning the audition will then be mailed to the applicant. A tape recording will be accepted for those living more than 150 miles from the University. However, in the event the recording is not satisfactory, a personal audition may be required. All applicants will be notified of the status of their candidacy as soon as possible.
Students planning to major in Music are urged to begin study of piano and theory prior to entrance.

**ADVICEMENT**

At initial enrollment, every student is assigned a faculty advisor who provides assistance with academic matters, especially during pre-registration periods. Guidance in professional objectives will also be provided by faculty committees established for that purpose.

**SPECIAL FEES**

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Teaching</td>
<td>$25</td>
</tr>
<tr>
<td>Instruction in voice or instrument as a minor, each semester</td>
<td>75</td>
</tr>
<tr>
<td>Piano Class Fee, each semester</td>
<td>10</td>
</tr>
<tr>
<td>Instrumental rental for use in major study</td>
<td>10</td>
</tr>
<tr>
<td>Harp, String Bass, Oboe, Bassoon, Tuba</td>
<td>75</td>
</tr>
<tr>
<td>All other instruments</td>
<td>50</td>
</tr>
<tr>
<td>Instrumental rental for use in minor study</td>
<td>30</td>
</tr>
<tr>
<td>Harp, String Bass, Oboe, Bassoon, Tuba</td>
<td>30</td>
</tr>
<tr>
<td>All other instruments</td>
<td>20</td>
</tr>
<tr>
<td>Instrument for class use</td>
<td>20</td>
</tr>
<tr>
<td>Organ practice (major or minor) each semester</td>
<td>20</td>
</tr>
</tbody>
</table>

**Summer Session**

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Instruction Fees</td>
<td>$150</td>
</tr>
<tr>
<td>Two hours a week (major)</td>
<td>$150</td>
</tr>
<tr>
<td>One hour a week (major)</td>
<td>75</td>
</tr>
<tr>
<td>One hour a week (minor)</td>
<td>75</td>
</tr>
<tr>
<td>Instrumental Rental</td>
<td></td>
</tr>
<tr>
<td>Instrument for class use</td>
<td>10</td>
</tr>
<tr>
<td>Instrument for summer months</td>
<td>15</td>
</tr>
<tr>
<td>Instrument for use in six-week Summer Session</td>
<td>10</td>
</tr>
<tr>
<td>Organ practice for use in six-week Summer Session</td>
<td>10</td>
</tr>
</tbody>
</table>

**Special Students—Private Instruction**

These fees are charged to non-degree students and others taking the instruction without credit:

One hour a week | $408
One half hour a week | 204
One hour a week (Summer Session) | 204

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction in voice or instrument as a major, each semester</td>
<td>$150</td>
</tr>
<tr>
<td>Practice room</td>
<td>15</td>
</tr>
<tr>
<td>Music fee</td>
<td>10</td>
</tr>
</tbody>
</table>

**DEGREES**

The School offers programs leading to two undergraduate degrees: Bachelor of Music and Bachelor of Science in Music Education. The Bachelor of Music degree may be earned with a major in piano, organ, voice, orchestral instruments, jazz and in sacred music; with a major in organ or voice. The programs are intended for students interested primarily in performance careers in concert, television, radio, symphony orchestra, opera or teaching in colleges and private studios, and for those interested in pursuing careers as church musicians.

Two Music Education programs are offered: one in general music and the other in music therapy. The former is designed to meet certification requirements for teaching in elementary and secondary schools while the latter leads to certification as a registered music therapist. In order to receive the Music Therapy Degree or its equivalency for certification (by NAMT), 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. All programs begin at the undergraduate level, except jazz, may be continued at the graduate level.

**EQUIPMENT**

The School of Music has 73 pianos including 56 Steinways. All practice rooms have Steinway uprights. There are two Moeller and one Fischer practice organs, a three manual Moeller organ, and an electronic organ. More than 300 orchestral and band instruments are available for instrumental classes, including an EMS Sound Synthesizer. Listening and recording equipment are of professional quality.

**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 and the National Association of Music Therapists. Student Council is the organization which is designed to represent the total student body of the School of Music. In addition, it provides an excellent vehicle of communication among students, faculty, and administration.

**HONOR AWARDS**

The Dean's Award is presented to a senior music student for general excellence. The Seibert Medal is presented to a senior for excellence in violin or piano upon recommendation of departmental committee. George Barrere Memorial Scholarship: The Pittsburgh Flute Club offers a scholarship in flute in memory of George Barrere, founder of the first flute club in the United States. This $300 scholarship is awarded to a freshman or sophomore flute major. Polish Arts League Scholarship: made annually by the Polish Arts League of Pittsburgh to an outstanding performer in the School of Music. Preference will be given to a student of Polish ancestry. Other students will not be excluded from consideration. Pittsburgh Flute Club Award is given to an outstanding woodwind student. Louis Rocereto Memorial Scholarship is given to an outstanding junior studying a woodwind instrument.

**TEACHER CERTIFICATION**

The undergraduate music education program has been approved by the Pennsylvania Department of Education for the issuance of the Instructional I (Provisional) Certificate. Application for the certificate must be made in the semester in which the student plans to graduate.

**RECITAL ATTENDANCE**

All students are required to attend a minimum of 25 recitals and concerts sponsored by the School of Music per year (minimum of 100 by graduation).

**OTHER ATTENDANCE REQUIREMENTS**

All students are required in addition to attend professional events other than concerts pertinent to their specific areas of study.
THEOLOGY REQUIREMENT
One, three-credit course in theology is required of every Roman Catholic student.

PROGRAMS
Students' interests are served and their abilities furthered through their selection from among nine different programs, four in applied music, two in music education, two in sacred music, and one in jazz.

CONSERVATORY
MAJOR IN PIANO

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mus 103,104 Applied Music (Piano)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1 Mus 111,112 Applied Music Minor</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 131,132 Theory</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 133,134 Solfeggio</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 143,144 Ensemble Chorus</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mus 121,122 Eurhythmics</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Eng 101,102 English Composition</td>
<td>3</td>
<td></td>
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</table>

Sophomore Year

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mus 203,204 Applied Music (Piano)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1 Mus 211,212 Applied Music Minor</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 231,232 Theory</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 233,234 Solfeggio</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 243,244 Ensemble Chorus</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mus 113,114 Western Civilization</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Mus 241,242 Chamber Music or</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 243,244 Piano Accompanying</td>
<td>(2)</td>
<td>(2)</td>
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</table>

Junior Year

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mus 303,304 Applied Music (Piano)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mus 351,352 Music History</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mus 343,344 Ensemble Chorus</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mus 335,336 Counterpoint</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 341,342 Chamber Music or</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 343,344 Piano Accompanying</td>
<td>(2)</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>Elective Math or Science Elective</td>
<td>3</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>General Academic Elective</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
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Senior Year

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mus 403,404 Applied Music (Piano)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>General Academic or Theology Elective</td>
<td>3</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Mus 431,432 Improvisation</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2 Mus 451,452 Organ Literature</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 476 Organ Design and Maintenance</td>
<td>2</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>Mus 413 Organ Pedagogy</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 443,444 Ensemble</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 400 Recital</td>
<td>(2)</td>
<td>(2)</td>
<td></td>
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</table>

MAJOR IN ORGAN

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mus 203,204 Applied Music (Organ)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1 Mus 211,212 Applied Music Minor (Piano)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 231,232 Theory</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 233,234 Solfeggio</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 311,312 Applied Music Minor (voice)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 243,244 Ensemble Chorus</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>His 113,114 Western Civilization</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>General Academic Electives</td>
<td>3</td>
<td>3</td>
<td>3</td>
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</tbody>
</table>

MAJOR IN VOICE

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mus 103,104 Applied Music (Voice)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1 Mus 111,112 Applied Music Minor (Piano)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Includes performance classes required by the organ department
2 If 313, 314 Piano Pedagogy is offered in the student's junior year it should be taken, and counterpoint should be taken in the senior year.

2 If 451,452 Organ Literature is offered in the student's junior year it should be taken, and counterpoint should be taken in the senior year.
### Major in Orchestral Instrument/Classical Guitar

**Freshman Year**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mus 103,104 Applied Music (Instrument)</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 111,112 Applied Music Minor (Piano)</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 131,132 Theory</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 133,134 Solfeggio</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 143,144 Ensemble Orchestra or Band</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 121,122 Eurhythmics</td>
<td>2 2</td>
</tr>
<tr>
<td>Eng 101,102 English Composition</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 141,142 Chamber Music</td>
<td>1 1</td>
</tr>
</tbody>
</table>

**Sophomore Year**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mus 203,204 Applied Music (Instrument)</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 211,212 Applied Music Minor (Piano)</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 231,232 Theory</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 233,234 Solfeggio</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 243,244 Ensemble Orchestra or Band</td>
<td>1 1</td>
</tr>
<tr>
<td>Hist 113,114 Western Civilization</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 241,242 Chamber Music</td>
<td>2 2</td>
</tr>
<tr>
<td>General Academic Electives</td>
<td>3 3</td>
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</tbody>
</table>

**Junior Year**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mus 303,304 Applied Music (Voice)</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 311,312 Applied Music Minor (Piano)</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 351,352 Music History</td>
<td>3 3</td>
</tr>
<tr>
<td>Lang 115,116 German for Singers</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 335,336 Counterpoint</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 349,350 Vocal Repertoire</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 343,344 Ensemble Chorus</td>
<td>1 1</td>
</tr>
</tbody>
</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mus 403,404 Applied Music (Voice)</td>
<td>3 3</td>
</tr>
<tr>
<td>Theatre 280 Acting</td>
<td>3 (3)</td>
</tr>
<tr>
<td>Physics Acoustics</td>
<td>3</td>
</tr>
<tr>
<td>Art 101 Understanding Art</td>
<td>(3) 3</td>
</tr>
<tr>
<td>Elective Academic or Theology</td>
<td>3</td>
</tr>
<tr>
<td>Mus 449,450 Vocal Repertoire</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 443,444 Ensemble Chorus</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 400 Recital</td>
<td>(2) 2</td>
</tr>
</tbody>
</table>

1. Includes performance classes required by the voice department

### Major in Jazz Performance

**Freshman Year**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mus 103,104 Applied Music Major</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 131,132 Theory</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 133,134 Solfeggio</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 121,122 Eurhythmics</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 111,112 Applied Music Minor (Piano)</td>
<td>1 1</td>
</tr>
<tr>
<td>Eng 101,102 English Composition</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 143,144 Ensemble Chorus</td>
<td>1 1</td>
</tr>
</tbody>
</table>

**Sophomore Year**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mus 203,204 Applied Music Major</td>
<td>3 3</td>
</tr>
<tr>
<td>Mus 211,212 Theory</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 233,234 Solfeggio</td>
<td>2 2</td>
</tr>
<tr>
<td>Mus 218,219 Applied Music Minor (Jazz)</td>
<td>1 1</td>
</tr>
<tr>
<td>Mus 225,227 Jazz Improvisation</td>
<td>2 2</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Hist</strong></td>
<td>113,114</td>
</tr>
<tr>
<td><strong>Mus</strong></td>
<td>243,244</td>
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</table>

**Junior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td><strong>Mus</strong></td>
<td>303,304</td>
<td>Applied Music Major</td>
<td>3</td>
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<tr>
<td><strong>Mus</strong></td>
<td>440</td>
<td>Jazz Arranging</td>
<td>2</td>
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<tr>
<td><strong>Mus</strong></td>
<td>430</td>
<td>Advanced Jazz Arranging</td>
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<tr>
<td><strong>Mus</strong></td>
<td>351,352</td>
<td>Music History</td>
<td>3</td>
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<tr>
<td><strong>Mus</strong></td>
<td>379,380</td>
<td>Conducting</td>
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<td><strong>General</strong></td>
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<td>Science or Math Elective</td>
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<tr>
<td><strong>Mus</strong></td>
<td>327</td>
<td>Jazz Pedagogy &amp; Directing</td>
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<tr>
<td><strong>Mus</strong></td>
<td>343,344</td>
<td>Ensemble</td>
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<tr>
<td><strong>Physics</strong></td>
<td></td>
<td>Acoustics</td>
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**Senior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td><strong>Mus</strong></td>
<td>403,404</td>
<td>Applied Music Major</td>
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<tr>
<td><strong>Mus</strong></td>
<td>426,427</td>
<td>Jazz Improvisation</td>
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<tr>
<td><strong>General</strong></td>
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<td>Academic Elective</td>
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<tr>
<td><strong>Mus</strong></td>
<td>335</td>
<td>Counterpoint</td>
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<tr>
<td><strong>Mus</strong></td>
<td>453,454</td>
<td>Jazz Composition</td>
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<tr>
<td><strong>Mus</strong></td>
<td>455</td>
<td>Music &amp; Mass Media</td>
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<tr>
<td><strong>Mus</strong></td>
<td>443,444</td>
<td>Ensemble</td>
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<tr>
<td><strong>Mus</strong></td>
<td>400</td>
<td>Recital</td>
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<tr>
<td><strong>Art</strong></td>
<td>101</td>
<td>Understanding Art</td>
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<tr>
<td><strong>General</strong></td>
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<td>Academic Elective or Theology</td>
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**SACRED MUSIC—MAJOR IN ORGAN**

**Freshman Year**

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<tr>
<th>Course</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td><strong>Mus</strong></td>
<td>103,104</td>
<td>Applied Music (Organ)</td>
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<tr>
<td><strong>Mus</strong></td>
<td>111,112</td>
<td>Applied Music (Piano)</td>
<td></td>
</tr>
<tr>
<td><strong>Mus</strong></td>
<td>131,132</td>
<td>Theory</td>
<td></td>
</tr>
<tr>
<td><strong>Mus</strong></td>
<td>133,134</td>
<td>Solfegeg</td>
<td></td>
</tr>
<tr>
<td><strong>Mus</strong></td>
<td>143,144</td>
<td>Ensemble (Chorus)</td>
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<tr>
<td><strong>Mus</strong></td>
<td>121,122</td>
<td>Eurhythmics</td>
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<tr>
<td><strong>Eng</strong></td>
<td>101,102</td>
<td>English Composition</td>
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<tr>
<td><strong>Theo</strong></td>
<td>213,214</td>
<td>Old and New Testament</td>
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**Sophomore Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td><strong>Mus</strong></td>
<td>203,204</td>
<td>Applied Music (Organ)</td>
<td>2</td>
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<tr>
<td><strong>Mus</strong></td>
<td>211,212</td>
<td>Applied Music (Piano)</td>
<td></td>
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<tr>
<td><strong>Mus</strong></td>
<td>231,232</td>
<td>Theory</td>
<td></td>
</tr>
<tr>
<td><strong>Mus</strong></td>
<td>233,234</td>
<td>Solfegeg</td>
<td></td>
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<tr>
<td><strong>Mus</strong></td>
<td>311,312</td>
<td>Applied Music (Voice)</td>
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<tr>
<td><strong>Mus</strong></td>
<td>243,244</td>
<td>Ensemble (Chorus)</td>
<td></td>
</tr>
<tr>
<td><strong>Hist</strong></td>
<td>113,114</td>
<td>Western Civilization</td>
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<tr>
<td><strong>Theology</strong></td>
<td></td>
<td>Liturgics</td>
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<tr>
<td><strong>General</strong></td>
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<td>Elective</td>
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**Junior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td><strong>Mus</strong></td>
<td>303,304</td>
<td>Applied Music (Organ)</td>
<td>2</td>
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<tr>
<td><strong>Mus</strong></td>
<td>411</td>
<td>Applied Music (Voice)</td>
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<tr>
<td><strong>Mus</strong></td>
<td>209</td>
<td>Children's Choirs</td>
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### Senior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
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<tbody>
<tr>
<td>Mus 403,404</td>
<td>2</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 411,412</td>
<td>1</td>
<td>Spring</td>
</tr>
<tr>
<td>Mus 407,408</td>
<td>1</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 434,444</td>
<td>2</td>
<td>Spring</td>
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<tr>
<td>Mus 421</td>
<td>2</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 420</td>
<td>2</td>
<td>Spring</td>
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<tr>
<td>General</td>
<td>3</td>
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<tr>
<td>Mus 464</td>
<td>2</td>
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<tr>
<td>Mus 478,479</td>
<td>1</td>
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<tr>
<td>Mus 451,452</td>
<td>2</td>
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<tr>
<td>Mus 400</td>
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</tr>
<tr>
<td>Art 101</td>
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<tr>
<td>Mus</td>
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**MUSIC EDUCATION**

### Freshman Year

<table>
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<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>Eng 101,102</td>
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<td>3</td>
<td>3</td>
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<tr>
<td>Mus 131,132</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 133,134</td>
<td>2</td>
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<td>2</td>
</tr>
<tr>
<td>Mus 181,182</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Mus 183,184</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 101,102</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Mus 111,112</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mus 121,122</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Mus 143,144</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Mus 189,190</td>
<td>0</td>
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</tr>
<tr>
<td>General</td>
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### Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
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</thead>
<tbody>
<tr>
<td>Mus 231,232</td>
<td>2</td>
<td>Fall</td>
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<tr>
<td>Mus 233,234</td>
<td>2</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 185,186</td>
<td>1</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 213,214</td>
<td>1</td>
<td>Fall</td>
</tr>
<tr>
<td>Hist 113,114</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 201,202</td>
<td>2</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 243,244</td>
<td>1</td>
<td>Fall</td>
</tr>
<tr>
<td>General</td>
<td>3</td>
<td>Fall</td>
</tr>
<tr>
<td>Mus 289,290</td>
<td>0</td>
<td>Fall</td>
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*for keyboard majors only

### Junior Year

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
<th>Semester</th>
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<tbody>
<tr>
<td>Psy 103</td>
<td>3</td>
<td>(3)</td>
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<tr>
<td>Edu 301</td>
<td>3</td>
<td>(3)</td>
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<tr>
<td>Mus 351,352</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Mus 381,382</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Mus 281,282</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Mus 283,284</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Mus 340</td>
<td>2</td>
<td>(2)</td>
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<tr>
<td>Mus 440</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Mus 379,380</td>
<td>3</td>
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<tr>
<td>Physics</td>
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### Senior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td>Mus 383,384</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Mus 401,402</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Mus 443,444</td>
<td>1</td>
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</table>

* OR 351 Education Psychology, 201 Child Development, or 202 Adolescent Development

* The residence semester may be taken in either the fall or spring semester of the senior year

See footnotes following Music Therapy Curriculum

### MUSIC EDUCATION—MAJOR IN MUSIC THERAPY

#### Freshman Year

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Fall</th>
<th>Spring</th>
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<tbody>
<tr>
<td>Eng 101,102</td>
<td>3</td>
<td>3</td>
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</tr>
<tr>
<td>Mus 131,132</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 133,134</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 223,224</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Hist 113,114</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Mus 201,202</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Mus 289,290</td>
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#### Sophomore Year

<table>
<thead>
<tr>
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<th>Credits</th>
<th>Semester</th>
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<tbody>
<tr>
<td>Mus 185,186</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Mus 231,232</td>
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<tr>
<td>Mus 233,234</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mus 133,134</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Hist 113,114</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Psych 103</td>
<td>3</td>
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<tr>
<td>Mus 223,224</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 108</td>
<td>3</td>
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<tr>
<td>Mus 201,202</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Mus 213,214</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mus 243,244</td>
<td>1</td>
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Junior Year

Ed 309 Foundations in Special Education 3
Mus 351,352 Music History 3 3
Mus 315 Piano Improvisation for Therapy or Instrumental Class Methods of your choice 3 1
Ed 202 Educational Psychology 3
Ed 002 Drug Abuse 1
Mus 308 Influence of Music on Behavior 2

1 Mus **301,302 Applied Music 2 2
Mus 323,324 Music Therapy Practicum 1 1
Mus 343,344 Ensemble 1 1
Physics Elective 3
Mus 374 Music for the Exceptional Child 3

Senior Year

Psych 352 Abnormal Psychology 3
Bio 207 Anatomy and Physiology 3
Mus 600,(307) Psychology of Music 2 (2)
Mus 309 Directed Study—Music Therapy 2
Mus 379 Conducting 1
Mus 423,424 Music Therapy Practicum 1 1
Mus 340 Orchestration 2
Mus 401,402 Applied Music Major 2 2
Mus 310 Recreational Instruments 1
Mus 443,444 Ensemble 1 1
Elective Academic or Theology 3 (3)

1 Includes performance classes required by individual departments. String majors are required to participate in chamber music and string orchestra.
2 Piano Majors in Music Education select another instrument or voice for their Applied Music Minor. They also continue with the Applied Music Minor 211 (Organ Majors are required to select piano as their secondary instrument).
3 For Orchestral Instrument and Voice Majors only.
4 For Piano and Organ Majors only.
5 Electives in psychology will be selected following consultation with advisor.

COURSE DESCRIPTIONS

APPLIED MUSIC

101, 102, 201, 202, 301, 302, 401, 402 APPLIED MUSIC MAJOR FOR THE BACHELOR OF SCIENCE IN MUSIC EDUCATION 2 cr each

The study of voice, piano, organ, string, wind, or percussion instruments throughout all semesters.

APPLIED MUSIC MINOR—JAZZ 1 cr each

For non-piano majors, Jazz piano techniques including comping, harmonic continuity through common chord progressions, using triads and 7th chords. 219 may include more advanced comping, harmonic continuity through standard and jazz songs and harmonic extensions of 9ths, 11ths, and 13ths.

TRANSFER OF APPLIED MUSIC CREDIT

Transfer credit in the undergraduate Applied Music program cannot be granted only after the student’s proficiency has been evaluated by a faculty panel in the student’s area of specialization.

CHANGING APPLIED MUSIC MAJOR

The student must discuss the feasibility of a proposed change with the appropriate chairman.

BACHELOR OF MUSIC

Bassoon

103, 104 3 cr each

Scales and arpeggios in all keys. Kovar scales, five note studies and interval studies, selected studies and Weissenborn and Milde solos by Weissenborn, Foret and Mouquet.

171 BASSOON REED-MAKING No Credit

A course designed to encourage one’s own reed-making. Includes the various aspects of shaping, soaking, and trimming the cane.

203, 204 3 cr each

Continue scales and arpeggios. Kovar technical studies, Oubradous, Scales and Daily Drills, Milde Concert Studies, Handel, Sonata in C minor, solos by Bozza and Vidal.

303, 304 3 cr each

Oubradous, Scales and Daily Drills, Milde, Concert Studies, Orefici, Bravura Studies, selected passages from the Bach Cantatas, Mozart Concerto in B flat, Beethoven Quartet, representative contemporary solos, orchestra studies.

403, 404 3 cr each

Gambaro, Etudes for Bassoon, Bozza, Fifteen Daily Studies, Sonatas by Hindemith and Saint-Saens, orchestral and chamber music studies, Bozza Concertino, the contra bassoon.
103, 104 3 cr each
Scales and arpeggios in various articulations Langenus, Scale Studies Rose Forty Studies, Cavallini Thirty Caprices Weber, Fantasy, Le Fevre Fantasie Caprice, J B Albert, 24 Varied Etudes, H Klose, Part II

203, 204 3 cr each
Scales and arpeggios continued Rose Twenty Studies after Rode, Jeanjean Twenty-five Etudes, Weber Concertos, Mozart, Quintet for Clarinet and Strings, Weber First Concerto, representative Scales and arpeggios continued Rose Twenty Studies after Rode, Jeanjean Twenty-five Etudes, Weber Concertos, Mozart, Quintet for Clarinet and Strings, Weber First Concerto, representative scales and arpeggios

303, 304 3 cr each
Oubradous, Scales and Daily Drills, Milde, Concert Studies, selected passages from the Bach Cantatas, Mozart Concerto, Beethoven Quintet Weber, 2nd Concerto, Brahms Sonatas, French Contemporary solos, representative contemporary solos orchestral studies

403, 404 3 cr each
Jeanjean Sixteen Modern Studies Perrier, Vingt-deux Etudes Modernes, Spohr, Concertos, Debussy Premiers Rhapsodie, Weber, Grand Duo Concertante, representative contemporary solos and sonatas

Double Bass

103, 104 3 cr each
Scales and intervals in all keys Simandl Thirty Etudes Selected pieces Orchestral studies

203, 204 3 cr each
Hrabe, Eight-six Etudes Short pieces by Koussevitsky and Bottesini Orchestral studies

303, 304 3 cr each
Nanny Etudes de Kreutzer et de Fioni, concertos by Koussevitsky, Dittersdory and Bottesini, Orchestral studies

403, 404 3 cr each
Nanny, Dix Etudes Caprices Storch, Twenty Concert Etudes, concertos by Koussevitsky and Dragonetti, Orchestral studies

Flute

103, 104 3 cr each
Analysis of student's playing and basic corrections if necessary Tauffen-Gaubert, scales, scales in thirds, trills, Selected studies by M Moyse and Andersen, Etudes Op 33 and 37, Boehm Etudes, Op 37, Kuhlau, Duets, Sonatas of the Baroque Period Solos by Doppler Chaminade, Mozart Moyse, Kuhlau

203, 204 3 cr each
Tauffen-Gaubert Scales, scales in thirds and sixths, chromatic scales, arpeggios and trills Anderson, Etudes Op 21, Boehm, Caprices Op 26, Moyse, De la Soncente Selected duets by Kuhlau, Koechlin, etc concertos by Haydn and Mozart sonatas by LeClair, J S Bach and Vivaldi, L Moyse, French Music for Flute

203, 204 3 cr each
Tauffen-Gaubert Scales, scales in thirds and sixths, chromatic scales, arpeggios and trills Anderson, Etudes Op 21, Boehm, Caprices Op 26, Moyse, De la Soncente Selected duets by Kuhlau, Koechlin, etc concertos by Haydn and Mozart sonatas by LeClair, J S Bach and Vivaldi, L Moyse, French Music for Flute

203, 204 3 cr each
Continue single-note technique, chord studies, all major and minor scales, continue chord-melody playing, Joe Pass Guitar Style, Improvised Chord Solos, and Single Note Improvised Solos Books, intensive rhythm jazz chord studies (may use Bucky Pizzarelli's A Touch of Glass or Ronny Lee's Jazz Guitar Method Bk II), intensive chord-melody playing, including arrangements done by the student, beginning single-note improvisation, standard guitar repertoire, Berklee Method Bk I

303, 304 3 cr each
Continue rhythm playing studies, chord-melody playing, and single-note improvisation studies, Berklee Method Bk III, Chord-soloing and development of repertoire, including solos by George M Smith, Eddie Lang Dick McDonough, Carl Kress, Johnny Smith, Tony Mottola, George Van Eps, Single-string studies, Bach inventions Kreutzer violin studies, Pagannini violin studies

403, 404 3 cr each
Intensive single-note improvisation and improvisational lines, REH Publications for single-note study (Dorno, Carlson, Mock Kato Hutchinson, Joe Pass' Jazz Solos and Jazz Classics) Charlie Christian Studies, Howard Roberts' Method and Materials, Wes Montgomery's Octave-Style Playing, understanding "fusion" music, chord melody arranging from traditional and contemporary literature, record
transcription both already existing and ones done by the student (Coryell, Pass Barnes Burrell Roberts, DeMeola, Benson and others)

Harp

103, 104

3 cr each

Lanwerek Exercises and technical studies Standard orchestra parts Bochsa Etudes opus 318, Book II Pieces grade of difficulty of Grandjany Ana in Classic Style, Tourne, Images (Suite I), Saint-Saens Fantasie

203, 204

3 cr each

Technical studies Bochsa Etudes opus 62 Standard orchestra cadenzas Pieces of grade difficulty of Tournier Feene Rousseau Varations Pastorales, Grandjany Fantasie on a Theme of Haydn

303, 304

3 cr each

Technical studies Orchestra parts Bochsa Etudes, opus 34 Pieces grade of difficulty of Hindemith Sonata Handel Concerto in Bb major Ravel, Introduction and Allegro

403, 404

3 cr each

Technical studies Pieces grade of difficulty of Faure Impromptu, C P E Bach, Sonata Salcedo, Scintillation, Debussy, Danses Sacre et Profane

Horn

103, 104

3 cr each

Scales and arpeggios in all keys review of fundamentals of tone production, Alphonse, Deux Cents Etudes Nouvelles, Gallay Thirty Studies review of muting and trill technic Dubois, Cavatine, Franz Strauss, Concerto

203, 204

3 cr each

Alphonse Deux Cents Etudes Nouvelles, Kopprasch Studies, Strauss Seventeen Concert Studies Chabner Larghetto Mozart concertos, orchestral studies

303, 304

3 cr each

Alphonse Deux Cents Etudes, Nouvelles, Kopprasch Studies, Gallay, Twelve Caprices, Beethoven Sonata Mozart Concert Rondo, orchestral studies

403, 404

3 cr each

Alphonse, Deux Cents Etudes Nouvelles Studies by Kopprasch and Gallay, R Strauss, Concerto, Saint-Saens, Morceau de concert Schumann, Adagio and Allegro, Dukas, Villanellle, orchestral studies

Oboe

103, 104

3 cr each

Review of basic technique, Barret Studies, Andraud, Vade Mecum scales and arpeggios in all keys, Telemann Sonata in A minor, solos by Schumann, Handel and Bach

203, 204

3 cr each

Continue scales and arpeggios including scales in thirds and measured trills, Barret, Grand Etudes and Duets, Andraud, Vade Mecum, Bleuzet selected studies from Technique of the Oboe Handel sonatas Marcello Concerto

303, 304

3 cr each

Continue scales and arpeggios, Bleuzet, selected studies for range and endurance, orchestral studies, Cimarosa Concerto, Paris Conservatory solos, representative contemporary compositions

Organ

103, 104

2-3 cr each

Review of basic organ technique Selected works from the early English Italian, German and French schools Bach, Orgelbuchlein, selected preludes and fugues Vierne, 24 Pieces, Langlais, Dupré, Franck Organ Class I Pedal scales in all major keys pedals alone Hymn playing, transposition, modulations to closely related keys Introduction to figured bass and harmonization of simple melodies

203, 204

2-3 cr each

Selected works by Brahms, Mendelssohn Schumann, Hindemith Joseph Willcoxx Jenkins, Six Pieces, Dupe, Antiphons, Messiaen, Le Banquet Celeste or Ascension Suite, mvts 1 or 4, Langlais, Franck, Schroeder or Pepping, Vierne Pieces de Fantaisie, Bach, Orgelbuchlein, Schubler Chorales, Concert Preludes and Fuges Trio Sonatas

Organ Class II Continuation of pedal scales, hands and feet Hymn playing Modulation, transposition, counterpoint and figured bass Continued harmonization of melodies Score and clef reading

303, 304

2-3 cr each

Selected works by D Aquin deGrigny Handel, Mozart, Sweelinck Franck Langlais Messiaen, Bach, Preludes and Fuges Trio Sonatas Orgelbuchlein, Great 18 Chorales Works by contemporary American composers

Organ Class III Continuation of pedal scales, hymn playing, accompaniments transposition figured bass, clef reading in open score, conducting from the console

403, 404

2-3 cr each

Franck Chorales Messiaen, Nativite, Litz, Dupre, Durufle, Langlais, Vierne and Widor Symphonies, Alain, Tournemire and selected works by contemporary composers, Bach, Passacaglia and Fuge extended Preludes and Fuges Clavierubang Part III selections Recital

431, 432 Organ Improvisation

2 cr each

A practical application of the basic tools of improvisation including harmonization of melodies at the organ and the use of two and three voice counterpoint in varying styles, short ABA forms and chorale preludes with emphasis on their liturgical application

413 Organ Pedagogy

2 cr each

Students learn through demonstration the philosophies, methods, and materials of teaching both beginning and advanced students Junior standing is required

Percussion

103, 104

3 cr each

Fundamental snare drum technique and its application to musical notation, exercises in rhythm phrasing, control Elements of tympani technique, their application to classical literature, tuning Rudimentary xylophone technique, scales arpeggios forms

203, 204

3 cr each

Advanced snare drum studies, repertoire Three and four tympani exercises orchestral literature Intermediate xylophone studies transcriptions for solo
Tympani study through romantic and contemporary literature. Advanced xylophone exercises, transcriptions. Latin American instrumental techniques. Use of special accessories in late 19th and 20th century literature. Repertoire in all instruments.

Examination of representative solo material for all percussion instruments, preparation of solo for recital.

Bach, Three-Part Inventions, Haydn and Mozart sonatas, Beethoven, Op 10 and Op 14, Chopin waltzes, mazurkas, nocturnes, selections from modern repertoire. Major scales in different rhythms and tempos, and diminished arpeggios.


Students will become acquainted with the techniques and materials for teaching piano at the elementary level. For piano majors, junior standing is required.

A continuation of 313 concentrating on the techniques and materials for teaching piano at the intermediate and advanced levels.

Bach, English Suites, Partitas, Toccatas. Well-Tempered Clavier, Beethoven sonatas from middle and late periods, more extensive compositions from the Romantic Period, Ravel, Jeu d’eau, Debussy. Continue scales and dominant and diminished seventh arpeggios, plus major and minor arpeggios.


Schlossberg, Daily Drills, Sachse, One Hundred Etudes, Brandt, Orchestral Studies, Bousquet Studies, Enesco Concerto, Sowerby Sonata.


Tuba


303, 304  
Rochut Melodious Studies Vol III, Blume Studies, Vol III, Blazhevich, Seventy Etudes Eby, Bass Studies, selected solos, orchestral studies

403, 404  
Gnogonev, Tuba Studies, Bernard, Etudes and Exercises for Tuba, transcriptions of horn and violoncello literature, solos by Cienera, Barat, Schroen, orchestral literature

Viola

103, 104  
Scales and arpeggios in three octaves, selected scales in thirds, sixths and octaves, Flesch, Scale Studies, Sevcik, Studies (Lifschey), Campagnoli, Forty-one Caprices, Fuchs, Twelve Caprices, Enesco, Concert Piece

203, 204  
All major and minor scales and arpeggios, scales in octaves, thirds, sixths, and tenths Selected studies from Rode, Caprices, Hermann, Six Concert Studies Op 18 Concertos by C P E Bach, and Hoffmeister, Vaughan-Williams, Suite, Sonata by Milhaud, parts from orchestral and chamber music literature

303, 304  
Continue scales and arpeggios Selections from Rode, Caprices and Gavinies, Twenty-four Matinees Sonatas by Brahms and Creston Viola parts from orchestral and chamber music literature

403, 404  
Selected Studies from Pagann, Caprices, Reger, Three Suites, Bach, unaccompanied violin or violoncello works transcribed for viola, Bloch, Suite for Viola, concertos by Bartok, Walton, Porter

Violin

103, 104  
Scales and arpeggios in three octaves, scales in thirds, sixths, octaves, tenths, harmonics, Fiorillo or Kreutzer, concertos by Bach, Mozart, Vieuxtemps, Wienawski, Bruch, Lalo, short pieces from the romantic period

203, 204  
Continued study of repertoire listed above, Kreutzer or Rode

303, 304  
Scales and arpeggios continued, Rode or Gavinies, Bach Solo Sonatas and Partitas, any of the major sonatas and concertos (Beethoven, Brahms, Mendelssohn, Bartok, Siberius, Tschakovsky)

403, 404  
Scales and arpeggios continued, Dant Op 35 or Pagann Caprices, continue solo Bach and study of major concertos and sonatas

Violoncello

103, 104  
Scales and arpeggios in three octaves with varied bowings Duport Studies, Franchomme, Twelve Caprices Sonatas of Veracini, Locatelli, and Boccherini

203, 204  
Scales and arpeggios in four octaves with varied bowings, scales in thirds, sixths and octaves, chromatic scales, and seventh chords Franchomme, Twelve Caprices, Duport, Etudes Concertos

by Romberg, Popper and Saint-Saens, sonatas by Boccherini and Haydn Orchestral studies Contemporary works

303, 304  
Continue scales Etudes by Servais and Piatti Concertos by Davidoff, Dohnanyi, Lalo, Boellmann, Symphonic Variations, six solo sonatas of Bach Orchestral Studies Contemporary works

403, 404  
Etudes by Servais, Piatti and Popper Concertos by Haydn Boccherini, Elgar, Barber, Schubert, Arpeggione Sonata Contemporary solos and sonatas Orchestral studies and chamber music literature

Voice

103, 104  
Technical exercises to fit the needs of the student Literature from all periods to fit the needs of the student

203, 204  
Continuation of technical exercises More challenging repertoire from all periods

303, 304  
Continuation of technical exercises Opera and oratorio repertoire emphasized in addition to more advanced concert repertoire and including contemporary theater repertoire

403, 404  
Continuation of technical exercises All students should have at least one complete oratorio and one complete opera role ready for performance before graduation The student’s repertoire should contain representative songs in Italian, French, German, and English, including significant examples of contemporary vocal literature The student’s senior recital should include examples from all of these

116, 216, 217, 316, 317, 416, 417 OPERA WORKSHOP 1 cr each
A performing class in which students learn standard and other opera repertory in English and original languages There is one major production each semester plus several outside performances

349, 350, 449, 450 VOCAL REPERTOIRE 1 cr each
Study and performance of vocal solo and ensemble literature Four semesters encompass Italian, German, French, and Contemporary (United States and Britain) music with concentration on one category each semester

MUSIC EDUCATION

Bassoon

101, 102  
All scales and arpeggios, Weisenborn Op 8 Vol I, Milde Studies, Galliard, 6 Sonatas for Bassoon

201, 202  
Continue scales and arpeggios with various articulations, Weisenborn Op 8 Vol II, continue Milde Studies, Kvar Studies, Weinberger, Sonatine
140

301, 302
Milde, Studies in All Keys, Jancourt, Grand Method Book II, Kavor Studies, solos by Marcello and
Cools, orchestral studies

401, 402
Selected studies from Milde, Concert Studies Vol I, Telemann, Sonata, orchestral studies

171 BASSOON REED-MAKING
A course designed to encourage one's own reed-making. Includes the various aspects of shaping,
soaking, and thinning the cane.

Clarinet
101, 102
Scales and arpeggios Klose, Celebrated Method for Clarinet, Part II, Baerma, Method Book II, selected
solas

201, 202
Continue scales and arpeggios in various articulations, continue Klose Method, Rose, 32 Studies for
Clarinet, Voxman, Duets, selected solos

301, 302
Langenus, Scale Studies, continue Rose, 32 Studies, Klose, 20 Characteristic Studies, Weber, Fantasy
and Rondo, orchestral and band studies

401, 402
Continue Langenus, Scale Studies, Rose, 42 Studies, Polatchak, 12 Etudes for Clarinet, Mozart,
Concerto in A, solos by Jeanjean, contemporary solos, orchestral studies

Double Bass
101, 102
All positions up to thumb position, scales and intervals in all keys, Simandl, New Method for the
Double Bass

201, 202
Scales continued including thumb positions, Simandl Method continued, selected pieces

301, 302
Scales and intervals continued, Simandl Method completed, Simandl, Thirty Etudes, selected pieces,
violoncello sonatas by Marcello and others, orchestral studies

401, 402
Simandl, Thirty Etudes, selected studies from Hrable, Eighty-six Etudes, pieces by Koussevitsky and
others, orchestral studies

Flute
101, 102
Kohler, Etudes Book I, Terschak Studies, Drouot, 25 Celebrated Etudes, M. Moyse, selected etudes,
scales and arpeggios in all keys, selected solos, Sonatas by Marcello, Handel, Blavet, and Telemann

201, 202
Continue scales and arpeggios, Drouet, 25 Celebrated Etudes, Anderson, Etudes Op 37 selected
solas from 19th century composers. Sonatas of Baroque composers

301, 302
Anderson Etudes, Op 33 and Op 21, Berbiquer, Studies, Taffanel-Gaubert, Daily Studies, all scales
and arpeggios in various articulations, pieces by Anderson, Widor, Quantz, Handel sonatas

401, 402
Anderson, Etudes Op 30, Taffanel-Gaubert Scales, scales in thirds and in sixths, chromatic scales,
arpeggios and trills, sonatas by Handel, Telemann and Blavet, representative contemporary pieces,
and Pans conservatory solos

Guitar-Classical
101, 102
Evaluation of student's abilities and basic corrections if necessary. Scales, major and minor up to four
sharps and flats, Carcassi, Method, selected studies from Carcassi Twenty-Five Etudes Op 60,
Renaissance dances, works by Carulli, Aquado, Sor

201, 202
All scales major and minor, two and three octaves, Henze Method, Sor Concert Etudes, ne suite and
selected pieces from the Renaissance and Baroque, works by Luis Milan, Tarrega, Ponce, and
Villa-Lobos

301, 302
Continuation of technical studies of the first two years, lute music transcribed for guitar, Dowland,
Bach, Sor Concert Etudes and Sonatas, chamber ensemble works by Bocchenni, Schubert,
Schedler, Ibert, Paganini

401, 402
Bach suite, a sonata or suite by a 20th-century composer, concerto by Vivaidi, Giulani, Carulli, or by
a 20th-century composer

Guitar-Jazz
101, 102
Evaluation of student's abilities, basic technique and reading abilities including reading knowledge
through VII positions, all major scales in all positions, Berklee Method Book I and Melodic Rhythm
Studies Book by William G. Leawalt, basic chord theory, basic position folk chords and alterations,
all barre chords, and a working knowledge of basic jazz chord forms, beginning study of chord-melody
solo playing and single-note techniques, standard guitar solos

201, 202
Continue single-note technique, chord studies, all major and minor scales, continue chord-melody
playing, Joe Pass Guitar Style, Improvised Chord Solos, and Single Note Improvised Solos Books,
intensive rhythm jazz chord studies (may use Bucky Pizzarellii's A Touch of Glass or Ronny Lee's Jazz
Guitar Method Bk 1), intensive chord-melody playing, including arrangements done by the student,
beginning single-note improvisation, standard guitar repertoire, Berklee Method Book I

301, 302
Continue rhythm playing studies, chord-melody playing, and single-note improvisation studies,
Berklee Method Book III, Chord soloing and development of repertoire, including solos by George M
Smith, Eddie Lang, Dick McDonough, Carl Kress, Johnny Smith, Tony Mottola, George Van Eps,
Single-string studies, Bach inventions, Kreutzer violin studies, Paganini violin studies

401, 402
Intensive single-note improvisation and improvisational lines, REH Publications for single-note study
(Dono, Carlson, Mock, Kato, Hutchinon, Joe Pass' Jazz Solos and Jazz Classics), Charlie Christian
Studies, Howard Roberts' Method and Materials, Wes Montgomery's Octave-Style Playing, under-
standing "fusion" music, chord-melody arranging from traditional and contemporary literature, record transcription both already existing and ones done by the student (Coryell, Pass Barnes, Burrell, Roberts, DeMeola, Benson and others)

Harp
101, 102 2 cr each

201, 202 2 cr each

301, 302 2 cr each

401, 402 2 cr each
Technical studies. Pieces grade of difficulty of Faure, Impromptu, C.P.E. Bach, Sonata, Salzedo, Scintillation, Debussy, Danses Sacre et Profane

Horn
101, 102 2 cr each
Fundamentals of tone productions, scales and arpeggios in various articulations, chromatic scales, ability to read in at least two clefs, Mozart, Concerto No. 3, selected melodic material

201, 202 2 cr each
Extend range of all scales and arpeggios, diminished seventh chords, muting and preparatory trill studies, ability to read in three or four clefs, Alphonse, Deux Cents Etudes Novelles Book II, selected solos, orchestral studies

301, 302 2 cr each
Continue scales, arpeggios and other drills, Alphonse, Deux Cents Etudes Novelles Book III, selected studies from Kopprasch 60 Studies Book 1, R. Strauss Concerto, orchestral studies

401, 402 2 cr each
Continue scales, arpeggios and technical drills, Kopprasch, 60 Studies, Gallay, 30 Studies, solos by Mozart, Godard, Corelli, representative contemporary solos, orchestral studies

Organ
101, 102 2 cr each
Gleason, Method of Organ Playing. Stanley, Voluntaries, Franck, l'Organist, Vierne, 24 Pieces, Dupre. Chorale Preludes. Selected works from the early Italian, German, and French schools Bach, Orgelbuchlein selections, 8 short Preludes and Fugues and selected preludes and fugues. Organ Class I. pedal scales in all major keys, pedals alone, hymn playing, introduction to figured bass and harmonization of simple melodies

201, 202 2 cr each
Selected works by Brahms, Mendelssohn, Joseph Wilcox Jenkins, Six Pieces, Dupre, Antiphons, Messiaen, Le Banquet Celeste of Ascension Suite, mvts 1 or 4, Langlais, Franck, selected works by contemporary composers, Bach, Orgelbuchlein, Schubler Chorales, selected preludes and fugues. Organ Class II. pedal scales hands and feet in all major and minor keys, hymn playing, modulations, transposition, score reading, continued harmonizations of melodies

301, 302 2 cr each
Selected works by D'Aquin, Clerambault, Sweelinck Franck, Langlais, Messiah, Bach, preludes and fugues, trio sonatas, Orgelbuchlein, Great 16 Chorales, works by contemporary composers. Organ Class III. continuation of pedal scales, hymn playing, score reading, transposition, figured bass, counterpoint accompaniments of anthems and canticles

401, 402 2 cr each
Selected works by Franck, Langlais, Tournemire, Vierne, Alain, and other contemporary composers Bach, preludes and fugues, partitas, Clavierubung Part III selections. Organ Class IV. pedal scales, free hymn accompaniments, anthem accompaniments and conducting from the console

Percussion
101, 102 2 cr each
Rudimentary snare drum technique. analysis of existing methods. Elementary tympani technique, uses of tympani in classical literature, tuning

201, 202 2 cr each
Intermediate snare drum studies, elementary xylophone technique. Intermediate tympani studies, orchestral literature Beethoven to Wagner. Performance techniques of most commonly used equipment

301, 302 2 cr each
Use of tympani and percussion in late 19th and 20th century literature. Orchestral studies in all instruments. Examination of percussion ensemble materials, group instruction methods. Selection and care of instruments for professional and school use. Extension of mallet study

401, 402 2 cr each
Deployment of instruments in band and orchestra settings. conducting the percussion ensemble. Review of teaching methods in basic techniques, the role of the percussion clinician. Problems in writing and scoring for percussion. Discussion of available materials and sources for solo performances
**Piano**

101, 102  
Bach, two part inventions, short preludes and fugues, easier sonatas of Haydn and Mozart, Beethoven, Rondo in C, easier nocturnes and mazurkas of Chopin. Major scales M M quarter note equals 96, diminished seventh arpeggios M M quarter note equals 88. All scales and arpeggios in triplet and quadruplet rhythms.

201, 202  
Bach, two and three part inventions, sonatas of Haydn and Mozart, easier sonatas of Beethoven, nocturnes and waltzes of Chopin, Schumann Op 15, Scales Major and Minor M M quarter note equals 104 Dominant and diminished seventh arpeggios M M quarter note equals 96.

301, 302  
Bach, selected preludes and fugues from Well-Tempered Clavier, Beethoven, Op 10 and Op 14 sonatas, Chopin, Preludes and Nocturnes, selections from impressionistic and Contemporary repertoire. Continuation of major and minor scales, dominant and diminished seventh, and major arpeggios.

401, 402  

**Saxophone**

101, 102  
All major and minor scales and arpeggios, Universal Method for Saxophone or equivalent material, Bassi-lasilli, Concert Etudes, selected solos.

201, 202  
Continue scales and arpeggios with various articulations, Bassi-lasilli, Concert Etudes, selected solos.

301, 302  
Mule, Scales and Arpeggios, Gatti-lasilli, 35 Melodious Technical Exercises, pieces by Faure and Jeanjean.

401, 402  
Mule, Scales and Arpeggios, Gatti-lasilli, 35 Melodious Technical Exercises, Labanchi-lasilli, 33 Concert Etudes, Premier Solo de concours by Pares, Mortiz, Sonata for Saxophone, representative contemporary solos.

**Trombone and Baritone Horn**

101, 102  
Studies and exercises in tone production and flexibility by Shiner, Arban, Method for Trombone, major and minor scales through two octaves, selected solos.

201, 202  
All scales and arpeggios, continue drills and Arban Method for Trombone, selected studies from Camara, 170 Etudes. Study of single, double and triple tonguing. Prior solos and other selected materials, band and orchestral studies.

301, 302  
Continue technical exercises, Stacey, Lip Flexibility, Rochut, Melodious Etudes Book I-II, Stacey, Studies Book I, La Fosse, Sight Reading Studies, study of tenor clef, Croce-Spinelli, Solo de Concours, Alary, Contest Pieces, Morel, Piece in F minor.

401, 402  
Continue technical exercises, Stacey, Lip Flexibility, Kopprasch Book I-II, Rochut, Melodious Etudes Book III, Blazhevich, Clef Studies, study of bass trombone, Guilmant, Morceau Symphonique, Camara, Valse Petite, Ropartz, Andante and Allegro.

**Trumpet**

101, 102  
All scales and arpeggios, Schlossberg, Daily Drills, Arban, Complete Method for Trumpet, selected short pieces.

201, 202  
All major and minor scales and arpeggios, Schlossberg, Daily Drills, Arban, Complete Method for Trumpet, Kreutzer, Ten Studies, Concerto by Grofe, selected solos, band and orchestral studies.

301, 302  
Continue scales and arpeggios in various articulations, Schlossberg, Daily Drills, Concone, Fifty Lessons, Brandt, Etudes for Trumpet, Bernstein, Rondo for Lifey, Two Pieces for Trumpet by Karznev.

401, 402  

**Tuba**

101, 102  
All scales and arpeggios, Arban Method for Trombone and Baritone, selected solo material.

201, 202  
All scales and arpeggios with various articulations, continue Arban, Bell, Foundations of Tuba and Sousaphone Playing, selected solos.

301, 302  
Continue scales and arpeggios, chromatic scales, Bell, Foundations of Tuba and Sousaphone Playing, Vandercook, Etudes, Rochut, Melodious Etudes Book I, Blume Studies Book I, Tyrrell, Advanced Studies for the BB flat Tuba, selected solos, band and orchestra studies.

401, 402  

**Violin**

101, 102  
Scales and arpeggios in three octaves, scales in thirds, sixths, octaves (Flesch), Dont, Schradieck, Mazas, or Kreutzer, Baroque period concertos and sonatas, concertos Bach and Mozart.

201, 202  
Scales and arpeggios continued, Fiorillo or Kreutzer, concertos of Bach, DeBenot, Mozart, Rode, and Viotti.
301, 302
Scales and arpeggios continued, Kreutzer or Rode, short pieces of the Romantic period, standard concerto and sonatas

401, 402
Scales and arpeggios continued, Rode or Gavines, short pieces of the Romantic period, Bach Solo Partitas, standard concerto and sonatas

Viola
101, 102
Scales and arpeggios in three octaves, Sevcik Studies (Lifshey), Hermann, Technical Studies, Telemann, Concerto in G, Klengel, Album of Classical Pieces

201, 202
Continue scales and Sevcik Studies, selected studies from Kreutzer, 42 Etudes, Stamitz, Concerto in D, Bruch, Romance

301, 302
Continue scales and arpeggios, scales in thirds, sixths and octaves, Palachko, 20 Etudes, Fiorillo, selected studies from 36 Etudes, Bach, three viola de gamba sonatas adapted for viola

401, 402
Scales and arpeggios continued, selected studies from Campagnoli, 41 Caprices, Concerto in B minor by Handel-Casadesus, Hindemith, Music of Mourning, selected contemporary solos, viola parts from orchestral and chamber music literature

Conducting
379, 380 Conducting I, II
This course provides a study of the fundamentals of conducting as a performing skill, teaching technique, and as an interpretive art. Use of the baton, choral and instrument rehearsal techniques, and score reading. Two hours a week

327 Jazz Pedagogy & Directing
Method and materials pertinent to rehearsing and conducting jazz ensembles, studio orchestras and theater orchestras with an emphasis on conducting as a performing skill as well as an interpretive art

511 Choral Conducting and Methods
Development of conducting technique. The study, rehearsal and class performance of choral works in various styles

Ensemble
Required for all students as laboratory work during each semester of full-time enrollment. At least four semesters (usually the first four) must be spent in one of the major ensembles—Orchestra, Band, University Chorus, Chamber Singers, Concert Choir—after which a student may, with the request or approval of the conductor, take one of the smaller ensembles for credit applicable toward the total ensemble requirement. Students must indicate the specific ensemble for which they are enrolling on forms completed during registration. Non-music majors are invited to register for ensemble with permission of instructor.
148

141, 142, 241, 242, 341, 342, 441, 442 CHAMBER MUSIC 1-2 cr each
Study and performance of all types of chamber music for the various instrumental combinations

EURHYTHMICS

121, 122 EURHYTHMICS 2 cr each
Fundamentals of rhythmic movement Study of pulse, meter, rhythm, and duration, the expressive qualities of music such as tempo, dynamics, and phrasing realized and expressed through bodily movement Two hours a week

MUSIC EDUCATION

189, 190, 289, 309, 389, 390 MUSIC FIELD OBSERVATION 0 cr
Music education majors are required to complete six field observations per year The observations are not credit bearing, but are preparation for student teaching Each student must register for field observation every semester (except senior year) in order to fulfill the pre-requisite for student teaching

181 WOODWIND CLASS I 1 cr
Fundamental principles and techniques of playing and teaching the clarinet Study of literature which is appropriate for beginning class instruction For voice, piano, and organ majors in the music education program Offered in the fall semester Two hours a week

182 WOODWIND CLASS II 1 cr
Performance technique on clarinet continued Teaching technique of oboe, bassoon and saxophone covered For voice, piano, and organ majors in the music education program Prerequisite Musc 181 Offered in spring semester Two hours a week

183 WOODWIND CLASS I 1 cr
Fundamental principles and techniques of playing and teaching the clarinet Study of literature which is appropriate for beginning class instruction For voice, piano, and organ majors in the music education program Offered in the fall and spring semesters Two hours a week

184 WOODWIND CLASS II 1 cr
Fundamental principles and techniques of playing and teaching the saxophone, oboe, flute and bassoon Study of mechanism and evaluation of class methods and materials Students are expected to develop a reasonable performing skill on each instrument For woodwind, brass, string, and percussion majors in the music education program Music 183 is not a prerequisite for this course Offered in the fall and spring semesters Two hours a week

185, 186 VOICE CLASS 1 cr each
Fundamentals of voice production including placement, breathing, breath control, study of vowels and consonants, posture, elementary song materials, interval and scale drill, sight singing Proper stage presence for recitals and concerts and comportment in the classroom will be emphasized

213, 214 PIANO CLASS 1 cr each
The development of functional keyboard skills in sight reading, transposition, harmonization of melodies, and improvisation of accompaniments Required of all Music Education students with the exception of piano majors Two hours a week Prerequisites Piano 111, 112 or Advanced Standing Examination

215 PIANO CLASS FOR PIANO MAJORS IN MUSIC EDUCATION 1 cr
Piano majors in Music Education study the development of functional keyboard skills in sight reading, transportation, accompaniments Required of all Piano Majors Two hours a week

281 BRASS CLASS I 1 cr
Fundamental principles and techniques of playing and teaching the trumpet Study of literature which is appropriate for beginning class instruction For voice, piano, and organ majors in the music education program Offered in the fall semester Two hours a week

282 BRASS CLASS II 1 cr
Performance technique on trumpet continued Teaching technique of French horn, trombone, baritone, and tuba For voice, piano, and organ majors in the music education program Prerequisite Music 281 Offered in the spring semester Two hours a week

283 BRASS CLASS II 1 cr
Fundamental principles and techniques of playing and teaching the French horn Study of literature which is appropriate for beginning class instruction For voice, piano, and organ majors in the music education program Offered in the fall and spring semester Two hours a week

284 BRASS CLASS II 1 cr
Fundamental principles and techniques of playing and teaching French horn, trombone, baritone, and tuba Study of construction, fingering, and evaluation of class methods and materials For woodwind, brass, string, and percussion majors in the music education program Music 283 is not a prerequisite for this course Offered in the fall and spring semesters Two hours a week

381 STRING CLASS I 1 cr
Each student selects one of the string instruments and studies it throughout the semester in order to attain greater technical proficiency Two hours a week

382 STRING CLASS II 1 cr
Fundamental principles and techniques of playing and teaching the violin, viola, cello, and bass Bowing, positions, vibrato, and an examination of class methods and materials are presented Two hours a week

383 ELEMENTARY METHODS 2 cr
Principles, practices, and materials for the general program in the elementary grades A program of student presentations and discussion periods will be required Two hours a week Prerequisite 214 or 215, Piano Class

384 SECONDARY METHODS 2 cr
Principles, practices, and materials for the general music program in the secondary schools including voice classification, the organization of ensemble activities, concerts, assembly programs, and the relationship of the school to the community Two hours a week

385 CHORAL TECHNIQUES 1 cr
This course deals with all aspects of choral singing and their application to school music programs Emphasis is placed on the development of performance ensembles, rehearsal techniques, special choral problems, planning musical productions and practical work in choral conducting and arranging Includes principles, practices, materials, and an overview of current teaching strategies and curriculum trends as applied to the total music program of the secondary school Offered Spring Semester only

387 MARCHING BAND TECHNIQUES 1 cr
Principles, practices, and materials for the marching band are studied, including its role in the total music program, organization and maintenance, planning and executing of the field show, basic maneuvers and rehearsal procedures Offered Fall Semester only
481 PERCUSSION CLASS TECHNIQUES
Fundamental principles and techniques of playing and teaching the percussion instruments of the band and orchestra with special emphasis on the keyboard instruments. Two hours a week.

490 STUDENT TEACHING
Practice teaching in approved elementary and secondary schools under the guidance of a critic teacher and the college supervisor. Note: Before a student will be permitted to begin student teaching, all field observations and methods classes including instrumental classes, piano, woodwinds, brass, strings, and voice must be satisfactorily completed. Percussion, elementary and secondary methods must be taken in the same semester as student teaching. Students will receive complete instructions, together with lists of materials, when they enroll in the Music Education program. Practical techniques to aid students in fulfilling the requirements will be explored in various methods classes.

MUSIC HISTORY, LITERATURE AND ART
351, 352 MUSIC HISTORY
An historical survey of the ideas and cultural achievements of Western man in the context of the political and sociological developments to which the art of music is bound. The survey embraces two semesters which are arranged chronologically. These courses seek to provide a broad historical frame of reference within which the relationship of music to the development of man's thought can be clearly seen, along with a survey and analysis of representative literature.

451, 452 ORGAN LITERATURE
A survey of organ literature and organ building 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.

349, 350, 449, 450 VOCAL REPertoire
Study and performance of vocal solo and ensemble literature. Four semesters encompass Italian, German, French, and Contemporary (United States and Britain) music, with concentration on one category each semester.

151 EVOLUTION OF JAZZ STYLES I
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
A study and analysis of recorded improvised solos by major jazz artists from 1940 to the present.

455 MUSIC AND MASS MEDIA
The use of music in television and films, industrial shows, stage shows, etc., and the composer/performer rights under U.S. copyright law, as well as agreements and relations between producers, directors, performers, writers and booking agents involved.

MUSIC THEORY
The Theory Department recognizes the individual differences of students and provides an opportunity for them to advance according to their abilities.

131, 132 THEORY
This course is designed to acquaint the student with the materials of musical composition using diatonic harmony. Opportunities for the student to do creative work are provided. Three hours a week.

231, 232 THEORY
A continuation of 132 introducing chromatic harmony and the basic principles of contrapuntal writing. Creative opportunities continued. Three hours a week.

233, 234 SOLFEGGIO AND EAR TRAINING
A continuation of 134. Two hours a week.

335 COUNTERPOINT
The course is devoted to a study of the polyphonic technique of the sixteenth century.

336 COUNTERPOINT
A course study concerned with the harmonic contrapuntal technique of the period of J. S. Bach.

340 ORCHESTRATION
A study of the basic problems of scoring for individual instruments, particularly orchestral choirs, the entire orchestra, and unique instrumental combinations. Analysis of the techniques of orchestration of selected composers of the 18th, 19th, and 20th centuries.

440 JAZZ ARRANGING
A study of the basic techniques of scoring for individual instruments and jazz ensembles of various sizes, from small groups to studio orchestras. Analysis of scores by contemporary big band arrangers.

430 ADVANCED JAZZ ARRANGING
Advanced arranging techniques for the jazz and studio ensemble.

138, 139 COMPOSITION
The study of writing of musical composition in the smaller forms.

238, 239 COMPOSITION
These courses are offered in order to provide gifted young composers an opportunity to receive guidance in the development of advanced compositional techniques. Permission of the chairman of the Theory Department is required.

226 JAZZ IMPROVISATION I
Beginning study and practice of melodic improvisation, conventional forms and chord progressions, employing idiomatic jazz rhythms and articulations, major-minor and modal scales.

227 JAZZ IMPROVISATION II
A continuation of 226 with an introduction to altered scales and chords.

426 JAZZ IMPROVISATION III
A continuation of 227 with an emphasis on chromatically altered scales, chords, and extended forms.

427 JAZZ IMPROVISATION IV
Extension and continuation of 426 with an emphasis on the practical application of advanced techniques to standard and jazz literature.
453 JAZZ COMPOSITION I 2 cr
A study of advanced compositional techniques as applied to contemporary jazz styles. Analysis of jazz compositions from 1940 to the present.

454 JAZZ COMPOSITION II 2 cr
A continuation of 453 with emphasis on individual style development.

MUSIC THERAPY

107 MUSIC THERAPY ORIENTATION 3 cr
An introduction to Music Therapy as practiced in a variety of rehabilitation settings. Observations followed by informal group discussions. Basic theory about the validity of music as therapy, the relationship of theory to practice. Intensive class participation will be required to prove qualification for further, in-depth study of the profession.

108 MUSIC IN THERAPY 3 cr
An exposure to music therapy techniques used in working with handicapped children and adults. Applications to current Practicum work will be emphasized. Prerequisite: Music Therapy Orientation 107.

307 PSYCHOLOGY OF MUSIC 2 cr
An exploration of musical behaviors, and to a lesser degree, all other art behaviors of a variety of cultures and sub-cultures, beginning with the student's personal experience. Extensive class participation will be expected. Prerequisite: Psychology.

308 INFLUENCE OF MUSIC ON BEHAVIOR 2 cr
A study of the uses of music in society including movies, television, industry, churches, schools, hospitals, etc., and the rationale thereof. Discussion, reading, and individual research projects will be assigned. Prerequisites: General Psychology or equivalent and Junior standing.

309 DIRECTED STUDY IN MUSIC THERAPY 2 cr

315 PIANO IMPROVISATION FOR MUSIC THERAPY 1 cr
Development of functional keyboard skills in improvisation on rhythm and dissonant chords as an aid in non-verbal communication with the handicapped client.

124, 223, 224, 323, 324, 423, 424 MUSIC THERAPY PRACTICUM 1 cr each
Supervised field work in an approved agency.

SACRED MUSIC

209 CHILDREN'S CHOIRS 1 cr
Materials and techniques used in dealing with children's choirs.

431, 432 IMPROVISATION 2 cr each
A practical application of the basic tools of improvisation including harmonization of melodies at the organ, two and three part counterpoint, short ABA forms and chorale preludes with emphasis on their liturgical application.

478, 479 CHORAL CONDUCTING AND METHODS 1 cr each
Development of conducting technique. The study, rehearsal and class performance of choral works in various styles.

464 CHURCH MUSIC ADMINISTRATION 2 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.

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.

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 hymnology.

476 ORGAN DESIGN AND MAINTENANCE 2 cr
A study of the basic concepts of organ construction with emphasis on the historical development of the organ and the mechanical operation of the pipes and console. Tuning, voicing, and esthetics of organ design will be discussed.

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.

407, 408 SERVICE PLAYING 1 cr each
An introduction to service playing for students minoring in organ. Hymn playing, score reading, anthem and canticle accompaniments and conducting from the console will be emphasized.

TAMBURITZANS INSTITUTE OF FOLK ARTS

154 INTRODUCTION TO FOLKLORE 3 cr
An introductory examination of the definition and scope of folklore studies, and the role of folklore in people's lives. Examined are various forms of folklore and folk expression such as tales, ballads, myths, legends, beliefs, games, proverbs, riddles, folk songs, and folk customs and their roles in societies.

255 INTRODUCTION TO BALKAN MUSIC 2 cr
An analytical study of the primitive and traditional folk music of the Balkans, its musical styles, forms and characters in terms of its geographical setting and historical background, and its general structure and aesthetics.

256 INTRODUCTION TO BALKAN DANCE 2 cr
A survey of folk dances of the Balkan highlighting their development, form, indigenous characteristics, differences and similarities from one ethnographic region to another.

147, 148, 247, 248, 347, 348, 447, 448 TAMBUWAITZA ENSEMBLE 1 cr each
The Tamburitza Ensemble involves the study and performance of music specifically composed and arranged for both small and large Tamburitza string ensembles. It encompasses the fundamental principles and techniques for both playing and teaching the Tamburitza and includes appropriate literature. May be taken by freshmen and sophomores for extra credit or by juniors and seniors for required credit provided that Major Ensemble requirements have been satisfied, and that permission of the conductor has been granted.
NON-MUSIC MAJORS

321 MUSIC FOR THE CLASSROOM TEACHER  2 cr
The aim of this course is to assist the student in gaining an appreciation of the importance of music in the lives of children, a knowledge of fundamental principles of instruction in music, and a familiarity with the variety of musically enriching experiences.

GENERAL EDUCATION

492 DEVELOPMENT OF THE CREATIVE PERSONALITY  3 cr
This course encourages creative growth through the development and execution of individual and group projects in music, music education and music therapy. Limited enrollment with the consent of the instructor. Prerequisites: Introduction to Psychology and Educational Psychology.

Descriptions of courses in English, modern languages, psychology, sociology, and education, required in the several curricula will be found in the College of Liberal Arts and Sciences and School of Education sections of this Catalog.
School of Nursing

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 curricula. Previously, the School of Nursing offered two programs both leading to the degree of Bachelor of Science in Nursing, however since 1964, both generic nursing students and registered nurse students enroll in the same program.

DEFINITION AND PHILOSOPHY OF NURSING
The faculty of the School of Nursing has defined nursing as an academic discipline that seeks to understand man as living through the processes of life. The practice of Nursing applies the theories from this academic discipline to the health promotion of man. Health promotion is achieved through care giving, health teaching, inquiry, and leadership. In articulating this definition, the philosophy of the School of Nursing evolves from that of Duquesne University. As such, it guides the development of a personal philosophy of life based on a Christian frame of reference and supports a commitment to the values which give meaning to life.

The faculty of the School of Nursing believes that the academic discipline of nursing is a human science profession primarily concerned with the health care of man with family evolving from conception through death. Nursing focuses on helping individuals and families to promote health and enhance the quality of living. The nurse initiates interpersonal relationships with families to help them describe their health, evaluate alternatives, and mobilize their resources for planning change. Central to nursing practice is the nursing process which is deliberate, systematic and individually designed. The nurse uses theories, concepts and research findings to substantiate nursing practice. The professional nurse is a creative innovator who finds satisfaction in giving service to others, regularly evaluates self and plans for continuing self-growth through systematic inquiry, the professional nurse promotes the evolution of nursing toward independence. The professional nurse is educated in an institution of higher learning in a program which grants a bachelor degree in nursing. The educational process is a co-constituted one in which the teacher and learner share experiences and share knowledge. The emergence of new knowledge is encouraged through the ongoing interrogation of present knowledge and new experiences.

In making explicit the philosophy that underpins the theory of nursing, the concepts of man and health are studied through a synthesis of the concepts comprising nursing as a human science.

Man is a sentient living unity, a creative act of God. Man and environment in their openness evolve unidirectionally. Existence with the world is recognized through patterns of expression. This existence is co-constituted, that is, man’s relationship with the environment is participative. Within limitations of situation, man has freedom to choose a way of being with the world, and in that choosing, gives meaning to the situation.

Health is a process of being and becoming experienced by man. It is a personal process that affords each individual the potential for productive and meaningful life that is congruent with individual belief systems and values that arise from a multicultural society. Every person has the freedom to choose changing dimensions of health and health values which emerge from ethnic and cultural customs and characteristics. Health is assessed by citizens and promoters of health care through a participative process which involves joint planning and decision-making.

The Duquesne University School of Nursing baccalaureate program graduates a generalist who has the flexibility to practice nursing in a variety of settings. The program emphasizes learning of the theoretical base of Nursing as a human science and builds a foundation for graduate study.

PROGRAM PURPOSES, GOAL AND INDICATORS
The purposes of the program are:
1. To prepare the graduate for beginning levels of professional nursing in a variety of settings.
2. To provide the foundation for graduate education in nursing.

The program goal is to practice nursing as a human science in a variety of settings. 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 indicators of this program state that upon completion of the program, the graduate:

1. Promotes the rights and dignity of man in health care
2. Initiates health care from the perspective of client’s and family’s belief about health
3. Engages client and family in a health care decision-making process relative to the man—environment inter-relationship
4. Evaluates nursing as a human science in providing health care to clients and families and groups
5. Promotes professional standards of responsibility and accountability in nursing practice
6. Uses current research findings in providing a basis for change in nursing practice
7. Participates in studies/projects which enhance nursing practice
8. Enhances own effectiveness in nursing based on continuous self-evaluation
9. Synthesizes knowledge from related sciences and the humanities in the utilization of the nursing process
10. Evaluates the values and goals of the nursing profession in light of the continued development of nursing.

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 bachelor’s degree 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 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 design has three components, complementary courses, supplementary courses, and core-nursing courses. The course offerings in the natural, biological and human sciences 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 practice settings. Upon the successful completion of this program, 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 interests of the students and the School to maintain quality professional nursing education.

ADMISSION REQUIREMENTS

ADMISSION OF HIGH SCHOOL GRADUATES

The specific entrance requirements for admission are:

1. The applicant's high school curriculum must include a minimum of 16 units distributed as follows:

   - English: 4 units required
   - Social Studies: 3-4 units recommended
   - Language: 2 units recommended
   - Mathematics and Science: 6 units recommended (1 unit Chemistry and 1 unit Algebra required)

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 admissions is the secondary school academic record. This is considered to be the most important criterion of success at Duquesne University. It is the desire of the Admission 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 of 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, the genuine equivalent of these requirements may be accepted in lieu of the foregoing precise requirements. See the section on Admissions for other University requirements.

ADMISSION OF REGISTERED NURSE STUDENTS

Registered nurses who have completed a diploma or associate degree program in nursing who wish to pursue study for a bachelor's degree must follow general admission procedures. In addition, they must:

1. Present a copy of the most recent registration as a professional nurse in one state or territory.
2. Submit an official copy of school of nursing transcript.
3. Submit an official copy of transcript from previous college or university attended.

TRANSFER STUDENT ADMISSION

See Admissions Section for further requirements.

Admission criteria for transfer students:

1. A cumulative OPA of 2.5 from the transferring student's institution.

ADDITIONAL EXPENSES AND REQUIREMENTS

Student Liability Insurance (Professional) for three years: $45.00
Uniforms, nurse's cap, duty shoes, identification pin: $100.00
Transportation to and from clinical agencies (weekly): $30.00 (approx.)
School of Nursing pin, if desired: $16.00
Physical examinations, diagnostic procedures, and immunizations: $300.00 (cost varies)

An annual physical examination and certain immunizations and health tests are required for all students in the School of Nursing. Pre-clinical students must complete specific health requirements by August 1 before proceeding to the Junior and Senior clinical practicum.
Students are individually responsible for arranging transportation to and from assigned agencies for practice experience, it is recommended that they have a car for community health experience. Students are requested to have tape recorders.

**STUDENT ORGANIZATIONS**

The 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.

*Alpha Tau Delta* is a national professional fraternity for persons in nursing. Theta Chapter was chartered on the Duquesne University campus on April 21, 1938. Only 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 are eligible.

*Sigma Theta Tau* is the national nursing honorary. A chapter is presently being formed in the School of Nursing. The group has organized itself and has adopted bylaws and membership requirements. It is presently waiting for the completion of its probationary period before receiving its national charter. Membership is open to students, faculty, and alumni who meet the criteria for election.

*Class Organizations* Each of the four classes is an officially recognized organization in the School of Nursing. Each class elects its own officers and conducts such programs and affairs as its members deem desirable toward achieving its goals. All students are included in these organizations.

**HONOR AWARDS**

In addition to graduation honors, these awards are presented at Honors Day.

*The Mary W Tobin Gold Medal* and *The Dean Johnson Memorial Medal* are awarded annually to two outstanding seniors chosen by the faculty. The Mary W Tobin Gold Medal is awarded by the Theta Chapter of Alpha Tau Delta National Professional Fraternity for persons in nursing. It was established in 1945 to honor Mary Tobin on the occasion of her retirement from the University. The Dean Johnson Memorial Medal commemorates Dean Johnson's contributions to the growth of the School of Nursing.

**NLN ACHIEVEMENT TESTS**

All nursing students are expected to take NLN Achievement Tests during their academic program. The following achievement tests will be administered as scheduled:

<table>
<thead>
<tr>
<th>NLN Achievement Test</th>
<th>When</th>
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<tbody>
<tr>
<td>I  Allied Science</td>
<td>End of Sophomore Year</td>
</tr>
<tr>
<td>II  Medical-Surgical Nursing</td>
<td>End of Junior Year/Nursing IV</td>
</tr>
<tr>
<td>III Psychiatric Nursing</td>
<td>End of first semester Senior Year/Nursing V</td>
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<tr>
<td>IV  Parent/Child Nursing</td>
<td>Spring semester Senior Year/Nursing VI</td>
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</table>

The student is responsible for all fees.

**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. Successful completion of all clinical practicums
2. Completion of the required curriculum plan

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.

Degree requirements must be completed within 10 years after initial enrollment. At the end of the 10-year period, the student's record is re-evaluated in terms of the curriculum in effect at that time, and the student is advised of any additional requirements for graduation. The responsibility for fulfilling degree requirements rests with the student.

**RECOMMENDED COURSE SEQUENCE**

<table>
<thead>
<tr>
<th>First Year</th>
<th>Courses</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Natural Science**</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Eng 101 —English Composition</td>
<td>3</td>
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<td></td>
<td>Psych 103 —Intro to Psychology</td>
<td>3</td>
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<td></td>
<td>Speech</td>
<td>3</td>
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<td></td>
<td>N 199 —Nursing I**</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Phil 104 —Intro to Philosophy</td>
<td>3</td>
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<tr>
<th>Second Year</th>
<th>Courses</th>
<th>Credits</th>
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<tr>
<td></td>
<td>Bio 207 and 208 —Anatomy &amp; Physiology**</td>
<td>4</td>
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<td></td>
<td>Psych 225 —Developmental Psychology I**</td>
<td>3</td>
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<td></td>
<td>N 255 —Nutrition**</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Nursing Elective</td>
<td>3</td>
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<tr>
<td></td>
<td>N 200 —Nursing II**</td>
<td>3</td>
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<tr>
<th>Third Year</th>
<th>Courses</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>N 340 —Nursing III*</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Soc 325 —Family Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Philosophy or Theology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>General Elective</td>
<td>3</td>
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<tr>
<th>Fourth Year</th>
<th>Courses</th>
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<tr>
<td></td>
<td>N 460 —Nursing V*</td>
<td>9</td>
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<tr>
<td></td>
<td>Nursing Elective</td>
<td>3</td>
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<tr>
<td></td>
<td>N 470 —Research Process</td>
<td>3</td>
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<tr>
<td></td>
<td>General Elective</td>
<td>3</td>
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*These courses must be taken during the semesters indicated

**Student Rights**

Bill of Rights—A statement of the student Bill of Rights is available to all students in the Duquesne University Student Handbook. The student handbook can be acquired in either the student government office located in student union or in the secretary's office of the School of Nursing.

School of Nursing Student Handbook—A copy of the School of Nursing Student Handbook is available to all nursing students in the School of Nursing Office. This handbook contains information important to the students within the School of Nursing.
School of Nursing Grievance Procedure
Grievance procedures must be initiated within 30 days of the occurrence which gave rise to the grievance. With the knowledge of the involved parties, either party may request that another person be present during the discussions.
If a difficulty arises between student and faculty, the student should first discuss the difficulty with the person directly involved.
If the matter is not satisfactorily resolved, the appropriate course coordinator should be consulted. If the problem persists, the associate dean should then be contacted.
In the event that a satisfactory agreement still has not been reached, the student should present his/her case before the Student Standing Committee of the School of Nursing.
If the problem is not satisfactorily resolved, a consultation with the dean of the School of Nursing should be arranged.
Should the problem still remain unresolved, a "Request of Hearing" form should be filed with the Vice President for Academic Affairs within 20 days of the dean's decision. If the Academic Vice President's findings determine that a legitimate grievance exists, he will convene the academic due process committee. In all cases, the decision of the academic due process committee is final.
If the Academic Vice President finds that a legitimate grievance does not exist, he/she will inform the student within 30 days of his/her determination.

Curriculum Standards
To progress to the nursing practice courses, a minimum cumulative QPA of 2.0 is required with a minimum of a C grade in Anatomy and Physiology (including laboratory), Nutrition, Pathology, Nursing I and II, Basic Pharmacology, and Developmental Psychology I and II.
The School of Nursing faculty reserves the right to withdraw any student from the nursing major who, in its opinion, has not progressed satisfactorily in nursing practice even though the quality point average meets required standards.
Students must maintain a minimum of a C grade in each clinical nursing course. A Pass/Fail grade is given in clinical practice. An F in either theory or clinical practice will result in an F grade of the course.
Students may repeat non-nursing courses one-time only. This includes support courses offered in and out of the School of Nursing, that is Anatomy and Physiology and lab, Pathology, Basic Pharmacology and Nutrition. Students may repeat only one course at the 300 level and one at the 400 level in the nursing major.
The student is cautioned to seek regular advice from the faculty and to keep a record of credits earned and the calculated averages. The school assumes no responsibility for such errors appearing in student records which may prevent the student from being graduated.
The faculty of the School of Nursing reserves the right to make any changes in the curriculum that seem necessary or desirable.

COURSE DESCRIPTIONS
Descriptions of courses in liberal arts and sciences may be found in the College of Liberal Arts and Sciences section, pages 22 to 87.

212 PATHOLOGY
The students in this course examine the major processes associated with disease, such as infection, inflammation and the immune response. The major diseases affecting man and health in today's society are explored. Lecture, four hours. Prerequisites: Anatomy and Physiology, Lecture and Laboratory. Only offered during Spring Semester.
they strive toward family unity. The student initiates interrelationships with evolving families as they experience separateness/togetherness to describe their health, evaluate alternatives, and mobilize resources in planning for change.

The course is presented in two units. Unit I utilizes the nurse/client/family process with evolving families as they experience life processes. The concepts, separateness/togetherness, are utilized to explore the needs of the individual within the family, the interrelatedness of family members, and family dynamics as the family progresses toward unity. The major focus in Unit II is the concept of family vulnerability. The concepts, separateness/togetherness, continue to be used to explore man and his family's experience of health. Prerequisites: Nursing IV, Family Systems

461 NURSING VI 9 cr
Nursing VI is the final clinical nursing course and builds on prior learnings. The focus of the course is on the promotion of health with groups, both in community and acute care settings. The nurse-client/family process is the vehicle through which the student participates in health promotion. Emphasis throughout the course is on the collaborative function of the nurse leader. The collaborative process with multi-disciplinary health team members provides the means for the generation of nursing research possibilities.

The course is presented in two units. The first unit deals with the nature of groups, groups of clients, the family as a group, and the community as a group. The second unit deals with the nurse as a member and leader of the nursing team, and as a member of the multi-disciplinary health care team. Prerequisite: Nursing V.

410 THE RESEARCH PROCESS 3 cr
This course offers the student an introduction to the historical perspectives of nursing research. Trends and issues which have emerged are discussed and critically analyzed. Ethical implications of nursing research are considered integratively. The students are encouraged to examine the research process from a natural scientific viewpoint as well as a human science approach. Further application of the research process to nursing studies is explored through critical evaluation of current research. Prerequisite: Nursing IV.

NURSING ELECTIVES

260 WAYS OF HEALING 3 cr
This course will explore many of the ways in which clients and their families are involved in the process of healing which are not thought to be medically traditional. This course will begin by looking at man's belief systems and how they affect his life and specifically, the healing process. The student will explore the mystery around unconventional or unexpected healing and look at this in relationship to man's belief systems, which are a reflection of how man participates in his own health. The student will then look at, in depth, two ways of healing. One way is biofeedback. The other is visual imagery with relaxation techniques as researched by Dr. Carl O. Simonton. The underlying theory will be explored, case histories will be discussed, and the student will get an opportunity to practice these techniques on him/herself. In addition, the application of these techniques to the nurse/client/family process will be explored. There will also be student group presentations around seven other ways healing can occur. These are: psychic surgery, hypnosis, spiritual healing, acupuncture, acupressure, laying on of hands and hex/vooodoo. Prerequisite: Nursing I.

397 HEALTH CARE OF WOMEN 3 cr
Health Care of Women is a nursing elective that will provide students with an opportunity to explore many of the prevalent health experiences of women in contemporary society. This course investigates aspects of women's health that involve choices relative to the quality of their lives. It will provide students with an opportunity to analyze health promotion for women from a nursing perspective. It will provide them with the knowledge of health resources available to meet the specific needs of women. Prerequisite: Nursing III.

398 COMMUNICATION WITH CHILDREN THROUGH PLAY 3 cr
Communication 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 the course is on play as an evolutionary 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 their immediate life stresses. 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), Pigem's Question, Three Wishes, Story Complementation, Make-a-Story, Puppet Play, and Therapeutic Play Interviews. Prerequisite: 225 Developmental Psychology I.

399 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 together with the processes of valuing and change in health education. The learning needs of the client-family are carefully scrutinized. The student has the opportunity to write and implement a teaching plan, design an evaluation tool, and create teaching aids. Prerequisite: Nursing III.

299 NURSING AND SPIRITUAL GROWTH 3 cr
This course will initially identify the universal and timeless truth of the spiritual dimension of man's nature. It will then investigate case histories in nursing which focus on spiritual needs encountered in the nurse-client relationship. The student will be encouraged to develop an awareness of his/her own spiritual growth through nursing experiences. In addition, the student will discover the gift he/she brings to the nursing situation when spiritual needs are recognized and shared (entered into) with the client. Prerequisite: Nursing III.

300 WAYS OF RELATING 3 cr
This course builds on basic communication theory and skills. It offers the student the opportunity to enhance interpersonal relationships through increasing self-awareness and critical analysis of one's own patterns of interaction. This knowledge promotes the motivation toward changing the individual's style of relating. The student learns to apply the skills of critical analysis, evaluation, and change to simulated nurse/client/family situations. Prerequisite: Nursing III.

466 CHOOSING THE LIVING IN DYING 3 cr
Choosing the Living in Dying is a three-credit, non-clinical elective for nursing majors. 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 develop their perspectives of the dying process and current issues in America related to that process. Meaning will be enhanced through the sharing of thoughts, feelings, and perceptions within the group process. Prerequisite: Nursing III.

481 POLITICAL ACCOUNTABILITY IN NURSING PRACTICE 3 cr
Political Accountability in Nursing Practice is a three-credit, non-clinical nursing elective. The student is involved in learning how to act as a professional nurse in the political system in the United States. A specific method of processing information about public issues will be taught. Individual and group positions on health care issues, based on a clear statement of the student's personal philosophy and an analysis of relevant data, will be developed. Students will become acquainted with the groups available to professional nurses to assist with data collection. Knowledge of the law and legislative process will be used to make decisions on appropriate actions. Students will contact local, state, and national legislators for the purposes of initiating dialogue, receiving information, and stating their positions. Prerequisite: Nursing III.
CHALLENGING COURSES FOR CREDIT

Non-Clinical Courses
The School of Nursing provides the opportunity to challenge for credit selected nursing courses in which the student feels he/she has mastered subject matter equivalent to the satisfactory completion of those courses in this University.

To date, courses that are NOT challengeable are:

Course
N 199 Nursing I
N 470 Research Process

All Nursing Electives

The following non-clinical courses in the curriculum are available for challenge at this time:

Non-Clinical Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>Bio 207 &amp; 208, A &amp; P, &amp; Lab*</td>
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<td>N 199 Nursing I</td>
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<tr>
<td>N 200 Nursing II</td>
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<tr>
<td>N 255 Nutrition</td>
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<tr>
<td>N 212 Pathology</td>
<td>4</td>
<td>Bio 207 &amp; 208</td>
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<tr>
<td>003 Pharmacology**</td>
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</table>

The School of Nursing will supply a syllabus with goals and indicators for each challengeable course at no cost to the student. This syllabus is intended to assist the student and in no way insures that the detailed content of the challenge examination is covered. The student is responsible for obtaining the material from the course coordinator or through the nursing office.

A challenge examination is a comprehensive examination of all goals and indicators of the course. The course coordinator or designee will administer, proctor, and evaluate the challenge examination.

Students are reminded that, while each section of a course utilizes the same course outline, each section is autonomous and the challenge student will be tested and graded by the same method as the section to which he/she is assigned. Students are advised to consult the Academic Advisor regarding the scheduling of challenge exams in order to ensure proper curriculum progression.

The course coordinator notifies the Associate Dean of the results of the challenge examination. The student is notified of the results of the challenge by the Associate Dean within seven working days of the completion of the challenge.

A course may be challenged for credit one time only. Under no circumstances may a student take a re-examination. Review of the challenge examination is not permitted. If there is unsatisfactory achievement on the written challenge examination, the student must enroll in the course to earn the appropriate credit. If there is satisfactory achievement on the challenge examination, the student is granted the appropriate credit by examination. (The student will receive a copy of the Advanced Standing Report.)

A fee of $20.00 per credit is charged for each challenge examination. The fee is payable at the Registrar's Office any time before the testing date. An official receipt is collected on the day of the examination and only students having this receipt will be permitted to take the examination.

*Information is distributed by the Department of Biology, Mellon Hall
**Information on Pharmacology is distributed by the School of Pharmacy, Mellon Hall

The student must sign a challenge exam contract indicating that he/she has read and will abide by these Rules and Regulations before taking each challenge examination. The signed form is filed in the student's permanent record.

Faculty are obligated to abide by these Rules and Regulations by virtue of their inclusion in the Faculty Handbook of the School of Nursing.

Challenging Courses Requiring a Practicum
In keeping with the policy of the University, the School of Nursing offers selected courses that may be challenged for credit. The challenge process is intended for those students who perceive themselves to possess the learning equivalent to that required for satisfactory completion of those courses in this university. Specific prerequisites must also be met before every challenge is undertaken.

The Nursing Faculty have approved the following courses with prerequisites for challenge:

Course
Nursing III
Nursing IV
Nursing V
Nursing VI

Prerequisites
207 & 208 Anatomy & Physiology
212 Pathology
255 Nutrition
003 Pharmacology
Natural Science Requirement
Nursing I
Nursing II
Developmental Psychology I & II
Nursing III
Nursing IV
Family Systems

Nursing VI is not challengeable.

The School of Nursing will supply a syllabus for each challengeable course at no cost to the student. The syllabus is intended to assist the student and in no way insures that the detailed content of the examination is covered. The student is responsible for obtaining the material from the course coordinator or through the nursing office.

A challenge examination is a comprehensive examination of all goals and indicators of the course. Practicum courses are challengeable by written examination and a period of practicum evaluation. Satisfactory achievement on the written examination is required before the practicum is administered.

The course coordinator or designee will administer, proctor, correct, and evaluate the challenge examination. The focus of the written challenge is on cognitive areas. Grading of the challenge examination is done by the same method as that used for the final examination for the course.

The practicum experience will be evaluated by the faculty who administers the practicum challenge with consultation from the course coordinator as indicated.

Upon completion of the entire challenge process, the course coordinator notifies the Associate Dean of the School of Nursing of the results of the challenge examination. The student is notified of the results of the challenge in writing, by the Associate Dean. This notification can be expected within two weeks of completion of the examination process.

A course may be challenged for credit one time only. Under no circumstances may a student take a re-examination. Review of the challenge examination is not permitted. If there is unsatisfactory achievement on either the written challenge examination or clinical

*This fee is currently under review. The School reserves the right to increase fees as deemed necessary. Notification of such increase will be disseminated through the Registrar and posted on the Bulletin Board.
**Additional prerequisites may be required for individual courses (e.g., current CPR certification).
practicum, the student must enroll in the course to earn the appropriate credit. If there is satisfactory achievement on the challenge examination, the student is granted the appropriate credit by examination. The student will receive a copy of the Advanced Standing Report.

A fee of $20.00 per credit is charged for each challenge examination.* The fee is payable at the Registrar's Office any time before the testing date. An official receipt is collected on the day of the examination and students not having this receipt will not be permitted to take the examination.

The student must sign a challenge examination contract indicating that he/she has read and will abide by these Rules and Regulations before taking each challenge examination. The signed form is filed in the student's permanent record.

Faculty are obliged to abide by these Rules and Regulations by virtue of their inclusion in the Faculty Handbook of the School of Nursing.

The cost of administering the challenge examination program is now being reviewed and will probably be increased in the near future. The School reserves the right to increase fees as deemed necessary. Notification of such increase will be disseminated through the Registrar and posting on the Bulletin Board.

*The fee is currently under review
School of Pharmacy

HISTORY
Plans for establishing a School of Pharmacy were instituted in 1911, when the charter of the University was amended and authority obtained to grant degrees in Pharmacy. On April 20, 1925, the final work of organizing the School of Pharmacy was completed. The first class was received September 21, 1925.

Duquesne University School of Pharmacy is housed in Richard King Mellon Hall of Science, whose design by master architect Mies van der Rohe won the "Laboratory of the Year" award for 1969 in the annual Industrial Research, Inc. survey of new science buildings across the country. The School’s specialized facilities include the Hugh C. Muldoon Model Pharmacy, animal operating room, electronics laboratory equipped with individual kits, bionuclerics laboratory, eight additional teaching laboratories, and a manufacturing pharmacy laboratory containing basic pharmaceutical manufacturing equipment and separate tableting and aerosol technology rooms.

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 curriculum in pharmacy represents a composite of educational experiences that results in a well-educated and well-trained professional and offers the undergraduate student a well-rounded and broad education which will inspire a permanent interest in learning.

In order to be a competent pharmacist, the student must become a therapeutic specialist who has knowledge of drugs and their actions. Secondly, 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, or a pharmacist in government service. Many pharmacists find employment as medical service representatives for drug manufacturers. Some enter the wholesale drug business and the pharmaceutical manufacturing industry. Graduates in pharmacy are exceptionally well-qualified to become agents for the enforcement of narcotic and pure food and drug laws. In recent years, pharmacists have entered the fields of radiopharmacy and drug information-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 some of these positions. A few pharmacists 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 Doctor of Pharmacy degree. Those graduates are qualified for placement in clinical pharmacy positions in hospitals across the nation.

Medical technologists work under the direction of a pathologist or clinical scientist. In the field of Medical Technology, positions are available in hospital and industrial laborato-

In the field of Radiological Health, positions as health physicist are available in hospitals and any laboratories and industrial facilities which use radiotopes.

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 Master of Science degree in the fields of pharmaceuticals, pharmaceutical chemistry, pharmacology-toxicology and medicinal chemistry.

DEGREES
The School of Pharmacy offers programs leading to three undergraduate degrees. Bachelor of Science in Pharmacy, Bachelor of Science in Medical Technology, and Bachelor of Science in Radiological Health, these are described on the following pages.

Descriptions of advanced degrees offered by the faculty of the School of Pharmacy are found in other catalogs available from the School of Pharmacy office.

PROGRAMS
PHARMACY
The School of Pharmacy offers a Bachelor of Science degree in Pharmacy 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 professional courses. The latter three years of study are taught mainly by the pharmacy faculty, with electives being available from both that 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 only in the 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 31 credits in the combined general education areas of humanities and social sciences is required for graduation from the School of Pharmacy (fifteen in the Humanities including English and Theology and six in the Social Sciences including Economics and ten credits chosen from either area in consultation with the advisor). Courses fulfilling the Theology requirement are listed under the Department of Theology in the College of Liberal Arts and Sciences section of this catalog. A minimum of 160 credits is required for graduation.

The faculty recommends and reserves the right to require completion of course clusters in the humanities and social sciences as a means to provide a strong general education for all health professionals. A list of the suggested course clusters appears at the end of this section.

The student is cautioned to seek regular advice from the faculty and to keep a record of credits earned and the calculated averages. The School assumes no responsibility for such errors appearing in student records which may prevent the student from being graduated.
### First Year

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<th>Fall Semester</th>
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### Fourth Year

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### Fifth Year**

**This year is organized on a special calendar that does not coincide with other units of the University. No students may enter the year with any prior course deficiencies. Students may not ordinarily enroll for non-professional courses during this year. With the controlled externship (Practical Pharmacy 39, 41) schedule, fifth-year Pharmacy students should anticipate possible extra costs for living expenses as well as the loss of income from employment.

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>D</th>
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<th>Spring Semester</th>
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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—160, sufficient elective courses must be taken to satisfy the minimum credit requirements.
Students in the program enroll in the School of Pharmacy as medical technology majors. These students are advised through the Office of the Dean of the School of Pharmacy.

Admission to the fourth year of the program will be on a competitive basis with these as the determining factors:
1. A student must have a minimum quality point average of 3.0 in the sciences.
2. No student with a grade lower than C in any chemistry course will be considered for admission.
3. Written recommendations.
4. Personal interview with the Education Coordinator of Mercy School of Medical Technology.

Applications for entrance to the fourth year are to be made before October 31 of the third year. Information and applications are available from the Office of the Dean of the School of Pharmacy.

During the fourth year of the program, students will register and pay tuition to Duquesne University. They will be permitted to reside in University dormitories and enjoy all of the privileges of Duquesne University students.

Failure in any of the major courses included in the fourth year will lead to immediate dismissal from the Mercy School of Medical Technology.

**Curriculum**

A minimum of 15 credits in the combined areas of humanities and social sciences is required for graduation (nine in the Humanities, including Theology, and six in the Social Sciences, including Principles of Management). Courses for fulfilling the Theology requirement are listed under the Department of Theology in the College of Liberal Arts and Sciences section of this catalog.

The faculty recommends and reserves the right to require completion of course clusters in the humanities and social sciences. A list of the suggested course clusters appears at the end of this section.

The student is cautioned to seek regular advice from the faculty and to keep a record of credits earned and the calculated averages. The School of Pharmacy assumes no responsibility for such errors appearing in student records which may prevent the student from being graduated.

### First Year

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<tr>
<th>Semester</th>
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<td>122 General Chemistry</td>
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### Second Year

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<th>Semester</th>
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<tr>
<td><strong>Fall Semester</strong></td>
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<tr>
<td>201 General Physics</td>
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The curriculum of the School of Pharmacy at Duquesne University includes courses such as General Analytical Physics, Organic Chemistry, Calculus II, Theology or Elective, and Humanities Elective. All courses are offered with corresponding credits and laboratory hours.

**ADMISSION**

Students who plan to enter any of the programs offered by the School of Pharmacy are encouraged to meet with the Dean of the School for a personal interview. Entrance requirements are listed under Admission Policies in the General Information section of this catalog. Applications should be submitted as early as the year of matriculation as possible.

The national Pharmacy College Admissions Test (PCAT) may be taken by applicants. Results should be reported to the Admissions Office and to the School of Pharmacy. The test is not required for admission to the School, but the results are used by advancement personnel to assess the level of knowledge in pertinent areas related to the program. Superior performance in certain topics will alert the student to enroll for advanced placement examinations.

The School of Pharmacy admits students into each of the first three years of the medical technology and radiological health programs and into the first year of the pharmacy program. Procedures for entrance are outlined under Application Procedures in the General Information section.

All transfer students must be interviewed by the Dean or Assistant Dean of the School of Pharmacy. Students intending to transfer into the pharmacy program must have successfully completed the appropriate science and liberal arts prerequisites of the first two years of the curriculum. Advisors at the School of Pharmacy are available to meet with students to discuss the requirements necessary for possible future placement in the School of Pharmacy.

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**Fall Semester**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Credits</th>
<th>Spring Semester</th>
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**Spring Semester**

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<td>122 General Chemistry</td>
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| Total | 15 10 17 | 13 5 14 |

*D—Didactic hours, L—Laboratory, C—Credit hours

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**RADIOLOGICAL HEALTH**

Since 1972, the School of Pharmacy has offered a four-year 123-credit program leading to a Bachelor of Science degree in Radiological Health. Graduates from the program qualify for positions of Health Physicist in any facilities using radioactive isotopes. Students in the radiological health program enroll in the School of Pharmacy as radiological health majors. These students are advised through the Office of the Dean of the School of Pharmacy.

**Curriculum**

A minimum of 15 credits in the combined areas of humanities and social sciences is required for graduation (nine in the Humanities, including Theology, and six in the Social Sciences). Courses for fulfilling the Theology requirement are listed under the Department of Theology in the College of Liberal Arts and Sciences section of this catalog.

The faculty recommends and reserves the right to require completion of course clusters in the humanities and social sciences. A list of the suggested course clusters appears at the end of this section.

The student is cautioned to seek regular advice from the faculty and to keep a record of credits earned and the calculated averages. The School of Pharmacy assumes no responsibility for such errors appearing in student records which may prevent the student from being graduated.

**Fall Semester**

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<thead>
<tr>
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<tr>
<td>Anatomy &amp; Physiology</td>
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**First Year**

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<td>College Algebra and Trigonometry</td>
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<tr>
<td>General Chemistry</td>
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| Total | 15 10 17 | 13 5 14 |

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**Second Year**

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<tr>
<td>Organic Chemistry</td>
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<td>Calculus II</td>
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**Third Year**

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<td>Anatomy &amp; Physiology</td>
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<td>3</td>
</tr>
<tr>
<td>Physical Geology</td>
<td>3</td>
<td>539 Bioluminescence</td>
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<tr>
<td>Ordinary Differential Equations</td>
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<tr>
<td>Fundamentals of Statistics</td>
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<td>Elective</td>
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| Total | 15 10 17 | 13 5 14 |

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**Fourth Year**

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<td>3 3</td>
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<tr>
<td>Atomic Physics</td>
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<td>542 Radiological Health II</td>
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</table>

| Total | 15 10 17 | 13 5 14 |

*D—Didactic hours, L—Laboratory, C—Credit hours*
Transfer pharmacy students must complete a minimum of three academic years of residence in the School of Pharmacy.

In extenuating circumstances and with the permission of the School of Pharmacy Student Standing Committee, a waiver of the three years of residence required by the American Association of Colleges of Pharmacy will be sought by the faculty on behalf of the student. Failure to request and obtain such a waiver requires the pharmacy students to complete a minimum of six semesters in residence as full-time students.

Advanced standing is conditional until the student completes a minimum of one semester's work (16 semester hours) if his work proves unsatisfactory, the student will be requested to withdraw.

Applicants who have completed advanced courses in high school are encouraged to take advanced placement tests (see Admission section of this catalog). Partial advanced placement credit for some courses may be awarded for these examinations. Students are advised to investigate carefully the credit equivalency.

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. Students enrolled in any major offered by the School are eligible. Selection is made annually on the basis of academic standing. No application is required. Scholars are recognized annually at the fall social gathering and encouraged to investigate Advanced Placement, CLEP, and Challenge Examination opportunities, faculty research projects in which they may participate, and independent study courses.

SPECIAL FEES

Laboratory

Required laboratory courses scheduled by all schools of the University are subject to fees as published. Pharmacy laboratones require a fee of $40 each a semester. This is a prorated charge derived from the total costs of all laboratory operations throughout the professional years. Other courses offered in the program of medical technology and radiological health are subject to special fees. No laboratory fees are assessed for courses scheduled in the fourth year of the medical technology program.

Activites

Instituted by student request, this fee of $25 a semester for a minimum of six semesters covers such miscellaneous items as local and national Student American Pharmaceutical Association dues and journal subscription, laboratory jacket fees, class dues and support of the pharmacy student newsletter, Pharmum, and partial travel expenses for one required field trip to a pharmaceutical manufacturing firm. Payment is made at registration each semester. This fee is assessed only to those students in the last three years of the pharmacy program.

School of Pharmacy Fee

All students enrolled in any program of the School of Pharmacy are required to pay a fee designated by the University. The fee 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 circumstance is responsible for notifying the office of the Dean of the School of Pharmacy. The student should supply a written verification as soon as possible. A student who is absent for cause is expected to complete all of the work in all courses. It is the student's responsibility to make up all assignments in all courses and to be familiar with any instructions which may have been given during the absence.

Handicapped students 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. A minimum 2.0 QPA in the pre-pharmacy science and math courses is required for entrance into the third year of the pharmacy program.

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 School of Pharmacy arranges for students to participate in a special course in surgical appliance fittings offered by a field representative of a manufacturer of such devices. The biennial programs are required for all pharmacy students in the last two years of the curriculum. Record of participation is made in the students' permanent files.

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 setting may be required to conform to the health requirements of the hospital.

STUDENT ORGANIZATIONS

The Student American Pharmaceutical Association whose membership includes all pharmacy students registered in the last three years of the School of Pharmacy aims to promote their interests, scholastic, 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.
The Alpha Beta Chapter of Rho Chi, national pharmacy honor society at Duquesne University, was organized to promote the advancement of the pharmaceutical sciences. Pharmacy students who have completed three and one-half years of work at the University level and have achieved a B average are eligible for membership. A maximum of 20 per cent of the class enrollment may be admitted to membership. Doctor of pharmacy candidates are eligible under the same conditions. Faculty and graduate students in the pharmaceutical sciences may also be invited to join.

Eta Chapter of 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.

Tau Chapter of Lambda Kappa Sigma, an international pharmaceutical fraternity for women, was established at Duquesne University in 1932. The organization numbers among its members some of the most outstanding women in pharmacy. Its purpose is to promote the profession of pharmacy and to create a center of culture and enjoyment for its members.

The Beta Gamma Chapter of Phi Delta Chi, an international professional pharmaceutical fraternity, was chartered at Duquesne University in 1960. The fraternity endeavors to integrate academic, spiritual and social 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 Kappa 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 Organizations. Each of the five classes is an officially recognized organization in the School of Pharmacy. Each class elects its own officers and conducts such programs and affairs as its members deem desirable toward achieving its goals. All students are included in these organizations regardless of major curriculum.

HONOR AWARDS

Allegeny Wholesale Drug Company Award. An award of $25 is presented to the graduate who has shown outstanding ability and interest in the field of pharmacognosy.

American Institute of the History of Pharmacy Award. A recognition certificate and gift membership is awarded annually by the American Institute of History of Pharmacy for superior achievement in pharmaco-historical study or activity.

American Pharmaceutical Association Award. A certificate of recognition is presented annually to the graduate who has made the most significant contribution to the American Pharmaceutical Association at Duquesne University.

Bernard and Blanche Schiller Award in the Humanities and Social Sciences. An award of $25 is presented to the graduate who has demonstrated an understanding of the value of the humanities and social sciences in his development as a professional person. This award is to be used for the purchase of books on any aspect of the humanities in which the student is interested.

Mary McPartland Beck Award. An award of $25 is presented annually to the graduate who has shown outstanding ability and interest in the clinical practice of pharmacy.

Bristol Award. An award is presented annually by the Bristol Laboratories, Inc., New York City, to a Doctor of Pharmacy candidate for excellence in scholastic achievement.

Bristol Award. A copy of a standard reference book is awarded annually by the Bristol Laboratories, Inc., New York City, to the graduate who has in the opinion of the faculty attained unusual distinction in the work of pharmaceutical administration.

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 GPA of over 3.75.

Maurice H. Finkelpoel Award. An award of $50 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 $25 is presented to the graduate who has shown outstanding ability and interest in the field of pharmaceutical administration.

McNeil Dean's Award. A replica of an Early American Mortar and Pestle is awarded annually to the outstanding student of Pharmacy Administration.

Lilly Achievement Award. A gold medal is presented annually to the graduating class who has demonstrated superior scholastic and professional achievement as well as qualities of leadership.

Merck Sharp and Dohme Award. Each year Merck and Company, Rahway, New Jersey, offers a set of valuable reference books to a member of the graduating class who attains the highest average in medicinal chemistry.

Rho Chi Award. Alpha Chapter of Rho Chi awards annually a suitably inscribed key to the student who earns the highest general average in all subjects during the first two years of the pharmacy program. It is presented at a meeting of the Student Chapter of the American Pharmaceutical Association.

Smith Kline & French Laboratories Award. A personalized plaque is presented annually by the Smith Kline & French Laboratories, Philadelphia, Pennsylvania, for superior achievement in Clinical Pharmacy.

Student American Pharmaceutical Association Award. An award is presented to the graduating student who has demonstrated through service, reporting and activity, an avid interest in organization work.

Syntex Preceptor of the Year Award. An appropriately designed plaque is awarded annually by the Syntex Laboratories, Inc., of Palo Alto, California to the preceptor who, in the opinion of the Pharmacy Interns, best exemplifies professionalism, ethics, and clinical practice.

Upjohn Award. A suitably inscribed plaque is awarded annually by the Upjohn Company, Kalamazoo, Michigan, for outstanding public service.

Western Pennsylvania Society of Hospital Pharmacists Award. An award of $25 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 awarded annually to the student who has been most actively involved in pharmacy organizations.

Fisher Scientific Award for Outstanding Medical Technology Student. A personalized plaque is presented annually to the graduating Medical Technology student who achieved the highest standing in the clinical program at Mercy Hospital.

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 curriculum requirements and the general University Graduation Requirements, as stated in Academic Policies section of this catalog. This committee will then recommend candidates for faculty certification.
for graduation or for remedial work to be fulfilled during the last semester of residence. 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 may be admitted to the licensing examinations which are conducted by the Pennsylvania State Board of Pharmacy.

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 and Internship**—any person enrolled as a student of pharmacy in an accredited college may at the end of the second year of college file with the State Board of Pharmacy an application for registration as a pharmacy intern.

To ensure proficiency in the practical aspects of pharmacy, the State Board shall by regulation prescribe internship requirements which must be satisfactorily completed prior 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 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 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. Pamphlets 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.

**RESEARCH FOUNDATION**

The Hugh C. Muldown and Pharmacy Alumni Foundation of Duquesne University, established in 1950 to celebrate the twenty-fifth anniversary of the founding of the School of Pharmacy, is an increasingly valuable aid in helping to achieve the aims of the University and of the School of Pharmacy. The foundation provides funds for improving the instructional and research facilities of the School, it assists in the advancement of pharmacy by supporting the training of undergraduate and graduate students in industrial and research procedures, it helps to extend the knowledge from research being conducted under the auspices of the School. Contributions are solicited from graduates and others interested in the work of the Foundation. They may be addressed in care of the School of Pharmacy.

**COURSE DESCRIPTIONS**

The courses of instruction are numbered in accordance with a plan uniform throughout the University. University courses numbered 100 are Freshman courses, 200 Sophomore, 300 Junior, 400 Senior. Courses described in this section are required courses in the professional curriculum and those courses offered by the School of Pharmacy faculty as a University service. Courses numbered 500 are graduate level courses in which qualified 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. Courses in the 800 series are generally restricted to Doctor of Pharmacy candidates.

**DEPARTMENT OF PHARMACEUTICAL CHEMISTRY AND PHARMACEUTICS**

**Chairman** Mitchell L. Borke, Ph.D.

**Associate Chairman** Alvin M. Galinsky, Ph.D.

**1 PHARMACEUTICAL ORIENTATION** 1 cr

Introduction to pharmacy. Discussion of various phases of pharmacy and their relationship to the profession as a whole. Pharmaceutical organizations are discussed and evaluated. The pharmaceutical literature is discussed and a brief history of pharmacy is presented. Lecture, one hour.

**11 PHYSICAL PHARMACY** 4 cr

A course designed to acquaint the student with the theory upon which the principles and processes of pharmacy are based. The theories of emulsification, drug extraction, isotonicity, hydrogen ion concentration, rheology, micrometrics, etc. are discussed and the instruments which are used in their measurements are described and utilized in the laboratory. Prerequisite: Mathematics 115, General Physics, Organic Chemistry. Lecture, three hours, laboratory, four hours.

**12 PHYSICAL PHARMACY** 4 cr

A continuation of Physical Pharmacy. Lecture, three hours, laboratory, four hours.

**14 PHARMACEUTICAL MATHEMATICS** 3 cr

A course designed to familiarize the student with the mathematical problems and calculations encountered in pharmaceutical practice. Lecture, two hours, recitation, one hour.

**16 BIOCHEMISTRY** 4 cr

Designed to emphasize primarily the manner in which energy is derived from food. Metabolisms of carbohydrates, lipids, proteins, and enzymes are discussed and interrelated. The function of enzymes, vitamins, and hormones is discussed in relation to their role in metabolism. The relationship of biochemistry to disease states is stressed. Prerequisite: Organic Chemistry. Lecture, three hours, laboratory, three hours.

**21 BIOPHARMACEUTICS AND DOSAGE FORMS** 4 cr

A study of the physio-chemical, biological, and pharmaceutical factors which affect absorption, distribution, metabolism, and excretion of drugs in man. Emphasis is placed on the utilization of biopharmaceutical and pharmacokinetic knowledge in problems of bioavailability and bioequivalence of drug products and in the determination of appropriate drug dosage regimens. Prerequisite: Physical Pharmacy 12. Lecture, four hours.

**22 BIOPHARMACEUTICS AND DOSAGE FORMS** 4 cr

A continuation of Biopharmaceutics and Dosage Forms 21 with emphasis on drug delivery systems. Prerequisite: Biopharmaceutics and Dosage Forms 21. Lecture, four hours, laboratory, eight hours.

**23 MEDICINAL CHEMISTRY** 3 cr

Relationship between chemical structure and the biological action of drug molecules. Emphasis is on underlying principles as well as on specific therapeutic agents. Organization is by pharmacological...
classifications, with chemical properties relating to mechanism of action, stability, biodistribution and metabolism considered for each class. Prerequisites: Physical Pharmacy 11, 12 or its equivalent. Lecture, three hours.

24 MEDICINAL CHEMISTRY
A continuation of Medicinal Chemistry 23. Prerequisite: Medicinal Chemistry 23. Lecture, three hours.

27 ANALYTICAL CHEMISTRY
Rigorous training in stoichiometric relationships and in the application of equilibrium principles, with laboratory experience in the principal methods of gravimetric and volumetric analysis. Prerequisites: Physical Pharmacy 11, 12 or Physical Chemistry Lecture, three hours, Laboratory, seven hours.

28 ORGANIC PHARMACEUTICAL ANALYSIS
A course devoted to the identification and determination of the relative amounts of active constituents in pharmaceutical and medicinal substances. Prerequisite: Analytical Chemistry 27. Lecture, three hours.

499 INDEPENDENT STUDY AND RESEARCH
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 times 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
Chairman: Gene A. Riley, Ph.D.

2 DRUG ABUSE
A course designed to present the pharmacological and toxicological properties of substances of abuse. The major classes of drugs are described with direct reference to toxic and adverse effects. The myths and misconceptions commonly attributed to some substances of abuse are clarified. The course is intended for all students beginning their collegiate studies. Admission to this course for students who have completed Pharmacology 33 or its equivalent is by approval of the instructor.

3 BASIC PHARMACOLOGY
A course dealing with the major classes of therapeutic agents. Designed for students with a limited background in biological sciences. Drugs are considered from a "disease state" 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. Lecture, three hours.

4 SOCIAL DISEASES
Causes, course of diseases, prevention, treatment and social effects of venereal diseases. Awareness and common sense should be awakened in students by the course. Lecture, one hour a week. Open to students who have not completed Pharmacy 33.

5 PHARMACOLOGY AND TOXICOLOGY OF NON-PRESCRIPTION DRUGS
A course designed to familiarize students with the pharmacological and toxicological properties of over-the-counter drugs. The course will prepare the student to counsel the public on the appropriate use of OTC drugs, to select the proper non-prescription drug for a particular disease state, and to determine if treatment with a non-prescription drug is appropriate. Lecture, three hours.

7 CHEMICAL TESTING FOR INTOXICATION
Deals with the pharmacology, toxicology and biochemistry of ethanol and the physical and technical aspects of breath analyses. Various instruments will be discussed and the Breathalyzer will be used specifically. This course is approved by the State of Pennsylvania, Department of Transportation and is offered only to individuals associated with law enforcement agencies. One week workshop course.

17 ANATOMY AND PHYSIOLOGY
An integrated course of the structure and function of tissue and organs. The major organ systems of vertebrate species are discussed as integrated functional units. Laboratory consists of lecture presentations of gross anatomy and laboratory procedures including the microscopic examinations of tissues, hematology and the clinical appraisal of physiological functions. Prerequisite: General Biology 112. Lecture, three hours, Laboratory, three hours.

18 ANATOMY AND PHYSIOLOGY
A continuation of Anatomy and Physiology 17. Prerequisite: Anatomy and Physiology 17. Lecture, four hours.

29 EMERGENCY TREATMENT
A lecture-demonstration course. The course teaches how to render first-aid cases of emergency, while awaiting the arrival of a physician. Special emphasis is placed on emergencies which the pharmacist is most likely to be confronted with, e.g., epileptic seizures, heart attacks, fainting, diabetic coma, etc. Prerequisites: Anatomy and Physiology 17 and 18. Lecture, three hours, demonstrations included during lecture hours.

33 PHARMACOLOGY
A basic course in pharmacodynamics and pharmacotherapeutics. Special emphasis is placed on sites and mechanisms of action of therapeutic agents. Prerequisites: Anatomy and Physiology 17, 18. Lecture, three hours.
34 PHARMACOLOGY
A course designed to examine current counseling and communication techniques in terms of how illness upon the emotional and social functioning of the person. Prerequisite: Introductory course in basic theories of psycho-somatic medicine, the impact of social environment upon health, and the impact of illness upon the emotional and social functioning of the person. Lecture, four hours.

40 PHARMACOLOGY
A comprehensive study of the chemistry and metabolism of proteins, carbohydrates, lipids, and electrolyte, enzyme, and hormone systems as revealed by the various examinations performed on blood and other body fluids. A six week lecture/labatory mini-course for the practical application of the basic principles of sterilization, aseptic techniques, parenteral processing and quality control to the compounding of extemporaneous parenterals and intravenous admixtures in the hospital pharmacy. Lecture, two hours.

DEPARTMENT OF PHARMACEUTICAL ADMINISTRATION
Chairman Anthony J. Amadio, M.B.A.

12 PHARMACEUTICAL LAW
A course designed to acquaint the student with the philosophy of law and its relationship to 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.

38 PHARMACY ADMINISTRATION
A course designed to familiarize the student with the diverse social, political, economic, and legal forces affecting 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.

39 PRACTICAL PHARMACY I
Practical Pharmacy Program required of all final year pharmacy students and involving placement in operating pharmacies with a pharmacist preceptor. Off-campus placement may be necessary. Note: calendar change for fifth year students may be required. Lecture, three hours.

41 PRACTICAL PHARMACY II
An extension of Practical Pharmacy 39 required for all final year students. Lecture, three hours.

58 COMMUNITY PRACTICE I
The course considers the principles and functions of management as applied to a community pharmacy operation so that the objectives of the pharmacist-manager are attained with maximum efficiency. Prerequisite: Pharmacy Administration 38. Lecture, three hours.

59 COMMUNITY PRACTICE II
The course concerns itself with the operational aspects of a community pharmacy with emphasis on the business or commercial matters pertinent to a successful operation. Prerequisite: Pharmacy Administration 38. Lecture, three hours.

200 PATIENT EDUCATION TECHNIQUES
A course designed to examine current counseling and communication 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, two hours, Laboratory, two hours.

201 SOCIAL AND BEHAVIORAL ASPECTS OF ILLNESS AND HEALTH
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 stress research, theories of psycho-social medicine, the impact of social environment upon health, and the impact of illness upon the emotional and social functioning of the person. Prerequisite: Introductory course in sociology and/or psychology. Lecture, three hours.

805 PATIENT COMMUNICATION TECHNIQUES
A course designed to develop in the student, the ability to understand and communicate professionally with other medical disciplines and with patients. Lectures, presentations, role playing, case material, film and tapes will be used. Group time three hours weekly.

DEPARTMENT OF CLINICAL PHARMACY
Chairman Thomas J. Mattei, Pharm.D.

31 PROFESSIONAL AND CLINICAL PRACTICE I
A course designed to prepare the student for professional pharmacy practice. Didactic, laboratory and clinical experiences are integrated to develop the student's ability in providing pharmaceutical services to patients and to other members of the health team. Emphasis is placed on the use of modern medications in a variety of patient, sociological, and disease situations. Advanced teaching techniques utilizing case discussions, the computer, and clinical interactions with patients requires the student to pool his background of social, physical, and biological sciences in dealing with complications of modern drug therapy. Prerequisite: Biopharmaceutics and Dosage Forms 22, Pharmacology 34. Lecture, three hours, Laboratory, six hours.

32 PROFESSIONAL AND CLINICAL PRACTICE II
A continuation of Professional and Clinical Practice 31. Prerequisite: Professional and Clinical Practice 31. Lecture, three hours, Laboratory, six hours.

52 HOSPITAL PHARMACY
An introductory course designed to acquaint the student with the history, organization, and development of pharmacy practice in hospitals. The responsibilities of the pharmacy service in the modern hospital are discussed. Field trips to area hospitals complement the lecture materials. Prerequisite: Physical Pharmacy 12. Lecture, three hours.

54 STERILIZATION AND PARENTERAL PHARMACEUTICALS
A six week lecture/laboratory mini-course for the practical application of the basic principles of sterilization, aseptic techniques, parenteral processing and quality control to the compounding of extemporaneous parenterals and intravenous admixtures in the hospital pharmacy. Lecture, two hours, Laboratory, weekly.

300 ENTERAL AND PARENTERAL NUTRITION
A course designed to review selected aspects of biochemistry and introduce current concepts of clinical nutrition administered via enteral and parenteral routes. Prerequisite: Biochemistry 16 or equivalent. Lecture, two hours.

DEPARTMENT OF MEDICAL TECHNOLOGY
Director Jeanne A. Cooper, M.D.
Education Coordinator M. Elaine Linkhauer, M.T. (ASCP)

61 CLINICAL CHEMISTRY
A comprehensive study of the chemistry and metabolism of proteins, carbohydrates, lipids, and electrolyte, enzyme, and hormone systems as revealed by the various examinations performed on blood and other body fluids.

62 URINALYSIS
The study of renal function and its abnormalities as portrayed by alterations in the composition of the urine.

63 HEMATOLOGY
Detailed study of the anatomy and physiology of the blood and various laboratory methods used in establishing inherited or acquired abnormalities of blood and blood forming organs.
64 BLOOD BANKING 3 cr
Essentials and importance of proper selection of blood for transfusion, pretesting methods, records, and administration of blood. Also included are studies of tests pertaining to isosensitization.

65 BACTERIOLOGY 5 cr
The study of clinical bacteriology, including culture methods, biochemical and immunological aspects of identification, and the application of these to the disease state.

66 PARASITOLOGY 2 cr
Methods of identification of the various parasites infesting man, with detailed study of their morphology and habitat.

67 IMMUNOLOGY 2 cr
Study of the procedures used in analysis of immune mechanisms of the body, and their application in disease processes.

69 MYCOLOGY 1 cr
The study of the pathogenic fungi, the diseases they cause, and the technical methods of identification.

70 VIROLOGY 1 cr
The study of the viruses causing disease and the technical methods of identification.

71 NUCLEAR PATHOLOGY 2 cr
The study of the use of radionuclides in the diagnosis and treatment of disease.

DEPARTMENT OF RADIOLOGICAL HEALTH
Chairman: Mitchell L. Borke, Ph.D.

51 RADIOLOGICAL HEALTH PRACTICE 4 cr
Designed to provide the student with practical experience in at least four broad areas of radiological health, industrial, hospital, reactor, and university. This experience will be acquired through observation and participation in daily practical problems of radiation protection within local organizations representative of the four broad areas of radiological health. Emphasis will be placed on personnel monitoring and dosimetry, radiochemical assaying of biological and environmental materials, field surveying of plant operations involving large quantities of fission products and other radioactive materials, environmental monitoring practices, decontamination procedures, and radiation protection record keeping. Prerequisite: Bionucleonics 539, Radiological Health 541, Co-requisite: Radiological Health 542 Laboratory, 16 hours.

306 APPLIED ELECTRONICS LABORATORY 2-3 cr
This course seeks to combine a treatment of the principles of modern electronic instrumentation with practical laboratory experience. Topics which will be included are passive and active electronic components, electronic measuring instruments, power supplies, amplification, feedback and control, impedance matching, linear and digital devices. Emphasis will be on proper use of instrumentation rather than on advanced principles of design. Prerequisite: Permission of instructor.

539 BIONUCLEONICS 3 cr
A study of the fundamental techniques of manipulation and measurement of radionuclides. Experiments performed individually by each student include measurement of radioactive decay with G-M counters, flow counters, ionization chambers, proportional counters, crystal and liquid scintillators, study of the characteristics of radionuclides, gamma spectrometry, some applications of radionuclides in pharmacy, chemistry, biology, etc. Prerequisites: Chemistry 121, 122, Physics 211, 212 or general physics.

540 ADVANCED BIONUCLEONICS AND RADIO-PHARMACEUTICALS 3 cr
A course devoted to the practical applications of radioactive isotopes in chemistry, biology, pharmacy, and medicine. The scope of the course includes neutron activation analysis, gamma spectrometry, tracer methods, and radiopharmaceuticals. Prerequisite: Bionucleonics 539.

541, 542 RADIOLOGICAL HEALTH I AND II 4 cr each
A course designed to review the fundamental physical and biological principles of radiation protection, and the application of these principles to the measurement techniques, radiation hazard evaluation, radiation protection surveillance and administration. Scientific principles most applicable to solving the problems of protecting humans from unacceptable levels of radiation exposure both in occupational and public environment are emphasized.

RECOMMENDED PROFESSIONAL ELECTIVES
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
510 ADVANCED BIOPHARMACEUTICS
522 SPECTRAL METHODS
523, 524 ADVANCED MEDICINAL CHEMISTRY I AND II
539 BIONUCLEONICS
540 ADVANCED BIONUCLEONICS AND RADIO-PHARMACEUTICALS
541, 542 RADIOLOGICAL HEALTH I AND II
560 BIOSYNTHESIS OF NATURAL PRODUCTS
561 GENERAL TOXICOLOGY
563 PATHOLOGY
566 CLINICAL TOXICOLOGY
567 PATHOPHYSIOLOGY
569 TOXINS: THEIR CHEMISTRY, BIOLOGY, AND TOXICOLOGY

Descriptions of these courses may be found in the Graduate School of Liberal Arts and Sciences Catalog.

RECOMMENDED ELECTIVES FOR RADIOLOGICAL HEALTH
106 LOGIC
104 INTRODUCTION TO PHILOSOPHY
105 ETHICS
107 MEDICAL ETHICS
101 INTRODUCTION TO POLITICAL SCIENCE
312 INTERNATIONAL LAW AND ORGANIZATION
103 INTRODUCTION TO PSYCHOLOGY
101 SURVEY OF SOCIOLOGY
ELECTIVES—COURSE CLUSTERS

The following courses in liberal arts and sciences were especially selected by the several departments to support and complement pharmacy programs. Students are encouraged to view these electives with the aim of providing an appropriate depth of knowledge in the areas. Each cluster is intended to offer an interesting sequence of electives that will count toward minimum elective requirements of all programs in the School.

Department of English—
1) 201, 202 English Literature Survey
2) 205, 206 American Literature Survey
3) 210, 211 World Literature Survey
4) 207 plus courses in Film as Literature, Science Fiction, Literature of Crime and Detection Popular Culture Series
5) 207, 208, 209 Study of Literary Form
6) English Honors Program 12 credits
7) All 12 credits minors listed by the Department in the current catalog

Department of History—
1) 305 History of Medicine, 307, 308 History of Science
2) 231, 232 Development of the U.S., 222 Industrialism
3) Man in History, World History, Western Civilization
4) Non-American History Sequence

Department of Classics—
1) 121 or 122, 123, 245, 246, 240 Greek Civilization
2) 121 or 122, 123, 246, 247, 248, 241 Roman Civilization
3) 245, 246, 247, 248 Ancient History
4) 103, 104, 203, 204, 301, 302, 303 Greek Language and Literature
5) 101, 102, 201, 202, 305, 306 Latin Language and Literature

Department of Sociology—
1) 101, any one of areas of concentration suggested under minor

Department of Psychology—
1) 103, courses suggested under minor

Department of Speech Communication—
1) Courses suggested under minor

Department of Philosophy—
1) 104, 105 or 107, 106
2) Courses suggested under minor

Any course taught in the University may be chosen as an elective course by students who have met the prerequisites. Descriptions for courses outside the School of Pharmacy may be found in the appropriate section of the University catalog.
Reserve Officers’ Training Corps

DEPARTMENT OF MILITARY SCIENCE (ARMY OFFICERS’ COMMISSIONING PROGRAM)

Department Head, Major Frank W. Burpo, Jr

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 all male and female students at Duquesne. It provides students with the opportunity to earn a commission as an officer in the US Army, US 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 leading and managing people and resources while learning about the military professional 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 courses as they would any other college courses. There is no military service obligation or special requirements (uniforms, haircuts, drill, etc.) of any kind. 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 how to navigate cross-country using a map and a compass. Sophomores learn about leadership, management, and a brief history of the military in the United States. The Basic Course may be compressed into less than a two-year period if the student meets certain prerequisite conditions.

Basic Course Curriculum

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<tr>
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<th>Freshmen (MS I)</th>
<th>Sophomores (MS II)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td>MS 101 Survival Techniques 0-1 cr</td>
<td>MS 201 Leadership and Management 0-1 cr</td>
</tr>
<tr>
<td></td>
<td>MS 102 Individual Skills 0-1 cr</td>
<td>MS 202 Am Military History 0-1 cr</td>
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After completing the Basic Course, students who have demonstrated officer potential and meet Army physical standards are eligible to enroll in the Advanced Course. The Advanced Course is normally taken in the final two years of college. Therefore, at the beginning of the junior year, the student must decide whether he/she wishes to become an officer and enter the advanced phase of the program. Students who enter the Advanced Course receive a tax-free living allowance of $100 per month during the school year. The junior year is training-oriented and prepares students for six weeks of rigorous field and leadership training that they receive at Fort Bragg, NC at the end of the academic year. The senior year further prepares the student to perform the duties of an officer. It covers such subjects as military law, administration, logistics, staff functions, counseling and military training. Leadership development is continuously emphasized.
AROUND OTC SCHOLARSHIPS

This program permits students to participate in the Army ROTC Advanced Course and National Guard as well as the $100 per month living allowance for participating in the ROTC. The placement credit may also 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
4. Completion of three or more years training in Junior ROTC (any service) or NDCC

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

The two-year program is designed primarily for transfer students and students who did not participate in ROTC as freshmen or sophomores. Any student with at least two academic years remaining (undergraduate 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-year 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 students also receive a tax-free living allowance of $100 per 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 222.

MILITARY SCIENCE CURRICULUM

THE BASIC COURSE (Military Science Levels I and II)

MILITARY SCIENCE (MS) 101 SURVIVAL TECHNIQUES

This is an introductory course designed to prepare students to recognize survival situations, determine directions, navigate at night, rappel, find and prepare food, find water, apply first aid, cross obstacles and construct shelters.

MILITARY SCIENCE (MS) 102 INDIVIDUAL SKILLS

The first of the course will provide an introduction to the sport of orienteering, which is a combination of cross-country running and land navigation with the aid of a topographical map and a compass. Instruction is presented on map reading, the use of the compass, and how to move quickly and safely through all kinds of terrain. The second half of the course will provide an introduction to the principles of rifle marksmanship as applied to recreational, target and competitive shooting with the 22 caliber rifle.

MILITARY SCIENCE (MS) 201 LEADERSHIP AND MANAGEMENT TECHNIQUES

This is an introductory course into basic management and leadership techniques and includes effective communications techniques, small group processes, leadership traits and styles, decision-making and problem-solving techniques. The course is also designed to provide the student with the tools for self-analysis or his/her management capability and the methods for improvement.

MILITARY SCIENCE (MS) 202 AMERICAN MILITARY HISTORY

This is a survey course which examines the role of the military as nation states evolved, discusses the principals of war, and provides an overview of the American military experience and the Army today.

THE ADVANCED COURSE (Military Science Levels III and IV)

MILITARY SCIENCE (MS) 301 and 302 ADVANCED CAMP SEMINARS

This course requires a full school year to complete. In addition to the two hours per week of instruction and practical application exercises on campus, the student periodically attends training exercises on weekends throughout the school year. The course provides the student with instruction and practical experience in tactical and technical military subjects with particular emphasis on leadership development. The central theme and primary purpose of the course is to prepare the student for attendance at the six-week ROTC Advanced Camp at Fort Bragg, NC, which is normally attended during the summer following the completion of this course.

MILITARY SCIENCE (MS) 401 and 402 PROFESSIONAL SEMINARS

To take this course, the student must have satisfactorily completed MS 301 and 302 as well as ROTC Advanced Camp. The course meets two hours per week and is systematic and comprehensive study of professional subject matters designed to facilitate the transition from student/cadet to officer. It is comprised of two modules: Module I (MS 401), Administrative/Staff Operations and Procedures, is taught in the fall semester Module II (MS 402), Military Law and Justice, is taught in the spring semester.

THE COMMON HOUR

MILITARY SCIENCE (MS) 100 CADET CORPS LABORATORY

The Common Hour and Cadet Corps Laboratory are synonymous. This class is scheduled both semesters, meeting once a week for one hour. The Cadet Commander uses the lab to disseminate information and to organize the activities of the Corps of Cadets.
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 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. Like the Cadet Corps Laboratory, weekend activities are student run and instructor supervised. For this reason, these activities are ideally suited for cadets to practice leadership and organizational and military technical skills.

Some weekday or weekend evenings are set aside for social activities which incorporate exposure to military customs and traditions. These events include a Dining-In, the Military Ball, a Parents Reception and Cadet Awards Night, and the Annual ROTC Commissioning Program.

All of these activities (adventure and social) are conducted with the combined elements of the Pittsburgh Senior ROTC Instructor Group (PSRIG). Universities represented, in addition to Duquesne, are the University of Pittsburgh, Carnegie-Mellon University, and those institutions in the city which have students cross-enrolled into one of the three detachments of the PSRIG.
Student Services, Programs and Organizations

STUDENT AFFAIRS

DEAN OF STUDENTS

As Chief Student Affairs Officer of the University, the Dean of Students coordinates the following departments: Athletics, Health Services, Residence Life, Student Development and Student Life. In addition, the Dean of Students Office is responsible for the following specific programs: Early Alert, Leadership Training, Returning Students Center, Minor Course Scheduling, Commuter Concerns, Alcohol Awareness, Honor Societies and InterAct.

The Student Affairs area provides the student with opportunities to benefit from a variety of experiences with fellow students, faculty members and administrators as well as initiating new programs, implementing change and participating in the essential processes of University governance on many levels. More detailed information is available in the Student Handbook.

Council on Student Services

The Council, chaired by the Dean of Students, includes student representatives of Student Government Association, Commuter Council, Residence Council, Interfraternity Council, Panhellenic Council, Union Program Board, Orientation, Black Student Union, Judicial Board, Varsity Club and YMCA Administrative members on the Council include representatives of all Student Affairs Departments as well as Financial Aid, Campus Ministry, Public Safety and Physical Plant. The purpose of the Council is to foster communication and interaction among the various student organizations, staff members and departments and to facilitate improvement in the quality of life of Duquesne University students.

ATHLETICS

Duquesne University is a member of the National Collegiate Athletic Association, the Eastern Athletic Association, the Association for Intercollegiate Athletics for Women, the Eastern Athletic Association for Intercollegiate Athletics for Women, and the Penwood West Conference. The University follows the rules of these organizations in determining a student’s eligibility for a varsity team. The Athletic Department supports the following varsity teams: baseball, basketball, cross country, football, golf, rifle, tennis, women’s basketball, women’s tennis, women’s volleyball, men’s swimming/diving, women’s swimming/diving, as well as club bowling and hockey. The golf, rifle, bowling, and cross country teams are open to both men and women athletes.

Prospective candidates for any of the teams may obtain information from the Athletic Office on the Sixth Floor, Duquesne Union Duquesne's women's varsity basketball, tennis, swimming/diving, and volleyball teams compete with women's teams from other colleges and universities in the tri-state area. The bowling team competes in the Club League of Western Pennsylvania. Candidates for all teams, except football, bowling, swimming, and hockey may apply for athletic grants-in-aid.

The football program competes in NCAA Division III, and does not provide any athletic grants. The team competes in the tri-state area, and those interested in participating in football should contact Coach Dan McCann through the Athletic Department.

HEALTH SERVICES

The University Health Service is located on the second floor of the Duquesne Towers Residence Hall. Nursing service is available Monday through Friday 8:30 a.m. to 5:00 p.m., Saturday and Sunday 1:00 p.m. to 5:00 p.m. A physician is available Monday through Friday at specified hours.

Primary health care is given to all resident students and to commuter students who have enrolled in the University Commuter Health Plan. Emergency care is given to faculty, staff and visitors. A completely equipped ambulance is maintained by the University. Should an emergency occur, the Department of Public Safety should be contacted immediately at 434-4747 to provide services of EMT’s, treatment or diagnostic procedures by non-University physicians, clinics, or hospitals must be paid by the student or his family.

Health Insurance

It is recognized that each student carry some form of health insurance. The University provides a Student Health Care Program which has been designed to meet the needs of the student, and is priced lower than individual health insurance policies. Complete information about this insurance plan may be obtained from the University Insurance Officer, Second Floor of the Administration Building. Note: The University is not responsible for medical expenses resulting from participation in intramural sports.

RESIDENCE LIFE

Residence Life is dedicated to the task of creating an environment in which a student can grow and develop as a total person. Its program is based on two assumptions: 1) the student’s residence hall experiences can be an important part of the total University education, and 2) the residence hall staff have a defined educational mission which can greatly enhance the opportunities for students to profit from their residence hall experience.

Therefore, it is the purpose of Residence Life to facilitate the personal and academic growth of student living by striving to make the whole of residence life an educational experience. To this end, the professional and resident assistant staffs will provide the wherewithal to facilitate such development.

Recognizing that each individual has unique talents and potentials, every effort is made to create a residence hall environment that is acceptable to each individual and open to his or her effort on this environment. It is the student who, actively becoming part of environment, enriches his or her own development. It is this aim that university living strives to accomplish.

In the belief that residence living adds to the educational opportunities of the individual, the University reserves the right to require all undergraduate students who do not commute from their permanent home of residence to reside in University residence halls. Availability of space currently limits implementation of this requirement to freshman and sophomore students.

Residence Hall space has been at a premium. Many students have not been able to reside on campus because they did not turn in their room contract and $100 deposit. Therefore, it is imperative that students wishing to live in the Residence Halls complete and return their contract and deposit as early as possible since students are assigned available space on a first-come, first-serve basis.

The University does not accept the responsibility for loss or damage (from any cause) to the personal property/effects of the student, nor will the University assume responsibility for any personal liability while the student is a resident. It is suggested that students carry personal liability and property insurance.

STUDENT DEVELOPMENT

The Office of Student Development is responsible for coordinating and implementing several programs and services which provide individual students and groups with opportunities for personal, intellectual and social growth. In addition to providing counseling services and coordinating the University Judicial System, the Student Development Staff is responsible for Orientation, Freshman/Transfer Assistance Program, College Skills,
Special Scholarships and Awards, Disabled Students, International Students, Study Abroad, Life Planning Seminars, and Positive Profile Records. There is also a Notary Public available to students during normal working hours.

College Skills
Essential to the educational process is the acquiring of learning and decision making skills which are not necessarily provided in the traditional curricular structure of the University. Such "survival" skills are both technical and developmental in nature and include: time management, note-taking, preparing for examinations, efficient reading, self-assessment, decision making, value clarification, interpersonal communication, goal setting and career awareness. Assistance in all of these areas is available in the Office of Student Development.

Disabled Students
The Office of Student Development coordinates and provides services available to students with disabilities. The office serves as an advocate for disabled students at Duquesne—surveying the needs of these students and developing programs to meet those needs.

Specific services currently available include: reading, writing and typing service for blind or dyslexic students, orientation to campus facilities, and mobility guides.

The Office of Student Development serves as a liaison with the Registrar's Office in changing classroom locations, if necessary, for students in wheelchairs, with the Department of Public Safety in obtaining special parking permits for disabled students and with the Affirmative Action Officer and Physical Plant in identifying and correcting physical facilities and barriers.

The Disabled Students Organization (Delta Sigma Omicron), whose membership includes disabled and non-disabled students, serves as a focus for services and programs for disabled students.

International Students
The responsibility of the International Student Advisor is to be of service to all international students in the area of personal counseling and adjustment. Other services include: preparation of forms to obtain employment and to do practical training. Assistance is also provided for passport renewal. The Advisor is located in the Office of Student Development.

STUDENT LIFE
The Office of Student Life administers the program services and facilities of the Duquesne Union as well as the services and programs of the Duquesne University YMCA. The staff consists of the Associate Dean of Students for Student Life, Director of Union Operations, Director of Programs and Activities, Director of Recreation, Media Services Coordinator, YMCA Director and a graduate assistant.

Collectively, the Union Staff provides advice and assistance for all phases of campus programs and establishes goals for, produces and presents a balanced series of cultural, educational, social and recreational programs which strives to meet the University Community's needs. While the staff works most closely with the Union Program Board, services extend to all students and student organizations, faculty, staff and administration.

Duquesne Union
The Duquesne Union is more than a unique building. It is an organization, a program, a service, an experience and a spirit that has spread through Duquesne since it opened in March 1967. It is a unique partnership of professional staff, faculty and students working together to provide the experiences necessary to develop mature effective members of society.

Participation in the Union offers individuals and experiences they need to develop their unique talents and personality, and allows them to synthesize and express their ideas and beliefs. Included in this is the opportunity to learn and apply leadership techniques, and plan and present programs and activities for the campus community.

With a goal of community, all aspects of the Union—programs, facilities and committees—are open to the entire campus. It is not the "Student" Union, but the Duquesne Union.

Union Program Board
The Union Program Board is a student organization designed to enrich the entire Duquesne Community. The UPB, through its various committees, provides cultural, recreational, educational and social programming for the entire campus.

The UPB provides a variety of entertainment including art exhibits, concerts, guest speakers, dance and theatre performances, and any other creative programming ideas that its members come up with. It also offers such services as promotion resources for other campus organizations and groups.

The UPB offers its members a chance to gain effective skills in leadership, group process and organization, and communication. It also provides the opportunity for students, faculty, administration and alumni to interact and get to know and understand one another through informal association.

The Union Program Board consists of five committees:
- The Committee on the Arts (COTA) strives to enrich Duquesne with fine arts and crafts exhibits and workshops, sponsors student and professional dance, theatre and mime performances and offers various discount trips to such places as museums, ballets, Fallingwater and New York City.
- The Social Committee seeks to satisfy various musical tastes while complimenting the social programs sponsored by other organizations on campus. These include concerts, TGIF's, magic, hypnotists, coffeehouses and other social events.
- The Forum Committee presents speakers as well as dramatic presentations concerning topics of contemporary interest. They also utilize campus resources in sponsoring mini-lectures on special subjects suggested by the faculty or administration.
- Special events such as the College Bowl and the Union Christmas and Birthday parties are handled by the Union Affairs Committee. This Committee is also responsible for recruiting and the application process of UPB members.
- The Promotion Committee serves all the other committees and student organizations with creative ideas in advertising and publicity for on-campus events, and also publicizes the Union through newsletters and activities calendars. Included in this Dial-an-Activity is a free promotional telephone service for campus events.

Everyone is welcome to join the Union Program Board and may do so by obtaining an application in the UPB Office (Third Floor, Union).

Recreational Center
The Recreational Center, located on the First Floor, provides a wide variety of recreational activities including open and league bowling, shoe rental, billiards, ping pong, pinball machines and various table games. Several tournaments, some offering regional and national competition, are held throughout the year.

Other Recreational Center services include Reading and TV Lounge, and an "Emporium" carrying many recreational and craft items for sale at reduced prices.

The Swimming Pool is located in the Towers and is open to all students, faculty and staff at no charge. Hours of operation are posted at the pool.

Information Center
The Union Information Center located on the third floor concourse provides a central point on campus for dispensing and obtaining information. It is, in short, a place to go when you don't know where to go. Included among the numerous services provided by the Information Center are: Student organization mailboxes, newspapers (Pittsburgh
Press and Post Gazette—daily and weekly, New York Times—available on a semester subscription basis, athletic event tickets, interoffice and U.S. mailboxes, paging, announcements, lost and found, student organization office keys, duplicating services, weekly and monthly PAT bus passes, Bell telephone bill collection, and, in general, information

Scheduling
All registered student organizations and Duquesne University employees wishing to use space on campus for university related non-academic functions should make arrangements to do so through the Duquesne Union Scheduling Office. Refer to the scheduling policy, available in the Scheduling Office for specific procedures to be followed.

Governing Council
Overall direction for the Union’s programs and operations is provided by its Governing Council. Specifically, the Council advises the Associate Dean, recommends internal policies, and insures the implementation of balanced programming through the allocation of program funds in accordance with established goals. A broadly representative body, the Council includes the Associate Dean, Director of Union Operations, Director of Programs and Activities, Student Government Association, the Union Program Board, Commuter Council, Residence Council and Student Affairs Division.

Duquesne University YMCA
The Duquesne YMCA, located in the Student Life Office in the Union, offers students a wide variety of opportunities to become active in the greater Pittsburgh community and on campus.

Community programs are designed to encourage students to have fun while learning about Pittsburgh, gain field experience in their areas of interest and study, explore potential careers and broaden the dimensions of their education. YMCA members work with children, adolescents and adults in hospitals, parks, playgrounds, correctional institutions and on the streets.

Campus programs are planned by students and around their current interests and include backpacking, aerobics and cross-cultural communications.

Student ideas and participation are encouraged in the organization and administration of all YMCA programs.

DEVELOPMENTAL SERVICES

CENTER FOR ACADEMIC AND CAREER DEVELOPMENT
The Center for Academic and Career Development (CAAC) is a coordinated guidance, counseling, referral, and consultative program within Duquesne University, comprised of three services: Career Planning and Placement, Learning Skills Program, and Testing Bureau. The Center provides for both direct counseling and guidance service to students, assisting them through the educational process and the career development process. Through the Center a student can seek any of all of the following services: academic and career planning, tutoring, academic skill development, vocational guidance, career planning, career information, job placement assistance, academic skill assessment, career assessment and personality assessment. Also, students can receive indirect assistance through referral to appropriate University and community programs. The Center can further assist all University departments and divisions as a source for their student referrals and as a consultative service for occupational, community and University surveys of academic and career needs.

Career Planning and Placement
Students and graduates of Duquesne University have 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 with well-defined career goals may seek employment advice including resume preparation, job application and interview techniques, and career guidance. The graduating student may also be interested in campus interviews with visiting employers.

Any student group or academic department may contact Career Planning and Placement for aid in developing a career program and/or in securing a career speaker.

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

Learning Skills Program
The Learning Skills Program, located on the third floor of the Administration Building, 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 students prepare study skills as well as to assist students experiencing academic difficulties.

The Learning Skills Program is free to all Duquesne University students.

Testing Bureau
The Testing Bureau provides counseling to students who have questions or concerns relating to some aspects of their personal and/or academic life. As the name implies, tests and inventories are incorporated whenever appropriate to aid in compiling as much information about students’ abilities, interests, and personality as possible, insofar as these relate to their concerns. The test results are used in conjunction with extensive interviews in order to facilitate the resolution of problems by looking at alternatives and trying to formulate viable plans.

The Testing Bureau has assisted students to make career choices, understand their abilities, interests and personality factors, look at alternative careers, understand personal concerns, acquire referral information to University and neighborhood organizations, and acquire information concerning applications for national and other standardized tests (for example, GRE, SAT, MAT, LSAT, CLEO, etc.).

The Testing Bureau is open, free of charge, to all Duquesne students.

PSYCHOLOGICAL CENTER FOR TRAINING AND RESEARCH
The Psychological Center for Training and Research is staffed by 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 his ability to find his own solutions for difficulties of a personal nature. Single conferences or a series of interviews in individual or group counseling can be arranged at the Center’s Office, which is located on the first floor of the Guidance Building.
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 responsibility and to foster intelligent interest and participation in all phases of university life. Two major functions of the SGA are to serve as student representatives on important University committees and to serve as the sole body that recognizes and funds 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 coordinates residence hall activities and is involved with the Office of Residence Life in developing and implementing residence hall 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 the Council on Student Services and the Food Service Committee to provide student input for the formulation and review of University policies affecting residence life.

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 three elected or appointed representatives from each of the eight member fraternities. The IFC establishes all rules governing inter-fraternity sports and regulates pledging.

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 six women's social fraternities. Panhellenic Council establishes all rules concerning the rushing and pledging of new fraternity members.

STUDENT ORGANIZATIONS

GENERAL
There are more than 100 active student organizations at Duquesne. Some serve the needs of specific interest groups as well as those of residents and commuters. Others relate directly to major areas of study. Some honor academic achievement. Many are formed to meet religious, service or social 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 the fertile ground for the growth of informal exchange of ideas pertinent to the students' academic pursuits. With this purpose in mind, these organizations sponsor numerous programs including debates, symposiums, and lectures.

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 and cooperation among each member of the organization. With this purpose in mind, 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 to enhance their identities by sponsoring and promoting social, athletic, cultural, and academic events. Many of these organizations belong to Inter-Fraternity Council of Panhellenic Council.

PERFORMANCE GROUPS

TAMBURITZANS
The Duquesne University Tamburitzans were founded in 1937 at the University and were the first university-based performing folk ensemble in the United States. The group takes its name from the Tamburitza family of stringed instruments, indigenous to the folk cultures of Southeastern Europe. The group exists for the dual 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 serves to provide an extracurricular outlet for students who wish to participate in the theatre. Its 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 Masquer's program offers a variety of stage entertainment—one-act plays, musicals, comedies, tragedies. Any Duquesne student is eligible for membership.
MEDIA ORGANIZATIONS

WDUQ RADIO AND TELEVISION
The University's radio station (WDUQ—90.5 FM) and television (closed circuit) provide academic support to the individual schools and departments through seminars, workshops, laboratory experience, and extracurricular opportunities in communication skills for individuals and groups. Most positions on the staff are filled by students. The University radio station operates on a 25,000 Watt frequency over a radius of seventy miles.

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 on WDRC 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 Judicial System. Copies are available at the Duquesne Union Informational Center and the Office of Student Development.

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 members, employees, and most of all students. Membership in the Duquesne Duke is open to all students.

THE DUQUESNE MAGAZINE is a literary publication, published each semester which affords students the opportunity to submit writing, artwork and photographs.

L'ESPIRIT DU DUC, the yearbook, highlights the events of the previous year to remind all graduates of their alma mater. It is mailed to all seniors after their graduation.

THE STUDENT HANDBOOK, published annually, contains information about the University which concerns the students. Copies are available at the Information Center, Third Floor, Duquesne Union.

Part IV:
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 at all times of the day there is easy access to the Sacrament of Reconciliation. For all students, whatever their faith, the Chaplains are available to help with spiritual direction, counseling, advice, or sympathetic listening. Ministers and rabbis of other faiths are a vital part of the Campus Ministry staff, providing services in conjunction with nearby churches and synagogues. 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 at 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, the Union, and a weekly Chapel bulletin. Its main office is in Room 102 on the first floor of the Administration Building, with an office in the Duquesne Towers dormitory.
Part V: Admission Financial Aid, Tuition and Fees

Admission

OFFICE OF ADMISSIONS
The Office of Admissions is located on the first floor of the Administration Building
Telephone (412) 434-6220, 434-6221, 434-6222
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 best qualified to profit from opportunities which the University offers for intellectual, spiritual, and social growth. In general, admission is based upon past academic performance, scholastic ability, and personal characteristics. Information about religious preference, sex, racial characteristics, and ethnic origin is not taken into consideration by the Committee on Admissions.

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, Pre-Dental, or Pre-Medical programs, Medical Technology, Radiological Health, 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 15 of his/her senior year. The student is notified of the decision by December 15, and is required to send his/her non-refundable deposit within two weeks. This offers the candidate the advantage of knowing of the admissions decision early in his/her senior year.

APPLICATION—NEW FIRST-YEAR STUDENTS
Application should be addressed to the Director of Admissions, Duquesne University, Pittsburgh, Pennsylvania 15282. It may be submitted at any time during the candidates' 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. No application will be processed for consideration by the Committee on Admissions unless accompanied by the required fee.
3 Request the secondary school principal or guidance counselor to submit a transcript of the candidate's academic record. A recommendation is required.

4 Complete the required SAT or ACT examination during the spring of junior year and/or fall of senior year. It is the personal responsibility of each candidate to have test scores forwarded to the University.

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

6 Students interested in being considered for University Scholarships should submit their application by February 1 of their senior year.

7 Early Decision Deadline (for students who have Duquesne as their first college choice) is November 15. Notification will be by December 15. If accepted under the Early Decision Plan, students are asked to submit a non-refundable tuition deposit of $100 within two weeks.

8 Notification of decisions for regular admission begins once Early Decision applicants have been notified. If accepted students are asked to submit a non-refundable tuition deposit of $100 by May 1 of their senior year.

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 whereby unusually able and mature candidates who have completed less than four years of a secondary school program may apply for consideration to begin college after their junior year. The high school diploma is awarded following successful completion of their freshman year in college. Two separate interviews are required. Further details may be obtained by telephoning or writing to the Admissions Office.

**APPLICATION—OTHER CATEGORIES**

It is the responsibility of persons who apply for evening study, or as international students, post-graduates, 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 the deadline dates.

**INTERNATIONAL STUDENTS**

International students are expected to meet the requirements for admission from secondary schools or from other colleges and universities as outlined below. In every instance, Duquesne should receive complete and official transcripts of all degrees, diplomas, marks sheets, and examination records six months prior to the student's expected date of entrance. Records should be in original or notarized photostatic copies, accompanied by certified English translations.

1. **Academic** The student should rank in the upper half of his secondary school graduating class and must present satisfactory scores from the SAT (Scholastic Aptitude Test) or TOEFL (Test of English as a Foreign Language).

2. **English Proficiency** Students coming directly from foreign countries are required to take the TOEFL (Test of English as a Foreign Language)* in their country before a decision may be made on their admission to the University.

Proficiency in English must be demonstrated in listening and reading comprehension and writing ability. Students who reside in this country at the time of application may be requested to take the TOEFL at the discretion of the Admissions Office.

*For information about testing in any country, the Educational Testing Service, Princeton, New Jersey 08540, should be contacted.

**POST-GRADUATES**

Post-graduates are students who already have a Bachelor's degree, but desire to take undergraduate courses at Duquesne.

A Post-graduate student must submit a Post-graduate application if the Bachelor's degree was received from an institution other than Duquesne. If the bachelor's degree was received from Duquesne, an application for readmission must be submitted. In both instances, 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 for 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 Advisement 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 Schools of Education and Pharmacy 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 which the 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 should desire to take a course or courses at Duquesne University beyond one semester.
No Temporary Transfer shall be permitted to register for more than two semesters without making arrangements to become a permanent transfer. An interview is required of Temporary Transfer applicants before attendance for their third semester.

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 any who withdrew from the University, must obtain readmitance 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, history of art, modern foreign languages (French, German, Spanish), Latin, mathematics AB, mathematics BC, physics B and C, chemistry, biology.

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 minimal 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 credits must request that scores be sent to the University. 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.

COLLEGE LEVEL EXAMINATION PROGRAM
The special examinations for which the College of Liberal Arts and Sciences will award credit, with acceptable scores, are:

1. General Examinations: Humanities, social sciences

A student who has accumulated 30 or more credits is not eligible to take the General Examination for credits. When a student has acquired 60 credits he will not be given credit 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. 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 progression of courses. The exam in College Algebra or College Algebra/Trig must be taken before a student registers for Calculus I.

Information about the time and place that examinations are given may be obtained from the University 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.

CREDIT HOUR BANK
The Credit Hour Bank 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, write Credit Hour Bank across the top of an application, submit the $20 non-refundable application fee, and attach a letter indicating full comprehension and acceptance of the conditions of the Credit Hour Bank Program. Generally, all first year courses in the College of Liberal Arts and Sciences are open to Credit Hour Bank students.
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 benefits such as Social Security. Two types of self-help programs of aid are available: loans and work. Students loans provide rates, terms, and conditions far 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, 3) Economic Opportunity, which aims to provide economic parity for the student with very limited family resources, and whose need is therefore exceptional, and 4) 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 except 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. Frequently, this requires an "aid package" consisting of funds from multiple aid sources and programs. Those programs which are under the direct control of the Aid Office are not usually sufficient to meet full need or provide an aid package of the most beneficial composition. It is advisable and 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. (Freshmen and transfer students may obtain the form through Admissions Office publications or through the Financial Aid Office. Currently enrolled students may obtain the form only through the Financial Aid Office.) Complete this application and submit it to the Financial Aid Office, Duquesne University, Pittsburgh, Pennsylvania 15282 PRIOR to these deadline dates: For the Fall Semester or the academic year, no later than May 1, for the Spring Semester, no later than December 1. Late applicants will be considered on the basis of available funds. Students interested in being considered for scholarships should submit their financial aid application by February 1.
3. Obtain from the high school guidance office or the Financial Aid Office a Financial Aid Document. Complete and submit it according to instructions. Statements take four to eight weeks to process and therefore should be submitted as early as possible.
4. A reply to this application, if filed by deadline dates, should be anticipated as follows: Freshmen and new transfers between mid-February and late March (providing student has been accepted for admission) Upperclassmen 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 renewed 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. Renewal amounts may vary relative to the degree of achievement.

Competitive Scholarships  These awards are given to students of outstanding ability and achievement who also demonstrate financial need. They are renewable yearly based on continued academic achievement, and continued demonstrated need. Continued academic achievement is normally reflected by a cumulative Quality Point Average of 3.0 or above. Renewal amounts may vary relative to the degree of achievement and level of need.

Pash Scholarship Program  This program was created to benefit students from the nearly 300 parishes in the Diocese of Pittsburgh. Worthy students are recommended by the pastor to the University’s Admissions Office, with both academic achievement and financial need being used in determining the recipients. A maximum of one award per parish may be made to those students who meet the requirements established by the University. Inquiries should be directed to the Office of Admissions.

Supplemental Educational Opportunity Grants  Federal grant assistance is available to full or half-time undergraduate students with financial need. It should be noted that due to limited funding, these grants are normally awarded only to full-time students. Recipients are selected in accordance with guidelines published by the Department of Education.

Nursing Scholarships  Scholarship assistance is available to full-time undergraduate nursing students with exceptional financial need. Recipients are selected in accordance with guidelines published by the Federal government.

National Direct Student Loans  National Direct Loans are available to both full-time and half-time students who demonstrate financial need and are making acceptable progress toward a degree. Recipients are selected in accordance with guidelines published by the Department of Education. Loan repayment does not begin until six months after the borrower terminates at least half-time study, and is scheduled over a 10-year period at an interest rate of four percent per year.

Nursing Student 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 10-year period at an interest rate of three percent per year.

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

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 Department of Education. 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. Grants may range from approximately $200 to a maximum of $2100 to students determined to be eligible. All undergraduates are advised to apply for this form of aid. Students receiving aid through the University are required to apply for a Pell Grant. Necessary forms may be obtained through the Financial Aid Office or the High School Guidance Office.

STATE GRANT ASSISTANCE  General  Depending upon the student’s legal state of residence, direct grant assistance from the state may be available for study at Duquesne University.

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 $100 to $1500 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 any student who is enrolled in an institution of higher learning on at least a half-time basis. They are provided by commercial lending institutions in every state. To apply, the student should contact a local lending institution where the student or parents have an account. The maximum that a dependent undergraduate student may borrow in any academic year is $2,500. Independent undergraduates may borrow a maximum of $3000 per academic year. The interest rate of nine percent a year will be automatically subsidized. Repayment of these loans begins nine months after graduation or withdrawal from school. A four to six week processing period should be anticipated.

Guaranteed Loans are generally considered an alternative or supplemental source of assistance to all other forms of aid. Students who apply for or receive aid through the Financial Aid Office should apply for a Guaranteed Loan only after consulting with an Aid Officer.

OTHER POSSIBILITIES  In addition to mass programs of aid previously described, financial assistance may be obtained from a wide variety of sources. Since application procedures and requirements differ greatly, it is not possible to provide specific information. In general the student seeking potential sources of aid may inquire of 1) high school guidance counselors, 2) library publications such as Guide to Financial Aid for Students and Parents, published by Simon & Schuster, 3) parents' employers or labor unions, 4) fraternal, social, religious or professional organizations, 5) major organizations utilizing the skills of the field for which the student is preparing, and 6) specific departments within the University.
AID FROM DEPARTMENTS AND SCHOOLS
COLLEGE OF LIBERAL ARTS AND SCIENCES
Pittsburgh Communications Foundation Loans The Foundation has established a loan fund for deserving junior and senior full-time students in the Department of Journalism. Students will be required to repay the loan within two years after graduation at three percent a year. Such loans will be granted on the recommendation of the Chairman of the Journalism Department assisted by the Journalism faculty. Loan inquires and applications should be made to the Chairman of the Department of Journalism.

The Eleanor Polis Capone Memorial Award This award honors, in perpetuity, the memory of Eleanor P. 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 merit in the field of creative writing, with need and academic achievement. Interested students must contact the Chairman, Honors and Awards Committee, English Department, prior to January 15.

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

The Rev Joseph A. Launtis, C.S.Sp., Journalism Scholarship This is an annual scholarship in tribute to the Rev. Joseph A. Launtis, C.S.Sp., founder of the Department of Journalism and the University’s radio station, WDUQ-FM. It is available to a freshman entering Duquesne University who is planning to major in journalism. The award is administered by the Launtis Scholarship Committee of Journalism faculty and friends. The deadline for application is April 1.

Edward T. Leech Scholarship This annual scholarship was established in 1971 by the Scripps Howard Foundation for journalism junior/senior students who demonstrate outstanding 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.

SCHOOL OF BUSINESS AND ADMINISTRATION
Gulf Oil Corporation Honors Scholarships This program provides grants of up to $1500 a year to outstanding undergraduate students in the fields which may eventually qualify them for employment in the business world and, more particularly, in petroleum and related industries. Normally, one scholarship is provided for each class, freshman through senior.

ALCOA Scholarship This award is made annually to an undergraduate student in the School of Business and Administration. Recipients are selected by the School on the basis of academic achievement and financial need.

SCHOOL OF EDUCATION
School of Education Competitive 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. Freshmen applicants 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.

Lawrence Roche Memorial Scholarship The award will be made to a student who, as a junior in the School of Education, has in the judgment of the Awards Committee, demonstrated a minimum quality point average of 3.0 at the time of application. The student must be officially registered as a senior in the School of Education of the University at the time of receiving the award. Applications must be submitted to the Dean’s office no later than March 1.

SCHOOL OF MUSIC
Women’s Advisory Board Scholarships This fund provides scholarships in varying amounts each year to vocal performers. These scholarships are available to entering freshmen and upperclassmen.

George Barrere Memorial Scholarship The Pittsburgh Flute Club offers a scholarship in memory of George Barrere, founder of the first flute club in the United States. This $300 scholarship is awarded to a freshman or a sophomore.

Polish Arts League Scholarship This award is made annually by the Polish Arts League of Pittsburgh to an outstanding performer in the School of Music. Preference is given to a student of Polish ancestry. Other students will not be excluded from consideration.

Music School Scholarships These awards are made possible by donations from individuals and organizations in appreciation of performances by School of Music students.

University Solo Wind Scholarships These scholarships in varying amounts are awarded only to potential “First chair” performers.

University String Scholarships These scholarships for tuition and applied music fees have been established by the University to promote the study of string instruments.

Pittsburgh Flute Club Award This award is given to an outstanding woodwind student.

University Piano Scholarships These scholarships are awarded to students showing outstanding talent in piano.

Ezio Pinza Memorial Scholarship This award is presented to an outstanding vocal student, male or female, between the ages 17 and 25 who has not completed an undergraduate degree.

SCHOOL OF NURSING
Repayment of Educational Indebtedness Upon completion of professional training nurses may enter an agreement with the Secretary of Health and Human Services to practice the profession of nursing in an area determined to have a shortage of nurses. Minimum agreement is for two years, with a third year optional. In return for such service, the Federal government will repay 60 percent of all bona fide educational indebtedness. For three years service, 85 percent of indebtedness will be repaid.

Behan Scholarship The R. J. Behan Annual Nursing Scholarship is a $500 scholarship awarded annually to a nursing student who is in good academic standing. The award is based on need, professional involvement and future aspirations.

Other Programs Two additional programs, Nursing Student Loans and Nursing Scholarships, are described under University Aid, pages 215-216.
SCHOOL OF PHARMACY

Women of Galen: The Women’s Auxiliary of the Galen Pharmaceutical Society of Pittsburgh annually provides scholarship funds to be awarded to deserving pharmacy students in their last years of attendance in the School of Pharmacy.

American Pharmaceutical Association Women’s Auxiliary Loan Fund: This loan fund was established to support worthy women students in accredited colleges of pharmacy during the last two years of their attendance prior to graduation.

Beaver County Pharmaceutical Association Loan Fund: This revolving loan fund provides financial assistance to students in the School of Pharmacy who are residents of Beaver County, Pennsylvania. Applications are to be made to the Dean of the School of Pharmacy.

Samuel W. Curtis Loan Fund: This fund is intended to provide financial assistance for students in the School of Pharmacy.

Joel P. Laughlin Scholarship: In honor of Joel P. Laughlin, a fraternity brother whose life was terminated early in his professional program, The Graduate Chapter of Phi Delta Chi annually awards three $200 scholarships to one fraternity brother in each of the three professional years. The recipients must have demonstrated academic achievement and active participation in the function of the Fraternity.

Peter and Dorothy Manzione Memorial Fund: A revolving fund, donated by Rosetta and Geraldine Manzione and friends of the family, is available to all students in the School of Pharmacy.

Mary McPartland Beck Scholarship Award: Scholarship funds are available from earnings on a fund started by a bequest to the School of Pharmacy in 1970.

NARD Foundation: Established by the National Association of Retail Druggists in honor of its executive secretary, John W. Dargavel, this foundation provides a $200 scholarship to a qualified student in the School of Pharmacy as well as loans to students of pharmacy in their last five semesters for payment of tuition, fees, and books.

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

Fred Schiller Loan Fund: This loan fund was founded by Mr. Fred Schiller, Pittsburgh pharmacist, in memory of the late Emanuel Spector, for worthy and qualified students in the School of Pharmacy. This revolving fund makes available tuition loans of varying amounts depending on the applicant’s need and general ability.

John Clothier Sims Memorial Fund: This revolving fund, established in 1954, was made possible through the generosity of the friends of the late Mr. Sims, executive of Sun Drug Company, Pittsburgh. Partial tuition loans are made available to students under the conditions that apply to the Fred Schiller Loan Fund.

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

Rite-Aid Scholarship: A $1,000 scholarship from the Rite-Aid Corporation is available to students entering the final year of the pharmacy program. Letters of application should be addressed to the Dean, School of Pharmacy, by May 1. Selection is based on financial need, demonstration of normal progress, and good standing in the pharmacy program.

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

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

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. Emphasis will be on performance in selection of recipient. Inquiries should be directed to the Office of Financial Aid.

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

Vira I. Heinz 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.

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

Nicolaus Copernicus Fund: Offers awards to first-year undergraduate students of Polish ancestry who have proven scholastic ability and demonstrated need. Applications are to be made directly to the Office of Financial Aid.

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 Else McDouough 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 awards are based on both academic achievement and financial need.

Hyman Family Foundation Scholarship: Recipients of these awards are selected by the University. Candidates must be residents of Allegheny County who demonstrate financial need.

James H. and Margaret Lavelle Ferry Memorial Scholarship: This award was established to honor, in perpetuity, the memory of James H. and Margaret Lavelle Ferry 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 as a secondary consideration. Recipients must be enrolled as undergraduate students.

Melville Alexander Eberhardt Memorial Fund: This fund was established to provide scholarships for the benefit of students residing in the United States. Worthy students are recommended by the University to the Trustees of the fund, with both academic and financial considerations being used.

Louis and Ida Amdursky and Benjamin Amdursky Memorial Fund: This fund was established to assist Jewish students who are residents of Allegheny County. Recommendations...
The University reserves the right to change tuition and fee charges if exigencies require such action. The figures shown apply to the 1981-82 term only, unless otherwise indicated.

**TUITION**
- Undergraduate Tuition: $129.00 per semester hour credit
- Graduate Tuition: $134.00 per semester hour credit
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): $100
- Residence Hall Damage Deposit: $50
- Change of Schedule: $5 for processing each form
- Credit by Examination: $20 for each semester hour for recognition of proficiency of course credit (See policy in Section V, page 220)
- Late Registration: $10
- Removal of I Grade: $5
- Undergraduate Business and Administration Student:
  - when carrying 12 or more credits: $5
  - Less than 12 credits: $3
- Undergraduate Music Student when carrying 12 or more credits: $25
- School of Pharmacy Undergraduate Fee: $150
- Undergraduate Pharmacy Student Activities (for Third, Fourth, and Fifth Year Students): $25
- University Fee:
  - 12 or more credits: $152.50
  - 9 to 11 credits: $107.00
  - 5 to 8 credits: $76.00
  - 1 to 4 credits: $41.00

*Note: Effective with the Fall 1982 semester, the University fee will be charged on a per credit basis. The 1982-83 University Fee will be $11 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, which is proportionately refundable, depending upon the losses incurred.

Laboratory fees apply to the 1980-1981 academic year. Lab fees will be increased in 1981-1982.

- Biology (each laboratory): $35
- Business 491: $5
- Chemistry (each laboratory): $35
- Computer Science: $35
- Education 490, 491 (Student Teaching): $25
- English 380, 381, 382, 383, 384, 385: $5
- Journalism 267, 269, 367, 369, 375, 379, 405, 409, 485: $10
Journalism 370, 378, 413  $ 15
Mathematics 308  35
Music-Applied Music 101, 102, 103, 104, 109, 110, 201, 202, 203, 204, 301, 302, 303, 304, 401, 402, 403, 404  100
Music-Applied Music 111, 112, 211, 212, 311, 312, 411, 412  35
Music-Class Piano 213, 214, 215  10
Music-Class Methods 181, 182, 183, 184  10
Music-Brass Class Methods 281, 282, 283, 284  10
Music-Organ Practice Room  20
Music-String Class Methods 381, 382  10
Music-Student Teaching  25
Physics  5
ROTC Professional Laboratories  5
Psychology  35
Graduate Classics  7
Graduate Biology With Laboratory  35
Graduate Chemistry 520, 561  30
Graduate Chemistry 551  122
Graduate Modern Languages 051 & 052  122
Graduate Psychology 571  15
Graduate Pharmacy 501, 502, 521, 522, 525, 539, 540, 541, 542, 561, 565, 666, 668, 671  30
Graduate Education 512  10
Graduate Music 501, 502, 503, 504, 505, 601, 602, 603, 604, 605, 606  100

**Laboratory Breakage Fee**
One breakage card per semester will cover laboratory breakage in Chemistry

**SUMMER AND SPECIAL SESSION TUITION AND FEE CHARGES**
Undergraduate Tuition for each semester hour credit $129.00
Graduate Tuition for each semester hour credit 134.00
University Fee 1 to 4 credits 41.00
5 to 8 credits 76.00
9 to 11 credits 107.00
12 or more credits 152.50

**GRADUATION FEES**
Bachelor Degree  $30
Master Degree  40
Doctor of Pharmacy Degree  40
Juns Doctor Degree  40
Doctor of Philosophy Degree  55
Thesis Binding Fee—Doctoral Dissertation  65
Thesis Binding Fee—Master Thesis  60

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

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

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

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

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

*Within the Summer Session—Based on a Six Week Session Standard*  
<table>
<thead>
<tr>
<th></th>
<th>First Week</th>
<th>Second Week</th>
<th>After Second Week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60</td>
<td>20</td>
<td>None</td>
</tr>
</tbody>
</table>

**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 Dean of Residence Life. The request is processed and necessary application forms are forwarded to the student.

The University requires that a prepayment of $100, which is applicable to the following semester’s room and board account, accompany all applications for room reservations or renewals. This pre-payment is non-refundable. In addition, a $50 damage deposit must accompany each initial housing contract. This deposit is retained by the University throughout the period of residency. If no damage deductions are incurred and the room key and ID card returned, the full amount of the deposit will be refunded at the final termination of residency.

Reservations are made on a semester basis—August to December, January to May. Rooms may be occupied no earlier than noon of the day preceding the beginning of the orientation or registration periods.

Room assignments are made on a first-come, first-serve basis. Therefore, it is extremely important for the student to return his/her housing application immediately upon receipt of it. Overcrowded conditions have occurred in the past and students have been temporarily assigned three to a room or in lounges. Therefore, students returning their housing applications after all rooms have been assigned will be housed in temporary housing, be temporarily assigned three to a room or in lounges. Therefore, students returning their housing applications after all rooms have been assigned will be housed in temporary housing, be placed on a waiting list, or not be assigned a space in the residence area.

All students occupying rooms in the University residence halls are required to take their meals at the Resident Dining Hall. Charges are for 20 meals a week, with meals served commencing with the evening meal of the day before the first day of classes.

Residence Halls are closed during vacation (Thanksgiving, Christmas and Easter) periods.
All resident students must present evidence of health and accident insurance coverage, such coverage is available through the University.

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

**Regular Session—Room and Board (20 meals a week)**
- Single for each semester: $1211.50
- Double for each semester: 1006.50

**Summer Sessions—Room and Board**
- 3 Weeks: $225 (Single Room and Board)
- *4 Weeks: $183 (Double Room and Board)
- $300 (Single Room and Board)
- $244 (Double Room and Board)
- 5 Weeks: $375 (Single Room and Board)
- $305 (Double Room and Board)
- 6 Weeks: $450 (Single Room and Board)
- $336 (Double Room and Board)
- 8 Weeks: $600 (Single Room and Board)
- $488 (Double Room and Board)

**ROOM AND BOARD—WITHDRAWAL AND REFUND**
A resident student must notify the Assistant Dean of Residence Life in advance of the planned withdrawal. No refund of room charges will be made where withdrawal occurs after the opening classes. In the event of withdrawal, board will be refunded at the rate of 75% 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.

No student is permitted to remain in the residence halls after academic withdrawal from the University has been completed.

**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, Master Charge 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.

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

*Those desiring residency for the Summer Session should make reservations with the Assistant Dean of Residence Life three weeks prior to opening date of your session. A non-refundable deposit of $20 must accompany each application. After occupancy, the deposit is applied toward the room and board expenses. This deposit is not refunded if the room is not occupied. Rates shown are for 1981 summer session only.

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

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

**BAD CHECKS**
It is the policy of the University to charge bad checks to the student who cashes them regardless of the maker. A $3.00 service charge will be assessed on checks that are returned from a bank for lack of funds.
Part VI: Registration and Scholastic Policies

Registration

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 and early December.

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

A comprehensive invoice that confirms the class schedule of courses for which the student is registered and lists fees, tuition, 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.

A three-day 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 dean of the student's school before the first class day. Notification received on or after the opening day of classes is subject to the official withdrawal policy.

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 Director of Admissions.
2. Authorization to continue in the program selected has been given and registration for classes has been accomplished in compliance with all academic requirements and procedures.
3. Arrangements have been made to the satisfaction of the University for payment in full of all financial charges, including fees, tuition, and housing charges, all of which are due and payable in full before the beginning of classes.

CHANGE OF SCHEDULE

Students requiring a change of class schedule, to change class times or to add or to drop a class, are permitted to do so during the pre-registration period, the final registration period, and the first class week of the semester. Change of class schedule is not permitted after the Latest Date for Change of Schedule as announced in the semester academic calendar.

All schedule changes must be approved by the academic adviser and processed with the Registrar. Schedule change requests processed with the Registrar during the first class week 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 advisor, a fee of $5.00 is charged for each change form processed after the close of pre-registration.

**CROSS-REGISTRATION**
Cross-college and university registration provides opportunities for enriched educational programs, approved by a student's advisor or dean, at any of the following institutions:

- Carlow College
- Carnegie-Mellon University
- Chatham College
- Community College of Allegheny County
- La Roche College
- Pittsburgh Theological Seminary
- Point Park College
- Robert Morris College
- University of Pittsburgh

The opportunity for cross-registration will be available to each full-time student enrolled in any program leading to a degree. Full credit and grade will be transferred.

Each college or university accepts registration in regularly accredited courses designated by it as open to cross-registration. First priority in registration shall go to the students of the host college.

The student's advisor or dean is responsible for assuring eligibility for the course in which the student intends to enroll. Each qualified student may enroll in no more than one course off campus in any one term or semester under this program. Cross-registration is conducted through the office of the home registrar.

Duquesne University students who are participating in this program are charged tuition and University Fee in accordance with the current rates charged by Duquesne University, however, students are responsible for paying any course or laboratory fees to the host institution.

These policies on cross-registration are not effective at this time for enrollments in summer sessions, including the spring term at the University of Pittsburgh.

**LATE REGISTRATION**
With approval of the appropriate dean and upon payment of the penalty fee, late registration may be permitted for a serious reason, however, no student may be registered and begin attending classes later than the Latest Date for Registration and Change of Schedule as announced in the Academic Calendar.

**RECORDS AND REPORTS**

**SEMESTER GRADE REPORTS**
Every registered student who is free of financial obligations to the University is sent a report of grades to the permanent address on record soon after the close of each semester.

**TRANSCRIPTS**
Each student receives a summary transcript of his or her complete academic record at the close of each academic year. Students should carefully examine their records for accuracy and immediately report errors to the Registrar.

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

No transcript will be issued unless all financial obligations owed by the student to the University have been fulfilled. A fee of $2.00 is charged for the issuance of each transcript.

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

POLICIES

ACADEMIC ADVISOR
Every student attending the University is assigned or selects an academic advisor. It is the student's responsibility to ascertain the advisor's name which may be obtained from the office of the school in which the student is enrolled. The student should consult with the academic advisor about the program and any questions of an academic nature. No student may register without the academic advisor's approval and signature.

AUDITING COURSES
To audit courses, a student must be officially registered and pay the same charges for courses that are taken for credit. Enrollment in a course for audit is subject to approval of the student's academic advisor, permission to audit graduate and professional courses requires consent of the dean of the school in which the desired course is offered. Registration in a course as Auditor must be declared at registration and is irrevocable after the Latest Date for Change of Schedule.

CANCELLATION OF COURSES
The University makes every reasonable effort to offer courses as announced in the Semester Schedule of Courses and the Summer Session Bulletin. 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. Schools may require attendance at every class. It is the prerogative of each school to establish policy for attendance at classes, laboratories, tests, examinations, deadlines for reports, and specific school requirements. It is the instructor's responsibility to make the school's policy known at the first class session as it pertains to the course and school.

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

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

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

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

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

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

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

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

CREDIT BY EXAMINATION
Examinations for recognition of proficiency in a subject, or for course credit, as authorized by the College or a particular School of the University, are available to currently enrolled students who by previous experience or exposure have acquired mastery of the knowledge in certain courses. An application fee of $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.

GRADING SYSTEM
The officially recognized method of grading course work and rating academic performance of students at the University is as follows:

A — Excellent
B — Good
C — Average
D — Below average, passing
P — Pass (Used in some courses where scaled grading is inappropriate. Indicates satisfactory completion of course work with credits earned but without quality points and is independent of the quality point system)
S — Satisfactory (Used in pass/fail courses and is independent of the quality point system)
F — Failure (Course must be repeated for credit)
U — Unsatisfactory—Failure (Used in pass/fail courses and is independent of the quality point system; course must be repeated for credit)
I — Incomplete (A temporary grade automatically given by an instructor when neither a passing nor failing grade can be determined because of incomplete course work. Unless a cogent explanation of extenuating circumstances, acceptable to the instructor, is presented and the missed examination or required assignment is made up by the date specified in the Academic Calendar, the I becomes a permanent F grade)
W — Official Withdrawal (Used on a student's permanent record to indicate termination of attendance in courses under conditions of official withdrawal. See pages 232 and 220. Withdrawal from a Course and Withdrawal from the University)
QUALITY POINT SYSTEM
The student’s overall academic quality point average (QPA) is obtained by dividing the total quality points earned by the total number of semester hours attempted. These quality point values of grades are used for each credit attempted:
A — four points
B — three points
C — two points
D — one point
F — zero points
Courses in which grades P, S, U, I, and W were given are not used in calculating the quality point average.

REPEATING COURSES AND COURSE RETROGRADATION
Ordinarily, with permission of their advisor, students may repeat courses in which grades of F and D were received. All grades are retained on the permanent academic record. The result of the final attempt in a repeated course is, however, the student’s status in the course with regard to attempted credits, earned credits, and the completion of requirements. Retrogradation, a corollary of the repeat credit rule under which a student may earn credit once only for a course, prescribes that a student may not move backward from an advanced course to a lower level course and receive credit for both. Any doubtful situation must be decided by the department chairperson or dean involved.

PASS/FAIL ELECTIVES
One course a semester, elected 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 during registration or no later than the close of the period provided for making schedule changes.

STUDENT STANDING
Progress towards 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. However, students who in a Fall Semester fail to meet the minimum standards may continue into the next Spring Semester only with permission of the Committee on Student Standing of their school.

Students who are eligible to re-enroll on a full-time basis shall be considered eligible to participate fully in all University-sponsored or -controlled extra-curricular activities, including intercollegiate athletics. 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 non-curricular and extra-curricular activities shall be without appeal if they are subsequently dismissed from the University for poor scholarship.

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

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

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

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

Students who have attempted 61 or more credits and who have a QPA of between 1.85 and 1.99 may continue on probation for one semester. However, students who have earned more than 90 credits are subject to dismissal unless they have a QPA of 2.0 or better. Students who accumulate 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.

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 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 the appropriate 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 this catalog requirements for graduation which the student is expected to know, as well as the aforementioned general requirements, and the following:

A — four points
B — three points
C — two points
D — one point
F — zero points

Students who are eligible to re-enroll on a full-time basis shall be considered eligible to participate fully in all University-sponsored or -controlled extra-curricular activities, including intercollegiate athletics. 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 non-curricular and extra-curricular activities shall be without appeal if they are subsequently dismissed from the University for poor scholarship.

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| Dismissal | Less than 1.75 QPA (Readmission may be permitted on recommendation of the appropriate Committee on Student Standing) |

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1. The bachelor's degree requires a minimum of 120 semester hours of course credits in all except Radiological Health, Medical Technology, and Pharmacy which require, respectively, 123, 125, and 160 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 time-wise within the last 30 semester hours of study for the degree, will fulfill the residence requirement provided a minimum of 30 semester hours of credit has been earned in course work at the University in the 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: 3.50 to 3.74
- Magna Cum Laude—Quality Point Average: 3.75 and above
- Summa Cum Laude—Upon recommendation of the faculty and a 3.90 QPA, the Magna Cum Laude citation may be raised to Summa Cum Laude.

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

TRANSFER WITHIN THE UNIVERSITY
It would be to the student's advantage to discuss the proposed transfer with the academic advisor of the new school no later than two weeks prior to preregistration. The advisor will then use the form and procedure established as uniform for the University to effect any change.

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 an F grade for the course.
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Duquesne University Campus

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