Duquesne University
Pittsburgh, Pennsylvania

UNDERGRADUATE CATALOG
1985-1986

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The provisions of this catalog are to be considered directory in character. The University reserves the right to make any changes that seem necessary or desirable including fees, tuition and room and board.

Faculties listings contained in this catalog are current as of Spring 1984.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>July 13</td>
<td>Friday</td>
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<tr>
<td>August 22</td>
<td>Wednesday</td>
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<td>August 23</td>
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<td><strong>SPRING SEMESTER—1985</strong></td>
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<tr>
<td>November 29</td>
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<td>January 10</td>
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<td>March 12</td>
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<td>March 13</td>
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<td>April 1 thru 6</td>
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<td>July 4</td>
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<td>August 15</td>
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### FALL SEMESTER—1985

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<thead>
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<th>Event</th>
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<tbody>
<tr>
<td>July 19</td>
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<td>Latest Date for Fall Semester Pre-registration with Pay-By-Mail Option</td>
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<tr>
<td>August 15</td>
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<tr>
<td>August 21</td>
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<td>Final Registration *</td>
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<tr>
<td>August 22</td>
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<tr>
<td>August 24</td>
<td>Friday</td>
<td>Final Registration *</td>
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<tr>
<td>August 24</td>
<td>Saturday</td>
<td>Final Registration *</td>
</tr>
<tr>
<td>August 24</td>
<td>Saturday</td>
<td>Latest Date to Cancel Registration without Penalty</td>
</tr>
<tr>
<td>August 24</td>
<td>Saturday</td>
<td>Latest Date to Register without Late Fee</td>
</tr>
<tr>
<td>August 26</td>
<td>Monday</td>
<td>Semester Begins</td>
</tr>
<tr>
<td>September 2</td>
<td>Monday</td>
<td>Holiday Labor Day</td>
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<tr>
<td>September 3</td>
<td>Tuesday</td>
<td>Latest Date to Register</td>
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<td></td>
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<td>Latest Date to Change of Class Schedule</td>
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<tr>
<td></td>
<td></td>
<td>Latest Date to Declare Pass/Fail</td>
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<tr>
<td></td>
<td></td>
<td>No Refund After this Date for Credits Dropped</td>
</tr>
<tr>
<td>September 7</td>
<td>Saturday</td>
<td>Latest Date for 50% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>September 14</td>
<td>Saturday</td>
<td>Latest Date for 40% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<tr>
<td>September 20</td>
<td>Friday</td>
<td>Latest Date for December Prospective Graduates to Apply for Graduation</td>
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<tr>
<td>September 21</td>
<td>Saturday</td>
<td>Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<tr>
<td>October 8</td>
<td>Tuesday</td>
<td>Reading Day</td>
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<tr>
<td>October 11</td>
<td>Friday</td>
<td>Latest Date for Undergraduates to Complete 1 Graded Courses of the 1985 Spring Semester and the 1985 Summer Session 1 Graded Courses Not Complete by this date receive the Permanent Grade of F</td>
</tr>
<tr>
<td>October 18</td>
<td>Friday</td>
<td>Latest Date to Submit Mid-term Grades</td>
</tr>
<tr>
<td>October 18</td>
<td>Friday</td>
<td>Due Date for Instructors to Submit Undergraduate 1 Grade Removal Grades</td>
</tr>
<tr>
<td>October 25</td>
<td>Friday</td>
<td>Latest Date for December Prospective Graduates to Submit Thesis Outline and Schedule Comprehensives</td>
</tr>
<tr>
<td>October 25</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>Friday</td>
<td>Holiday All Saints Day</td>
</tr>
<tr>
<td>November 14</td>
<td>Thursday</td>
<td>Spring Semester Pre-registration Begins * Other Dates Nov 15, 16 18, 19, 20, 21, 22 (F, S, M, T, W, H, F)</td>
</tr>
<tr>
<td>November 22</td>
<td>Friday</td>
<td>Latest Date for 1986 Spring Semester Pre-registration with Pay-By-Mail Option</td>
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<td>November 23</td>
<td>Saturday</td>
<td>Last Class Day Before Thanksgiving Holidays</td>
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<td>December 2</td>
<td>Monday</td>
<td>First Class Day After Thanksgiving Holidays</td>
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<tr>
<td>December 8</td>
<td>Sunday</td>
<td>Holiday Immaculate Conception</td>
</tr>
<tr>
<td>December 9</td>
<td>Monday</td>
<td>Latest Date for December Prospective Graduates to Submit Approved Thess to School and to take Comprehensives</td>
</tr>
<tr>
<td>December 11</td>
<td>Wednesday</td>
<td>Reading Day</td>
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<tr>
<td>December 12</td>
<td>Thursday</td>
<td>Reading Day</td>
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<tr>
<td>December 13</td>
<td>Friday</td>
<td>Latest Date for First Semester Freshmen to Withdraw with W Grade</td>
</tr>
<tr>
<td>December 14</td>
<td>Saturday</td>
<td>Final Examinations Begin Other Dates December 16 17, 18, 19 20 (M, T, W, H, F)</td>
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<tr>
<td>December 20</td>
<td>Friday</td>
<td>Semester Ends Latest Date for Graduating Students to Complete Degrees and Pay Accounts</td>
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<tr>
<td>December 20</td>
<td>Friday</td>
<td>Latest Date for Graduate Students to Complete 1 Graded Courses of the 1984 Fall Semester Holiday Christmas Recess Begins</td>
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</tbody>
</table>

*See Semester Class Directory for Time Schedule

### SPRING SEMESTER—1986

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>November 22</td>
<td>Friday</td>
<td>Latest Date for 1986 Spring Semester Pre-registration with Pay-By-Mail Option</td>
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<tr>
<td>January 9</td>
<td>Thursday</td>
<td>Final Registration *</td>
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<tr>
<td>January 10</td>
<td>Friday</td>
<td>Final Registration *</td>
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<tr>
<td>January 11</td>
<td>Saturday</td>
<td>Final Registration *</td>
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<tr>
<td>January 11</td>
<td>Saturday</td>
<td>Latest Date to Cancel Registration without Penalty</td>
</tr>
<tr>
<td>January 11</td>
<td>Saturday</td>
<td>Latest Date to Register without Late Fee</td>
</tr>
<tr>
<td>January 13</td>
<td>Monday</td>
<td>Semester Begins</td>
</tr>
<tr>
<td>January 18</td>
<td>Friday</td>
<td>Latest Date to Register</td>
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<tr>
<td>January 18</td>
<td>Saturday</td>
<td>Latest Date for Change of Class Schedule</td>
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<td>January 18</td>
<td>Saturday</td>
<td>Latest Date to Declare Pass/Fail</td>
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<tr>
<td>January 18</td>
<td>Saturday</td>
<td>No Refund After this Date for Credits Dropped</td>
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<tr>
<td>January 24</td>
<td>Friday</td>
<td>Latest Date for May Prospective Graduates to Apply for Graduation</td>
</tr>
<tr>
<td>January 25</td>
<td>Saturday</td>
<td>Latest Date for 80% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<tr>
<td>January 27</td>
<td>Monday</td>
<td>Latest Date for May Prospective Graduates to Submit Thesis Outline and Schedule Comprehensives</td>
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<tr>
<td>January 31</td>
<td>Friday</td>
<td>Latest Date for 40% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<tr>
<td>February 8</td>
<td>Saturday</td>
<td>Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<tr>
<td>February 28</td>
<td>Saturday</td>
<td>Latest Date for Undergraduates to Complete 1 Graded Courses of the 1985 Fall Semester 1 Graded Courses Not Completed by this date receive the Permanent Grade of F</td>
</tr>
<tr>
<td>March 7</td>
<td>Friday</td>
<td>Due Date for Instructors to Submit Undergraduate 1 Grade Removal Grades</td>
</tr>
<tr>
<td>March 7</td>
<td>Friday</td>
<td>Latest Date for Undergraduate Other than First Semester Freshmen to Withdraw with W Grade</td>
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<tr>
<td>March 14</td>
<td>Friday</td>
<td>Latest Date to Submit Mid-term Grades</td>
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<tr>
<td>March 22</td>
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<td>Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<td>March 31</td>
<td>Monday</td>
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<td>April 3</td>
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<td>Latest Date to Submit Mid-term Grades</td>
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<tr>
<td>April 7</td>
<td>Monday</td>
<td>Latest Date for May Prospective Graduates to Submit Approved Thess to School Office and to Take Comprehensives</td>
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<tr>
<td>April 14</td>
<td>Monday</td>
<td>Latest Date for May Graduates to Pay Accounts</td>
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<tr>
<td>April 25</td>
<td>Friday</td>
<td>Latest Date for First Semester Freshmen to withdraw with W Grades</td>
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<tr>
<td>April 28</td>
<td>Monday</td>
<td>Reading Day</td>
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<tr>
<td>April 29</td>
<td>Tuesday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>April 30</td>
<td>Wednesday</td>
<td>Final Examinations Begin Other Dates May 2 3 5 6 (H, F, S, M, T)</td>
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<td>May 6</td>
<td>Tuesday</td>
<td>Latest Date for Graduating Students to Complete Degrees</td>
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<td>Latest Date for Graduate Students to Complete 1 Graded Courses of the 1985 Spring Semester</td>
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<td>May 9</td>
<td>Friday</td>
<td>University Convocation and Honors Day</td>
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<td>May 10</td>
<td>Saturday</td>
<td>Graduation Mass</td>
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<td>May 10</td>
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<td>Commencement</td>
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<td>July 14</td>
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<tr>
<td>August 15</td>
<td>Friday</td>
<td>Holiday Assumption</td>
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*See Semester Registration Schedule for Other Dates and Times
**FALL SEMESTER—1986**

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<th>Date</th>
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<tbody>
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<td>August 21</td>
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<td>August 22</td>
<td>Saturday</td>
<td>Final Registration</td>
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<tr>
<td>August 23</td>
<td>Saturday</td>
<td>Latest Date to Cancel Registration Without Late Fee</td>
</tr>
<tr>
<td>August 25</td>
<td>Saturday</td>
<td>Latest Date to Register Without Late Fee</td>
</tr>
<tr>
<td>September 1</td>
<td>Monday</td>
<td>Fall Semester Begins</td>
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<tr>
<td>September 2</td>
<td>Tuesday</td>
<td>Latest Date to Register</td>
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<tr>
<td>September 2</td>
<td>Tuesday</td>
<td>Latest Date for Change of Class Schedule</td>
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<tr>
<td>September 2</td>
<td>Tuesday</td>
<td>Latest Date to Declare Pass/Fail and Auditor</td>
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<tr>
<td>September 6</td>
<td>Saturday</td>
<td>Latest Date for 80% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<tr>
<td>September 13</td>
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<td>Latest Date for 40% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<td>September 19</td>
<td>Friday</td>
<td>Latest Date for December Graduates to Apply for Graduation</td>
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<tr>
<td>September 20</td>
<td>Saturday</td>
<td>Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
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<td>October 4</td>
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<td>Religious New Year Rosh Hashanah*</td>
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<td>October 8</td>
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<tr>
<td>October 10</td>
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<td>Latest Date for Undergraduates to Complete “I” Graded courses of the 1986 Spring Semester and 1986 Summer Session</td>
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<td>Day of Atonement, Yom Kupur*</td>
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<td>Latest Date for Reporting Mid-term Grades</td>
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<td>October 18</td>
<td>Saturday</td>
<td>Tabernacles SUCCOT*</td>
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<td>October 24</td>
<td>Friday</td>
<td>Latest Date for December Graduates to Submit Thesis Outlines and Schedule Comprehensives</td>
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<tr>
<td>October 24</td>
<td>Friday</td>
<td>Latest Date for Undergraduates other than First Semester Freshmen to Withdraw with “W” Grade</td>
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<tr>
<td>October 25</td>
<td>Saturday</td>
<td>Concluding Day of Tabernacles</td>
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<td>October 26</td>
<td>Sunday</td>
<td>Festival of Rejoicing in the Torah SHMIMI ATZERT*</td>
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<tr>
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<td>First Class Day After Thanksgiving Holiday</td>
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<tr>
<td>December 8</td>
<td>Monday</td>
<td>Holiday ImmaculateConception</td>
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<tr>
<td>December 9</td>
<td>Tuesday</td>
<td>Follows the Monday Class Schedule</td>
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<tr>
<td>December 11</td>
<td>Thursday</td>
<td>Reading Day</td>
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<tr>
<td>December 12</td>
<td>Friday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>December 12</td>
<td>Friday</td>
<td>Latest Date for December Graduates to Submit Approved Thesis to School Office and to take Comprehensives</td>
</tr>
<tr>
<td>December 12</td>
<td>Friday</td>
<td>Latest Date for First Semester Freshmen to withdraw with “W” Grade</td>
</tr>
<tr>
<td>December 15</td>
<td>Monday</td>
<td>Final Examinations Begin</td>
</tr>
<tr>
<td>December 20</td>
<td>Saturday</td>
<td>Final Examinations End</td>
</tr>
<tr>
<td>December 20</td>
<td>Saturday</td>
<td>Semester Ends</td>
</tr>
<tr>
<td>December 20</td>
<td>Saturday</td>
<td>Latest Date for Graduating Students to Complete Degrees and Pay Accounts</td>
</tr>
<tr>
<td>December 20</td>
<td>Saturday</td>
<td>Latest Date for Graduate Students to Complete “I” Graded Courses from the Spring 1986 Semester</td>
</tr>
<tr>
<td>December 22</td>
<td>Monday</td>
<td>Holiday Christmas Recess Begins</td>
</tr>
</tbody>
</table>

*Some Jewish students may be absent holiday begins at sunset of preceding evening

**SPRING SEMESTER—1987**

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 21</td>
<td>Friday</td>
<td>Latest Date for 1987 Spring Semester Pre-registration with Pay-By-Mail Option</td>
</tr>
<tr>
<td>January 8</td>
<td>Thursday</td>
<td>Final Registration</td>
</tr>
<tr>
<td>January 9</td>
<td>Friday</td>
<td>Final Registration</td>
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<tr>
<td>January 10</td>
<td>Saturday</td>
<td>Final Registration</td>
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<tr>
<td>January 10</td>
<td>Saturday</td>
<td>Latest Date to Cancel Registration without Penalty</td>
</tr>
<tr>
<td>January 12</td>
<td>Monday</td>
<td>Latest Date to Register Without Late Fee</td>
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<tr>
<td>January 16</td>
<td>Friday</td>
<td>Latest Date to Register</td>
</tr>
<tr>
<td>January 16</td>
<td>Friday</td>
<td>Latest Date for Change of Class Schedule</td>
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<tr>
<td>January 16</td>
<td>Friday</td>
<td>Latest Date to Declare Pass/Fail and Auditor</td>
</tr>
<tr>
<td>January 16</td>
<td>Friday</td>
<td>No Refund After this Date for Credits Dropped</td>
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<tr>
<td>January 16</td>
<td>Friday</td>
<td>Latest Date for Undergraduates to Apply for Graduation</td>
</tr>
<tr>
<td>January 24</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>Friday</td>
<td>Latest Date for Undergraduates to Submit Thesis Outline and Schedule Comprehensives</td>
</tr>
<tr>
<td>February 7</td>
<td>Saturday</td>
<td>Latest Date for 20% Tuition Remission for TOTAL WITHDRAWAL from the University</td>
</tr>
<tr>
<td>March 6</td>
<td>Friday</td>
<td>Latest Date for Undergraduates to Complete I Graded Courses</td>
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<tr>
<td>March 6</td>
<td>Friday</td>
<td>Due Date for Instructors to Submit Undergraduates’ Grade Removal Dates</td>
</tr>
<tr>
<td>March 7</td>
<td>Saturday</td>
<td>Last Class Day Before Spring Break</td>
</tr>
<tr>
<td>March 14</td>
<td>Saturday</td>
<td>First Class Day After Spring Break</td>
</tr>
<tr>
<td>March 16</td>
<td>Monday</td>
<td>Latest Date for Undergraduates Other than First Semester Freshmen to Withdraw with W Grade</td>
</tr>
<tr>
<td>April 3</td>
<td>Friday</td>
<td>1987 Fall Semester Pre-registration Begins</td>
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<tr>
<td>April 10</td>
<td>Friday</td>
<td>Latest Date for Graduating Students to Pay Accounts</td>
</tr>
<tr>
<td>April 14</td>
<td>Tuesday</td>
<td>Passover, PESACH*</td>
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<tr>
<td>April 15</td>
<td>Wednesday</td>
<td>Last Class Day Before Easter Holidays</td>
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<tr>
<td>April 16</td>
<td>Thursday</td>
<td>Holiday Holy Thursday</td>
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<tr>
<td>April 17</td>
<td>Friday</td>
<td>Holiday Good Friday</td>
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<tr>
<td>April 20</td>
<td>Monday</td>
<td>Concluding Days PESACH*</td>
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<tr>
<td>April 21</td>
<td>Tuesday</td>
<td>First Class Day After Easter Holidays</td>
</tr>
<tr>
<td>April 28</td>
<td>Friday</td>
<td>Will Follow the Thursday Class Day Schedule</td>
</tr>
<tr>
<td>April 28</td>
<td>Friday</td>
<td>Latest Date for First Semester Freshmen to Withdraw with W Grades</td>
</tr>
<tr>
<td>April 29</td>
<td>Wednesday</td>
<td>Will Follow the Friday Class Day Schedule</td>
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<tr>
<td>April 30</td>
<td>Thursday</td>
<td>Final Examinations Begin</td>
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<tr>
<td>May 5</td>
<td>Wednesday</td>
<td>Final Examinations End</td>
</tr>
<tr>
<td>May 6</td>
<td>Wednesday</td>
<td>Semester Ends Latest Date for Graduating Students to Complete Degrees</td>
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<tr>
<td>May 6</td>
<td>Wednesday</td>
<td>Semester Ends Latest Date for Graduating Students to Complete Degrees</td>
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<tr>
<td>May 7</td>
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<td>Latest Date for Graduate Students to Complete I Graded Courses</td>
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<tr>
<td>May 8</td>
<td>Friday</td>
<td>University Convocation and Honors Day</td>
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<td>May 8</td>
<td>Friday</td>
<td>Baccalaureate Liturgy</td>
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<td>May 9</td>
<td>Saturday</td>
<td>Commencement</td>
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<td>May 15</td>
<td>Monday</td>
<td>Holiday Memorial Day</td>
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<tr>
<td>May 25</td>
<td>Thursday</td>
<td>Holiday Ascension Day</td>
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<tr>
<td>June 3</td>
<td>Wednesday</td>
<td>Shavuot, Pentecost*</td>
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<tr>
<td>July 4</td>
<td>Saturday</td>
<td>Holiday Independence Day</td>
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<tr>
<td>July 15</td>
<td>Wednesday</td>
<td>Latest Date for Fall 1987 Pre-registration with Pay-By-Mail Option</td>
</tr>
<tr>
<td>August 15</td>
<td>Saturday</td>
<td>Holiday Assumption</td>
</tr>
</tbody>
</table>

*Some Jewish students may be absent holiday begins at sunset of preceding evening
Part I: General Information

HISTORY

Duquesne University first opened its doors as the Pittsburgh Catholic College of the Holy Ghost in October 1878 with an enrollment of 40 students and a faculty of seven. The school grew rapidly in its first years until it moved from its original location on Wyile Avenue in the city's Uptown section to its present site a scenic 39-acre hilltop called The B'uff, which overlooks downtown Pittsburgh.

By 1911 the school had achieved university status at which time the name Duquesne University of the Holy Ghost was adopted in honor of the 18th century governor general of French Canada, the Marquis de Duquesne, who first brought Catholic services to Pittsburgh when 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 most of its physical development needs for the foreseeable future, the University is a modern, attractive highly functional educational facility which has more than tripled from an initial 125 acres to its present self-enclosed 39-acre campus site.

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

The University has over 6,000 students enrolled in its eight schools: College of Liberal Arts and Sciences (1878), Graduate School of Business and Administration, School of Law, School of Theology and Religious Studies, School of Health Sciences, School of Education and Health Professions, School of Music, and School of Law.

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 human and 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, by the development 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 to movement both as an individual and a contributing member of the manifold community.

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

Complemented by a broad spectrum of nonacademic activities and programs, the curriculum at Duquesne University is designed to prepare young men and women who, upon entering their chosen careers, will possess a broad, well-balanced and fully integrated education and perspective of themselves and the world.

POLICY STATEMENTS ON INTERNATIONAL EDUCATION

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

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

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

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

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

THE UNIVERSITY SETTING
Located adjacent to downtown Pittsburgh Duquesne University's modern hilltop campus is readily accessible to the business entertainment and shopping centers of the city while still offering students the privacy and peace of its own self-contained 39-acre site.

Long noted as one of the world's greatest steel-producing centers, Pittsburgh combines the features of urban 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 selected as the site for Duquesne because of its urban life to be the fourth most desirable metropolitan area for overall quality of life in the U.S.

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 area, offer a wide range of cultural and institutions.

The world-renowned Pittsburgh Symphony Orchestra, Pittsburgh Opera and Pittsburgh Ballet Theatre are regularly in the elegant Hagen Hall for the Performing Arts. The theatergoer can choose from productions of the Pittsburgh Public Theatre, local college drama departments and programs and a wide variety of summer and after-dark club tours.

In the summer the American Wind Symphony offers open-air concerts on Pittsburgh's riversides. Other seasonal events include the Three Rivers Arts Festival and the International Folk Festival, three prestigious events which draw national attention.

Duquesne students can visit such points of interest as Highland Park Zoo, Carnegie Museum of Art and Natural History, Scenic Gallery, the Conservation-Avian Buhl Planetarium, Pittsburgh History and Landmarks Museum Duquesne Incline and Phipps Conservatory.

Directly across the river from campus is Mount Washington Village, a shopping center 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, offers restaurants, shops, an ice rink, and other entertainment facilities. 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 four-time Super Bowl Champion Steelers and the USFL Maulers play at Three Rivers Stadium. The Penguins (National Hockey League) Sport (Major Indoor Soccer Leagues), and Duquesne Dukes is nationally known basketball team, 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 popular recreational activities as golf, running, 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 Minstry Business Office, Testing-Building, CARETINE Planning and Placement Office Learning and Counseling Center, Financial Aid Office and the Division of University Relations. Adjoin the building is the University Art Center 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 280-student capacity, the facility has its own recreation area and offers both single and double occupancy rooms.

Canon Hall, the oldest classroom building on campus was built in 1922 and completely renovated in 1969. It houses the School of Education Curriculum Library, Reading Clinic and Guidance and Counseling Clinic.

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 Business Administration. It houses 10 of their individual departments and faculties.

The School of Nursing is located on the sixth floor. Special instructional facilities include psychology, numerical analysis nursing 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 Des Places Communications Center, dedicated in 1982, houses the department of speech communications and theatre, department of journalism and a media communications program cosponsored by the University and Mercy Hospital, and the production and broadcasting studios of WDUQ television and radio, an affiliate of the national Public Broadcasting System (PBS). The Center's two television studios, the Holy Ghost Congregation, the Center also features a journalism laboratory, simulation laboratory, instructional photo laboratory, seminar rooms, grange hall, classroom, and a little theatre performance room.

The women's recreation center, including a gym and aennis area is located on the ground floor.

The Duquesne Towers a 17-story air-conditioned double-tower residence for 1,200 men and women featuring separate housing wings was dedicated in 1970. The facility features a full-size indoor swimming pool, with a separate recreation room, a fitness center, the Campus Health Services area is a main student lounge and small 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, offers a concrete and glass design is the center of campus activities and student life. Dedicated in 1967 it houses the offices of the Student Life, the Athletic Department and various student organizations and interest groups. Facilities include 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, pool, table soccer a music learning room with folk and cassette players, a radio studio, an art gallery, and an auditorium.

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

The Gymnasium is used as a practice facility by various intercollegiate athletic teams of the University and as the center for indoor sports of the University. It also houses the University's varsity teams.

McCloskey Field is dedicated in 1970. It is the home of intercollegiate, club and intramural athletic facilities include three self-contained tennis courts and two outdoor basketball courts one of which is converted for street hockey in the winter months.

The Edward J Hanley Hall of Law dedicated in 1982 is part of the renovation and expansion of the old University Library building. The new athletic facilities include three self-contained tennis courts and two outdoor basketball courts one of which is converted for street hockey in the winter months.

Rockwell Hall dedicated in 1958 is a 10-story structure which houses the School of Business and Administration. Its Business Simulation Laboratory was completed was one of 12 conference rooms equipped with television cameras and microphones for observation and recording of activity in the individual rooms.

Rockwell Hall also houses a scoreboard for the Business School's student lounge, the University's Systems Center, the Institute for World Concerns, the Division of Continuing Education, the Registrar's Office, the Student Union, the Office of Student Services and the Institute for Formative Spirituality.
St Ann's Hall dedicated in 1964, is a two-wing, three-story women's dormitory with its own laundry, study, 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 graduate and law students, as well as 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 groto.

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 College Registrars and Admissions Officers
American Council on Education
American Association of Colleges and Universities
Association of College Admissions Counselors
Catholic Educational Association of Pennsylvania
College Entrance Examination Board
Council for Advancement and Support of Education
National Association for Independent Colleges and Universities
National Association of College and University Business Officers
National Association of Foreign Student Administrators
National Association of Student Personnel Administrators
National Association of Student Financial Aid Administrators
National Catholic Educational Association
National Commission on Accrediting
Pennsylvania Association of Colleges and Universities
Pittsburgh Council of Higher Education
Southwestern Pennsylvania Council on Higher Education

College of Liberal Arts and Sciences
Accreditation
American Chemical Society
American Society of Journalism School Administrators
Accreditation Council
Membership
American Association of Colleges of College and University Schools
Eastern Association of College Deans and Advisors
School of Business and Administration
Accreditation
American Assembly of Collegiate Schools of Business
Membership
Association for University Business and Economic Research
Middle Atlantic Association of Colleges of Business Administration
School of Education
Accreditation
Middle States Association of Colleges and Schools
Pennsylvania Department of Education
Membership
American Association of Colleges for Teacher Education
American Association of Colleges for Teacher Educators
American Association of Independent Liberal Arts Colleges for Teacher Educators
The Pennsylvania Association of Colleges and Teacher Educators
School of Music
Accreditation
National Association of Schools of Music
National Association for Music Therapy
Membership
American Symphony Orchestra League
National Catholic Music Educators Association
School of Nursing
Accreditation
National League for Nursing
Approval
Pennsylvania State Board of Nurse Examiners
Membership
American Association of Colleges of Nursing
National League for Nursing (Council of Baccalaureate and Higher Degree Programs)
School of Pharmacy
Accreditation
American Council on Pharmaceutical Education
Pennsylvania State Board of Pharmacy
Membership
American Association of Colleges of Pharmacy

EVENING STUDY

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

Through careful planning and consultation with academic advisors, the bachelor's degree program may be completed by evening study in 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 on one and two week duration usually at the graduate level are scheduled before and after the regular session.

SYSTEMS CENTER/COMPUTER RESOURCES

The Systems Center is a service department of the University which reports to the Vice President for Business and Management. The Systems Center has a UNIVAC 1100/62 computer with 8 megabytes of main memory and 1.8 billion bytes of disk storage. In addition, the University recently invested over $1.7 million in new computer equipment featuring 62 Sperrylink office system units and 36 UTS 400 terminals. Each Sperrylink consists of a terminal with a screen and keyboard and a diskette for storing information on magnetic disks. All the Sperrylink units and the UTS terminals will be linked in a computer-communications network to the Sperry 1100/62 mainframe. Students in every field of study will integrate their study programs, using the Sperrylinks and UTS 400 terminals.

The Systems Center also provides all the data processing services for the administrative offices of the University. Some of these services are registration, grade reporting, admissions, and the financial record-keeping requirements for the University.
Part II: Programs and Courses

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 and society and to God.
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
(Chemistry, Physics, Mathematics)
Nine Credits

Social Sciences
(Political Science, Psychology, Sociology)
Nine Credits

History Literature
Nine Credits

Philosophy
Nine Credits

Communications
(Journalism, Linguistics, Speech, Media Arts)
Three Credits

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

The Associate of Arts Degree is awarded in International Communications for Industry Communications for Industry Criminal Justice and Applied Technology.

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:
- 000-002 BASIC LANGUAGE SKILLS 4 cr each semester
- 003 BASIC CONCEPTS OF PSYCHOLOGY 3 cr
- 005-006 FOUNDATIONS OF LANGUAGE 4 cr each semester
- 008 STUDY SKILLS 1 cr
- 009 INTRODUCTION TO COMPUTERS 3 cr
- 010 ETHICS 3 cr
- 012 GREAT BOOKS SEMINAR 2 cr
- 121 GENERAL ETYMOLGY 1 cr

THE INTEGRATED HONORS PROGRAM

Constance Ramirez Ph.D. Director

The IHP provides a unique opportunity, through great books from both Western and Eastern civilizations, to examine our essential human heritage and investigate and debate the major ideas and issues forming the background direction and focus of modern life. Student participation and individual initiative in the Duquesne community of scholars are encouraged through daily contact with talented and committed fellow students and faculty from diverse fields, interests, and backgrounds.

The IHP, supported in part by a grant from the National Endowment for the Humanities, consists of 12 accelerated freshman and sophomore courses and 4 upper level seminars. Students enrolled in the IHP may matriculate in the College of Arts and Sciences or one of the professional schools. Students will select majors and minors according to the policies of the College or of the School in which they are registered. The IHP credits, however, replace many of the required general education credits (for example, English, History, Sociology).

The Integrated Honors Program curriculum is concentrated in the freshman and sophomore years. Studies are continued in the junior and senior years through Capstone Seminars. (Some rearrangement of the following schedule may be necessary for students in certain professional schools and science programs.)

FRESHMEN I (First Semester)

101 Logic and Rhetoric 3cr
Clear and disciplined thinking, reading, speaking, and writing.

105 Approaches to Culture The West 4cr
An intensive analysis of the key ideas and the significant people, events and civilizations of the Western world—ancient, medieval, and contemporary.

113 Mathematics 3cr
Quantitative literacy as a major mode of information gathering and thinking in the modern world. (Required of non-math, non-science majors)

FRESHMEN II (Second Semester)

104 Information Resources 3cr
The rapidly-changing revolution in information and data-gathering including traditional library resources and electronic media.

106 Approaches to Culture The East 3cr
The great, historic and often unknown civilizations of India, China, and Japan.

115 The Rational Self 3cr
Human nature, human intelligence and the ethical sense.

SOPHOMORE I (First Semester)

201 Societal Structures 3 cr
The economic and social framework within which the individual functions.

207 Science I Chemistry and Physics 4 cr
Contemporary developments and issues in the physical sciences. Laboratory included (Required of non-science majors).
205 Approaches to Culture: The American Experience
3 cr
The rise and significance of the U.S. as a democratic industrial affluent and open society

SOPHOMORE II (Second Semester)

204 Societal Structures II
3 cr
The development of political and legal systems

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

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

CAPSTONE SEMINARS

Capstone seminars during the junior and senior years provide an in-depth study of some of the significant issues and themes which have emerged from the student’s earlier IHP experience. These will be addressed within the context of the student’s vocational and career interests.

COOPERATIVE EDUCATION PROGRAM

The Cooperative Education Program is a service to students seeking expanded education through work experience and to employers seeking temporary pre-professional staff with the ultimate objective of early identification of the best available college-educated talent for permanent assignment. Under this plan students may be employed in business-government and other institutional settings. The program design provides for short-term work assignments and it requires the regular rotation of students in minimum three levels. The cooperative requires for each work period. Employment may be either full- or part-time for one academic term or its equivalent.

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

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

When employed and before starting work a cooperative student must enroll in the pass/fail course “Cooperative Education,” which earns a minimum of three to nine credits for full-time and one to three credits for part-time work.

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

PROGRAMS IN WORLD LITERATURE

The Departments of Classics, English, and Modern Languages 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.

COU.SER 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

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

English: Any of the current course offerings in Literature at the 300-400 level, as approved by the department chairman

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

BACHELOR OF ARTS—LIBERAL ARTS AND GENERAL SCIENCES

This program is designed for those students who wish to choose a formal major or minor in a traditional discipline. All requirements other than the major and minor must be completed. Students must select one area of concentration of not less than 12 credits and this major area shall be elected 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 the 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, and Music. For complete details, students should consult the Office of Academic Advisement.

BACHELOR’S/MASTER’S

A student who has completed all requirements and a total of 90 credits with a 3.5 average may apply for the bachelor/master’s program. After successful completion of the master’s program, the student will receive the bachelor’s degree.

BACHELOR’S/PROFESSIONAL SCHOOL

A student who has completed 90 credits with a 3.5 overall average and satisfied all undergraduate curricular requirements may apply for the bachelor’s degree after the successful completion of the first year of professional work in an accredited medical or law school.

LIBERAL ARTS ENGINEERING

Students who intend to prepare for a career in engineering may enter a 3-2 binary program that Duquesne University maintains with Case Western Reserve University in Cleveland. Ohio. Students are expected to meet the curricular requirements of the College of Liberal Arts and Sciences except for the completion of a major program. Under the guidance of a liaison officer they will normally complete the program at Duquesne University in three years then enter an engineering program at Case.

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

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

SECOND BACHELOR’S DEGREE

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

THREE-YEAR BACHELOR’S

For information contact the Office of Admissions or the Dean of the College.

ASSOCIATE DEGREE PROGRAMS

The College of Arts and Sciences offers the following Associate Degree Programs:

- International Communications for Industry
- Communications for Industry
- Criminal Justice
- Applied Technology

A minimum of 60 credits is required. For details, consult the College Advisement Office at 434-6394 or the Assistant Dean at 434-6393

CLEP AND ADVANCED PLACEMENT

See page 142

ACADEMIC REGULATIONS

Electives

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 credits.

ACADEMIC LOAD

Students may normally carry five courses in one semester. A schedule of more than five courses or 17 credits must be approved by the Dean. In the junior-senior years, students normally carry one credit at a time, i.e. six credits in the six-week session. A 12-credit schedule in a regular semester is considered full-time study. Students on academic probation may not take more than 15 credits.

EFFECTIVE CATALOG

Degree requirements are those stipulated in the catalog of the year in which a student matriculates. The student is responsible for knowing the requirements for the degree. Requirements may be changed without notice or obligation. This catalog has been prepared on the best information available as of Spring 1984.

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

UNIVERSITY-LEVEL COURSES TAKEN WHILE IN HIGH SCHOOL

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

- the courses are recorded on an official transcript from an accredited institution of higher learning
- the grades must be C or better
- the student has completed one semester at Duquesne with a C+ average or better
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 awareness of Western art. 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, history preservation, and urban redevelopment.

REQUIREMENTS FOR THE MAJOR

The major consists of 111-112 History of Art plus 18 credits in upper division art courses and two upper division collateral courses selected from 250 Classical Tradition in America (Classics), 419 Renaissance Literature and the Arts (English) 406 Aesthetics (Philosophy) and 313 Archaeology. Recommended electives 123 Classical Mythology and 219 Computer Use in the Humanities

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 3 cr

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 3 cr

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 3 cr

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

112 History of Art: Renaissance to Modern World 3 cr

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

123 Classical Mythology 3 cr

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

206 Greek Art 3 cr

A study of the architecture, sculpture, vase painting, and minor arts of the Greek world from the 8th to 5th century B.C. Emphasis is upon the development of the visual arts in ancient Greece and their contributions to Roman art. (Offered in alternate years)

207 Roman Art 3 cr

An introduction to Roman innovations in architecture, sculpture, and painting. The background of Roman art in the Eastern Mediterranean world is studied in an attempt to form a Roman art concept. (Offered in alternate years)

208 French Art 3 cr

A survey which discusses ideas, schools, and styles in the history of French art from the Roman occupation to the present. Field trips to Paris and other European sites are included in the course. (Offered in alternate years)

210 American Art 3 cr

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

220 History of Photographs 3 cr

A survey of photographic developments from the early 19th C. to the present. Emphasis is upon the United States and upon the interaction of and confrontation between painters and photographers.

260 The Classical Tradition in America 3 cr

A study of the influence of Greek and Roman civilization on American cultural life. (Offered by the Classics Department)

312 Late Medieval Art 3 cr

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

321 15th Century Renaissance Art 3 cr

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

331 Art of the 19th Century 3 cr

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

332 Art of the 20th Century 3 cr

A chronological study of 20th century painting and sculpture which "looks beyond visual perception" and tries to find the essence and meaning of reality. 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. (Offered in alternate years)

370, 371, 372, 373, 374, 375, 376 Special Studies in Art History 3 cr

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

Chairman Howard G. Ehrlich, Ph.D

Biology is the scientific exploration of life in its many forms and details. It is a fundamental element in a balanced liberal education and offers both intellectual insight and knowledge vital to societies facing serious problems having biological implications. The biology program is a part of that search by mankind to understand its world in an effort to more effectively deal with the realities of that world and pursue its great promises.

The undergraduate program is basic and flexible, providing a core of experience around which continuous future personal development may be centered. The program offers opportunity to develop professional attitudes and technical competence which aid in opening avenues for advanced study and career fulfillment as well as personal enrichment. The course of study pursued can and in preparation for professional careers in teaching, research, medicine, veterinary medicine, and allied health fields as well as for advanced study in various graduate school specialties. While many students choose to pursue the benefits of advanced study in graduate and professional schools, others prefer to pursue opportunities in biological technologies in pure and applied research and service in hospitals, universities, private industry, and governmental service. Diverse opportunities are available in specialty sales, pharmaceutical laboratories, medical laboratories, atomic energy research laboratories, 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. The specific program selected is individually formulated with the student through consultation with an advisor. Courses 107, 108, 201, 202, 206, 207, 208, 220, and 230 will not be counted toward a major in biology. Qualified majors may take two introductory level graduate courses during their senior year and apply them toward their undergraduate degrees.

Extradenartmental 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 extradenartmental electives in chemistry, mathematics, and computer science. A minimum of 15 credits in Biology must be taken at Duquesne University for the major.

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 courses numbered 200 or above. Individual course prerequisites must be met.

2. Audience 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

Major credit Prerequisite Biology 107 (or concurrent registration) Laboratory

201 Biology of Microbes 3 cr

Examination of microbes as to what they are, how they grow, how they may be controlled, what their relationships to other living things are, and how some of them cause disease. Not for Biology Major credit

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 Prerequisite Biology 107 (or concurrent registration) Laboratory

206 Environmental Biology 3 cr

This course deals with the biological background for understanding environmental problems and the mechanisms underlying normal body functions, as well as legal aspects of the amelioration of environmental abuses. Not for Biology Major credit

207 Anatomy and Physiology 3 cr

Studies designed to provide students with a background in the areas of human body structure and function and to introduce the student to the many opportunities in the art of personal enrichment. The course of study pursued can aid in preparation for professional careers as personal enrichment. The course of study pursued can aid in preparation for professional careers.

208 Anatomy and Physiology Laboratory 1 cr

Laboratory introduces the study of the living world of which man is an integral part. It includes considerations of organism-environmental influences and other interrelationships.

209 Genetics 4 cr

A study of the mechanisms of the inheritance and their resulting effects on individuals and populations, including their implications in the life of man. Bedgers for principles and 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

220 Sex and Sexualities 3 cr

Consideration of sex and reproduction as universal biological functions and special emphasis on physiological and psychological aspects of human sexuality. The course also aims to examine sexual functioning, sexual behavior and related topics.

226 Genes and their Role in Disease 4 cr

See description under Major Courses

228 Genetics 4 cr

See description under Major Courses

230 Stress and Adaptation 4 cr

A study of the biological effects of acute and chronic stress stimuli on various organs, and the neuro and hormonal regulations associated with adaptation to stress. Not for Biology Major credit

236 Excursions in Cell Biology 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, and how some of them cause disease. Not for Biology Major credit

306 Plant Physiology 4 cr

Varied studies of the growth requirements and regulatory mechanisms of individual 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 bodily function in animals, including consideration of the basic components of biological regulatory systems and the manner in which various organ systems contribute to the maintenance of physiological homeostasis. Prerequisites 111, 112, 250 Lecture and laboratory

321 Animal Biochemistry 4 cr

The course includes the anatomy, histology, physiology, and functional aspects of all of the body systems contributing to the maintenance of physiological homeostasis. Not for Biology Major credit

322 Animal Biochemistry Laboratory 1 cr

Laboratory lecture and laboratory

323 Animal Regulatory Systems 4 cr

The course includes the anatomy, histology, physiology, and functional aspects of all of the body systems contributing to the maintenance of physiological homeostasis. Not for Biology Major credit

420 Stress and Adaptation 4 cr

A study of the biological effects of acute and chronic stress stimuli on various organs, and the neuro and hormonal regulations associated with adaptation to stress. Not for Biology Major credit

426 Microbiology 4 cr

Introduction to microorganisms and their morphology, metabolism, ecology, and cultural characteristics with emphasis on their role in the environment and other organisms, including man. Principles of medical and health related aspects of microbiology, chemotherapy, industrial, agricultural and marine microbiology are presented. Prerequisites: 111, 112, and organic chemistry (or concurrent registration). Lecture and laboratory
Aquatic habitats are used to illustrate concepts such as growth niche succession and competition. Applicability to current human problems is discussed such as water and soil pollution, food, fuel agriculture and urbanization.

**DEPARTMENT OF CHEMISTRY**

**Chairman** Andrew J. Glid, III, Ph.D.

The Chemistry program is designed to provide the student with a fundamental background in chemistry and a general understanding of its relationship to other sciences. Elective courses and the opportunity to do undergraduate research allow the chemistry major to develop skills useful in medical technology, nursing and allied health fields. Prerequisites 111 and 112 and 203 or equivalent or permission of the instructor. Lecture and laboratory.

### 334 Diagnostic Microbiology

A course to acquaint the student with the methods employed on clinical samples by clinical laboratories. The isolation and identification of microorganisms which cause human disease. Cultural, as well as serological techniques are included. Emphasis is on the interpretation and significance of laboratory findings in the diagnosis of microbial disease. Prerequisites 111 and 112 and 203 or equivalent or permission of the instructor. Lecture and laboratory.

### 336 Human Parasitology

Principles of parasitism, epidemiology and life cycles of human parasitic protozoa and helminths. Special emphasis is placed on helminths which cause human disease. Cultural as well as serological techniques are included. Emphasis is on the interpretation and significance of laboratory findings in the diagnosis of parasitic disease. Prerequisites 111 and 112 and 203 or equivalent or permission of the instructor. Lecture and laboratory.

### 385 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 with laboratories 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. Lecture and laboratory.

### 411 Ecology

4 cr.

The goal is to provide an overall grasp of the principles and procedures underlying ecological thought. Present and future aspects of environmental studies are considered from the ecosystem viewpoint. Interrelationships of living things with each other and with the non-living components emphasizes the need for interdisciplinary studies and quantitative data. Both terrestrial and aquatic systems are used to illustrate concepts such as growth, niche succession and competition. Applicability to current human problems is discussed such as water and soil pollution, food, fuel agriculture and urbanization.

### DEPARTMENT OF CHEMISTRY

Chairman Andrew J. Glid, III, Ph.D.

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DEPARTMENT OF CLASSICS

Chairman Lawrence E. Gauchas Ph D 1984-1986

The study of Classics is a unique discipline. It is not the study of a language or literature alone. It is rather the investigation of one of the world’s inspired civilizations, the Graeco-Roman world. As such, it offers the student insight into the broadest aspects of human existence set in a perspective distant 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 Civilizations (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 archeology. Students majoring in Classical Civilization create programs with the close advice and the approval of the Classics Department to fit their backgrounds, interests, and career objectives. Majors should formulate programs with balanced history and literature components. They are strongly encouraged to meet 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.

DEPARTMENT OF PHYSICAL CHEMISTRY

Laboratory 1 cr each

323, 324 Physical Chemistry Laboratory portion of Chemistry 321 322 four hours.

326 The Computer in Chemistry 3 cr

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 library programs which permit the computer to simulate laboratory equipment in the production of experimental data. Pre requisite: Chemistry 321 Lecture three hours, Laboratory four hours.

421 Analytical Chemistry 4 cr

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

422 Inorganic Chemistry 4 cr

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

490 Undergraduate Research Maximum 2 cr

Selected students work on a research problem under the direction of a staff member.

524 Molecular Basis of Biochemistry 3 cr

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.

101, 102 Elementary Classical Latin 4 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 each

Study of the fundamentals of Greek grammar and syntax combined with frequent exercises on translation from Greek authors.

105, 106 Basic Sanskrit 3 each

A study of the fundamentals of Sanskrit grammar and syntax as represented in Sanskrit literature.

107, 108 Elementary Ecclesiastical Latin 3 each

Study of the fundamentals of Latin grammar and syntax as represented in Scripture and Church Fathers.

201, 202 Intermediate Classical Latin 3 each

Survey of major Latin authors.

203, 204 Intermediate Classical Greek 3 each

Survey of major Greek authors.

205, 206 Intermediate Ecclesiastical Latin 3 each

Selections from Biblical and Christian Latin literature.

207, 208 Biblical and Patristic Greek 3 each

Selections from Biblical and Christian Greek literature.

211, 212 Survey of Sanskrit Literature 3 each

Selected readings from major Sanskrit texts including: Mahabharata, Hitopadheya, Kathasamitagam, Vamadharmasastri, Rivesa and Meghaduta.

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

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

301 Pre-Fifth Century 3 cr

302 Fifth Century 3 cr

303 Fourth Century 3 cr

The student will progress in the study of Greek Poets to the study of Greek Sophocles Aristophanes.

304 Alexander Period 3 cr

The student will progress in the study of Greek Sophocles Aristophanes to the study of Greek Sophocles Aristophanes.

305 Roman Period 3 cr

The student will progress in the study of Greek Sophocles Aristophanes to the study of Greek Sophocles Aristophanes.

306 Augustan Literature 3 cr

The student will progress in the study of Greek Sophocles Aristophanes to the study of Greek Sophocles Aristophanes.

307 Imperial Literature 3 cr

The student will progress in the study of Greek Sophocles Aristophanes to the study of Greek Sophocles Aristophanes.

308 Post Classical Literature 3 cr

The student will progress in the study of Greek Sophocles Aristophanes to the study of Greek Sophocles Aristophanes.

309 Studies in Genre 3 cr

Selected themes of Greek and/or Latin literature.

400 Independent Readings and Research 3 cr

CLASSICS COURSES IN ENGLISH (NO GREEK OR LATIN REQUIRED)

121 General Etymology 3 cr

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

122 Etymology of Scientific Terms 3 cr

Introduction to Greek and Latin elements of scientific terminology.

123 Classical Mythology 3 cr

A presentation of the 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 3 cr


219 Computer Use in the Humanities 3 cr

A survey of non-scientific applications of computers in the humanities.

230 Ancient Theatre 3 cr

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

231 Ancient Epic 3 cr

A study of ancient epic literature with particular attention to the techniques of oral and literary composition. Readings from the works of Homer, Apollonius of Rhodes, Vergil, and Lucretius.

232 Ancient Novel and Romance 3 cr

Survey of Greek and Roman prose fiction with special emphasis on the nature and development.
of narrative techniques Readings from Homer, Herodotus Xenophon Apollonius of Rhodes, the Greek Romances Lucian Petronius, and Apuleius

233 Ancient Satire 3 cr Investigation of the satirical element in classical literature with special reference to the writings of Lucian Lucilius Horace Persius, 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 BC and A D 500

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

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

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

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

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

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

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

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

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

300 Seminar 3 cr Topics variable

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

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 or Computer Science requirement but not both Prerequisite knowledge of BASIC FORTRAN or Pascal is required Math 116 and Math 306

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 associated with the method Identical to Math 308 May be used to satisfy either a Math or Computer Science requirement but not both Prerequisite 111 Fortran or 112 Pascal 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 abuses 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 Prerequisite 102 Cobol, 202 Data Structure, and 305 Intro to File Processing

REQUIREMENTS FOR THE MINOR
A minimum of 18 semester hours is required for the minor These must include the core courses 112, 201 and 202 and 9 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 by the advisor through a representative of the Computer Science Division

100 Elements of Computer Science 3 cr A computer appreciation course covering a survey of computer organization, computer languages and the history of computers Not counted toward computer science major or minor

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 or minor

102 COBOL Structured programming principles and techniques are introduced using the COBOL language Topics discussed are top down techniques program and project documentation file structure and the organization of programming languages

111 FORTRAN Elements of FORTRAN skills to construct algorithms for efficient solution of computational problems are presented Recommended for those in science and pre-engineering

112 Pascal This course develops the student’s skills in the use of procedure oriented languages, and emphasizes structured programming

201 Machine Language Programming 3 cr A survey of various machine configurations Topics include number systems machine language programming assemblers and macro-assemblers Prerequisite 112 Basic

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 112 Pascal

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 112 Pascal 202 Data Structures

DIVISION OF COMPUTER SCIENCE
The curriculum in Computer Science is designed to allow maximum flexibility in direction In conjunction with an appropriate minor the degree in Computer Science provides excellent preparation for graduate work in Computer Science as well as the preparation sought by the scientific and business world

REQUIREMENTS FOR THE MAJOR
A minimum of 30 semester hours is required for a major These must include the core courses 112, 201 and 202 with the remaining courses selected from those numbered 300 and above Extrardpartmental requirements English 385 Professional and Technical Writing Math 115, 116 Contact the Computer Science Division for extrardpartmental requirements in particular area of concentration
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. Turing machines are among topics considered. Prerequisite: 202 Data Structure

414 Software Design and Development 3 cr
An overview of system software. Examination of design and development of macro assemblers, compilers, and control programs. Prerequisites: 302 306

415 Theory of Programming Languages 3 cr
Comparative study of properties and applications of several higher level programming languages. Prerequisites: 112 Pascal and 202 Data Structure

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 solution by numerical and analytical methods will be discussed in depth. Prerequisite: 112 Pascal, and a course in statistics

421 Applications in Data Processing 3 cr
Data handling in terms of coding problems. Conceptual development and solution. Prerequisite: 202 Data Structure

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 Structure

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, 321, and 322.

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. It is strongly recommended that students having economics as a major consult with the Economics Department for advisement.

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

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 66-67.

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 unites intensive and critical reading in a broad range of our literary heritage with close attention to the presentation of ideas in writing. Attention is also given to oral expression of ideas by means of dialogue between professor and student. Not only is the degree in English an excellent preparation for law school and for graduate work in English, education, and library science, 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 prerequisite for admission to all other courses offered in 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 308 and 407).

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 five separate emphases from which the student must choose one:

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

HONORS PROGRAM
Students who give evidence of outstanding ability in English through their performance in 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 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. Prerequisite: 101

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 development of style and accuracy.

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

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

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

208 Poetry 3 cr

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 and American 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.

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, The English Bible and Literature, Comparative Literature, Modern Comparative Drama, Modern Short Story, Far Eastern Literature, Forms of Fantasy, Introduction to Film, The Literature of Mystery and Detection.
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 Igonites*

419 Renaissance Special Topics 3 cr
Studies in Renaissance thought and aesthetic in the works of one or more of its major writers. Spenser, Sidney, Donne, Jonson, 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. 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, Yeats, Hopkins, and Joyce

463 Contemporary Literature 3 cr
Major modern types and trends. Eliot, Woolf, Waugh, Greene, Auden, Spender, Thomas, Golding, and others

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 Federal periods emphasizing the political and belles-lettres 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

499 Directed Studies 3 cr

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**DEPARTMENT OF HISTORY**

*Chairman Jerome E. Jansen, M.A.*

The Department of History offers a program devoted to the study of mankind in diverse cultural settings through time. A large number of courses are taught by a faculty reflecting a variety of philosophical and methodological outlooks. Apart from the fact that the program fully meets the needs of students intending to pursue graduate work in historical studies, the history major will be well prepared for careers in law, business, or government services. 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**

A minimum of 30 credits must be taken, including 103-104 Development of the U.S. (six credits) and either 213-214 Western Civilization (six credits) or 311-312 World History and the Historian (six credits). Twelve of the remaining credits must be taken from 200 and 300 level courses and six credits from 400 level courses. A maximum of 12 transfer credits in history can be applied to the major requirements.

**REQUIREMENTS FOR THE MINOR**

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

**Introductory Surveys**

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

104 Development of the United States since 1877 3 cr
The historical development of American institutions, ideas, and society since 1877

**Area Courses**

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

213, 214 Western Civilization 3 cr
An introductory survey of the origins and characteristics of European civilization, emphasizing the personalities and events and institutions that have made the West the dominant global power today

244 History of Ancient Medicine 3 cr
A study 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.

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

255, 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.

266 Modern Britain 3 cr
A study of the first industrial nation, with special attention to the achievement of constitutional monarch, 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 each
A survey of social, economic, political, and cultural changes before and after the establishment of the People's Republic of China.

271 Japan 3 cr
An analysis of Japan's current cultural and economic development in light of its historical past, the Meiji era and twentieth century expansion.

Topical Surveys

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

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

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

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

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

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

340 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.

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

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

343 Church History 1 3 cr
A religious and historical exploration of the growth of Christianity from the first century up to the Reformation, discussion of those issues within the Church and the external forces which brought about major conflict and development.

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

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

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

352 Diplomatic History of the United States 3 cr
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 3 cr
Primarily an investigation and evaluation—personal, political, contemporary and historical—of each president with some attention to the growth of the office.

360 Constitutional History of the United States 3 cr
An analysis of the Supreme Court and constitutional development stressing the major controversies in the field.

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

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

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

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

372 Asian Influences on America 3 cr
From the quests for Asia by Columbus to the economic impact of twentieth century Japan, the Orient has affected America's social, cultural, economic and technological development.

373, 374 Diplomatic History of the Far East 3 cr each
Western imperialism in Asia and the rise of Asian nationalism: analysis of international problems in current tension areas.

375 History of Inner Asia 3 cr
The history of Inner Asia from Genghis Khan's Mongol Empire to Leonid Brezhnev's Soviet Empire.

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

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

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

386 Historical Geography 3 cr
A survey of the 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.

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

394 History of U.S. Labor Management Relations 3 cr
Concentrates chiefly on the relations between worker and employer from the early craftsmen to the industrial union member.

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

396 Immigration and Ethnic Identity 3 cr
An examination of the dynamics of immigration to the United States with emphasis on the new immigration at the turn of the century.

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

Specialized Areas and Topics

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

467 Science and Society in the Twentieth Century 3 cr
The economic, social, and cultural consequences of the rise of modern science.
479 Revolution in the Modern World 3 cr
An analysis of the major political and social revolutions in Europe since 1878 the nature of the revolutionary phenomenon and the inevitable counter-revolutionary trend

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

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

DEPARTMENT OF JOURNALISM
Acting Chairman Paul Krakowski, M.A.
The Department of Journalism encourages the liberal education of a student by emphasizing how a professional education for a career in the mass media relies on the liberal arts tradition. 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 major

REQUIREMENTS FOR THE MAJOR
Twelve-seven semester hours are required for a major. Required courses are 167, 267, 268, 367, 369, 372 or 376 and 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. A series of guest speakers from these fields is included. Course open to non-majors (Offered both semesters)

199 Language for Journalists 3 cr
Aimed at improving language skills of prospective or beginning majors. Emphasizes on usage, grammar, spelling, and usage. Open to Freshmen and Sophomores

267 Basic Reporting and Writing I 3 cr
Fundamentals of news reporting and writing. Application in laboratory sections. Special events and beats covered outside of class. VDT typing abilities required. Prerequisite: 267

268 Basic Reporting and Writing II 3 cr
Advanced writing of the more complex types of news stories, such as business, government, courts, and public affairs. Application in laboratory sections. VDT typing abilities required. Prerequisite: 267

290 Field Study in Mass Communications 3 cr
A field study is a practical experience in advertising, broadcasting, public relations, print journalism, or photography. Individual projects may be brochures, slides, feature articles, stringing or other professional experiences. Offered both semesters

300 Public Relations Principles 3 cr
Study of the principles, history, and practices of public relations in business, education, government and non-profit institutions. Analysis of PR programs. Ethics and responsibilities Open to Juniors, Seniors and non-majors

311 Public Relations Practices 3 cr
Case studies of public relations programs in industry, education, social welfare and trade associations. The application of techniques through the design and implementation of programs for clients. Open to Juniors, Seniors and non-majors

330 Print Media 3 cr
A survey of the history, development and function of the print media, including the newspaper, magazine, and book. Emphasis on the relationship of the media to society and the role of the media in the development of society. Open to Juniors, Seniors and non-majors

331 Radio-Television Principles and Writing 3 cr
A radio-television course in the study and application of news writing principles and practices for radio and television. Laboratory experience in radio and closed-circuit TV studios Open to non-majors. Prerequisites: 267, 268, or approval of Department

341 Broadcast Program 3 cr
A study of the programming strategies in commercial and public broadcasting. Factors impacting programming decisions. The organizing and design of program services in a variety of work-situations, and the importance of scheduling in the operational design. Neither artistic nor creative functions are covered, but rather pragmatic matters affecting programming executives

351 Mass Communications and Propaganda 3 cr
A study of the nature of public opinion and the mass communications process. Effects of propaganda and the role of the communicator. Open to Juniors and Seniors

360 Advertising 3 cr
Study of association business, industrial, professional and non-profit communications. Writing, editing, and design of advertising. Study of various types of advertising Open to non-majors. Prerequisites: 267, 268, or approval of Department

370 The Broadcast Program 3 cr
A study of the programming strategies in commercial and public broadcasting. Factors impacting programming decisions. The organizing and design of program services in a variety of work-situations, and the importance of scheduling in the operational design. Neither artistic nor creative functions are covered, but rather pragmatic matters affecting programming executives

371 The Search for Identity—United States since 1945 3 cr
A discussion of specialized topics in contemporary society. Emphasis on the changing nature of American society and the American identity crisis in the U S

381 Visual Productions 3 cr
Basic instruction in the planning, script writing, and use of photography for audiovisual productions, primarily slide programs. Emphasis on the production of title and caption slides, texts, and the integration of these elements into slide presentations. Open to non-majors. Prerequisite: 378 or approval of Department

391 Research Advertising & Public Relations 3 cr
In the world of communications, research has become an increasingly important tool. More and more communications professionals are using the results of research in their everyday work. This course will show the student how research can be applied to specific problems in advertising and public relations. The student will learn to understand the techniques of research and how to use research results. Offered both semesters

405 Advanced Public Affairs Reporting 3 cr
A seminar in reporting in gathering and interpreting news on a specialized or general interest topic. Open to Juniors and Seniors

409 Advanced Writing for Advertising 3 cr
A lecture-laboratory course in copywriting and design for advertising. Offered both semesters

411 Magazine Article Writing 3 cr
A seminar in writing for the general and specialized magazine market. Open to Juniors and Seniors

413 Advanced Writing for Radio and Television 3 cr
A lecture-laboratory course in writing for radio and television. Program evaluation and the preparation of programs for radio and television. Open to Juniors and Seniors

420 International Communications 3 cr
A study of world news systems and an analysis of their roles as instruments of world understanding. Comparison of U.S. and foreign systems including newspapers, broadcasting, magazines, and wire services. Open to Juniors, Seniors and non-majors

440 Writing Reviews/Criticism 3 cr
Analysis and writing of reviews and criticism of books, theater, films, television, music and the visual arts. Open to Juniors and Seniors

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 study and assignment to an assigned advertising

468 Professional Internship Broadcasting 3 cr A supervised observation-experience program of study and assignment to a commercial/educational broadcasting station in the Pittsburgh area Prerequisites 167 267 268 269 369 372 376 409 (Offered both semesters)

470 Professional Internship Newspapers 3 cr A supervised observation-experience program of study and assignment to a local newspaper including members of the Pennsylvania Newspaper Publishers Association Prerequisites 167, 267, 268, 367 369, 372 and 376 413 (Offered both semesters)

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 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 or 112 Pascal

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 Extradepartmental Requirements 20 hours in science, 211, 212 General Analytical Physics and Computer Science 101 Basic or 111 Fortran or 112 Pascal 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 major, 308, 225 or 301, 306 are recommended

101 Elements 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.

105 College Algebra and Trigonometry 4 cr A modern course in college algebra and analytic trigonometry for those students who do not possess the prerequisites for 115 Not counted toward a major or minor

107, 108 Introduction to Modern Mathematics I, II 3 cr each This course is designed for elementary education students in the School of Education Not to be counted toward a major minor, or the mathematics/science area requirement

109 College Algebra 3 cr 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

111 Calculus for Non-Science Students 3 cr Differentiation and integration of algebraic, logarithmic and exponential functions, maxima and minima area exponential growth. Not counted toward a major. Credit will not be allowed for both this course and 115

115, 116, 215 Calculus, I, II, III 4 each A unified course in analytic geometry and calculus. Consider's 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

216 Ordinary Differential Equations 3 cr The course includes solutions, existence of solutions and applications of differential equations. Prerequisite 215

221 History of Mathematics 3 cr 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

225 Fundamentals of Statistics 3 cr A basic course in probability theory and descriptive and inferential statistics for non-majors Prerequisite High school algebra. Not counted toward a major

301, 302 Introduction to Probability and Statistics I, II 3 cr each A mathematical treatment of probability theory and statistics including probability distributions, random variables and their transformations expectation point and interval estimation sampling distributions. Prerequisite 116 or equivalent

303 Principles of Modern Algebra 3 cr A study of basic properties of groups rings, boolean algebra and fields. Prerequisites 115, 116

306, 307 Linear Algebra I, II 3 cr each A study of linear transformations and matrices, and models. 307 is identical to Computer Science 307 in which knowledge of a computer language (BASIC FORTRAN, Pascal) is required. 307 may be used to satisfy a mathematics or a Computer Science requirement but not both. Prerequisite 116 or consent of the department

308 Numerical Methods of Classical Analysis 3 cr A computer oriented course in numerical analysis introducing elementary techniques for numerical solution of problems. 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. Prerequisites 215, Fortran 111

311 Introduction to Number Theory 3 cr A discussion of divisibility, congruences, quadratic residues, diophantine equations and arithmetical functions. Prerequisite Proficiency at 105 level

315 Advanced Differential Equations 3 cr Principally theoretical, this course considers the mathematical concepts behind as well as existence and uniqueness of solutions applications, and partial differential equations. Prerequisite 216

321 Mathematical Concepts for Physics 3 cr A survey of the mathematical concepts used in undergraduate physics, especially quantum mechanics. Topics covered include vector analysis, matrix theory, complex function theory, Fourier series and calculus of variations. Prerequisite 216

325 Applications in Statistics 3 cr This course is intended for students interested in statistics and who wish to examine methods in applying statistics. Topics include Aspects of linear modeling in regression analysis, experimental design and analysis of categorical data. Emphasis is placed on applications. Prerequisite one semester of calculus and one semester of statistics

401 Fundamentals of Geometry 3 cr The course considers topics in Euclidean and Non-Euclidean geometry, also synthetic projective, and affine geometrics, and some topology. Prerequisite 215. Not offered in regular sequence, but available on request

403 Introduction to Point Set Topology 3 cr A survey of elementary topics including topological spaces, compactness, connectedness, continuity, and convergence and separation axioms. Prerequisite 215. Not offered in regular sequence, but available on request

405 Introduction to Complex Variables 3 cr Topics include the plane of complex numbers, functions of a complex variable and integration in the complex plane. Prerequisite 216 not offered in regular sequence, but available on request
COMMUNICATION TECHNOLOGY vs CREATIVITY

Techniques, script development and storyboarding, graphic material for television display, classroom, new resources. The decision making process, purpose of communication as well as the selection, use and evaluation of media.

REQUIREMENTS FOR THE MAJOR

A major consists of thirty-six credits in Media Arts courses. 101 Introduction to Media Arts, 103 Video Production I (ENG) and 112 Photography I, are required for all majors. Medical Media Majors must take 407 Photography-Medical Photography.

Media Arts majors may concentrate on either program development or production. Close consultation with their academic advisors they may design programs which emphasize photography, videography, writing, or a combination of these areas. A subspecialty in Medical Media Communications is also available (Prospective Medical Media Majors will be interviewed by the program director before being admitted to the major).

Two extra-departmental courses may be applied toward the Media Arts Major. Fine Arts 220 (History of Photography) and Journalism 361 (Visual Production I).

REQUIREMENTS FOR THE MINOR

Eighteen credits are required for a minor in Media Arts. These must include 101 Introduction to Media Arts.

Media Arts Minors may consult in their advisors, design general programs to gain broad experience or concentrate in either of the following areas: Video Production (103, 108, 208, 308, 403), Photography (112, 212, 312, 401 and Fine Arts 220).

Basic Courses

101 Introduction to Media Arts 3 cr

Surveys course to familiarize students with equipment operations, technology, and theory of communications as well as the selection, use and evaluation of media.

106 Creative Media 3 cr

Implications of the theories of visual thinking and psychology of media. Application of these theories in the development of media resources. Motivation and organization of learning, reinforcement and response are studied.

206 Graphics for Media Production 3 cr

Basic experience in planning and producing graphic material for television display, classroom, and lectures.

215 Production Design and Scripting 3 cr

Study of the instructional design of media resources. The decision making process purpose, content, method, audience, medium. Research techniques, script development and storyboarding.

217 Aesthetics of Media Production 3 cr

Investigation into the aesthetics of audio-visual communication. Technology vs creativity, personal expression vs public need.

Coursework for Media Majors:

401 to 499 Selected Topics in Mathematics 1-3 cr each

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

407 Photography-Medical Photography 3 cr

This course is required for Medical Media Majors and provides a foundation in medical photography.

412 Current Issues in the Media Arts 3 cr

Advanced Courses

311 Multi Media Production 3 cr


402 Producer-Director 3 cr

The role of the director as a catalyst in media production. The producer as coordinator. Examination of directors and evaluation of their work.

404 Management of a Media Facility 3 cr

The problems of setting up, designing, and managing an integrated program. Budget organization and standardization of services explored.

403 Video Production 3 cr

Investigation into the applicability of Interactive Video in the industrial and educational environment. Methods of meeting needs not possible with linear media. Prerequisites 108 and 215.

406 Aesthetics of Media Production 3 cr

Emphasis on lighting, program design, and standardization of services explored.

410 Introduction to Electronic Field Production (Local) 3 cr

Intensive application of experiences gained during the production process in a local television station.

411 Production Design and Scripting 3 cr

Experience in the field working with approved production organizations. Prerequisites: 401 (Intermediate) and 403 (Advanced).
For Reading
The student will participate under the supervision of the instructor, in selected tours to various foreign countries to undertake independent study on selected and approved projects and guidance of the instructor, in selected tours to

REQUIREMENTS FOR THE MINOR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Instructor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>490</td>
<td>Independent Field Study (All Languages)</td>
<td>Var cr</td>
<td></td>
<td>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, and culture. Prior permission of the instructor and Department Chairman is required.</td>
</tr>
<tr>
<td>495</td>
<td>Professional Language Internship</td>
<td>3 cr</td>
<td></td>
<td>An unpaid internship consisting of 100-120 hours of supervised work for which the student will receive three credits. See Department for particulars.</td>
</tr>
<tr>
<td>101, 102</td>
<td>Elementary French</td>
<td>3 cr</td>
<td></td>
<td>Fundamentals of oral and written French. Three hours lecture and one hour laboratory each week.</td>
</tr>
<tr>
<td>111, 112</td>
<td>Elementary French for Reading</td>
<td>3 cr</td>
<td></td>
<td>The course will stress basic grammar and structure for reading comprehension.</td>
</tr>
<tr>
<td>115, 116</td>
<td>French for Musicians</td>
<td>3 cr</td>
<td></td>
<td>Specialized for majors in music to provide them with those skills in French to meet their professional requisites. Registration limited to students in the School of Music. This course does not allow for continuation at the 200 level or higher.</td>
</tr>
<tr>
<td>120</td>
<td>Intensive French</td>
<td>6 cr</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>201, 202</td>
<td>Intermediate French</td>
<td>3 cr</td>
<td></td>
<td>An intensified review and continuation of 101. Prerequisite 102 or equivalent.</td>
</tr>
<tr>
<td>211, 212</td>
<td>Intermediate French for Reading</td>
<td>3 cr</td>
<td></td>
<td>Prerequisite 102 or 112.</td>
</tr>
<tr>
<td>220</td>
<td>Intensive French</td>
<td>6 cr</td>
<td></td>
<td>Review and continuation of 120. Utilizes techniques allowing the student to complete one-year's work in one semester. Prerequisite 120, 102 or equivalent.</td>
</tr>
<tr>
<td>239, 240</td>
<td>Readings in Modern French Authors</td>
<td>3 cr</td>
<td></td>
<td>Selections from modern works of literature. Do not carry credit toward a major or minor. Prerequisite 202 or equivalent.</td>
</tr>
<tr>
<td>301, 302</td>
<td>French Conversation and Composition</td>
<td>3 cr</td>
<td></td>
<td>The course will stress basic grammar and structure for reading comprehension.</td>
</tr>
<tr>
<td>320-345</td>
<td>Pro-Seminar in French Literature and Culture</td>
<td>3 cr</td>
<td></td>
<td>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 Recommended prerequisite French 302 or its equivalent.</td>
</tr>
<tr>
<td>320</td>
<td>Stylistics</td>
<td>3 cr</td>
<td></td>
<td>Comparative study of English/French style in spoken and written French.</td>
</tr>
<tr>
<td>321</td>
<td>Phonetics</td>
<td>3 cr</td>
<td></td>
<td>Mechanics of phonation with comparative English-French application to phonemic analysis of French.</td>
</tr>
<tr>
<td>323</td>
<td>Maupassant</td>
<td>3 cr</td>
<td></td>
<td>Consideration of one of the most popular writers in France in the 1880's. Selected short stories and novels.</td>
</tr>
<tr>
<td>324</td>
<td>Balzac</td>
<td>3 cr</td>
<td></td>
<td>Study of Honore de Balzac (1799-1850), author of the vast Comedie humaine. Selected novels.</td>
</tr>
<tr>
<td>325</td>
<td>Realism and Naturalism</td>
<td>3 cr</td>
<td></td>
<td>Theories of the two movements in the latter part of the 19th Century. Their manifestations in prose works.</td>
</tr>
<tr>
<td>326</td>
<td>The Literature of the Existentialist Movement</td>
<td>3 cr</td>
<td></td>
<td>An overview of the literature of the 19th century. Emphasis on French literature.</td>
</tr>
<tr>
<td>327</td>
<td>The Symbolist Movement in French Poetry</td>
<td>3 cr</td>
<td></td>
<td>A basic introduction to the Symbolist movement with emphasis on artistic poetry of Mallarme and Rimbaud.</td>
</tr>
<tr>
<td>328</td>
<td>French Poetry Middle Ages to 19th Century</td>
<td>3 cr</td>
<td></td>
<td>Study of mechanics of profound various genres periods movements in French poetry.</td>
</tr>
<tr>
<td>329</td>
<td>17th Century French Literature</td>
<td>3 cr</td>
<td></td>
<td>Emphasis on 17th Century French prose and poetry. It will also include a play of Cornelle Racine and Moliere.</td>
</tr>
<tr>
<td>331</td>
<td>18th Century French Literature</td>
<td>3 cr</td>
<td></td>
<td>An overview of the 18th-century philosophers with emphasis on the four major philosophers Montesquieu Voltaire Diderot and Rousseau.</td>
</tr>
<tr>
<td>332</td>
<td>Voltaire and His Age</td>
<td>3 cr</td>
<td></td>
<td>In-depth work on Voltaire plus one other writer of the period such as Prevost Beaumarchais Beaumarchais de Saint-Pierre etc.</td>
</tr>
<tr>
<td>360</td>
<td>French for Business</td>
<td>3 cr</td>
<td></td>
<td>Spoken and written language of business French. Conventions of letter writing, import and export, and commercial transactions.</td>
</tr>
<tr>
<td>400-475</td>
<td>Seminar in French Literature</td>
<td>3 cr</td>
<td></td>
<td>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 Recommended prerequisite French 302, 462, 463, and 473 are recommended prerequisites for these courses.</td>
</tr>
<tr>
<td>460</td>
<td>History and Culture of France since the Revolution</td>
<td>3 cr</td>
<td></td>
<td>From the Revolution to today.</td>
</tr>
<tr>
<td>462</td>
<td>Chanson de Roland through 17th Century</td>
<td>3 cr</td>
<td></td>
<td>Literary Surveys I Main authors and movements of the Middle Ages 16th and 17th Centuries.</td>
</tr>
<tr>
<td>463</td>
<td>18th Century to Modern Period</td>
<td>3 cr</td>
<td></td>
<td>Literary Surveys II Main authors and movements of the 18th 19th and 20th Centuries.</td>
</tr>
<tr>
<td>465</td>
<td>18th Century French Theatre</td>
<td>3 cr</td>
<td></td>
<td>An overview of the major dramatists of the 19th century including Marivaux, Voltaire, and Beaumarchais.</td>
</tr>
<tr>
<td>466</td>
<td>19th Century French Poetry</td>
<td>3 cr</td>
<td></td>
<td>The major poetic movements of the 19th Century. Romanticism, Parnassianism, Symbolism, with a special emphasis on Baudelaire.</td>
</tr>
<tr>
<td>467</td>
<td>19th Century French Novel</td>
<td>3 cr</td>
<td></td>
<td>Selected novels from the 19th Century, from Romanticism to Naturalism.</td>
</tr>
<tr>
<td>468</td>
<td>19th Century French Theatre</td>
<td>3 cr</td>
<td></td>
<td>Beginning with the influence of the Revolution on French literature through the literary movements of the 19th century. Emphasizes works written for the stage and currents in criticism and directing.</td>
</tr>
<tr>
<td>469</td>
<td>20th Century French Poetry</td>
<td>3 cr</td>
<td></td>
<td>Ambivalence of modern French poetry after Baudelaire. Will consider Apollinaire, Valery Breton, Aragon, Eluard, Cocteau, Supervielle, Saint-Jean Perse.</td>
</tr>
<tr>
<td>470</td>
<td>20th Century French Novel</td>
<td>3 cr</td>
<td></td>
<td>From A France to Robbe-Grillet and the &quot;New Novel&quot;.</td>
</tr>
<tr>
<td>471</td>
<td>20th Century French Theatre</td>
<td>3 cr</td>
<td></td>
<td>From Jules Romains to Ionesco and the Theatre of the Absurd.</td>
</tr>
<tr>
<td>472</td>
<td>Sartre and Camus</td>
<td>3 cr</td>
<td></td>
<td>Comparative study of Sartre and Camus and their works.</td>
</tr>
<tr>
<td>480</td>
<td>Directed Readings</td>
<td>Var cr</td>
<td></td>
<td>Readings of literary texts under close faculty supervision, for majors only and only with permission of the Department Variable credit.</td>
</tr>
<tr>
<td>101, 102</td>
<td>Elementary German</td>
<td>3 cr</td>
<td></td>
<td>Fundamentals of oral and written German. Three hours lecture and one hour laboratory each week.</td>
</tr>
<tr>
<td>111, 112</td>
<td>Elementary German for Reading</td>
<td>3 cr</td>
<td></td>
<td>The course will stress basic grammar and structure for reading comprehension.</td>
</tr>
<tr>
<td>115, 116</td>
<td>German for Musicians</td>
<td>3 cr</td>
<td></td>
<td>Specialized for majors in music to provide them with those skills in German to meet their professional requisites. Registration limited to students in the School of Music. This course does not allow for continuation at the 200 level or higher.</td>
</tr>
<tr>
<td>201, 202</td>
<td>Intermediate German</td>
<td>3 cr</td>
<td></td>
<td>An intensified review and continuation of 101. Prerequisite 102 or equivalent.</td>
</tr>
<tr>
<td>211, 212</td>
<td>Intermediate German for Reading</td>
<td>3 cr</td>
<td></td>
<td>Prerequisite 102 or 112.</td>
</tr>
<tr>
<td>220</td>
<td>Intensive German</td>
<td>6 cr</td>
<td></td>
<td>Review and continuation of 120. Utilizes techniques allowing the student to complete one-year's work in one semester. Prerequisite 120, 102 or equivalent.</td>
</tr>
</tbody>
</table>
252 Readings in Scientific German  3 cr
Prequisite 102 or equivalent

301, 302 German Composition and Conversation  3 cr each
302 or its equivalent is the recommended prereq-
quisite to all courses above 301 Prerequisite 102 or equivalent

320-345 Pro-Seminar in German 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.
Recommemded Prerequisite German 302 or equivalent

320 History of German Culture from the Franks to Hitler  3 cr
The artistic, socio-historical, and literary expres-
sions of German culture from the earliest periods to World War II

321 History of German Culture from Hitler to the Present  3 cr
The artistic, socio-political, and literary manifesta-
tions of German culture from Hitler to the Present

324 Popular Tradition in German Literature  3 cr
Emphasis on poetic verse fairy tales folk tales, legends, heroic tales, folk tales, and legends.

325 Popular Tradition in German Literature  3 cr
Study of popular literature such as sagas, animal fables, chat books as well as selected, more com-
plicated fairy tales and legends

326 Women Figures in German Literature from Goethe to Boll  3 cr
Key women figures in German literature from Gricchen in Faust to strong characters in Boll’s novels and short stories.

329 Introduction to German Poetry  3 cr
German verse from early modern times to con-
temporary. Narrative, dramatic, and epic verse

330 Modern German Prose  3 cr
Individual’s search for identity in the prose works of Thomas Mann, F. Kafka, H. Hesse, and H. Boll.

331 Modern German Theatre  3 cr
From the introduction of naturalism into German drama in the late 19th Century to the most recent
movements since World War II. We will discuss Hauptmenn, Brecht, Zuckmayer, Dohrenmatt and Frisch.

460, 475 Seminar in German 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.
Recommemded Prerequisite German 302

460 German Literature to Lessing  3 cr
German literature from the Middle Ages up to and including the early 18th Century

461 Lessing, His Life and Works  3 cr
Lessing’s major literary and critical works consid-
ered in relation to his life

462 Advanced German Stylistics  3 cr
Comparative study of German/English style in spoken and written German

464 German Romantic Literature  3 cr
The German Romantic movement following the Napoleon era. The role of the individual in the works of Novalis, T. Keck, etc.

465 Modern German Narrative  3 cr
The process of alienation in modern German nar-
- rative. Includes novels by H. Hesse and T. Mann

467 Age of Goethe  3 cr
Study of important works of Goethe and his near contemporaries. Emphasis on Lessing, Goethe, Schiller also “Sturm und Drang” authors.

468 Goethe’s Faust  3 cr
Emphasis on the spirit of the 18th Century as per-
sonified in Goethe’s Faust

470 Literature of Enlightenment  3 cr
Consideration of late “baroque” and early “class-
-  istic”, including Gellert, Gottsche, Hamann, Lichtenberg, Klopstock, Scume, Gunther, Wieland.

471 Sturm und Drang  3 cr
Storm and Stress as Germany’s literary revolution against the despotic tyrants of the 18th Century. Includes Goethe’s The Sorrows of Young Werther and Schiller’s The Robbers.

480 Directed Readings  3 cr each
Reading of literary texts under close faculty supervi-
sion, for majors only and only with permission of the Department. Variable credit

Italian

101, 102 Elementary Italian  3 cr each
Fundamentals of oral and written Italian. Three lecture hours and one hour laboratory each week.

101, 102 Intermediate Italian  3 cr each
An intensified review and continuation of 101, 102. Prerequisite 102 or equivalent
401 Spanish Literature from the Cid through the Siglo de Oro 3 cr
Survey of major works from the Medieval Period through the 17th Century

402 Spanish Literature from the 18th Century to the Present 3 cr
Survey of works representative of the major literary movements of the 18th, 19th, and 20th Century

453 Trends in Latin American Literature 3 cr
Major movements and representative works from the post-Columbian period through Romanticism

454 Trends in Latin American Literature 3 cr
Major movements and representative works from Modernismo to the present

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 and/or as circumstance warrant from semester to semester.

311, 312 Intermediate Spanish for Reading 3 cr each
Prerequisite: 102 or equivalent

231, 232 Intermediate Spanish for Industry 3 cr each
An intensified continuation of 131, 132. Three hours lecture per week. Restriction to evening students. Prerequisite: 132 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
Prerequisite: Spanish 302 or equivalent. Recommended prerequisite: SPAN 302 or equivalent

320-345 Pro-Seminar in Spanish Literature and Culture 3 cr each
All courses numbered 320 through 345 are 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.

322 The Nineteenth Century Novel (New Title) 3 cr
Examines the realist naturalist and regionalist novel in the works of Galdos, Clarin, Pardo Bazan, Pereda and Valera.

323 Don Juan as a World Literary Figure 3 cr
Principal plays and narrative pieces dealing with the theme from its origins in Seventeenth Century Spain through modern times. Authors include Tirso de Molina, Molique, Mozart, Byron, Zorrilla, and G. B. Shaw (In translation)

324 The Generation of 98 3 cr
Major works of Spain’s turn of the century authors in their aesthetic and historical contexts. Includes Unamuno, Azorin, A Machado, Pro Baraja, J.R. Jimenez and Valle-Inclan

325 Contemporary Spanish Novel 3 cr
The Spanish Novel since the Civil War from Cela to the present

326 Contemporary Spanish-American Novel 3 cr
Most recent developments in the novel in historical perspective. From Asturias through Garcia Marquez and Sarduy

327 History of Spanish Culture 3 cr
The literary, historical, social, political and artistic manifestations of Spanish culture from its origins to the post-Franco era

332 Modern Spanish Theatre 3 cr
From Beau Vallejo to the present including the “Underground Theatre”

339 Revolt and Change: The Spanish American Novel 3 cr
Nature and types of protest expressed in modern Spanish-American Literature. Major works of “protest literature”

330 Theatre of the Golden Age 3 cr
Reading and discussion of works of the major dramatists of the period. Selected plays by Lope de Vega, Calderon and Tirso de Molina

360 Spanish for Business 3 cr
Spoken and written language of business Spanish. Conventions of letter writing, import, and commercial transactions

401 Spanish Literature from the Cid through the Siglo de Oro 3 cr
Survey of major works from the Medieval Period through the 17th Century

402 Spanish Literature from the 18th Century to the Present 3 cr
Survey of works representative of the major literary movements of the 18th, 19th, and 20th Century

453 Trends in Latin American Literature 3 cr
Major movements and representative works from the post-Columbian period through Romanticism

454 Trends in Latin American Literature 3 cr
Major movements and representative works from Modernismo to the present

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 and/or as circumstance warrant from semester to semester. All seminars carry three credits a semester. Recommended prerequisite: Spanish 401-402 or equivalent

461 The Quixote 3 cr
An in-depth study of Cervantes’ masterpiece and of the symbolic meaning of the two main characters

462 Spanish Literature since the Civil War 3 cr
The Civil War as mirrored in this literature. Its relationship to contemporaneous literary expression in other countries. From Hernandez through Goytisolo and Sastre

471 Avant-Garde Spanish-American Theatre 3 cr
An introduction to the avant-garde theatre in Spanish America. Historical perspective. Influence of European avant-garde

463 Lorca and the Generation of 1927 3 cr
Major poets of the “Lorca-Guihen generation” who brought Spanish poetry to the new Siglo de Oro

464 The Literature of the Siglo de Oro 3 cr
Spain’s most glorious era through the poetry, prose, and drama of its major authors

465 Literature of Spanish Romanticism 3 cr
Study of the major poems, plays, and novels of the period. Authors include Duque de Rivas, Espronceda, Larra, Becquer, Rosalia de Castro and Zorilla

466 The Age of Enlightenment 3 cr
From Fénelon to Cadalso to Larra, we see how the fundamental principles of the modern world have their seeds in this century

467 Readings in Medieval Literature 3 cr
The development of Spanish literature from its oral tradition as well as the evolution of the Spanish language beginning with the “jarchas” through La Celestina

DEPARTMENT OF PHILOSOPHY
Chairman: Charles D. Keyes, 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 basis for critical thinking and to help students begin relating their other academic studies to one another and to human experience. The Department is made up of professors who have different philosophical interests and who attempt 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 the 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 area methods and theories.

105 Ethics 3 cr
An introduction to ethical theories of past and present. Contemporary moral issues will be considered in the light of these theories.

106 Introductory Logic 3 cr
Analysis of the requirements for valid reasoning: fallacies, types of definitions and important formal 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 then 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
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 origins 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, and Revoir.

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 various fields of politics, science, and art.

217 Elementar's Symbolic Logic 3 cr
Introduction to the methods of symbolic logic as applied to the logic of arguments involving compound statements, propositional functions and quantities and relations.

218 Special Topes 1-3 cr

220 Philosophies 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 role of love.

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

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

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

Historical Sequence

300 Ancient Philosophy 3 cr
A study of the beginning of Philosophy in Greece, from the Pre-Socratics to 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 beginnings 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 since 1900 and the present covering the methods and history of selected 20th century movements.

322 American Philosophers 3 cr
An in-depth study of one or several philosophers such as Plato, Aristotle, Aquinas, Locke, Diderot, Kant, Wittgenstein, Strawson, and Heidegger, etc., varying in subject matter from time to time.

Advanced Courses

313 Philosophy of the Human Sciences 3 cr
A study of the relations of the human sciences with other sciences 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.

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. Neuro-scholastic interpretations of these works (Maritain, Gilson and the school of Marcell and Rahner) will be studied.

403 Physics 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 humankind 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 contemporary philosophical texts.

302A Aesthetics 3 cr
An examination of theories of art which explore such questions as the beauty of creativity imagination, and the role of art in life. Authors such as Aristotle, Lessing, Kant, Hegel, Nietzsche, Heidegger, and Camus will be read.

141, 416 Ancient Philosopher 3 cr each
A course devoted to detailed study of a single ancient thinker such as Plato or Aristotle.

420, 421 Medieval Philosopher 3 cr each
A course concerned with the works of Aquinas, St. Thomas Aquinas, and the history of philosophy from the time of St. Thomas Aquinas to the present, covering the methods and history of selected 20th century movements.

425, 426 Modern Philosopher 3 cr each
In depth examination of the work of a single author or a group of historically modern authors such as Augustine, Aquinas, Marmion, and Bonaventure will be studied.

American Philosophy 3 cr
A course concerned with the works of St. Thomas Aquinas and the history of philosophy from the time of St. Thomas Aquinas to the present, covering the methods and history of selected 20th century movements.

330, 331 Contemporary Philosopher 3 cr each
A course concerned with the works of a single contemporary philosopher such as Husserl, Heidegger, Sartre, Merleau-Ponty, Whitehead, and Wittgenstein.

345 Senior Seminar 3 cr

DEPARTMENT OF PHYSICS
Chairman Walter S. Skinner, M.S.

The program in the Department of Physics is primarily aimed at providing today's students with a fundamental background in traditional physics as well as the relationships between physics and related disciplines. The Department is also aware that in today's changing world, there must be a suitably flexible program which will best fit the graduate for the challenges faced by the many professions which are based on the science of physics. There is always the hope that the student will continue professional growth in physics but it is also realized that there are many expanding paths to professional growth. The Department program, therefore, is structured to provide both the general background for success in graduate studies in the many current fields which seek physics graduates as well as equipping the student to successfully compete for the available positions in research institutions, government agencies or private corporations. Department policy calls for individual attention to student needs.

REQUIREMENTS FOR THE MAJOR

A minimum of 32 semester hours is required for a major. These credits must include 211, 212, 329, 330, 361, 372, 402, 430, 473, 474, 493, 484, or 485 may be substituted for 474 with departmental approval.

Laboratory Requirements: Chemistry 121, 122 or Biology 111, 112, Mathematics 115, 116, 215, 216, 308, Computer Science 111, and two years of modern language.

If a student takes 207, 208-Physics and the Modern World and either 201, 202-General Physics or 211, 212-General Analytical Physics, the credits for the 207, 208 will not apply to the total number required for the degree. Credit will not be given for both 201, 202 and 211, 212.
REQUIREMENTS FOR THE PHYSICS MINOR

The minor consists of eight hours in the General Analytical Physics (211, 212) and 12 credits of upper division physics on the 300 and above level. The department will structure the minor program from the course offerings to fit as nearly as possible the needs and desires of the individual student.

REQUIREMENTS FOR 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 201 210 211 212 213 214 215 310, 315, 316, and 320 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 the physical sciences, their properties, and their applications. Emphasis is placed upon the use of modern day examples and applications. At the completion of this course the student should have attained a working knowledge of physics as well as an appreciation of 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 basic idea of the physical sciences of the twentieth century and the physicist's approach to the study of nature. The physical sciences of everyday life are 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 an introduction to the fundamental theories and applications of physics designed for students of sciences and engineering. Methods of using calculus are introduced. A good algebra background is necessary. The quantitative approach of the physicists is used in solving problems and understanding physical phenomena. Mechanics and electromagnetism are treated in minute detail in 211 and 212 respectively. Applications in modern physics are emphasized. Other topics such as heat optics are developed briefly. 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 concepts 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 current sources, active and passive electronic components, oscilloscopes, electronic measuring instruments, power supplies, amplification feedback and control, time, and digital devices. Emphasis will be on understanding instrumentation rather than on advanced principles of device design. Prerequisite: Permission of instructor.

329 Advanced Laboratory I

1 cr

This course is designed to acquaint the students with the basics of modern electronics to the extent that the student will have a sufficient background to design and build simple electronic circuits for future research. A set of experiments is performed and analyzed by the students. Subjects covered are the use of research grade electronic instrumentation in the design and construction of a transistor circuit, transistor design parameters, printed circuit design, layout and construction. Prerequisite: 212 or 202 and consent of instructor.

330 Advanced Laboratory II

1 cr

A continuation of Advanced Laboratory I which includes the following: basic and advanced operational amplifiers, digital and analog integrated circuits, Gates, Boolean Algebra, IC timer circuits, digital flip-flops and counter circuits, A/D and D/A conversion circuits, digital meter design and construction. Prerequisite: 329 or consent of instructor.

361 Mechanics

4 cr

An intermediate level theoretical classical mechanics involving concepts and problems that cannot be understood except by using the mathematical language of vectors, calculus matrices etc. Many of the mathematical tools will be reintroduced in the course. A good calculus background is essential. The topics normally covered are motion of a particle in 3-dimensional, non-inertial systems, central force systems, dynamics of many particles, rigid bodies, and Lagrangian mechanics. Prerequisites: 212, Mathematics 215.

372 Electromagnetism

4 cr

An intermediate course for the science and engineering students. The following topics will typically be discussed: electrostatics, energy relations in electrostatic fields, dielectrics, currents, and their interaction with magnetic properties of matter. AC circuits, Maxwell's equations, and electromagnetic radiation. Prerequisites: 212, Mathematics 215.

402 Optics

3 cr

This course introduces the student to the principles of geometrical and physical optics. Topics may include reflection, refraction, diffraction, polarization, matrix techniques in lens systems, dispersion, quantum optics, and the laser. Prerequisites: 212 or 202 and consent of the instructor.

405 Acoustics

3 cr

A course which presents the physical principles underlying the production and propagation of sound. Examples and explanations are focused principally on musical sound. No mathematical preparation beyond high school algebra is necessary.

419 Introduction to Micro and Mini Computers

3 cr

An introduction to the designs of micro and mini computers. Exploration of assembly and special languages for small computers. Prerequisites: 201, Machine Language Programming and 301 Computer Logic.

425 Microcomputer Laboratory

1 cr

A hands-on laboratory course in the use of single board microcomputers for interfacing and control. This course introduces the student to the use of computer concepts and digital electronics that relate to the use of the concepts in interfacing the microcomputer with the "real" analog world. Some of the topics covered are: assembly language programming for an 8085 microprocessor, use of parallel and serial I/O ports, analog to digital and digital to analog conversion techniques, motor speed control and process control. Prerequisites: Physics 419 or consent of the instructor.

426 Problems in Microcomputers

1-4 cr

Special topics and problems in microcomputers. Microcomputer interfacing circuitry and related subjects suitable for independent work. Prerequisites: Physics 419 or consent of the instructor.

430 Advanced Research

2 cr

This is a one-semester course in which the student selects a research project, develops it, and prepares a report on the results. The student is 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 suggestions made by 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, quantum theory, with applications drawn primarily from the fields 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: Schroedinger Equation, oscillators, hydrogen atom, linear operators, Hermitian Matrices, observables, conservation theorem spin, angular momentum and perturbation theory. The course will emphasize application to simple systems. Prerequisites: 212, Mathematics 215.

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

Experimental and theoretical aspects of the atomic nucleus are discussed. The topics presented may include two-nuclear systems, radioactivity and modes of decay, radiometric dating, interaction of radiation with matter and radiation damage and nuclear fission. Prerequisites: 212 or 202 and consent of the instructor.

484 Introductory Solid State Physics

3 cr

Bulk properties of materials are discussed with both the phenomenological and microscopic approaches. Typical topics are the geometry, structures, waves and diffractions, thermal properties, the free electron model, bank 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, space-time and fourvectors, 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.
489 Problems in Health Physics 1-4 cr
Special topics and problems in health physics and related subjects suitable for independent work

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. Geological 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 interactions will be discussed. Evolution of local features will be discussed along 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 well as some field equipment.

104 Historical Geology Laboratory 1 cr
An accompanying course for ES 102 providing an introduction to sedimentation and the use of fossil identification. Columns sections and aerial photographs will be used.

203 Astronomy 3 cr
Introduction to the study of astronomy and the basics of observation. Study will include telescopic systems and the universe as identified from the present study. Course will be possible include arrangements with Bali Planetarium and Allegheny Observatory. Star toilets 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 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 Geochemistry 3 cr
An introduction to geochemistry and its methods and uses. Study will include the use of geochemistry to determine the nature of the earth’s interior and various crustal processes such as structure mountain building and the 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.

304 Environmental Earth Science 3 cr
A course based on an examination of some of the more significant earth science problems, such as land use, population growth, and the effects of human activities on the earth's environment. Prerequisite: Physical Geology or major in Physics.

305 Physiography of the United States 3 cr
Introduces the student to the various topographic and physiographic differences in the contiguous states as well as Alaska and Hawaii. Thus course is designed to allow the student to become familiar with the terrain, resources, economics, and individual problems of the various regions of our country. An approach to demonstrate the fact that no generalization may be made to fit all areas at once, but different problems are associated with each resource and each region.

DEPARTMENT OF POLITICAL SCIENCE
Chairman William E. Markus

Political science studies the political ideas, institutions, behavior, values, and goals of human collective life. The department stresses an understanding of political life as a necessary complement to the study of human existence. Through an awareness of and appreciation for, the similarities and differences among political structures and political tasks, political actors, systems of law, political ideals and thought, and the ways by which political activity relates to the dimensions of life as a whole, the student becomes familiar with the political as an expression of deeper and more fundamental considerations. Students in the Department of Political Science are introduced to both the normative and empirical methods of analyzing political life.

Political science majors are prepared for careers in government and administration, teaching, private enterprise, and for further study in graduate and law school programs.

REQUIREMENTS FOR THE MAJOR IN POLITICAL SCIENCE
Twenty-four semester hours are required for a major in political science in addition to 101. These credits must include 208, 233, 309 and 403 or 406.

A student transferring to Duquesne from another college or university may receive a maximum of 12 transfer credits applied to their major requirement.

REQUIREMENTS FOR THE MAJOR IN INTERNATIONAL RELATIONS
Twenty-four semester hours in International Relations are required for a major in International Relations in addition to 101. These credits must include 309, 318, 320, and 402 or 406. The remaining courses may be selected from either 320 or 402 (the one not taken for the required core). 208, 331, 409, 413, 450, 406, 321, 315, 404, and 412. Majors in International Relations are advised to take certain courses for their college requirements and electives, especially in language and history. Majors are advised to carefully plan their courses with their advisors.

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 these courses may 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 403 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, 235, 240, 241, 242, 276, 301, 323, 324, 407 and 414.
2 Comparative Government 208 and a minimum of nine credits from among, 315, 318, 320, 402, 404, 409, 413, and 450.
3 International Relations 309 and a minimum of nine credits from among, 312, 318, 320, 402, 404, 409, and 450.

Selective Minor The Department of Political Science will also devise a minor from its course offerings to fulfill the particular needs and desires of a student in any major area of concentration. Such a minor must be structured in consultation with an assigned Political Science Department faculty advisor and the Department Chair.
A maximum of 6 transfer credits can be applied to the minor requirement.

101 Introduction to Political Science is prerequisite to all courses.
101 Introduction to Political Science 3 cr
An investigation of the most fundamental concepts involved in the study of political society.

208 Comparative Political Systems 3 cr
A systematic multi-focused analysis of selected political systems.

233 American National Government 3 cr
The institutional structure and policy-making processes of national government are examined as reflections of the assumptions of liberal democracy and of the American economic and social systems. In addition to the three branches of government, political parties, interest groups, and elections are considered.

235 The Mass Media and Politics 3 cr
A study of the mass media and its role and impact on U.S. politics. The emphasis will be on the mass media as instruments of political communication and opinion leadership.

240 American Political Parties 3 cr
An intensive study of the roles of interest groups and political parties in the decision-making processes of the American system of government with attention devoted to the internal dynamics of these institutions.
such organizations as the United Nations and its specialized agencies

315 Politics of Third World Countries 3 cr
A topical study of the politics of the emerging nations including nationalism, political integration, political parties and the role of the military elite

318 Nationalism 3 cr
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 3 cr
A study of American foreign policy since the Second World War with emphasis on the central present issues and the domestic sources of foreign policy.

321 Government and Politics of Eastern Europe 3 cr
An analysis of political developments in the communist regimes of Eastern Europe with special emphasis on relations between the USSR and Eastern Europe in the post-Stalinist era.

323 Constitutional Law Federalism 3 cr
A detailed examination of Supreme Court cases concerning the nature of American Federalism. Includes a study of both Congress and Presidential power commerce clause state powers judicial review due process clauses and apportionment. Students are introduced to court and appeals procedures and the reading and briefing of court decisions and the nature of the court review process.

324 Constitutional Law Civil Liberties 3 cr
A detailed analysis of Supreme Court decisions bearing upon Bill of Rights guarantees with specific reference to the freedoms of speech, press, assembly, the dimensions of search and seizure, right of legal counsel equal protection and due process rights voting rights and the adjudication of the fourteenth amendment application of rights to state action.

325 Constitutional Law Criminal Law 3 cr
This course will consider appellate cases in criminal rights and major aspects to criminal procedure. As with the Constitutional Law courses, it is a case approach. Students will read court decisions and will develop arguments with briefing cases.

327 Research Methods in Political Science 3 cr
A study of the technique of scientific inquiry into political phenomena including research methods data collection analysis and interpretation.

331 Peace and the Arms Race 3 cr
An analysis of the grave threat to world peace posed by nuclear weapons and the arms race. Special attention will be given to the political, ideological and moral dimensions of the arms race.

402 Soviet Foreign Policy 3 cr
An analytical study of the development of Soviet foreign relations with special emphasis on the post-Stalinist era.

404 Simulation in International Politics 3 cr
Students spend the semester simulating an international conflict situation. They act as foreign policy decision-makers, applying the principles concepts and instruments of international politics.

405, 406 Western Political Thought 3 cr each
A study of political ideas as distinct from and yet related to political institutions which constitute our perennial western political heritage. 405 considers theorists from the classical period to the early 16th Century. 406 considers theorists from the late 16th Century to the late 19th Century.

407 American Political Thought 3 cr
An analysis of the issues which have played a fundamental role in American Politics from colonial church state problems, to modern liberalism and conservatism.

408 Theory of Comparative Government 3 cr
An examination of the basic theories and concepts in contemporary approaches to comparative political systems.

409 Theory of International Relations 3 cr
A study of various theoretical approaches to an understanding of international relations including political realism, systems analysis, decision-making and equilibrium analysis.

412 Government and Politics of Germany 3 cr
A comparative analysis of the contemporary political systems of West and East Germany.

413 Government and Politics of the USSR 3 cr
An intensive analysis of the origin and evolution of the Soviet political system.

414 Public Policy 3 cr
A study of the elements, operations, and investigation of the way governmental units decide upon programs and policy objectives.

420 Contemporary Political Theory 3 cr
A study of central topics in political thought from Marx to the present time.

430 Internship in Practical Politics 3 cr
A work and observation experience in government and political offices at the city, county, state and national levels in the Pittsburgh area. Permission of department required.

436 Honors Colloquium in Political Science 3 cr
A detailed analysis of a selected topic.

450 Workshop-International Studies 3 cr
An intensive one-week interdisciplinary summer school course. This course presents political, foreign policy, culture, religion and social problems of Third World Countries. Several outside speakers augment Duquesne faculty.

DEPARTMENT OF PSYCHOLOGY

Chairman: Rev. David J. Smith, C.S.Sp., Ph.D.

The undergraduate program of the Department of Psychology is designed 1) to introduce and familiarize students with the fundamental content issues and interests of various areas of psychology and critically evaluate and reformulate these in the context of psychology as a human science 2) to foster intellectual and personal freedom and critical thinking as essential to the humanizing process 3) to prepare the professionally oriented student for advanced study 4) to provide a foundation for careers involving human services.

To these ends the department offers a wide variety of courses covering psychology conceived as a human science a natural science and within a historical perspective. Further study in graduate school prepares students for careers in mental hospitals, schools, mental health and social welfare agencies, business and industry. In our rapidly changing society the demand for professionally trained psychologists is increasing.

While the department believes that human scientific psychology is the most viable and encompassing approach to the study of man it also realizes its responsibility to expose its students to other psychological approaches. Hence every major who plans to enter graduate school in psychology is strongly encouraged to take advantage of the offerings in sister universities through the procedure of cross-registration.

REQUIREMENTS FOR THE MAJOR

The major program consists of 103-Introduction to Psychology plus a minimum of 24 semester hours. These credits must include 220 and 223. Majors desiring to pursue graduate study in psychology are strongly advised to take six additional credits through cross-registration at other universities (Learning Theory, Experimental Perception, Memory etc.) and Statistics (225 Fundamentals of Statistics offered by the Mathematics department may be considered part of the mathematics/science requirement). Finally, it is recommended that majors enroll in a hospital or community practicum for credits 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 departmental academic 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, 390-400 level courses may be taken for the minor with permission of the department head. A minimum of nine credits in psychology must be taken at Duquesne University for the minor.

COUNSELING SERVICES

Personal counseling services are available to all students at the Center For Training and Research in Phenomenological Psychology located at the Chapel end of Centennial Walk.

103 Introduction to Psychology 3 cr
(Prerequisite to all courses)

104 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.

105 Developmental Psychology 1 (Infancy and Childhood) 3 cr
Growth and development of the child, with emphasis on personality development.
226 Developmental Psychology II
(Age of Maturity) 3 cr
Development from adolescence through adult stages to coping with death

230 Psychology of Communities
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 theories and practice of traditional and human-science research Includes student projects Prerequisite 220, 223 permission of department head for non-majors

361 Psychology of Identity and Fulfillment 3 cr
The ways in which identity is lived individually and collectively. Designed to be personally relevant to the life of the student. Open to juniors and seniors only

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

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

391 Applied Psychology Practicum 3 cr
An applied psychology setting provides 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

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

450 Contemporary Issues in Clinical Psychology 3 cr
A human-science examination of the approach methods, data and current issues of clinical psychology. Permission of department head for non-majors

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

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. They interact to meet needs where they are. Recommended courses 101, 104, 201, 202, 205, 214, 215, 304, 307, 308, 309, 313, 315, 323, 325, 341, 349

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, 103, 245, 246, 250, 264, 265, 266, 290, 302, 310, 313, 335, 467

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, 210, 317, 324, 327, 411

Social Services The principle that this program 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, 103, 212, 213, 314, 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 sections

REQUIREMENTS FOR THE MINOR
A minimum of 12 semester hours, not including 101, is required for a minor in Sociology. These credits must include 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

DEPARTMENT OF SOCIOLOGY
Chairman Chester A Jurczak, Ph.D
Undergraduate instruction in sociology contributes to the liberal education of students regardless of majors and to the professional training leading to graduate work in sociology and social work, urban affairs, urban planning and criminality. 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

215 Computer Uses in the Social Sciences 3 cr
An introduction into computer related skills, with a focus on data management, use of "canned" programs and the univac computer system

304 Methods in Sociology 3 cr
Discussion and application of techniques and research procedures used in sociological research

307 Leisure and Popular Culture 3 cr
Study of relationship between work, leisure and popular culture, leisure as a social problem will be considered

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

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
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 major 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. Internships are available to students who qualify.

Recommended courses 101, 102, 204, 206, 208, 302, 304, 306, 311, 402, 411, 412

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, giving him an opportunity to gain professional experience in these areas, the student will be prepared for internships in industry.

Courses in Radio and TV are available to students who qualify. Students may choose to intern at major radio and TV stations, or in the theatre profession.

Recommended courses 140, 141, 190, 204, 251, 280, 290, 351, 352, 370, 400, 412, 451, 470, 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.

There are four emphases that the student may follow: Communication Disorders, Community Audiology, Gerontology, and Social Service. 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 permission of the department chairman.

Required courses 120, 140, 141, 190, 204, 206, 208, 302, 304, 311, 402, 404, 411

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, 141, 190, 204, 208, 302, 304, 306, 311, 402, 404, 411.

A maximum of 12 transfer credits in speech can be applied to the major requirements. A maximum of 6 credits may be taken in Independent Study and/or Speech/Media Internship.

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 courses: 204, 206, 208, 302, 304, 306, 311, 402, 404, 411

2. Theatre/Media 140, 190, plus 12 credits in any of the following courses: 141, 251, 280, 290, 351, 352, 370, 451, 470, 490

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 courses: 221, 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 courses: 204, 206, 302, 304, 311, 402, 404, plus six credits in any of these courses: 140, 141, 251, 280, 290, 351, 370, 451, 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.
Permission of the instructor and the Department Chairman may be taken twice.

Social Communication

101 Communication and Society I 3 cr
Examines how man a being who must believe
communicates his beliefs and how he utilizes cer-
tain kinds of beliefs which have proven funda-
mental through the ages to assist or exploit his
fellows.

102 Techniques of Oral Communication 3 cr
Develops those communicative skills necessary to
express oneself effectively in public speaking situations which
confront the educated person.

204 Interpersonal Communication 3 cr
Designed to investigate the various aspects of
interpersonal communication. Primary considera-
tion will be given face-to-face human interaction
in a variety of situations.

206 Discussion and Group Process 3 cr
Develops those communicative skills essential for
functioning effectively in the small-group situa-
tion. Prerequisite 204.

208 Nonverbal Communication 3 cr
Nonverbal messages are those messages transmit-
ted without the aid of language or in conjunction
with language. They carry much information about
the emotional state of the speaker. Some components of nonverbal communication to be
covered are body movement, physical attributes,
physical alterations, dress, space, time, touch,
objects, the eyes, and the human voice.

302 Organizational Communication 3 cr
Stresses the acquisition and application of skills
that will bring success in an organizational setting.
Prerequisites: 204 and 206.

304 Persuasion 3 cr
A study and application of principles and practices
that influence people's beliefs and actions. Prereq-
quisite: Either 101 or 102 or permission of the
instructor.

306 Advanced Public Speaking 3 cr
Students will be directed in the design and produc-
tion of the problem-solving presentation on a
major world problem. Presentations will be given
before live audiences from local high schools or
civic organizations. If possible presentations will be
videotaped. Prerequisite 102 and either 101 or
104.

311 Communication and Society II 3 cr
Develops more completely and philosophically the
rhetorical perspective established in "Communication & Society 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 position of policy.
Prerequisite 102 or permission of the instructor.

404 Intercultural Communication 3 cr
An investigation into the similar and different per-
ceptions of reality held by individuals and cultural
groups and how such perceptions affect the com-
munications process. Prerequisite 101 208.

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.

412 Speech/Media Internship 1-3 cr
An internship in communication industry or
organizational setting. Prerequisite: Permission of
department chairman required. May be taken twice.

Speech Pathology/Audiology

120 Development of Language 3 cr
Focus will be on the acquisition of sound mean-
ing and grammar systems from infancy through
childhood with emphasis on the comparative anal-
ysis of theories of communication development.
Physical, neurological psychological, and social
bases of language will be discussed. Socio-linguis-
tic differences will be discussed with reference to
Black language and regional variations.

121 Sign Language (Manual Communication) 2 cr
Sign language systems used by and with the deaf
and hearing impaired will be presented in an over-
all 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 Pho-
netic Association.

204 Interpersonal Communication 3 cr
Designed to investigate the various aspects of
interpersonal communication. Primary considera-
tion will be given face-to-face human interactions
in a variety of situations.

210 Introduction to Problems in Speech
A survey of various speech disorders: their causes,
recognition, and possible therapy.

211 Anatomy and Physiology 3 cr
This course will study the basic neurological, skel-
tetal and muscular structures involved in the
speech and hearing process. Prerequisite 220 or
permission of the instructor.

320 Clinical Techniques in Speech Pathology 3 cr
This course will focus upon the clinical manage-
ment 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.

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 lan-
guage development specific 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: 120,
220, 221, 320 or permission of the instructor.

422 Speech Pathology/Audiology
Clinical Practicum 3 cr
Provides an opportunity for active participation
with professionals in 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. Com-
munication problems of the hearing impaired are
addressed. Hearing, visual perception, and manual
communication. Programs of rehabilitation for individuals
with mild to profound hearing impairments are
reviewed. Prerequisite: 220, 221 or permission of
instructor.

426 Hearing and Audiology 3 cr
This course will consider the nature and sound
process of hearing and hearing impairment. The
different types, causes, and measurement of
hearing impairment will be discussed. Exposure to
audiometric testing will also be available. Prereq-
quisite: 220, 221 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 Pho-
netic Association.

141 Voice and Diction for the Media 3 cr
Designed to meet the needs of those who will be
required to use voice and diction as professional
tools in the training and pursuit of media careers
such as Radio/Television, Theatre, and Media.
Not limited to Media Majors.

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 theatr-
cal 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 of production.

204 Interpersonal Communication 3 cr
Designed to investigate the various aspects of
interpersonal communication. Primary considera-
tion will be given face-to-face human interaction
in a variety of situations.

251 Radio Announcing I 3 cr
Application of the principles of good speech to the
announcing of news, sports, weather, and commer-
cials, and to the art of interviewing.

280 Acting I 3 cr
A study of the basic principles, theories, and tech-
niques of acting, including various problems con-
fronted by the actor in the creation and interpreta-
tion of a role on television or film. Prerequisite:
190 or permission of instructor.

290 History of the Theatre 3 cr
The development of theatre as an art form in
Western civilization and in the Orient. Styles and
methods of production, artistic conventions
of formal theatres, etc., as manifestations of how man has seen his world through the ages.

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

352 Radio Announcing II 3 cr
Continuation of Radio Announcing I with empha-
sis on interviewing and location reporting. Addi-
tional foreign pronunciation exercises. Prerequi-
site 251.
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.

412 Speech/Media Internship 1-3 cr
An internship in communication industry or appropriate organizational setting. Prerequisite: Permission of department chairman required. May be taken twice.

451 TV Practicum 3 cr
The essentials of developing dramatic productions for television; scripted commercials, serious and comic performances acted and taped. Prerequisite: Permission of the instructor.

DEPARTMENT OF THEOLOGY
Chairman John F. O’Grady, S.T.D., S.S.D.

Duquesne’s Department of Theology affirms that the academic study of religious experience is essential to a complete education. 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 the universal search for religious meaning and experience, and seeks not only to offer the possibility of a study of the various approaches to religious experience in history but also to place Catholic Theology in communion with that quest; 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 Studies, Christian Studies and Selected Religious Studies.

REQUIREMENTS FOR THE MAJOR
The major program consists of a minimum of 27 credits. These must include 106, 213, 214, 220, 250, 498, the remaining credits will be chosen in consultation with the student’s advisor.

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

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
An introduction to the principles involved in interpreting the Bible in relation to its different manners of expression: a study of key sections of the Bible to determine what these materials meant to those who wrote them and what their relevance is today.

213 Introduction to the Old Testament 3 cr
A presentation of the Old Testament writings in their dynamic context of culture, politics, and geography, as well as an introduction to their literary modes, theology, 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, including 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.

316 The Apostle Paul 3 cr
An exposition of Pauline literature, emphasizing the person of Paul and his impact on the early Church.

321 Jesus in the Gospels 3 cr
A portrait of the person of Jesus Christ, based on a study of the 4 gospels with ample usage of recent scholarship.

413 The Old Testament Understandings of God 3 cr
Examination of the theology of the various books or blocks of writing in the Old Testament in an attempt to draw together and present the major themes, motifs, and concepts of the Old Testament; a study of the relationship between the Old Testament and the New Testament. Prerequisite: 114 or 213.

414 Jesus Through Many Eyes 3 cr
The fact of Jesus is everything he stands for. And every book of the New Testament has its interpreter. A study of different books as well as themes in the New Testament.

490 Field Experience in Biblical Archaeology 3 cr
Six weeks of supervised participation in an archaeological excavation in the Ancient Near East; experience in stratigraphic digging pottery identification, scientific analysis of finds, and recording methods. Offered every two or three years by approval of participants by core staff required.

493 Individual Topics in Biblical Studies 1-3 cr
The topics will change regularly and will be published within the department.

Christian Studies in General

140 Christian Understanding of the Human Person 3 cr
An investigation into the question of “What does it mean to be human?” and “against 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 Christian Worship 3 cr
The meaning of ritual and worship in Christianity, with special emphasis given to the history of worship and the developments in both Roman Catholic and Protestant worship since the Vatican Council.

243 Religion and Social Issues 3 cr
A study of the influence of religious convictions in contemporary social issues of today’s world, e.g., population growth, famine, ecology, liberation, and revolution, truth as a social issue, wealth, taxation, and stewardship.

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

271 Eastern Christianity 3 cr
A study of the main theological developments in the Eastern Church from the Patristic age on through the medieval times until the modern day as they shape its distinctive spirit and mentality and as they are interpreted in the Eastern Churches.

274 Church History I 3 cr
A religious and historical exploration of the growth of Christianity from the first century up to the Reformation, discussion of 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 and reforms that were central to this development.

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

351 Sexuality, Sex, and Morality 3 cr
An analysis of the nature of sex and sexuality, according to the sources and developments of Christian thought, the integration of these concepts into a contemporary moral and ethical system.

352 Human Life and Morality 3 cr
A discussion of the fundamental moral principles involved in making any of the ‘life decisions’; the problem of the definition of life, a survey of the varied moral approaches to the issues of war and peace, capital punishment, abortion, birth control, etc., Divine genetic engineering, and the new embryo.

451 War and Peace in Christian Perspective 3 cr
An analysis of Christian teaching of the moral permissibility of using violence and participation in war from biblical times to the present, including an evaluation of the varieties of pacifism, of non-violent resistance, and of just war theories.
470 Christian Mysticism 3 cr
A study of the manifold Christian experience of mysticism & its 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 Therese and Avila John of the Cross Venerable Liberman

494 Individual Topics in Christian Studies 1-3 cr
The topics will change regularly and will be published within the department

Roman Catholic Theology

106 Faith and Experience 3 cr
An examination of various forms of atheism and an exploration of Christian responses to their challenge: a study of the meaning of faith and revelation in its history and contemporary expression, an attempt to answer the question of faith's reasonableness

108 Catholicism 3 cr
An explanation of the spirit, beliefs and practices of Roman Catholicism including its understanding of sacramentality, mediation and communion, a study of the Roman Catholic classics and issues confronting Roman Catholicism

220 The Mysteries 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 humanity and the new era in the spirituality of humanity inaugurated by the Incarnation and the Passion-Death-Resurrection event

230 The Church 3 cr
A study of the Christian community of believers in its origins, some of its major historical and dogmatic emphases, and its contemporary understanding of itself, the Church as a mystery, as Mystical Body as People of God as sacrament

242 Contemporary Theological Issues 3 cr
An examination of theological developments in an era of renewal, revaluation and cooperation, e.g., belief and unbelief, Christ and secular humanism, the future with reference to hope, heaven, hell afterlife, and resurrection in a secular age suffering and evil

250 Conscience and Morality 3 cr
A Catholic perspective of the basic issues involved in the formulation of moral values with the developing person and of the sources upon which moral systems are based, a discussion of the absolute vs the relative traditional morality vs "the new morality" and application of these principles to modern problems

256 God and His Meaning 3 cr
A theological understanding of the 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 Judaico-Christian tradition with special focus on Catholic development

301 Marriage 3 cr
A personally-oriented and practical treatment of the marital union as seen in its Christian theological, psychological, and sexual aspects, a discussion of Christian marriage as a bond of love, as a sacrament, and as a way of human fulfillment

331 The Church in the Modern World 3 cr
An analysis of the Church's role in human development today and in offering solutions to present problems of humanity in light of Vatican II's "Pastoral Constitution on the Church in the Modern World" and other related documents

335 Theology of the Sacraments 3 cr
A practical treatment of the seven sacraments in relation to their significance for the Church's daily spiritual growth and fulfillment, consideration of human needs for ritual and symbol, discussion of recent revisions and developments in sacramental theology

475 Theology and Catechesis 3 cr
An examination of the principal theological and pedagogical themes of modern religious education, and of the place of catechesis in the ministry of the Church, a presentation of the historical background of the contemporary catechetical renewal

491 Experience in the Teaching of Religion 6 cr
One semester of supervised experience in teaching religion in a high school environment in conjunction with a cooperating high school teacher and University Department coordinator. This course is open only to majors in Theology upon approval of the Chairperson of the Department.

495 Individual Topics in Roman Catholic Studies 1-3 cr
The topics will change regularly and will be published within the department

498 Seminar in Theology 3 cr
A critical analysis of selected topics in theology, or of selected works by outstanding theologians, open only to juniors and seniors with a major or minor in theology

Selected Religious Studies

180 Religious Experience 3 cr
An examination of the dimensions of mankind's religious experience, e.g., mystical, ritual, mythical, ethical, and scriptural, an analysis of the likeness and differences of how the Divine is sensed and responded to in varied geographical, cultural and chronological contexts

240 Studies in Black Theology 3 cr
An examination of the dimensions of the religious experience of Black Americans, e.g., its history, its relationship to African origins, to slavery, to racism, to 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

280 World Religions 3 cr
A survey of the history, beliefs, practices and contemporary influence of the major religions of the world, including Hinduism, Buddhism, Confucianism, Taoism, Judaism, Shintoism, African traditions, Christianity, Hinduism, Islam, and Judaism, a discussion of a basic methodology for understanding religions

283, 284 Judaism People & Faith 3 cr each
A survey of modern Jewish history to discover roots and traditions of the Jewish people in American, Israel and the Soviet Union, view of the Holocaust and its effects on world Jewry. The faith, beliefs and practices of Jewish life today

372 Religious Themes in Literature and Film 3 cr
An exploration of religious experience and religious concepts as expressed in significant worlds in film and literature, including themes concerning human person's relationship to self, others and to God

496 Individual Topics in Religious Studies 1-3 cr
The topics will change regularly and will be published within the department
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 preparation.

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 and contributing to 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 studies, and cocurricular 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 for 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 mathematically, accounting, and statistical data with computer usage.

5. Sufficient knowledge in a professional area so that they can assume positions of responsibility with business and industry 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.

SECOND BACHELOR'S DEGREE

Persons who have received a Bachelor's degree from an approved college or university may be eligible to enter the program for a second Bachelor's degree in Business Administration. A second degree candidate must meet all requirements of the School's degree program. A minimum of 30 credits must be completed in residency.

THREE-YEAR BACHELOR'S/J D

A student who has completed 90 credits with a 3.3 or better overall average and who has satisfied all undergraduate curricular requirements may apply for the Bachelor's degree after successful completion of the first year of academic work at Duquesne University School of Business. Students interested in this program should consult the advisement office in the sophomore year.

BUREAU OF RESEARCH AND COMMUNITY SERVICES

Activity complementing direct instruction takes place in four ancillary units grouped under the Bureau of Research and Community Services. All function to provide students and faculty with opportunities 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. From time to time, student research is undertaken for business, community, and governmental agencies, insofar as this may fall within its academic aims of discovery and dissemination of knowledge.

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 engages in cooperative projects with other centers, such as the center for Small Business Administration, where legal issues arise.

CENTER FOR ECONOMIC EDUCATION

The Center is charged with the responsibility of initiating and promoting economic education in the society at large. More specifically, it develops and coordinates economic education within the Western Pennsylvania area.

The primary thrust of the Center focuses on upgrading economic literacy and teaching competency in the school system. The Center also conducts economic education programs for clergy, media professionals, and other opinion leaders.

CENTER FOR INTERNATIONAL MANAGEMENT

The objective of the Center is to develop a better understanding of the American involvement in international affairs and business and in management abroad through teaching and research. It is achieved by an interdisciplinary approach.

The areas of current research focus are:

1. Trade expansion between the USA and Eastern Europe
2. Management in foreign nations
3. Problems in international business
4. International economic development with a stress on interaction among developed countries, and on the relationship of developed and less developed countries
5. International political and legal issues

The Center has no teaching program of its own, most of its staff are faculty members from various schools and departments of the University or visiting foreign professors.

STUDENT ORGANIZATIONS

These organizations, limited to students in the School of Business and Administration, exist for the promotion of the scholarly and professional interests of interest.

The Zeta Chapter of Beta Gamma Sigma, national honorary fraternity for accredited schools of the American Assembly of Collegiate Schools of Business, is established at Duquesne University. Membership in this honorary fraternity is limited to juniors in the highest five per cent of their class and to seniors in the highest 10 per cent of their class.

The Beta Alpha Phi Fraternity is the honorary scholarship society of the school.

Phi Chi Theta is a national professional commercial society.

American Marketing Association, the student chapter, affords membership to students whose major interests include salesmanship, marketing, advertising, transportation, or foreign trade. A selected group of members is permitted, upon recommendation of the faculty supervisor, to participate in the meetings of the Sales Executives Club of Pittsburgh and the senior chapter of the A.M.A.

Delta Sigma Pi, a national professional business fraternity, is represented by Theta Rho chapter.

The Association for Personnel Administration is the student group sponsored by and affiliated with the American Society for Personnel Administration.

DIVISIONS AND PROGRAMS

The School of Business and Administration is comprised of three Divisions: Quantitative Science, Behavioral Science, and Economic Science.

Students entering the School of Business and Administration are expected to inform their advisors about their career objectives and their academic areas of concentration, and to consult with them when choosing junior and senior courses indicated in any of the three Divisions. Their proposed curriculum choices must, of course, include the University requirements and Business and Administration Core requirements as indicated in the illustrations set forth in this catalog. Consistent with their stated career objectives and with the concurrence of their advisors, students, except those whose area of concentration is Accounting, are free to select any junior and senior courses from many and varied sources in the University, including faculty and Career Planning placement staff.

Students' concentrations should be based upon career objectives and constitute as broad and flexible an educational process at the undergraduate level as is possible. Career advice should be sought from many and varied sources in the University, including faculty and Career Planning staff.

Students registering for 300-400 level courses are presumed to have passed freshman and sophomore required courses and have junior standing.
## FOUR YEAR SAMPLE PROGRAM

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<th>Year</th>
<th>Fall Semester</th>
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<td>Freshman Year</td>
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<td>142 Economic Devl</td>
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<td>181 Intro to Computers</td>
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*Course may be taken in either semester

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<td>332 Money &amp; Banking</td>
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<td>Marketing I</td>
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<td>321 or 322 Adv Econ</td>
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**Executive Action Simulation or Executive Policy**

The accounting faculty recommends that students concentrating in accounting take Accounting 211, 212, 311, 312, 314, 315, 411, 412, 413, and 66

Elective courses are not necessarily offered each year

### ACADEMIC REGULATIONS

#### ACADEMIC LOAD

Students may normally carry five courses in one semester. A schedule of more than five courses or 15 credits must be approved by the Dean. In the summer sessions, students normally carry one credit a week, i.e., six credits in the six-week session. A 12-credit schedule in a regular semester is considered full-time study. Students on academic probation may not take more than 12 credits.

### EFFECTIVE CATALOG

Degree requirements are those stipulated in the catalog of the year in which a student matriculates. The student is responsible for knowing the requirements for the degree. Requirements may be changed without notice or obligation. This catalog has been prepared on the best information available as of May 1984.

### CLASS ATTENDANCE

Regular class attendance in the School of Business and Administration is normally required for maximum educational advantage. The responsibility for all course material rests wholly with the student. It is the prerogative of each instructor to establish specific policies for attendance at tests, examinations, class lectures, deadlines for reports and other specific school or course requirements.

A student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstances is responsible for notifying the office of Academic Advisement. 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 the course. It is the student's responsibility to make up all assignments in all courses and to be familiar with any instructions which may have been given during the absence.

### HANDICAPPED STUDENTS

Handicapped students requiring special assistance are urged to notify the class instructor or the Academic Advisement Office before the first class.

### DIVISION OF QUANTITATIVE SCIENCE

#### ACCOUNTING CURRICULUM

### CPA Requirements

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

Graduates may sit for the CPA examination in other states, among which are New Jersey and New York.

### 211, 212 Introductory Accounting 3 cr each

An introduction to the language of accounting, basic accounting concepts and brief exposure to recording financial information. An extensive study is made of accounting information for management decisions. Offered every semester.

### 311, 312 Intermediate Accounting 3 cr each

This course is primarily concerned with an investigation and analysis 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 sheet accounts, determination of net income, statement of source and uses of working capital. Prerequisites 211, 212. Offered every semester.

### 313 Managerial Accounting 3 cr

A study of the techniques involved in the gathering, recording and interpretation of accounting and statistical data used in the solution of internal problems of management. Some of the topics covered are the construction and interpretation of reports, establishment of production, operating and financial standards, measurement of managerial performance, use of budgets in managerial control, use of accounting data and interpretation of cost reports, use of quantitative data in the formulation of policies and objectives of various aspects of Federal, State and local taxes and their effect on managerial decisions. Recommended for non-accounting students. Prerequisites 211, 212. Offered every semester.

### 314 Advanced Accounting 3 cr

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

### 315 Cost Accounting 3 cr

Basic cost accounting procedures are discussed from the following view points: 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. Offered every semester.

### 411 Auditing 3 cr

Standards and procedures employed by auditors in the examination of financial statements for the purpose of rendering an opinion are studied and evaluated. Emphasis is placed on theory and philosophy of auditing, however, case problems are used to demonstrate the application of the principles studied. Prerequisites 312. Offered every semester.

### 412 Introductory Income Tax 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 311 or 313. Offered every semester.

### 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 familiarity with basic computer programming and accounting 211, 212. Offered every semester.

### 414 Corporate and Partnership Taxation 3 cr

This course will acquaint the student with the principles of tax law as they apply to corporations and their shareholders and to partnerships and their partners. Rather than emphasizing tax return preparation, the course's concentration is upon preparing students to make reasoned and sound judgments regarding the tax consequences of business transactions. Prerequisite 412. Offered every spring.

### 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...
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. Suggested courses for students interested in this area are 336, 337, 433. The designation in the life insurance area for professional personnel is (CLU) or Chartered Life Underwriter, and CPCU for property and liability insurance. For students interested in careers in insurance, courses 334, 434 and 435 are recommended.

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 the decision-making process concerned with the sources and uses of funds. 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. Offered every semester.

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 their available funds as they do, knowledge about interest rate movements and their effect on business and the development of financial instruments used within the business society. Through 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. Offered every semester.

333 Financial Management 3 cr
The course is designed to provide a theoretical or conceptual framework that a financial manager can use to reach decisions. Material is presented 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, computer analysis of financial problems and a research project are tools to be used. Prerequisite: 331 Offered every year.

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 implicit risks such as those of loss in market value of assets, capital budgeting decisions, new product financing techniques, mergers, and other areas where risk is present in the decision. Prerequisite: 331 Offered every third semester.

335 Business Financial Problems 3 cr
The aim of this course is to provide a vehicle in which the student can take material from previous courses both of a financial nature and that from 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 or intermediaries and users of funds. Research by the student is required to afford the student the opportunity to concentrate on an intensive effort upon the individual topic. Prerequisite: 331 Offered every third semester.

336 Security Analysis 3 cr
An intensive study of the analytic techniques applicable to the selection of the various securities of 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 and necessary to the decision-making process of the investor as the attempt is made to measure the value of a particular security. Several models are examined in seeking their appropriate use 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 a security. Prerequisite: 331 Offered every year.

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 a portfolio investment. Discussion of the various risks that a portfolio may 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 are 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. 336 Offered every year.

342 Credit Management 3 cr
This course will be taught in such a manner so 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 such 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 to arrive at a logical sound credit decision. Prerequisite: 331. Offered every third semester.

343 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 or intermediaries and users of funds. Research by the student is required to afford the student the opportunity to concentrate on an intensive effort upon the individual topic. Prerequisite: 331. Offered every third semester.

344 Life Insurance 3 cr
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 use, with emphasis upon their functions as instruments of estate creation and administration. Uses of insurance in connection with pensions, and in connection with bank loans, are explored. Attention is given to accident and health coverages, group plans, pensions, and regulation of the insurance industry. Prerequisite: 331. Offered every third semester.

435 Property and Liability Insurance 3 cr
A study of business and personal applications of casualty, fire and liability coverages in the form of both insurance and bonding, including the fields of workers' compensation, landlords' and tenants' liability, 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. Offered every third semester.

437 Fundamentals of Real Estate 3 cr
A study of the problems involved in financing residential, commercial, and industrial real estate from the points of view of both owner and lender. Methods of financing covered include use of individual and business equity, loans secured by mortgages, land contracts, sale-and-lease-back arrangements, and cooperatives, syndicates, and real estate trusts. Attention is given to procedures for originating, servicing, and foreclosing loans and mortgage arrangements by principals, agents, and mortgage bankers. Case problems either in class or the field type 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. Offered every third semester.

439 Seminar in Finance 3 cr
Concentration upon selected contemporary topics presented by distinguished visiting professors of finance or resident faculty. Open only to senior students. Offered as needed.

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 or the equivalent are required.

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.
An introduction to the basic concepts of computer programming in algebraic and representational languages. The course introduces the algorithmic approach to problem-solving and continues through the development of flowcharts and programs, using BASIC or FORTRAN. Brief treatment is also given to other business related languages. Prerequisite: Mathematics 109. Offered every semester.

281, 282 Probability and Statistics 3 cr each
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. Offered every semester.

381 Introduction to Decision Sciences 3 cr
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. Offered every semester.

382 Data Processing with COBOL 3 cr
 Oriented towards data processing applications through COBOL. The scope of the course ranges from an introduction to data processing, data management and debugging to the introduction of file processing and report generation. Offered every semester.

383 File Processing 3 cr
Deals with file processing in terms of its cost, capacity and responsiveness. The topics include data structures, file accessing mechanism, sorting, merging, report writing and input and output to sequential and non-sequential files. One of the programming languages will be used for file processing. Offered every year.

384 Advanced Programming 3 cr
Structured programming is introduced. Emphasis is on a sequence of increasingly complex business applications in one of the computer languages. Arrays are a concentration. Files processing is presented. Offered as needed.

385 Computer System 3 cr
Designed to develop an understanding of the hardware components of a modern computing system and the components and functional characteristics of different types of operating systems. A basic understanding and appreciation of the internal operation of the computer system through assembler language will be developed. Offered as needed.

386 Computer Simulation 3 cr
Oriented to design and implement simulation model to study the behavior of the system, the validation of such models and their results for the purpose of decision making in management situations. General purpose simulation models, financial system models will be discussed with appropriate computer language. Offered as needed.

481 Systems Analysis and Design 3 cr
An overview of the phases of life cycle of the systems development with the emphasis on strategies and techniques of structured analysis and design to provide a framework for the managers to achieve their information objectives. Prerequisite 382. Offered as needed.

482 Data Base Management Systems 3 cr
The focus of the course is data base structure, processing and implementation. The topics are data base structure, query language, data base integrity, security, privacy and recovery capabilities. The hierarchy, net-work and relational approaches to data base systems with an overview of several commercially available data base management systems will be discussed. Prerequisite 481. Offered as needed.

483 Management Information Systems Project 3 cr
Advanced coverage of strategies and techniques of a structured systems development project. Designing of data base specifications. The project management methods, project scheduling and control formal presentations and group dynamics in the solution of Information Systems problems will be discussed. Students will work as a team to solve the project. Prerequisite 482. Offered as needed.

484 Distributed Data Processing 3 cr
Designed to develop an understanding of the features of centralized, decentralized and distributed system with the emphasis on the impact of distributed system on the business enterprise. Modes data transmission and various devices required to implement distributed data processing system will be discussed. Offered as needed.

485 EDP Audit and Control 3 cr
This course will deal with the fundamentals of EDP audit and control process and the techniques used in EDP audits. The particulars involved, time-sharing systems and computer service bureaus will be discussed. The system approach to auditing will be used. Offered as needed.

DIVISION OF BEHAVIORAL SCIENCE 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:

- 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 and the resulting economic activities. Emphasis is given to the geographical foundations and the operations of major industries including agriculture, manufacturing, extractive activities, and transportation. Principal domestic and world trade movements are analyzed. Offered every semester.

142 Economic Development of Europe and American 3 cr
A survey of the evolution of Western economic institutions and business practices. The origins 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. Offered every semester.

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 371, 221, 222. Offered every year.

442 International Economics 3 cr
This course is an introduction to international trade theory and the principles of international monetary economics as well as foreign trade policies. Topics to be discussed include the classical and neo-classical theories of comparative advantage, foreign exchange markets and balance of payments, adjustment mechanisms, analysis of the consequences of trade regulation and international monetary problems. Prerequisites 221, 222. Offered every second year.

454 The Law of International Commercial Transactions 3 cr
This course provides the student with an overview of the legal problems involved in doing business with and in other countries. Topics covered include an introduction to foreign legal systems, study of various forms of business organization, the sale of goods, legal problems involved in doing business with persons in another country, sales and against foreign countries. Prerequisites 221, 222. Offered every second year.

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**

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

**353 Contracts**

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. Offered every semester.

**354 Commercial Transactions**

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.

**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**

A course representing 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, making up the management process. These functions constitute the framework around which this course is built. Emphasis is given to planning which is rapidly growing in managerial importance. Decision making, managerial creativity and the art of management are thoroughly developed. Offered every semester.

**362 Behavioral Science**

A course 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 361. Offered every year.

**363 Production Management**

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. Offered fall semester and spring semester.

**364 Personnel Management**

A course presenting techniques of manpower management. Involves study of recruiting and screening techniques, training programs, merit rating, wage payment plans, safety, disciplinary programing, etc. Current practice is presented in the form of case material. Prerequisite 361. Offered every semester.

**365 Industrial Relations**

A course developed to present to the student historical knowledge of the labor movement, the current status pertaining to labor 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. Offered every second year.

**461 Human Relations in Administration**

An advanced course treating of the human aspect as it is encountered in the industrial organization. Involves an analysis of behavioral patterns of individuals and members of work groups. Deals with motivation, goals, needs, frustrations, etc. as they relate to the industrial situation. Prerequisite 361. Offered every year.

**462 Public Administration**

This course introduces the student to the content 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 simulations. Prerequisite 361. Offered as needed.

**463 Collective Bargaining**

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. Offered every second year.

**464 Administrative Organization**

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, decentralization of control, and other related organizational problems are considered. Prerequisite 361. Offered every year.

**465 Introduction to Entrepreneurial Small Business Management**

This course deals with the overall management of the small business enterprise. Coverage includes entering the small business arena, organizing and financing a business, operation of the small firm, growth planning and problems associated with being small. Prerequisite 361. Offered as needed.

**466 Wage and Salary Administration**

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. Offered every year.

**491 Executive Action Simulation**

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 profit basis. Prerequisites: Senior standing and 361. Offered only to students in the School of Business and Administration. Offered every semester.

**492 Executive Policy**

Integrates concepts and skills from all functional areas of business and administration in decisions 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. Offered every semester.

**493 Independent Scholarly Study**

A course extending the student’s career objective. Counseling and school officers should be consulted.

**494 Field Study**

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 and Prerequisite: Approval of the instructor. Offered every semester.

**MARKETING CURRICULUM**

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

**Other coursework may be appropriate to fit a student’s career objective. Counselors and school officers should be consulted.**
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. Offered every semester.

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 studied within different industries and different situations in the marketing structure including manufacturers, wholesalers, jobbers, brokers, agents, and similar functions. Theories of marketing techniques are tested against 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. Offered every semester.

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, marketing research, sales promotion, and sales forecasting. Sales techniques will be studied. Prerequisite 371. Offered every semester.

441 International Business 3 cr
See International Business Curriculum.

471 Marketing Research 3 cr
This course examines the means and methods businesses use to get the necessary information for decision making involving what to produce, how much to produce, and how to distribute goods and services. 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 detail. Prerequisite 371. Offered every semester.

472 Transportation 3 cr
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. Offered every year.

473 Traffic Management 3 cr
This course deals with the physical distribution of goods, solving problems of distribution, inventory, control, the total distribution cost concept, government regulations and current legislation related to physical distribution. There is also coverage of the organization and functioning of traffic departments, shippers’ relations with carriers, and related issues. Prerequisites 371, 221, 222. Offered every year.

474 Purchasing Management 3 cr
Introduction to purchasing and materials management. Topics covered include purchasing efficiency, inventory problems, pricing and time, and product evaluation. Studies will be supplemented by written case analysis as well as a term project involving value analysis. Prerequisites 367 and 371. Offered every year.

DIVISION OF ECONOMIC SCIENCE
ECONOMIC SCIENCE CURRICULUM

121 Elements of Economics 3 cr
Economics 121 is an introductory course in economics intended to afford an understanding of how our economic system works, of the forces which affect the level, composition, and distribution of the output of the economy, and of the issues behind current economic problems. The course content will define concepts, provide background materials, and develop economic ideas necessary to an understanding of the policy issues constantly before a complex dynamic economy. Not counted toward a degree in the School of Business and Administration. Offered every year.

221 Principles of Economics I 3 cr
The first course in economics for the student who plans to major in a minor in economics. The course seeks to acquaint the student with concepts and the logical basis of economic reasoning. Emphasis is placed on understanding the behavior of households and firms under competitive and imperfectly competitive market conditions. Offered every semester.

222 Principles of Economics II 3 cr
This course is the second course in economics and is concerned with aggregate 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. Offered every semester.

321 National Income Analysis 3 cr
A conceptual analysis of national income theory, its tools, its basic principles and its social and economic significance. The course treats the macroeconomic method of economic analysis. It is concerned with explaining the development and nature of national income aggregates. The basic principles of national income theory are developed and explained in order to place into focus the operations of the American economy and the main factors that affect it. Prerequisites 221, 222. Offered every semester.

322 Price and Production Economics 3 cr
An intensive study of the theory of demand, production and distribution. In addition, recent developments in the theory of imperfect competition and monopoly are carefully examined. Prerequisites 221, 222. Offered every semester.

323 Public Finance 3 cr
A study of the organization and management of government revenues and expenditures with emphasis on American practices and policies at the various levels of government. Benefit-cost and cost-effectiveness analysis with their implications for program and capital budgeting receive heavy consideration. The economic consequences of various tax structures and alternative social choice mechanisms are studied. Prerequisites 321 or 322. Offered every semester.

324 Comparative Economic Systems 3 cr
A comparative study of capitalism, socialism, communism and other economic systems with emphasis on analysis rather than a mere description of the economics of various countries. Prerequisites 221, 222. Offered every semester.

420 Labor Economics 3 cr
A study of the labor market 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. Offered as needed.

421 History of Economic Thought 3 cr
Shows the development of economic thought from the age of Mercantilism to 1890. Major emphasis is placed upon the writings of Malthus, Ricardo, Smith, Menger, 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 philosophies. Major emphasis is placed upon value and distribution theory as it developed. Prerequisites 221, 222. Offered every year.

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. Offered every year.

424 Business and Public Policy 3 cr
A study of the regulatory techniques used by government to influence and modify business behavior. The course also includes an analysis of market structure, conduct and performance considerations pertaining to the firm and the industry. Emphasis is given the anti-trust laws and the regulatory problems. Prerequisites 221, 222. Offered every year.

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 reports and economic advice by official and private economic advisors. The course is designed to acquaint the student with 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. Offered every year.

426 Monetary Theory and Policy 3 cr
This course presents the chief theoretical contributions on money. The policy implications of these theories past and present, will be emphasized. Concentration will center upon policy proposals and controversy in the monetary field since World War II. The theories and contributions of Hicks, Keynes, Friedman and Tobin, among others, are reviewed and the reader is also required to present a term paper along with wage-price controversies, international gold flows, and the relationships between fiscal and monetary policies. Prerequisites 221, 222. Offered every year.

427 Theory of Economic Development 3 cr
The course is designed to acquaint students with the area of economic development. The subject matter of this course 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 and seminars as well as a strong emphasis on theoretical and critical analysis. Prerequisites 221, 222. Offered as needed.

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 mention is to provide a base for further study at the graduate level. Seminar procedure will stress written and oral reports. Prerequisites 321, 322 and permission of the instructor. Offered as needed.

442 International Economics 3 cr
See International Business Curriculum.
COURSE REQUIREMENTS

GENERAL EDUCATION

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

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>English Area</td>
<td>12</td>
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<tr>
<td>English Composition</td>
<td>6</td>
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<tr>
<td>English Elective</td>
<td>3</td>
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<tr>
<td>Communication Area (Speech, 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>
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<tr>
<td>Anthropology, Economics, Geography,History, Political Science, Sociology, and Psychology</td>
<td>12</td>
</tr>
<tr>
<td>Philosophy/Theology</td>
<td>6</td>
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<td>Catholcs-minimum of 3 Theology credits</td>
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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 in the senior year. The Competency Core Curriculum focuses on the philosophical, psychological, and pedagogical foundations needed for entry-level teachers' extensive involvement in field experiences beginning with the freshman year, and an ongoing process of individual advisement and counseling regarding teaching and career development.

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 prepares education students to be entry-level teachers in elementary, secondary, and special education.

Courses (Required in all programs)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>111 Introduction to Education</td>
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<tr>
<td>215, 216 Developmental Foundations of Education</td>
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<td>217, 218 Developmental Foundations of Education</td>
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<tr>
<td>316 Curriculum and Instruction I</td>
<td>4</td>
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<td>317, 318 Curriculum and Instruction II</td>
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<td>317, 318 Curriculum and Instruction II</td>
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<td>406 EC Primary Student Teaching &amp; Seminar</td>
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<td>406 EC Primary Student Teaching &amp; Seminar</td>
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*Prerequisites for 307, 308 and 310
**Prerequisite for 321

Required courses—Duquesne University

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>273 Art, Music, and Physical Education for Classroom Teachers</td>
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<tr>
<td>274 Art, Music, and Physical Education for Classroom Teachers</td>
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<tr>
<td>331 Teaching Elementary Social Studies</td>
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<tr>
<td>332 Teaching Elementary Mathematics</td>
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<tr>
<td>333 Teaching Elementary Science</td>
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</tbody>
</table>

**ELEMETARY EDUCATION**

The following 39 credits (semester hours) in Professional Preparation are required: 12 in electives combined with the 42 credits specified in General Education and 27 in the Competency Core Curriculum

<table>
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<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>101 Introduction to Education</td>
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<tr>
<td>215, 216 Developmental Foundations of Education</td>
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<tr>
<td>217, 218 Developmental Foundations of Education</td>
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<tr>
<td>316 Curriculum and Instruction I</td>
<td>4</td>
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<tr>
<td>317, 318 Curriculum and Instruction II</td>
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<td>317, 318 Curriculum and Instruction II</td>
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<tr>
<td>406 EC Primary Student Teaching &amp; Seminar</td>
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</tbody>
</table>

**Prerequisites for 307, 308 and 310
**Prerequisite for 321

**MUSIC EDUCATION**

General and professional course work and professional education courses required for this program are outlined in the School of Music section.
SECONDARY EDUCATION
In addition to the 42 credits (semester hours) in General Education and 27 in the Competency Core Curriculum, a student must complete the following 51 credits. 18 in Professional Preparation, three in Electives and a minimum of 30 in an arts or sciences Area to satisfy requirements for the degree and certification

Credits

Professional Preparation
(AAll Courses Required) 18
497 Reading in the Secondary School 3
215 Teaching Grammar and Composition OR 3
316 Teaching Secondary Mathematics and Science OR 3
318 Teaching Secondary Foreign Languages OR 3
319 Teaching Secondary Social Studies 2
491 Student Teaching 12
*No student may register for additional course work during the student teaching semester without permission

Electives
Arts or Sciences Area (Minimum for certification)

Certification Area Course Supporting Courses

Biology
Chemistry
Communication
English Emphasis
Journalism Emphasis
Speech Emphasis
General Science

Electives

SPECIAL EDUCATION (MENTALLY AND/OR PHYSICALLY HANDICAPPED)
This program is designed to prepare students for teaching mentally and/or physically handicapped pupils, including brain injured, emotionally and socially disturbed, learning disabled
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

Credits
Professional Preparation
(AAll Courses Required) 48
209 Foundations of Special Education 3
273, 274 Art, Music and Physical Education for the Classroom Teacher 6
276 Methods in Special Education I 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
386 Teaching the Mildly Handicapped 3
387 Teaching the Severely Handicapped 3
388 Vocational Education for the Handicapped 3
477 Methods in Special Education II 3
*491 Student Teaching-Special Education 12

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

TEACHER CERTIFICATION
Through completion of degree and certification program requirements, a student will be eligible for the appropriate Pennsylvania Instructional I (Provisional) Certificate. 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. Certification in Pennsylvania enables a student to meet certification requirements in various other states. Application for the certificate must be made during the semester in which the student expects to be graduated

DUAL CERTIFICATION
Through advisement, a student may complete requirements in two certification areas, such as elementary/early childhood, elementary/secondary, elementary/special education. Such programs require some additional coursework beyond the 120 semester hours for a degree. After completing all other requirements, students may register with appropriate advisement, for a major and a six-credit student-teaching course. Student teaching in both areas is offered during the student’s final semester

CLASS ATTENDANCE
The School of Education faculty has determined that the following policy will be in effect for the School of Education and will be adhered to by all professors who teach undergraduate courses. It is presumed that each student in a professional course will normally attend every session. The maximum number of cuts permitted is equated in credit hours, not in periods the class meets, in other words, a student may miss three hours of class time in a three-credit course

STUDENT ORGANIZATIONS
The School of Education includes in its program opportunities for participation in student organizations related to professional education preparation. Students are encouraged to take an active part in these 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. These organizations are Duquesne University Chapter of the Council for Exceptional Children, state and national student organizations in Special Education, National Education Honor Society, Kappa Delta Epsilon national education sorority, Kappa Phi Kappa national education fraternity

HONOR AWARDS
These awards presented at the annual Honors Convocation, are open to undergraduates in the School of Education. These awards include:
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 Kappa Delta Epsilon National Professional Education Sorority President’s Award
Kappa Phi Kappa National Professional Education Fraternity Award for outstanding member of Kappa Phi Kappa

FIELD EXPERIENCE
1 cr. Each classroom and other school experience as an aide or observer. Enrollment with consent of the Director of Student Teaching or a faculty advisor, one credit each semester for a maximum of five semesters

125, 126 Developmental Foundations of Education I 4
127, 128 Developmental Foundations of Education II 4

EDUCATIONAL FOUNDATIONS AND PSYCHOLOGY
101 Introduction to Education 3
An overview of professional education programs and careers, introduces students to the competency based format of undergraduate curricula and gives them opportunities to meet faculty and staff in informal information-giving and counseling relationships

201 Child Development 3
Behavior and personality characteristics of children from birth to adolescence as they relate to school and home situations

202 Educational Psychology 3
Examine affective and cognitive development, planning and teaching techniques, measurement and evaluation, and related theories in an experiential learning environment

203, 204, 205, 206, 207
Field Experience 1 cr.
Each classroom and other school experience as an aide or observer. Enrollment with consent of the Director of Student Teaching or a faculty advisor, one credit each semester for a maximum of five semesters

215, 216 Developmental Foundations of Education I 4
See description for 217, 218

217, 218 Developmental Foundations of Education II 4
Developmental Foundations I and II examine and provide for demonstration of various generic competencies in the areas of physical, cognitive, affective and social development of the individual from birth until late adolescence. 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 experience that requires case studies, directed observations, data collection and teacher aide experience

301 Foundations of Education 3
Introduction to the study of the philosophical, social, and historical foundations of education and the relationships between the school and other institutions of society

315, 316 Curriculum and Instruction I 8
See description for 317, 318

317, 318 Curriculum and Instruction II 8
Curriculum and Instruction I and II focus on the presentation, analysis and demonstration of those

COURSE DESCRIPTIONS
EDUCATIONAL FOUNDATIONS AND PSYCHOLOGY

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An overview of professional education programs and careers, introduces students to the competency based format of undergraduate curricula and gives them opportunities to meet faculty and staff in informal information-giving and counseling relationships

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Behavior and personality characteristics of children from birth to adolescence as they relate to school and home situations

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Examine affective and cognitive development, planning and teaching techniques, measurement and evaluation, and related theories in an experiential learning environment

203, 204, 205, 206, 207
Field Experience 1 cr.
Each classroom and other school experience as an aide or observer. Enrollment with consent of the Director of Student Teaching or a faculty advisor, one credit each semester for a maximum of five semesters

215, 216 Developmental Foundations of Education I 4
See description for 217, 218

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Developmental Foundations I and II examine and provide for demonstration of various generic competencies in the areas of physical, cognitive, affective and social development of the individual from birth until late adolescence. 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 experience that requires case studies, directed observations, data collection and teacher aide experience

301 Foundations of Education 3
Introduction to the study of the philosophical, social, and historical foundations of education and the relationships between the school and other institutions of society

315, 316 Curriculum and Instruction I 8
See description for 317, 318

317, 318 Curriculum and Instruction II 8
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 as educational taxonomies, instructional objectives, planning the lesson, classroom management, learning centers, materials utilization, evaluation of teaching and grading. These components also include the approach to field placement that continues the directed observations and data collection initiated in the Developmental Foundations of curriculum 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 includes teaching experience in an actual classroom.

**340 Self-Development for the Classroom** 3 cr
Focuses on a philosophical-psychological approach to self-development, using classroom activities to promote personal awareness in the teacher and student.

**351 Adolescent Development** 3 cr
Examines the developmental processes, psychological, physical and social which affect student and student-teacher behavior and relationships in the classroom.

**410 Interpersonal Management Techniques for Educational and Organizational Leaders** 3 cr
Focuses on four major concerns for maximizing learning and minimizing conflict, they are the teacher's personal awareness of feelings and emotions interpersonal, societal, and educational values, understanding of group dynamics, and knowledge of managing classroom situations.

**480 Independent Study** 1-2 cr
With permission of an instructor and approval of the Dean, a semester in-depth study of a subject area or engage in individual projects related to their professional goals.

**481 Learning Resources** 3 cr
Identification, location, utilization, and creation of learning materials—adaptation of print and non-print materials to meet curricular needs, developing materials for individualized classroom instruction.

**485 Problems in Teaching Reading** 3 cr
Reading difficulties in elementary and secondary school levels discuss classroom and clinical procedures in solving reading problems, diagnostic and corrective techniques, and materials for the classroom teacher reading improvement programs. Special units on reading problems of the mentally retarded

**499 School Law and the Pupil** 2 cr
School law as it affects the child—census, admission, practice, vaccination, compulsory attendance, the neglect of children and delinquent children, graduation requirements, special school services, and other regulations pertaining to the health and welfare of the child.

**Early Childhood Education**

**201 Orientation to Early Childhood Education** 3 cr
Examination of the history of child development and practices of early education, culminating in an observed and to the self-evaluation process of his/her own development in the field today. Development of the student's observational skills, completion of on-site observations in early educational settings, defining the role of the Early Childhood Educator, and developing a personal philosophy (Fall semester only).

**203 Child Development** 3 cr
In-depth examination of the development of the child from birth through childhood. The social and emotional development of children aged 3-8 years, A weekly practicum in an early education classroom is an integral part of this course. Prerequisite: ED 201 and 203 (Fall semester only).

**307 Curriculum and Methods for Early Childhood Education with Practicum** 4 cr
Study of curriculum methodology and implementation in nurseries, kindergartens, and primary settings. Students will design environments and enact activities for language development and reading, music, play, social studies, science and math for children 3-8 years. A weekly practicum in an early education classroom is an integral part of this course. Prerequisite: ED 201 and 203 (Fall semester only).

**308 Curriculum and Methods for Day Care With Practicum** 3 cr
Examination of children's needs, program designs and curriculum implementation of day care services for children birth-6 years. Topics include research on working families, program design, environmental assessment, and assessment components of a curriculum: planning, staffing strategies, parent communication, and research on impact of day care on young children and their families. Weekly practicum required in a child care classroom. Prerequisite: EC 201 and 203 (Spring semester only).

**310 Specialized Programming for Young Children** 3 cr
Examination of history and current status of programs which provide compensatory, remedial, therapeutic, or early interventive experience to young children. Curriculum design and implementation will be examined along with specific responsibilities of the early educator for mainstreaming teaming and working in liaison with other professionals. Weekly practicum required in specialized setting. Prerequisite: EC 201 and 203 (Fall semester only).

**320 Reading and Language Arts** 3 cr
The nature of reading, the pertinent research in the field, the selection of materials, methodologies and teaching strategies are emphasized. (Fall semester only).

**321 Reading and Language Arts Practicum** 1 cr
Diagnosis of needs, planning, and teaching of age and need appropriate lessons to small groups of children in a supervised situation. Prerequisite: ED 320 (Spring semester only).

**404 Nursery School Student Teaching and Seminar** 6 cr

**406 Primary Student Teaching and Seminar** 6 cr
The student teaching experience involves the prospective teacher in a Nursery School setting and in a primary classroom for eight weeks each. She assumes teaching responsibilities, applies theory/practice, and develops her own teaching style under the direct supervision of the cooperating teacher and college supervisor. Verification of student competency will be determined jointly by both the cooperating teacher and the college supervisor. This student teaching experience will return to the student's weekly seminar with the college instructor. This seminar provides classroom discussion of various student teaching experiences as well as analysis of the goals, program designs, and curricula of the various early childhood programs in which students teaching is completed. Pertinent topics related to ongoing professional development will include: other credits may be taken while the student is involved in 404 and 406 without special permission of the Director of Early Childhood Education.

**ELEMENTARY EDUCATION**

**273, 274 Art, Music, and Physical Education for the Classroom Teacher** 3 cr each
An introduction to the basic principles and concepts of teaching visual arts, physical education, health and music to children of elementary school age, including exceptional children.

**325 Teaching Reading in the Primary School** 3 cr
Major emphasis is on the pre-school, 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 perspective in the language arts, the foundation on which a good language arts program should be built. Four skills—listening, speaking, reading, writing—as acquired by the child, combined with knowledge of the evaluative process, teaching methods, and materials, provide a realistic approach to teaching language arts and reading experience.

**331 Teaching Elementary Social Studies** 3 cr
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 theories, techniques, practices, and content of the science area. Emphasis 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 interest, needs, and abilities of children.

**490, 491 Student Teaching—Elementary** 9-12 cr
Student teaching in an approved elementary school under the direct supervision of a cooperating teacher. Prerequisites: Senior status, good academic standing, completion of required professional course work, and recommendation of faculty.

**493 Student Teaching—Elementary** 6 cr
Student teaching in elementary education for students in the secondary or special education programs who wish to complete requirements in two certification areas. Registration is concurrent with the student teaching assistant.
SECONDARY EDUCATION

215 Teaching Grammar and Composition 3 cr
Examines various ways to teach grammar, language, and composition, providing opportunity for students to review the basics of grammar and composition, and to develop lessons for teaching those grammar areas at the elementary, secondary, and special education levels.

216 Teaching Literature—Prose, Poetry, and Drama 1 cr
Focuses on planning and teaching techniques to prepare and present literature utilizing a genre, a chronological or thematic approach. The four sessions involve an approach to literature experience, teaching prose, teaching poetry, and teaching drama.

316 Teaching Secondary Mathematics and Science 3 cr
Designed to acquaint the student with methods and materials for teaching specific models, research and field-based activities are expected.

318 Teaching Secondary Foreign Languages 3 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 3 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.

490, 491 Student Teaching—Secondary 9-12 cr
Student teaching in an approved public secondary school under the direct supervision of a cooperating teacher. Prerequisites: Sophomore status, good academic standing, completion of required professional courses, and recommendation of faculty.

493 Student Teaching—Secondary 6 cr
Student teaching in secondary education for students in the elementary or special education program who wish to complete requirements in two certification areas. Registration is concurrent with Ed 490-Elementary or Ed 490-Special Education.

497 Reading in Secondary Schools 3 cr
A survey course in the teaching of reading, appropriate for secondary education majors. Major emphasis is on methods of teaching reading, the materials for evaluating pupil growth in reading, and reading in the content subjects.

SPECIAL EDUCATION

209 Foundations of Special Education 3 cr
A survey of the educational, physical, psychological, and social characteristics of exceptional persons, an overview of special education methods and programs, introduction of judicial and legal aspects.

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 Students Teaching and School of Education faculty advisor. Students may choose 211 (Elementary) or 212 (Secondary), which involve the mildly handicapped; 213, which is with the severely handicapped, or 214 which is with pre-vocational/vocational pupils.

272, 273 Art, Music, and Physical Education for the Classroom Teacher 3 cr each
An introduction to the basic principles and concepts of teaching visual arts, physical education, health, and music to children of elementary school age, including exceptional children.

276 Methods of Special Education 3 cr
An introduction to management techniques utilized in programs for exceptional persons, information covering educational assessment procedures, design and implementation of individual educational programs, and methods for individually designing instruction, examination of judicial and legal aspects. Prerequisite: 209 or equivalent.

386 Teaching the Mildly Handicapped 3 cr
Evaluation, integration, and implementation of theoretically based methods, curricula, instructional techniques, and evaluation procedures for students who have been labeled brain injured, learning disabled, mentally retarded, physically handicapped, or emotionally disturbed. Prerequisites: 209, 276.

387 Teaching the Severely Handicapped 3 cr
Evaluation and integration of the various theories, methodologies, curricula, instructional techniques, and evaluation procedures for severely handicapped persons labeled brain injured, learning disabled, mentally retarded, physically handicapped, socially and emotionally disturbed. Prerequisites: 209, 276, or permission of instructor.

388 Vocational Education for the Handicapped 3 cr
Overview of pre-vocational, career, and occupational education programs 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 pupils. Prerequisites: 209, 276, or permission of instructor.
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 Duquesne 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 city serve as useful 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, therapy and church music.

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.

In cases where a major in music is urged to begin study of piano and theory prior to entrance.

Students planning to major in Sacred Music or organ will receive a Sacred Music Handbook with semester, admission and graduation requirements for the Sacred Music Degree Programs and Organ Study.

ADVISEMENT
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

- Student Teaching: $25
- Instruction in voice or instrument as a minor, each semester: $100
- Piano Class Fee, each semester: $200
- Instrumental rental each semester: $35
- Organ practice (major or minor): $30
- Music School fee: $25

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 other degrees are offered: one in music education 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. This includes a six-month internship.

EQUIPMENT
The School of Music has 73 pianos including 56 Steinways. All practice rooms have Steinways. There are two Moeller and one Fischer practice organs, an electric pipe organ, a three manual Moeller organ and one Furrer tracker pipe organ. In addition there are two pipe organs by Kilgen and Tellers and one Rodgers electronic theatre organ. Organ practice majors are urged to begin study of piano and theory prior to entrance.

More than 300 orchestral and band instruments are available for instrument classes. Listening and recording equipment are of professional quality.

STUDENT ORGANIZATIONS
The undergraduate music education program has 36 Steinways. All practice rooms have Steinways. There are two Moeller and one Fischer practice organs, an electric pipe organ, a three manual Moeller organ and one Furrer tracker pipe organ. In addition there are two pipe organs by Kilgen and Tellers and one Rodgers electronic theatre organ. Organ practice majors are urged to begin study of piano and theory prior to entrance.

The School of Music has 73 pianos including 56 Steinways. All practice rooms have Steinways. There are two Moeller and one Fischer practice organs, an electric pipe organ, a three manual Moeller organ and one Furrer tracker pipe organ. In addition there are two pipe organs by Kilgen and Tellers and one Rodgers electronic theatre organ. Organ practice majors are urged to begin study of piano and theory prior to entrance.

More than 300 orchestral and band instruments are available for instrument classes. Listening and recording equipment are of professional quality.

Chapter 1 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 for Music Therapy. 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 Pianoforte 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 is 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.
- Louis Rocero Mixed Scholarship is given to an outstanding junior studying a woodwind instrument.
- James Hunter Memorial Scholarship is given to a senior with the highest academic and performance record.
- Andre Marchal Award is presented to the organ student with the highest standing in performance.
- Jean Langlass Award is presented to the organ student with the highest standing in Sacred Music.

Numerous talent scholarship awards of varying amounts are available for instrumental and vocal study to students who qualify musically and academically. All students are considered for such awards at the time of their audition, and recipients will receive renewals based on semester evaluations. These awards are expected to maintain high academic standing, exceptional musical performance and leadership qualities in addition to Music School service.

Women's Advisory Board Scholarships. Competitive scholarships provided to winners of an annual competition.

Robert F Minardi Memorial Scholarship Awarded to a deserving student who demonstrates financial need in addition to superior musical ability.

Tucci Award. Competitive award provided annually to outstanding piano or violin student.

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 encouraged to attend a minimum of 30 recitals and concerts sponsored by the School of Music per year.

OTHER ATTENDANCE REQUIREMENTS
All students are required to attend professional events other than concerts pertinent to their specific areas of study.
CONSERVATORY

THEOLOGY REQUIREMENT
One three-credit course in theology is required of every Roman Catholic student.

MAJOR IN PIANO

Freshman Year

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Junior Year

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Senior Year

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MAJOR IN ORGAN

Freshman Year

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Sophomore Year

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Junior Year

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**Sophomore Year**

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**Junior Year**

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**Senior Year**

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MUSIC EDUCATION—MAJOR IN MUSIC THERAPY

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All students must choose an applied music minor with the guidance of his advisor. Students who do not elect piano as a major must study it as a secondary instrument.

### COURSE DESCRIPTIONS

**APPLIED MUSIC**

- **101, 102, 201, 202, 301, 302, 401, 402**
  - **Applied Music 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

- **103, 104, 203, 204, 303, 304, 403, 404**
  - **Applied Music for the Bachelor of Music** 2 or 3 cr each
  - Private study of voice, piano, organ, string, wind, or percussion instruments throughout all semesters

- **111, 112, 211, 212, 218, 219, 311, 312, 411, 412**
  - **Applied Music Minor for all Bachelor Degrees** 1 cr each
  - All students must choose an applied music minor upon entrance. Those students who do not elect piano as a major must study it as a secondary instrument.

**BACHELOR OF MUSIC**

- **Bassoon**
  - **103, 104** 3 cr each
  - Scales and arpeggios in all keys, Kovar scales, five note studies and interludial studies, selected studies and Weissenborn and Milde, solos by Weissenborn, Foret and Monqueut

- **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 Canatas, Mozart Concerto in B flat, Beethoven Quintet, representative contemporary solo, orchestra studies

303, 304 3 cr each
Gamebano, Etudes for Bassoon, Bozza, Fifteen Daily Studies, Sonatas by Hindemith and Saint-Saëns, orchestral and chamber music studies. Bozza, Concertino the contra bassoon

Clarinet

103, 104 3 cr each

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 contemporary solo, orchestral studies

203, 304 3 cr each
Outrados, Scales and Daily Drills, Milde, Concerto Studies, selected passages from the Bach Cantatas, Mozart Concerto, Beethoven Quintet, Weber, 2nd Concerto, Brahms Sonatas, French Contemporary solo, representative contemporary solo, orchestral studies

203, 403 3 cr each
Jeanjean, Sixteen Modern Studies, Perrier, Vingtdeux Etudes Modernes, Spohr, Concerts, Debussy, Premier Rhapsodie, Weber, Grand Duo Concertante, representative contemporary solo and sonatas

Double Bass

103, 104 3 cr each
Scales and intervals in all keys, Smundl, Thirty Etudes Selected pieces orchestral studies

203, 204 3 cr each
Hrabé, Eight-Tone Etudes, Short pieces by Koussevitsky and Bottesini orchestral studies

203, 304 3 cr each
Nanny, Etudes de Kreutzer et de Fiorillo, concertos by Koussevitsky, Dittersdorff and Bottesini, orchestral studies

203, 403 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, Taffanel-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
Taffanel-Gaubert Scales, scales in thirds and sixths, chromatic scales, arpeggios and trills Anderson, Etudes Op 21, Boehm, Caprices Op 26, Moyse, De la Sonorite Selected duets by Kuhlau, Koechlin, etc concerts by Haydn and Mozart, sonatas by Leclair, J J Bach and Vivaldi, L Moyse, French Music for Flute

203, 304 3 cr each

203, 403 3 cr each
Taffanel-Gaubert Scales, the half note equals MM 120, scales in thirds, sixths, octaves and tenths, Moyse, De la Sonorite, Mechanism and Chromatics, Anderson, Etudes Artistiques Op 15, including the memorization of certain selected studies. Anderson Op 63, Jeanjean, Etudes Modernes, Orchestral Studies, Bach, Sonata in A major for unaccompanied flute sonatas by Hindemith, Re- necke, Concerto by Ibert, works by representative contemporary composers

Guitar—Classical

103, 104 3 cr each
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, Aguado, Sor

203, 204 3 cr each
All Scales major and minor, two and three octaves, Henze Method, Sor Concert Etudes, one suite and selected pieces from the Renaissance and Baroque, works by Luis Milan, Tarrega, Ponce, and Villa-Lobos

203, 304 3 cr each
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 Boccherini, Schubert, Schidler, Ibert, Paganini

203, 404 3 cr each
Bach suite, a sonata or suite by a 20th-century composer, concerto by Vivaldi, Grumiaux, Carulli, or by a 20th-century composer

Guitar—Jazz

103, 104 3 cr each
Evaluation of student’s abilities basic technique and reading abilities including reading knowledge through VI positions’ all major scales in all positions. Berklee Method Book I and Melodic Rhythm Studies Book by William G Leavitt, basic chord theory, basic position folk chords and alterations, all barre chords, and working knowledge of basic jazz chord forms, beginning study of chord-melody solo playing and single-note techniques, standard guitar solos

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 Improved Solos Books, intensive rhythm jazz chord studies, music by 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 Book I

203, 304 3 cr each
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, John Smith, Tony Motolla, George Van Up, Single-string studies, Bach inventions, Kreutzer violin studies, Paganini violin studies

203, 404 3 cr each
Intensive single-note improvisation and improvisational lines, REH Publications for single-note study (Drorio, 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, DeMaeola, Benson and others.)

Harp

103, 104 3 cr each
Lanvriere Exercises and technical studies Standard orchestra parts Bochsa Etudes opus 31, Book II Pieces grade of difficulty of Grandjany Ana in Classic Style, Tourner, Images (Suite I), Saint-Saëns, Fantaisie

203, 204 3 cr each
Technical studies Bochsa Etudes, opus 62 Standard orchestra cadenzas Pieces of grade difficulty of Tournier, Feiner, Rousseau, Variations Pasto- rales, 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

304, 404 3 cr each
Technical studies Pieces grade of difficulty of Faure Impromptu, C P E Bach, Sonata, Salzedo, Sentilization, Debussy, Danses Sacre et Profane

Horn

103, 104 3 cr each
Scales and arpeggios in all keys, review of fundamental studies etudes from Kopprasch, Pottag, and Mueller, selected etudes from Mozart and Strauss

203, 204 3 cr each
Continuance of fundamentals, etudes from Kling, Belotli, Alphonse, selected solos from Mozart, Haydn, R Strauss, orchestral studies

303-304 3 cr each
Etudes from Alphonse Gallay, Pottag, selected solos from Beethoven, Dukas, and Saint-Saëns, orchestral studies

403-404 3 cr each
Etudes from Alphonse, Schuller, and Gallay, solos from Schumann, Dukas, and Saint-Saëns, 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, Bleuet, selected studies from Technique of the Oboe, Handel sonatas, Marcello Concerto

303, 304 3 cr each
Continue scales and arpeggios, Bleuet, selected studies for range and endurance, orchestral studies, Cimaros, Concerto, pars Conservatory solos, representative contemporary compositions

403, 404 3 cr each
Bleuet, Technique of the Oboe, scales in all articulations, scales in groups of five and seven, scales by interval, arpeggios and broken arpeggios, orchestral studies including the works of J S Bach, sonatas by Telemann and Hindemith, solos by Busser, Jolivet, Rivier, Mozart Concerto, Symphone Concertante and Quartet, Concerto by Grooses, contemporary solos

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
Introduction to figured bass and harmonization of simple melodies

203, 204
Selected works by Brahms, Mendelssohn, Schumann, Hindemith Joseph Williams and Max Bruch. Six Pieces Dupre, Antiphons, Masses, le Banquet Celeste or Ascension Suite, mvts 1 or 4 Langlais, Franck. Schroeder or Pepping, Vierne, Pieces de Fantaisie Bach, Orgelbuehne, Schubler Chorales, Concerti Preludes and Fugues. Trto Sonatas.

Organ Class II: Continuation of pedal scales, hands and feet. Hymn playing. Modulation, transcription, countermelody and figured bass. Continuation of figured bass and harmonization of melodies. Score and clef reading.

303, 304

Organ Class III: Continuation of pedal scales, hymn playing. Scales, transcription, figured bass, clef reading in open score, conducting from the console.

403, 404

407, 408
Service Playing

1 cr each
The objective of this course is to develop the service playing skills necessary to play for church services of all denominations through a study of applied harmony, countermelody, hymnody, anthem, accompaniments and conducting from the console.

431, 432
Organ Improvisation

2 cr each
A practical application of the basic tools of improvisation including the harmonic content. Use of the organ and the use of the organ and voice. Voice and voice countercounter in varying styles, short ABA forms and chorale preludes with emphasis on their liturgical application.

431 Organ Pedagogy

2 cr each
Students learn through demonstration the psychophysiological methods, and materials of teaching both beginning and advanced students. Junior standing is required.

Percussion

103, 104
Fundamental snare drum technique and its application to musical notation. Exercises in rhythm phrasing. Control of elements of the technique, application to classical literature, turning rudimentary xylophone technique, scales arpeggios, forms.

203, 204
3 cr each
Advanced snare drum studies. Repertoire of three or four tympani exercises, orchestral literature. Intermediate xylophone studies. Transcriptions for solo.

303, 304
3 cr each

403, 404
3 cr each
Examination of representative solo material for all percussion instruments. Preparation of solo for recital.

Piano

103, 104
3 cr each
Bach, Three-Part Inventions, Haydn and Mozart, selected sonatas, Beethoven, Op 10 and Op 14, Chopin waltzes, mazurkas, nocturnes selected from modern repertoire. Major and minor scales in different rhythms and tempos, and diminished arpeggios.

203, 204
3 cr each
Scarlatti, selected sonatas, Bach, Well-Tempered Clavier, Beethoven, Op 22, Op 31, Chopin, preludes, impromptus, and nocturnes, Brahms, Intermezzes, Rhapsodies, selections from Impressionistic and Contemporary repertoire. All major and minor scales, dominant and diminished seventh arpeggios.

303, 304
3 cr each

313 Piano Pedagogy I

2 cr each
Students will become acquainted with the techniques and materials for teaching piano at the elementary level. For piano majors, junior standing is required.

314 Piano Pedagogy II

2 cr each
A continuation of 313 concentrating on the techniques and materials for teaching piano at the intermediate and advanced levels.

403, 404
2 cr each

103, 104
3 cr each

203, 204
3 cr each

303, 304
3 cr each

403, 404
3 cr each

Trumpet

103, 104
3 cr each

203, 204
3 cr each

303, 304
3 cr each
Trumpet, J. N. Hummel, Concerto, P. Hindemith, Sonata, G. F. Handel, Suite in D Major

403, 404  3 cr each

Tuba

103, 104  3 cr each

203, 204  3 cr each
Scales and arpeggios in all keys with various articulations, Rochut, Melodious Studies Vol. II, Blume Vol. II, selected solos, orchestral and band studies

303, 304  3 cr each

403, 404  3 cr each
Grigorov, Tuba, Bernard, Etudes and Exercises for Tuba, transcriptions of horn and violoncello literature, solos by Cimer, Barat, Schroen, orchestral literature

Viola

103, 104  3 cr each
Scales and arpeggios in three octaves, selected scales in thirds, sixths and octaves, Flesch, Scale Studies, Sevice, Studies (LiSche), Campanelli, Forty-one Caprices, Fuchs, Twelve Caprices, Enesco, Concert Piece

203, 204  3 cr each
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 CPE Bach, and Hoffmeister, Vaughan-Williams, Suite, Sonata by Milhaud, parts from orchestral and chamber music literature

303, 304  3 cr each
Continue scales and arpeggios, selections from Rode, Caprices, and Gavottes, Thirty-two Matues Sonatas by Brahms and Creston Viola parts from orchestral and chamber music literature

403, 404  3 cr each
Selected Studies from Paganini, 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  3 cr each
Scales and arpeggios in three octaves, scales in thirds, sixths, octaves, tenths, harmonics, Fiorillo or Kreutzer, concertos by Bach, Mozart, Vieuxtemps, Wieniawski, Bruch, Lalo, short pieces from the romantic period

203, 204  3 cr each
Continued study of repertoire listed above, Kreutzer or Rode

303, 304  3 cr each
Scales and arpeggios continued, Rodolphe, Gavottes, Bach Solo Sonatas and Partitas, any of the major sonatas and concertos (Beethoven, Brahms, Mendelssohn, Bartok, Sibelius, Tchaikovsky)

403, 404  3 cr each
Scales and arpeggios continued, Dott Op. 35 or Paganini Caprices, continue solo Bach and study of major concertos and sonatas

Violoncello

103, 104  3 cr each
Scales and arpeggios in three octaves with varied bowings, Duport Studies, Franchise, Twelve Caprices, Sonatas of Veracini, Locatelli, and Boccherini

203, 204  3 cr each
Scales and arpeggios in four octaves with varied bowings, scales in thirds, sixths and octaves, chromatic scales, and seventh chords Franchise, Twelve Caprices, Duport, Etudes Concertos by Romberg, Popper, and Sant-Saens, sonatas by Boccherini and Haydn, orchestral studies, Contemporary works

303, 304  3 cr each
Continue scales etudes by Servais and Piatti, Concertos de Davidoff, Dohnanyi, Lalo, Boellmann, Symphonic Variations, six solo sonatas of Bach, orchestral studies, Contemporary works

403, 404  3 cr each
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  2-3 cr each
Technical exercises to fit the needs of the student, literature from all periods to fit the needs of the student

203, 204  2-3 cr each
Continuation of technical exercises, more challenging repertoire from all periods

303, 304  2-3 cr each
Continuation of technical exercises, Opera and oratorio repertoire emphasized in addition to more advanced concert repertoire and including contemporary theater repertoire

403, 404  2-3 cr each
Continuation of technical exercises, voice and oratorio repertoire continued, new repertoire and including contemporary opera and oratorio repertoire

Vocal Repertoire

349, 350, 349, 450  2 cr each
Study and performance of vocal solo and ensemble literature, Four semesters encompass Italian, German, French, and English music, with concentration on one category each semester

MUSIC EDUCATION

Bassoon

101, 102  2 cr each
All scales and arpeggios, Weisenborn Op. 8 Vol. I, Milde Studies, Galliard, 6 Sonatas for Bassoon

201, 202  2 cr each
Continue scales and arpeggios with various articulations, Weissenborn Op. 8 Vol. II, continue Milde Studies, Ksor Studies, Wernberger, Sonatine

301, 302  2 cr each
Mild Studies in all keys, Jancourt, Grand Method Book II, Ksor Studies, solos by Marcello and Cools, orchestral studies

401, 402  2 cr each
Selected studies from Milde, Concert Studies Vol. I, Telemann, Sonata, orchestral studies

Clarinet

101, 102  2 cr each
Scales and arpeggios Klose, Celebrated Method for Clarinet, Part II, Baerman, Method Book II, selected solos

201, 202  2 cr each
Continue scales and arpeggios in various articulations, Klose Method Book, Rose, 32 Studies for Clarinet, Vixman, Duets, selected solos

301, 302  2 cr each
Langenus, Scale Studies, continue Rose, 32 studies, Klose, 20 Characteristic Studies, Weber, Fantasy and Rondo, orchestral and band studies

401, 402  2 cr each
Continue Langenus, Scale Studies, Rose, 42 Studies, Polatchak, 12 Etudes for Clarinet, Mozart, Concerto in A, solos by Jeanane, contemporary solos, orchestral studies

Double Bass

101, 102  2 cr each
All positions up to thumb position, scales and intervals in all keys, Simandl, New Method for the Double Bass

201, 202  2 cr each
Scales continued including thumb positions, Simandl Method continued, selected pieces

301, 302  2 cr each
Scales and intervals continued, Simandl Method completed, Simandl, Thirty Etudes, selected pieces, violoncello sonatas by Marcello and others, orchestral studies

401, 402  2 cr each
Simandl, Thirty Etudes, selected studies from Hrabie, Eighty-six Etudes, pieces by Koussevitsky and others, orchestral studies

Flute

101, 102  2 cr each
Kohler, Etudes Book I, Terschak Studies, Drouet, 25 Celebrated Etudes, M. Moyse, selected etudes, scales and arpeggios in all keys, selected solos, Sonatas by Marcello, Handel, Blavet, and Telemann

201, 202  2 cr each

301, 302  2 cr each

401, 402  2 cr each
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 Paris conservatory solos

Guitar—Classical

101, 102  2 cr each
Evaluation of student's abilities and basic corrections if necessary. Scales, major and minor up to four sharps and flats, Caracci Method, selected studies from Caracci Twenty-Five Etudes Op. 60, Renaissance dances, works by Carulli, Aguado, Sor

201, 202  2 cr each
All scales major and minor, two and three octaves, Henze Method, Sor Concert Etudes, One suite and selected pieces from the Renaissance and Baroque, works by Luis Milan Tarrega, Ponce, and Villa-Lobos

301, 302  2 cr each
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 Boccherini, Schubert, Scheidler, Ibert, Paganini
Guitar—Jazz

101, 102 2 cr each
Evaluation of student’s abilities, basic technique and reading abilities including reading Bach through VII positions all major scales in all positions Berkle Method Book I and Melodic Rhythm Studies Book by William G. Leavitt. Basic chord theory, basic position folk chords and alterations in 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 2 cr each
Continue single-note technique chord studies, all minor and scale chords 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 Book I

205, 206 2 cr each
Continue rhythm playing studies chord-melody playing and single-note improvisation studies, Berklee Method Book III, Chord-solos 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 2 cr each
Intensive single-note improvisation and improvisational lines, REH Publications for single-note study (Dorio Carlson Mook, Kato, Hutchinson, Joe Pass’ Jazz Solos and Jazz Classes) Charlie Christian Studies Howard Roberts’ Method and Materials Wes Montgomery’s Octave-Style Playing understanding “fuson” music, chord-melody arranging from traditional and contemporary literature and care of instruments for professional and school use Extension of mallet study

Harp

101, 102 2 cr each
Scales and arpeggios and technical studies Standard orchestra parts Boccherini Studies, Opus 34, Book II Peices grade of difficulty of Grandjany Arna in Classic style, Tourner, Images (Suite I), Samt-Saens Fantasie

201, 202 2 cr each
Technical studies Boccherini Studies, opus 62 Standard orchestra cadenzas Peices grade of difficulty of, Tournier Feere, Roussau, Variations Pastorales Grandjany, Fantasie on a Theme of Haydn

401, 402 2 cr each
Technical studies Orchestra parts Boccherini, Opus 34, Pieces grade of difficulty of Hindemith, Sonata, Handel Concerto in Bb major Ravel, Introduction and Allegro

201, 202 2 cr each
Selected works by Brahms Mendelssohn, Joseph Wilcox Jenkins Six Pieces, Dupre, Antiphons, Messiaen, Le Banquet Celeste of Accession Suite, mvts I or 4, Langlais, Franck, selected works by contemporary composers, Bach, Orgelbuehne, Schubler Chorales, selected preludes and figures Organ Class I pedal scales hands and feet in all major and minor keys, hymn playing, modulation, transposition, score reading, continued harmonizations of melodies

201, 202 2 cr each
Selected works by D’Aquin, Clerambault, Sweelinck, Franck, Langlais, Messiaen, Bach, preludes and fugues, trio sonatas, Orgelbuehne, Great 18 Choral, works by contemporary composers Organ Class III Continuation of pedal scales, hymn playing, score reading, transpositions, figured bass, contrapuntal accompaniments of anthems and canticles

201, 202 2 cr each
Selected works by Franck, Langlais, Tournerre, Vienne, Alain, and other contemporary composers Bach, preludes and fugues, partitas, Claviersbung 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 techniques 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

Paano

101, 102 2 cr each
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 2 cr each
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 2 cr each
Bach, selected preludes and fugues from Well-Tempered Clavier, Beethoven, Op 10 and Op 14 sonatas, Chopin, Preludes and Nocturnes, excerpts from Impressionist and Contemporary repertoire Continuation of major and minor scales, dominant and diminished seventh, and major arpeggios

401, 402 2 cr each
Bach, French Suites, selected preludes and fugues, Beethoven, Op 2 No 2 and 3, Op 28, 31, Preludes and Impromptus of Chopin Brahms, Intermecze, selections from Contemporary repertoire Continuum scales, dominant and diminished sevenths, and major and minor arpeggios

Saxophone

101, 102 2 cr each
All major and minor scales and arpeggios, Universal Method for Saxophone or equivalent material, Bassoon, Concert Etudes, selected solos

201, 202 2 cr each
Continue scales and arpeggios with various articulations, Bassi-Iasili, Concert Etudes, selected solos

301, 302 2 cr each
Mule Scales and Arpeggios, Gatti-Iasili, 35 Melodious Technical Exercises, pieces by Faure and Jeanjean

401, 402 2 cr each
Mule Scales and Arpeggios, Gatti-Iasili, 35 Melodious Technical Exercises, Labanch-Iasili, 3rd Concert Etudes, Premier Solo de concours by Pares, Mortiz, Sonata for Saxophone, representative contemporary solos

Trombone and Euphonium

101, 102 2 cr each
Fundamentals of tone production, embouchure development, breath support and attack, work in elementary Legato style Arban, Method for
Trombone, major and minor scales through two octaves, selected solos

201, 202 2 cr each
All scales and arpeggios, continue drills and Arban, Method for Trombone, selected studies from Cimera, 170 Etudes, Study of single, double and triple tonguing, Pryor solos and other selected materials, band and orchestral studies

301, 302 2 cr each
Continue technical exercises, Stacey, Lip Flexibility, Roehut, Melodious Etudes Book I, Blume, Studies Book I, La Fosse, Sight Reading Studies, study of tenor clef, Croce-Spennli, Solo de Concerts, Alary, Contest Pieces, Morel, Piece in F minor

401, 402 2 cr each
Continue technical exercises, Stacey, Lip Flexibility, Kopprasch, Book I-II, Roehut, Melodious Etudes Book III, Blachevich, Clef Studies, study of bass trombone, Guilmant, Morceau Symphonique, Cimera, Valse Petite, Ropartz, Andante and Allegro

Trumpet

101, 102 2 cr each
Major and minor scales and arpeggios, Schlossberg, Daily Drills, Clark, Technical Studies, Arban, Complete Method, Voxman, Selected Studies, Balay, Petite Piece Concertante, Fitzgerald, English Suite

201, 202 2 cr each
Continue study of major and minor scales and arpeggios, Continued Schlossberg and Clark, Bouquet, 36 Celebrated Studies, E Gates, Odd Meter Etudes, Concone, Lyrical Studies, Fiocco/Owen, Aroso, Ropartz, Andante and Allegro

301, 302 2 cr each
Continue scales in rhythmic and articulation patterns, Continued Schlossberg and Clark, Goldman, Practical Studies, Clark, Characteristic Studies, Goedtke, Concert Etude, Gibbons/Cruff, Suite

401, 402 2 cr each
Major and minor scales in diatonic patterns, Continued Schlossberg and Clark, P M Dubois, 12 Etudes variées, Glantz, The Complete Harry Glantz, W Hartley, Sonatina, E Bozza, Badnajage, Webber, Suite in F Major

Tuba

101, 102 2 cr each
All scales and arpeggios, Arban, Method for Trombone and Baritone, selected solo material

201, 202 2 cr each
All scales and arpeggios with various articulations, continue Arban, Bell, Foundations of Tuba and Sousaphone Playing, selected solos

301, 302 2 cr each
Continue scales and arpeggios, chromatic scales, Bell, Foundations of Tuba and Sousaphone Playing, Vandencook, Etudes, Roehut, Melodious Etudes Book I, Blume Studies Book I, Tyrell, Advanced Studies for the BB flat Tuba, selected solos, band and orchestra studies

401, 402 2 cr each
Roehut, Melodious Etudes Book II, Blume Studies Book II, Blachevich, Etudes for The BB flat Bass, band and orchestra studies

Violin

101, 102 2 cr each
Scales and arpeggios in three octaves, scales in thirds, sixths, octaves (Flesch), Dott, Schradieck, Mazas, or Kreutzer, Baroque period concertos and sonatas, concertos Bach and Mozart

201, 202 2 cr each
Scales and arpeggios continued, Fiorillo or Kreutzer, concertos of Bach, DeBeriot, Mozart, Rode, and Viotti

301, 302 2 cr each
Scales and arpeggios continued, Kreutzer or Rode, short pieces of the Romantic period, standard concertos and sonatas

401, 402 2 cr each
Scales and arpeggios continued, Rode or Ginovina, short pieces of the Romantic period, standard concertos and sonatas

Viola

101, 102 2 cr each
Scales and arpeggios in three octaves, Sevcik Studies (Lifschev), Hermann, Technical Studies, Telemann, Concerto in G, Klengel, Album of Classical Pieces

201, 202 2 cr each
Continue scales and Sevcik Studies, selected studies from Kreutzer, 42 Etudes, Stamitz, Concerto in D, Bruch, Romance

301, 302 2 cr each
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 2 cr each
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

Violoncello

101, 102 2 cr each
Scales and arpeggios in three octaves, Franchomme, 12 Studies, sonatas by Handel, Corelli, Concertos by Grutzmacher and Morel

201, 202 2 cr each
Scales and arpeggios continued, Duport Etudes, Galett, Sonata No 2, Marais Suite, Romberg Concerto in D minor

301, 302 2 cr each
Scales and arpeggios continued, Duport Etudes, Grützmacher Etudes, sonatas by Grazioli, Sammartini, Goltermann Concerto No 1

401, 402 2 cr each
Scales and arpeggios as before but including thirds, sixths and octaves Duport Studies, selected studies from Franchomme, 12 Caprices, Concerto No 2 Romberg, Sonatas by Nardini and Sammartini, orchestral studies

Voice

101, 102 2 cr each
Technical exercises to fit the needs of the student Literature from all periods to fit the vocal needs of the student

201, 202 2 cr each
Continuation of technical exercises More challenging repertoire from all periods

301, 302 2 cr each
Continuation of technical exercises Opera and oratorio repertoire included when vocally suitable in addition to concert repertoire

401, 402 2 cr each
Continuation of technical exercises More advanced opera, oratorio, and concert repertoire and contemporary theater literature

CONDUCTING

379, 380 Conducting I, II 2 cr each
This course provides a study of the fundamentals of conducting as a performance skill, teaching technique, and as an interpretive art Use of the baton, choral and instrumental rehearsal techniques, and score reading Two hours a week

327 Jazz Pedagogy & Directing 2 cr each
Methods and materials pertinent to rehearsing and conducting jazz ensembles, studio orchestras and theater orchestras with emphasis on conducting as a performance skill as well as an interpretive art

ENSEMBLE

Required for all students as laboratory work during each semester of full-time enrollment Non-music majors are invited to register for ensemble with permission of instructor

Major Ensembles

0-1 cr each
Voice, Piano, and Organ Majors will participate in a choral ensemble for each semester of enrollment Instrumental Majors will participate in Band or Orchestra for each semester of enrollment

Instrumentalists are encouraged to take advantage of opportunities to participate in choir, keyboard or voice majors are likewise encouraged to gain experience in one of the instrumental ensembles

Small Ensembles

0-1 cr each
The Small or Minor Ensembles include Brass Ensemble, Guitar Ensemble, Jazz Ensemble, Percussion Ensemble, String Orchestra, Tamburitza Ensemble, and Woodwind Ensemble. See catalogues

115 Opera Coaching 1 cr each
Individual work with pianist as a supplement to opera workshop

116 Opera Workshop 0-1 cr each
A performing class in which students learn standard and other opera repertory in English and the original languages

141 Chamber Music 2 cr each
Study and performance of all types of chamber music for the various instrumental combinations

248-249 Percussion Ensemble 0-1 cr each
Meets on Fridays, 115-305 pm Required of all Percussion Majors. The objective is to perform works of varying styles and levels of difficulty in a very professional manner. Members will have an opportunity to perform in the various percussion groups. The ensemble performs at least one recital each semester

MUSIC EDUCATION

189, 190, 289, 290, 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 2 cr
Performance technique on clarinet Teaching technique of oboe, bassoon and saxophone covered Two hours a week

185 Vocal Methods I 2 cr
Fundamentals of vocal production including posture, breath control, placement, diction interpretation. Voice classifications, ranges, and a sampling of art songs and operatic repertoire will be covered. For potential teachers and music therapists. Two hours per week

186 Vocal Methods II 2 cr
Instructional methods for the elementary classroom. K-6, including development of the child voice, song materials, pedagogy, lesson planning and curriculum sequencing. Two hours per week Pre requisite Vocal Methods I 185
220, 221 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.

113, 114, 213, 214 Piano Class 2 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.

115, 116, 215, 216 Conservatory Piano Class 1 cr each
The development of functional keyboard skills in sight reading, transposition, harmonization of melodies, and improvisation of accompaniments.

117 Piano Class for Organists 1 cr each
Organ majors study the development of functional keyboard skills in sight reading, transposition, accompaniments and techniques 1 hr per week.

281 Brass Class 2 cr
Performance technique on trumpet. Teaching technique of French horn, trombone, baritone, and tuba. Two hours a week.

381 String Class 2 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
Philosophy and pedagogy of music in the context of the elementary general music class. The principles of Kodaly, Dalcroze and Orff are incorporated with field observations, in-class demonstrations, research assignments and active student participation to develop required competencies for teaching on the elementary level. Two hours per week. Prerequisite Vocal Methods 185 and 186.

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 Methods 2 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, vocal 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 Methods 2 cr
Principles, practices, and materials for the marching band, including its role in the total music program, organization and maintenance, planning and executing of the field show, basic maneuvers and rehearsal procedures.

481 Percussion Class Methods 2 cr
Fundamental principles and techniques of playing and teaching the percussion instruments of the band and orchestra with special emphasis on the snare drum. Two hours a week.

490 Student Teaching 12 cr
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, in-class demonstrations, research assignments and active student participation will be required.

501 Fundamentals of Music Education 1 cr each
The purpose of this course is to introduce students to sight-singing and musical dictation using the Moveable system of solfege. The course is designed for prospective music majors and non-majors and is a preparatory course for Musicianship."
454 Jazz Composition II 2 cr
A continuation of 453 with emphasis on individual style development

333 Ear Training for Jazz Musicians 2 cr
The course is designed to train the student to recognize aurally the melodic, rhythmic and harmonic elements of contemporary jazz. The devices used are sight-singing keyboard work and extensive dictation. Emphasis is placed on four, five and six-note chords chromatically altered chords and polychords.

141 Chamber Music Jazz
The purpose of this course is to train the student to recognize and perform repertoire for small jazz ensemble. Emphasis is on rhythmic sections, interaction among the members of the ensemble, and development of repertoire.

**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 and practice, relationship of theory to practice. Emphasis will be placed on further research for a master's degree. Prerequisites: Music Therapy Orientation 107.

108 Music in Therapy 3 cr
An introduction to music therapy techniques used in working with handicapped children and adults. Applications to current practice will be emphasized. Prerequisite: Music Therapy Orientation 107.

307 Psychology of Music 3 cr
An exploration of musical behaviors, and to a lesser degree, all other art behaviors of a variety of cultures and subcultures beginning with the student's personal experience. Emphasis will be placed on the role of music therapy in the psychology of music.

308 Influence of Music on Behavior 2 cr
A study of different treatment theories and their relationship to music therapy. Emphasis is on the effects of music on behavior and total health. Students will develop a philosophy of music therapy with a background in holistic health.

309 Directed Study in Music Therapy 2 cr
A study of the history of music therapy. The history of music therapy and other expressive therapies are reviewed and discussed.

310 Recreational Instruments 1 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 pipe and console. Tuning, voicing, and aesthetics of organ design will be discussed.

315 Piano Improvisation for Music Therapy 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 pipe and console. Tuning, voicing, and aesthetics of organ design will be discussed.

332 Sacred Choral and Solo Literature 2 cr
A course in the literature of sacred and solo choral music for the church with emphasis on practical materials for church choirs, solos, and congregations.

**NON-MUSIC MAJORS**

149 Ballet 2 cr
Fundamentals of ballet technique and practice, including barre and center floor work.

151 Jazz Dance 1 cr
Fundamentals of jazz dance styles and technique and practice.

321 Music for the Classroom Teacher 2 cr
Prerequisites: Introduction to Psychology. This course is designed 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.

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 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 standards of the state. 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.

SCHOOL OF NURSING PHILOSOPHY AND DEFINITION OF NURSING
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 Judeo-Christian frame of reference and supports a commitment to the values which give meaning to life.

The faculty believes that the academic discipline of nursing is a human science profession primarily concerned with the health of man with families, evolving from conception through death. Nursing focuses on helping individuals and families to enhance the quality of living through the promotion of health.

The nurse initiates interrelationships with families to help them describe their health and develop alternatives and nurse the result. As such, planning change central to nursing practice is the Nurse/Client/Family process which is deliberate, systematic, and individually designed. This is a shared process where decision-making is focused on freedom to choose within the limitations of situation while considering the safety of all concerned.

The nurse uses theories concepts and research findings to substantiate nursing practice. The professional nurse promotes the discipline of nursing and provides direction for the future of nursing.

The educational process is a co-constituted one which teacher and learner plan experiences and share knowledge. The emergence of new knowledge is encouraged through the ongoing interrogation of present knowledge and new experience.

This enhances the nurse's preparation for future and evolving responsibilities within professional nursing based on changes and characteristics of the population for whom health care will be delivered.

In making explicit the philosophy that underpins the theoretical framework of nursing, the concepts of man and health are studied in relation to 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 others in the world, co-existence, is recognized through patterns of expression. This existence is co-constituted, that is, man's relationship with the environment is participative. Within limitations of situations, man has the freedom to choose a way of being with the world, and in that choosing, gives meaning to a situation.

Health is a process of being and becoming which is 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 which arise from a multicultural society. Each 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 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, caring, change, inquiry, and valuing. The practice of nursing applies knowledge and theories from the disciplines and from the humanities and natural sciences in the promotion of health. Health promotion occurs through the utilization of the Nurse/Client/Family process as the nurse participates in giving care, health education, and leadership.

The uniqueness of the Duquesne University graduate is based on an appreciation and understanding of the philosophy and the beliefs about man and health. These beliefs are reflected in nursing service through an approach that embraces man in his wholeness as one who continually moves forward, increasing in complexity through individual patterns of expression. The nursing practice of this graduate is also based on the recognition that the responsibility for the health situation is a shared process in which the nurse, client, and family participate.

The Duquesne University School of Nursing baccalaureate program graduates a generalist who has the flexibility to practice in a variety of settings. The program emphasizes nursing as a human science and provides 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 on 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 the client and family's belief about health
3. Engages clients 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 the skills needed to practice as a professional nurse generalist upon graduation. The general and professional education required in this program provides a basis for the graduate to progress to positions of increasing responsibility and to undertake graduate study.

The curriculum design has three components: complementary courses such as anatomy, 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 will be believed to be in keeping with the changing health needs of society and/or the best interest of the students and the School to maintain quality professional nursing education.

ADMISSION REQUIREMENTS

ADMISSION OF HIGH SCHOOL GRADUATES

Students who are interested in applying for admission to the School of Nursing should request an application from the Office of Admissions, Duquesne University, Pittsburgh, Pa 15282. The specific entrance requirements for admission are:

1. The applicant's high school curriculum must include a minimum of 16 units distributed as follows:
   - English: 4 units required
   - Social Studies: 3-4 units recommended
   - Language: 2 units recommended
   - Math & 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 admission is the secondary school academic record. This is considered an important criterion of success at Duquesne University. It is the desire of the Admissions Committee to admit those candidates who possess qualities of character and intellect and who show promise of development into useful and contributing citizens.
4 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 equivalent of these requirements may be accepted in lieu of the foregoing precise requirements. See the section on Admissions for other University requirements.

REGISTERED NURSE STUDENTS

Duquesne University School of Nursing currently offers an evening program for registered nurses. This program is designed to meet the needs of the working nurse. The hours for the convenience of the working nurse are scheduled during the evening hours.

All students in the B.S.N. Evening Program must complete the University's liberal arts requirement prior to progressing to the nursing major. Any previously earned college credits will be evaluated for application toward the degree requirements. Please contact the School of Nursing for a brochure describing this program.

Admission Requirements—R/N/B.S.N. Program

Students who are interested in applying for admission to the R/N/B.S.N. program should request an application from the Office of Admissions, Duquesne University, Pittsburgh, Pa, 15282.

1. High school diploma or equivalent
2. Graduation from an accredited associate degree program (minimum) or diploma nursing program
3. Verification of current licensure as a registered nurse in Pennsylvania
4. Present or past experience in nursing
5. Verification of active malpractice insurance
6. Fulfillment of prescribed science and math requirements of the School of Nursing
7. Personal interview

Further information can be obtained from the Director of the R/N/B.S.N. Program in the School of Nursing.

TRANSFER STUDENT ADMISSION

See Admissions Section for further requirements.

ADDITIONAL EXPENSES AND REQUIREMENTS

- Student Liability Insurance (Professional) for three years: $450.00
- Uniforms: nurse’s cap, duty shoes, identification pin (approx): 107.00
- Transportation to and from clinical agencies (weekly): 10.00 (approx)
- School of Nursing pin, if desired: cost varies
- Physical examinations, diagnostic procedures, and immunizations: cost varies
- Physical Assessment Kit: 40.00
- Mosby Assess Test: 20.00 (approx)

All students entering Nursing III are expected to produce evidence of completion of first aid certification and CPR certification. Students will not be permitted to enter clinical without evidence of these competencies. Students are expected to maintain currency in these competencies as they progress through the program.

An annual physical examination and certain immunizations and health tests are required for all students in the School of Nursing. Preclinical students must complete specific health requirements by August 1. Before proceeding to the Junior and Senior clinical practicum, the School of Nursing provides information on required school uniforms to students prior to entering into the clinical area.

Each student is responsible for transportation to and from hospital and other clinical resources. Each student will be expected to have access to an automobile to permit experience with home care of clients and their families in Nursing VI.

STUDENT ORGANIZATIONS

Each nursing student is a member of the general student body and may select and participate in any of the campus organizations. There are numerous social sororities and organizations as well as professional organizations. These organizations exist for the promotion of the scholarly and professional interests of members.

Alpha Tau Delta (meaning “through force of character”) is a national professional fraternity for persons in nursing. Theta Chapter was chartered on the Duquesne University campus on April 21, 1938. 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 society. The Duquesne University Nursing Honor Society was granted a chapter of Sigma Theta Tau, Epsilon Phi, in November of 1981. Membership is open to students, faculty, and alumni who meet the criteria for election.

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 members deem desirable toward achieving its goals.

HONOR AWARDS

In addition to graduation honors, these awards are presented at Honors Day:

1. 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.

Four new awards were presented for the first time in 1983. The first award on behalf of Miles Laboratories, Inc., is awarded annually to the outstanding graduating senior in the area of acute care nursing. The award is the Miles Laboratories Award for Excellence in Nursing Practice in the Acute Care Setting. The second award is the Lanza Award for Excellence in Home Health Nursing, and is sponsored by Lanza, Hospital Equipment for the Home. This award is presented annually to the student demonstrating outstanding ability in the area of community health. The third award is sponsored by the United States Air Force. This award, the Air Force Leadership in Nursing Award, is presented to the student who demonstrates outstanding leadership qualities in general contributions to the nursing program and/or class, and evidence of community service and commitment to the profession. The last new award is for general excellence in the area of nursing research and is awarded to a graduating senior. This award is sponsored by Sigma Theta Tau—Epsilon Phi Chapter.

MOSBY ASSESS TEST

The Mosby Assess Test Battery is required of all second and senior nursing students. The purpose of this battery of tests is to provide a mechanism for feedback to students in helping to identify strengths and weaknesses in preparation for the licensing examination.

GRADUATION REQUIREMENTS

General University requirements for graduation are in the Academic Policies section of this catalog. In addition, specific School of Nursing requirements are:

1. Completion of 120 credits
2. A minimum cumulative overall quality point average of 2.0
3. Successful completion of all clinical practicums
4. Completion of the required curriculum plan
### Course Descriptions

Descriptions of courses in liberal arts and sciences may be found in the College of Liberal Arts and Sciences section, pages 14 to 63.

#### 199 Nursing I

This course introduces the student to the discipline of nursing as a human science. The student in the course explores nursing as a human science in light of the major concepts of man and health. Students are introduced to key themes of the conceptual framework which have been identified as the processes of life, change, valuing, inquiry, caring, and family/nurse/client. Students explore the valuing process and look at self-esteem as a means of valuing self. Students explore the process of man coming to know and investigate the historical emergence of nursing as a profession and a discipline.

#### 200 Nursing II

This course builds on Nursing I. Students examine nursing as a human science in light of interdisciplinary health and family. Students will examine man as he lives in his health situation and as he participates in the health care system. Students will explore the process of valuing, nursing research through systematic inquiry, and toward development of nursing theory. Students are encouraged to identify the meaning of responsibility for self as learner moving toward becoming a professional nurse. Students will begin to explore the nursing process and its components in a basic nursing assessment. Prerequisite: Nursing I.

#### 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. Prerequisite: Anatomy and Physiology Lecture and Laboratory. Offered during Spring Semester only.

#### 255 Nutrition

This course studies nutrition principles and their importance to all ages. Topics covered include factors influencing food habits, exploration of ways in which nurses may help families and individuals apply nutrition facts for promotion of health and well-being, and recent research in relation to such national problems as heart disease, obesity, and increased life span. Lecture, three hours Sophomore year.
NURSING ELECTIVES

215 Computer Applications in Health Care 3 cr

This is an introductory computer course. Computer Applications in Health Care is an elective course designed to introduce the student to the basic fundamentals of data processing with a focus on applications in the health care field. Students will become familiar with the basics of computer terminology and technology and be able to utilize

approaches to health care ethics. Students are introduced to a model which offers direction for ethical decision-making in the health care context. The role of the nurse in ethical decision-making is discussed in some case studies involving dilemmas that are of concern to nurses. The case studies are used to demonstrate the use of this model. However, the model is broad enough to be used in all areas of health care ethics and the student composition in the individual clinical setting will give direction for the case studies used in this course. The course is offered jointly by the School of Nursing and the Theology Department.

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 multi-disciplinary perspective. It will provide them with the knowledge of health resources available to meet the specific needs of women.

398 Communicating with Children Through Play 3 cr

Communicating with Children through Play is a non-clinical elective for any student who is interested in pre-school-aged, school-aged and adolescent children. The focus of the course is on play and how it is 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 nurse to understand the life stress of the child. The selected play techniques that will be presented are Drawings (draw-a-man, draw-a-family, draw-a-tree, etc.), Pigeon's Question, Three Wishes, Story Completion, Make-a-Story Puppet Play, and Therapeutic Play Interviews. The course is designed to introduce the student to the importance of understanding the various ways of healing through play. The course will also provide students with an understanding of the relationship between play and the overall development of the child.

Health Education 3 cr

This course focuses upon the nurse's role as health educator and allows the student to explore the dynamic nature of health education in today's society. The major issues confronting the nurse as a health educator are carefully scrutinized. This course is designed to introduce the student to the importance of understanding the various ways of healing through play. The course will also provide students with an understanding of the relationship between play and the overall development of the child.
400 Practical Approaches to Implementing the Nursing Process 3 cr
This course is a clinical nursing elective designed to provide students with the opportunity to implement the Nurse/Client process. Students will examine the elements of the Nurse/Client process and critically investigate the Nurse/Client process through selected situations.

458 Family Nursing in the Appalachian Community 3 cr
This course offers the student an opportunity to implement the Nurse/Client process with families in a rural community whose cultural reference is different from that usually encountered. Students examine history and cultural patterns of the geographical area for their influence on health and health care delivery systems. Group process is explored as it relates to community living and intense working relationships with a temporary faculty/student group. This course is offered during the summer and is by special permission only. Prerequisite Nursing IV.

463 Patterns of Aging 3 cr
This course is an elective course designed to examine the aging process with a focus on the older adult. Emphasis is placed on the meaning of increasing complexity in the life process. Learners will examine changing belief systems as they relate to health services for the older adult. Learners are expected to critically investigate the Nurse/Client/Family process through selected situations.

466 Choosing the Living in Dying 3 cr
Choosing the Living in Dying is a three-credit, non-clinical elective nursing major. The focus of the course is on dying as an evolutionary experience. Emphasis is placed on quality of living throughout the dying process. The learners will develop their perspectives of the dying process and current issues in America related to this process. Meaning will be enhanced through the sharing of thoughts, feelings and perceptions within the group process.

480 Senior Nursing Seminar 3 cr
This senior nursing seminar focuses upon client's experiencing a wide range of health related problems throughout the life continuum. The synthesis of nursing theory and related science bases is accomplished through utilization of case studies and faculty/student discussions. Inquiry and decision making are emphasized within the framework of the Nurse/Client/Family process. This course is offered only in the spring. Prerequisite Nursing V.

499 Directed Study 3 cr
This course in Directed Studies provides students with the opportunity to pursue an area of individual interest in nursing which is consistent with the requirements of the student. Students will have the opportunity to generate goals related to the area of interest they wish to pursue and to formulate and implement a plan for achieving these goals. By special permission only.

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, bionucleonics laboratory, eight additional teaching laboratories, and a manufacturing pharmacy laboratory containing basic pharmaceutical manufacturing equipment and separate tabletting and aerosol technology areas.

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 and 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 who 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 the 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 nuclear pharmacy 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 laboratories preparing tissue samples and slides for microscopy study, taking blood samples, storing plasma, and keeping records of tests.

In the field of Radiological Health, positions as health physicist are available in hospitals and laboratories in 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 medicinal chemistry, and the Master of Science degree in the fields of pharmaceutics, pharmaceutical chemistry, pharmacology-toxicology and medicinal chemistry.

DEGREES
The School of Pharmacy offers programs leading to four 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
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 several professional courses. The latter three years
of study are taught mainly by the pharmacy faculty, with electives being available from both that faculty and all other schools of the University. Students are enrolled in the School of Pharmacy for all years. Transfer students are enrolled according to qualifications in the first second or third year of the five-year sequence. Legal requirements of all states are met with regard to graduation from an accredited college of pharmacy. Licensure in the several states may be acquired by meeting specific additional requirements of each particular state.

Residency Requirements

The pharmacy curriculum has been designed to provide a sequence of courses leading to professional competence. The minimum time period in which this may be accomplished has been determined by the faculty to be three years of full-time residency. This residency requirement for the final years of the professional curriculum is in accordance with a policy statement ratified by the American Association of Colleges of Pharmacy and followed by all colleges of pharmacy in establishing minimum residency requirements, as well as guidelines for professional education. The residency requirement is applicable to all students regardless of advanced standing status.

Curriculum

A minimum of 30 credits in the combined general education areas of humanities and social sciences is required for graduation from the School of Pharmacy (fifteen in the humanities including English Composition and Theology and six in the Social Sciences and nine 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.

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 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.

PHARMACY CURRICULUM

For classes entering in Fall, 1982 and thereafter

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<tr>
<th>Curriculum</th>
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<td><strong>Fall Semester</strong></td>
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<td><strong>First Year</strong></td>
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<td>111 General Biology I</td>
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<td>121 General Chemistry I</td>
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<td>101 English Composition I</td>
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<td>115 Calculus I</td>
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<td><strong>Second Year</strong></td>
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<td>201 General Physics I</td>
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<td>Humanities Elective</td>
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<td>Social Science Elective</td>
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<td><strong>Third Year</strong></td>
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<td>317 Human Anatomy &amp; Physiology II</td>
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<td>301 Basic Pharmaceutics-Pharmacy Math I</td>
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<td>309 Biochemistry-Nutrition</td>
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<td>333 Drug Literature Resources</td>
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<td>325 Pharmacy Management</td>
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<th><strong>Fourth Year</strong></th>
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<tr>
<td>321 Pharmacology-Drug Mechanisms I</td>
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<td>305 Pharmaceutics-Biopharmaceutics III</td>
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<td>313 Medicinal Chemistry-Natural Products I</td>
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<td>324 Public Health-Emergency Treatment</td>
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<td>General or Professional Elective</td>
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D*—Didactic hours, L*—Laboratory hours, C*—Credit hours

Changes may be made in some parts of the curriculum indicated for the Class of 1985 and 1986.

AREAS OF CONCENTRATION

During the fourth year (earlier if possible) each pharmacy student is urged to select an area of concentration from one of the following areas: Community Practice, Institutional Practice, Industrial Pharmacy-Nuclear Pharmacy, or Pre-Graduate Study. Six credits in Professional Pharmacy Electives is the minimum requirement for graduation.

1. **Community Practice**

   481—Pharmacy Sales and Marketing
   482—Community Pharmacy Practice
   561—General Toxicology
   566—Clinical Toxicology

2. **Institutional Practice**

   491—Hospital Pharmacy Management
   814—Parenteral Therapy
   501—Manufacturing Pharmacy
   539—Bionucleons
   540—Advanced Bionucleons and Radiopharmaceuticals
   561—General Toxicology
   566—Clinical Toxicology

3. **Industrial Pharmacy**

   501—Manufacturing Pharmacy
   502—Pharmaceutical Formulation and Development

   504—Industrial Pharmacy and Governmental Affairs
   510—Advanced Pharmaceutics I
   522—Spectral Methods
   539—Bionucleons

   Pharmacy students who select the Industrial Pharmacy area of concentration, may spend part of the required B.S. in Pharmacy practice in an industrial setting.

4. **Nuclear Pharmacy**

   539—Bionucleons
   540—Advanced Bionucleons and Radiopharmaceuticals
   489—Problems in Health Physics (offered by Physics Department)

   Students who satisfactorily complete the nine-credit requirement of the Nuclear Pharmacy area of concentration, are awarded a certificate. Also, Pharmacy students who select the Nuclear
Pharmacy area of concentration, may spend part of the required B.S. in Pharmacy practicum in a nuclear pharmacy and/or nuclear medicine setting.

5 Pre-Graduate Study

Students who elect this option must consult with the chairman of the department of their area of interest in order to select courses most adaptable to the program they desire to pursue. A combined B.S. in Pharmacy/M.S. program is available to qualified students.

MEDICAL TECHNOLOGY

The program leading to the degree B.S. in Medical Technology is a joint effort between Duquesne University and Mercy Hospital, Pittsburgh, Pa. The program involves completion of 124 credits, with 30 of the credits being taken in the Mercy Hospital School of Medical Technology in the fourth year of the program. Graduates of the program are eligible for national certifying examinations.

The School of Medical Technology at Mercy Hospital is approved by the National Accrediting Agency for Clinical Laboratory Sciences which acts as adviser to the Council on Medical Education of the American Medical Association. It is responsible for establishing and maintaining high standards of education in AAMC-approved schools of medical technology.

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 minimum cumulative quality point average of 3.00 on the sciences is recommended.
2. No student with a grade lower than C in any chemistry course will be considered for admission.
3. Written recommendations are required.
4. Personal interview with the Student Selection Committee of the Mercy Hospital School of Medical Technology.

Applications for entrance to the fourth year are to be made before October 15 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 the University dormitories and enjoy all of the privileges of Duquesne University students.

The fourth year will lead to immediate dismissal of those students who fail in any of the major courses included in the program. Students are advised through the Office of the Dean of the School of Pharmacy.

The faculty recommends and reserves the right to require completion of course clusters in humanities and social sciences, including 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 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.

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.

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.

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MEDICAL TECHNOLOGY

Curriculum

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ADMISSION

Students who plan to enter any of the programs offered by the School of Pharmacy are encouraged to meet with the Dean Assistant Dean or the Dean's designee 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 in 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 advisement personnel to assess the level of knowledge in pertinent areas related to the program. Superior performance in certain areas 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, second, or third year of the pharmacy program. Procedures for entrance are outlined under Application Procedures in the General Information section of this catalog.

All transfer students must be interviewed by the Dean Assistant Dean or the Dean's designee in the School of Pharmacy. Students intending to transfer into the pharmacy program must have successfully completed the appropriate math, science and liberal arts prerequisites for entrance into the second or third year 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.

Transfer pharmacy students must complete a minimum of three academic years of residence in the School of Pharmacy in order to receive consideration for admission. All students are 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 for all hours of the University are subject to fees as published. Pharmacy laboratories require a fee of $40 each 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.

Activities

Instituted by student request this fee of $30 a semester for a minimum of six semesters covers such miscellaneous items as local and national Student American Pharmaceutical Association dues, student newsletter, laboratory jacket, towels and name pin fees, class dues and support of the pharmacy student newsletter, Phorm, and partial travel expenses for one required field trip to a pharmaceutical manufacturing firm. Payment is made at registration each semester. This prorated fee is assessed only to those students in the last three years of the pharmacy program.

School of Pharmacy Fee

All students enrolled in any program of the School of Pharmacy are required to pay a fee designated by the University. This fee, which is assessed for each semester that a student is enrolled in the School of Pharmacy, assists with the special operating expenses of the School of Pharmacy.

REGULATIONS

Students in the School of Pharmacy are preparing themselves for entry into a respected health profession where the highest degree of character and sense of responsibility are basic requirements. As such, they are expected to conduct themselves, at all times, to the highest standards of their chosen profession and in professional courses.

I Class Attendance

Regular class attendance in the School of Pharmacy is normally required for most courses as it is an integral part of the School of Pharmacy. Absences for any reason will not be excused. 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 course or school requirements.

A student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstances is responsible for notifying the office of the Dean of the School of Pharmacy. The student should submit 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 cumulative 2.0 QPA in the pre-pharmacy science and math courses is required for entrance into the third year of the pharmacy program. A student will not be admitted to the fifth year of the pharmacy program without successful completion of all required courses in Pharmacy I, II, III, IV, V.

3 Required Programs

Pharmacy students in the fourth year of the curriculum are required to participate in one industrial visit arranged by the School.

The faculty of the School of Pharmacy may require student attendance at other seminars and special programs.

4 Health Requirements

Any School of Pharmacy student entering studies in a hospital or other institutional setting may be required to conform to the health requirements of that institution.

STUDENT ORGANIZATIONS

The 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. Under the auspices of its student social and professional activities, many worthwhile events are arranged during the school year. The executive committee meets regularly with the Dean and the faculty to plan and conduct activities. The annual membership is included in the student's year's student membership in the American Pharmaceutical Association and a year's subscription to its Journal. Interested pharmacy students enrolled in their first and second years at the University are also eligible for membership and are encouraged to become actively involved in SAPHA.
HONOR AWARDS
American Institute of the History of Pharmacy Award A recognition certificate and gift publications are awarded annually by the American Institute of the History of Pharmacy for superior achievement in pharmacist-historical study or activity
American Pharmacists Association Award A plaque presented by the McKesson Company is annually presented to the graduating class who attains the highest average in medicinal chemistry

GRADUATION REQUIREMENTS
A committee of the faculty will review the record of each candidate for graduation to ascertain whether the candidate has completed the School of Pharmacy curricula requirements and the general University Graduation Requirements, as stated in Academic Policies section of this catalog. This committee will then recommend candidates for graduation 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 Pennsylvania State Board of Pharmacy an application for registration as a pharmacy intern to insure proficiency in the practical aspects of pharmacy, the State Board shall by regulation prescribe internship requirements which must be satisfactorily completed prior to issuance of a Pharmacist's License
Specific information concerning practical experience requirements as well as other requirements concerning licensure may be obtained from the Pennsylvania 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 of the particular state for complete and current information.
CAREER GUIDANCE CENTER

A Guidance Center has been established within the School of Pharmacy to keep students informed about the latest career opportunities available to those possessing a pharmacy education and to attract high school and college students to the profession.

The Center consists of faculty members School of Pharmacy alumni, and pharmacy practitioners. It provides upon request speakers for career day programs and information to high school counselors on all matters relating to a pharmacy education and career.

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 15282.

RESEARCH FOUNDATION

The Hugh C. Muldoon and Pharmacy Alumni Foundation of Duquesne University established in 1950 to celebrate the twenty-fifth anniversary of the founding of the School of Pharmacy is an increasingly valuable aid in helping to achieve the aims of the University and of the School of Pharmacy.

The foundation provides funds for improving the instructional and research facilities of the School. It assists 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. Most 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

101 Pharmacy Orientation 1 cr
Introduction to the profession of pharmacy. Discussion of various aspects of pharmacy education and professional practice. Pharmaceutical organizations are discussed and evaluated. The pharmaceutical literature is reviewed and a brief history of pharmacy is presented. Lecture: one hour.

301 Basic Pharmaceutics—Pharmacy Math I 4 cr
A study of the basic physiochemical principles applicable to an understanding of drugs and the pharmaceutical systems in which they are contained. Subject areas include solution and solubility, pH, diffusion, osmotic, drug stability, packaging, storage, administration, physiochemical evaluation of pharmaceutical products, the clinical applications of pharmaceutics. Mathematical methodologies (algebraic and graphical) and the modern pharmaceutical practice are integrated into both the didactic and laboratory portions of the course. Laboratory emphasis is on practical and clinical application. Prerequisites: Calculus 115 General Physics (one semester), Organic Chemistry I, II, Lecture, three hours. Recitation, conference, and laboratory: four hours.

302 Basic Pharmaceutics II 4 cr
A continuation of Pharmaceutics I. Prerequisite: Pharmaceutics I, Lecture, three hours. Recitation, conference, and laboratory: four hours.

305 Pharmaceutics-Biopharmaceutics III 3 cr
A study of the physio-chemical, biological, and pharmaceutical factors which affect absorption, distribution, metabolism, and excretion of drugs in man. Emphasis is placed on the utilization of biopharmaceutical and pharmacokinetic knowledge in problems of bioavailability and bioequivalence of drug products and in the determination of appropriate drug dosage regimens. Prerequisite: Basic Pharmaceutics I, II, Lecture, three hours.

306 Pharmaceutics—Pharmacokinetics IV 4 cr
A continuation of Pharmaceutics III with emphasis on pharmacokinetics and on drug delivery systems. Prerequisite: Pharmaceutics III, Lecture, three hours. Laboratory: four hours.

309Biochemistry—Nutrition 4 cr
A course designed to integrate basic biochemistry with the application to selected clinical cases. Emphasis is placed on metabolism of carbohydrates, lipids and proteins as the source of energy derived from foods. Certain aspects of nutrition are discussed. The function of enzymes, vitamins and hormones is presented in relation to their role in metabolism. Clinical applications, including laboratory tests encountered on patients' charts, parental nutrition, and pertinent clinical cases which illustrate the relationship of biochemistry with physiology are discussed. Prerequisite: Organic Chemistry I, II, Lecture: four hours, Laboratory: two hours.

310 Analysis of Drug Substances 4 cr
A survey course covering the basic principles of analytical chemistry as applied to measurement of analytical process, problem solving, and data interpretation. Examples used come from pharmaceutical manufacturing, clinical, and biochemical analysis. Prerequisites: pharmacokinetics, pharmacology, and drug therapy. Prerequisites: General Chemistry I, II, Organic Chemistry and Biochemistry I, II, Lecture: four hours.

313 Medicinal Chemistry—Natural Products I 4 cr
A study of the relationship between chemical structure and the biological action of natural and synthetic drug molecules. Emphasis is on underlying principles as well as on specific therapeutic agents. Organization is by pharmacological classification with chemical properties relating to mechanism of action. Prerequisites: Organic Chemistry I, II and Biochemistry I, II, Lecture: four hours.

314 Medicinal Chemistry—Natural Products II 4 cr
A continuation of Medicinal Chemistry I, Lecture: four hours.

365 Analytical Chemistry 4 cr
Rigorous training in stoichiometric relationships and in the application of equilibrium principles with laboratory experience in the principal methods of gravimetric, volumetric, and instrumental analysis. Prerequisites: General Chemistry I, Organic Chemistry. Lecture: three hours, Laboratory: seven hours.

499 Independent Study and Research 1-2 cr/sem
To stimulate interest in furthering a student's education, the School of Pharmacy uses this course as a vehicle to provide the means whereby those who wish to be involved in a programmed self-study educational experience may do so. To accomplish this aim, the student in cooperation with a specific instructor chosen by the student will develop a course of study that will realistically be able to fill the learning objectives stated by the student. The student and instructor will meet at stipulated regular time intervals for guidance and evaluation of progress being made by the student. Contact the 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 1 cr
A course designed to present the pharmacological and toxicological properties of substances of abuse. The major classes of drugs are described with direct reference to toxic and adverse effects. The myths and misconceptions commonly attributed to some substances of abuse are clarified. The philosophy of the course is to present an objective picture of the "drug abuse era" in this country. The course is intended for all students beginning their collegiate studies. Admission to this course for those who have completed Pharmacology and Drug Mechanisms I or its equivalent is by approval of the instructor. Lecture: one hour.

3 Basic Pharmacology 3 cr
A course dealing with the major classes of therapeutic agents designed for students with a limited background in biological sciences. Drugs are considered from a "disease state" point of view and include the pharmacological classification with chemical properties relating to mechanism 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 1 cr
Causes, course of diseases, prevention, treatment and social effects of venereal diseases. Awareness and common sense should be awakened in students by the course. Open to students who have completed Pharmacology-Drug Mechanisms I only. Permission of the instructor. Lecture: one hour.

130 History of Pharmacy 2 cr
A survey of the origins of science medicine and pharmacy from the earliest recorded events to the present with emphasis on the twentieth century. Pharmacy in the United States. Lecture: two hours.

220 Human Anatomy and Physiology I 4 cr
A lecture course dealing with the structure and function of the various cells, tissues and organ systems of the body. Emphasis is on the complexities of regulation and integration of function of these organ systems. Prerequisites: General Biology I, II, Lecture: four hours.

317 Human Anatomy and Physiology II 4 cr
A continuation of the Human Anatomy and Physiology I lecture series, with laboratory. The laboratory portion of the course deals with gross anatomy, a histological study of tissues, and the clinical appraisal of physiological functions. Lecture: three hours, Laboratory: three hours.

318 Pathophysiology 3 cr
A lecture presentation of the cellular, organ and systemic changes associated with the human disease process. Also discussed are the physiological responses of the body's organ systems to the disease process and the contribution these responses make to the production of signs and symptoms that are normally associated with each disease state. Prerequisites: Human Anatomy and Physiology I, II, Lecture, three hours.
Medical Microbiology—Immunology

Covers the general characteristics and morphology of bacteria; the important staining techniques; methods of growing bacteria on artificial media; the effects of chemotherapeutic agents on pathogenic bacteria and immunity. Includes discussions of the structure of bacterial cell walls; the epidemiology of beryllium; the toxic effects of bacterial endotoxins and enterotoxins; immunological responses in the body; and the general principles of vaccination.

Disaster Preparedness and the Health Effects of Environmental Pollutants

Examines the role of the public health professional in disaster management and the health effects of environmental pollutants. Includes discussions of the importance of preparedness, the role of the public health professional in disaster management, and the health effects of environmental pollutants.

Laboratory Skills in Clinical Microbiology

Focuses on the importance of laboratory skills in clinical microbiology. Includes discussions of the use of laboratory skills in the diagnosis and treatment of infections, the development of new laboratory techniques, and the role of laboratory skills in the prevention of infections.

Pharmacology—Drug Mechanisms I

A course in the mechanisms and pharmacodynamic actions of drugs and their interactions. Includes discussions of the effects of drugs on the body, the mechanisms of drug action, and the interactions between drugs.

Pharmacology—Drug Mechanisms II

A continuation of Pharmacology—Drug Mechanisms I. Focuses on the use of drugs in the treatment of specific diseases and the interactions between drugs.

OTC Drugs

A course designed to familiarize students with the pharmacological and toxicological properties of over-the-counter drugs. Includes discussions of the use of OTC drugs, the proper non-prescription drug for a particular disease state, and the interaction between OTC drugs and prescription drugs.

Public Health-Emergency Treatment

A discussion of public health measures such as immunization, water purification, sewer disposal, sanitation of individuals and objects, control of rodents and insects, and the relationship of these to the spread of disease. Includes discussions of the public health measures that are most effective in preventing the spread of disease.

Clinical Clerkship

An educational process designed to provide the student with clinical experiences necessary for the proper selection of a profession. Includes discussions of the various types of clerkships and the importance of these experiences in the selection of a profession.

DEPARTMENT OF DEPARTMENT OF PHARMACEUTIC MEDICAL ADMINISTRATION

Chairman Anthony J Amado, M.B.A.

Pharmacy Law

A course designed to acquaint the student with the philosophy of law and its relationship to pharmacy. Includes discussions of the laws and regulations pertaining to the handling and sale of drugs, cosmetics, narcotics, poisons, and alcohol.

Pharmacy Practice

A course designed to provide the student with clinical experiences necessary for the proper selection of a profession. Includes discussions of the various types of clerkships and the importance of these experiences in the selection of a profession.

Pharmacology and Pathology

A course in the mechanisms and pharmacodynamic actions of drugs and their interactions. Includes discussions of the effects of drugs on the body, the mechanisms of drug action, and the interactions between drugs.

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DEPARTMENT OF RADIOLOGICAL HEALTH

Chairman Mitchel L. Borke, Ph.D.

451 Practice in Radiological Health 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, radiological assessment 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. Prerequisites: Bionucleonics 539, Radiological Health 541. Corequisite: Radiological Health 542. Laboratory: 16 hours.

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 radioactivity with G-M detectors, flow counters, ionization chambers, proportional counters, crystal and liquid scintillators, study of the characteristics of radiation, gamma spectrometry, some applications of radionuclides in pharmacy, chemistry, biology, etc. Prerequisite: General Chemistry, General Physics Lecture: three hours Laboratory: three hours.

540 Advanced Bionucleonics and Radiopharmaceuticals 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. Lecture: three hours Laboratory: three hours.

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. Lecture: three hours, Laboratory: four hours.

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 Pharmacological Formulation and Development
- 504 Industrial Pharmacy and Governmental Affairs
- 510 Advanced Pharmacokinetics I
- 522 Spectral Methods
- 523, 524 Advanced Medicinal Chemistry I and II
- 539 Bionucleonics
- 540 Advanced Bionucleonics and Radiopharmaceuticals
- 541, 542 Radiological Health I and II
- 560 Biosynthesis of Natural Products
- 561 General Toxicology
- 563 Pathology
- 566 Clinical Toxicology
- 569 Toxins

Descriptions of these courses may be found in the Graduate School of Liberal Arts and Sciences Catalog.

RECOMMENDED ELECTIVES FOR MEDICAL TECHNOLOGY

- 107 Medical Ethics
- 101 Survey of Sociology
- 323 Medical Sociology
- 201, 202 English Literature Survey
- 103 History of Medicine
- 307, 308 History of Science
- 204 Interpersonal Communications
- 121 Elements of Economics

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
- 323 Medical Sociology
- 201, 202 English Literature Survey
- 103, 104 Development of the United States
- 305 History of Medicine
- 307, 308 History of Science
- 204 Interpersonal Communications
- 121 Elements of Economics

ELECTIVES—COURSE CLUSTERS

The following courses in liberal arts and sciences were especially selected 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) Special Studies in English or World Literature
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
2) 103, 104 Development of the United States
3) World History
4) Non-American History Sequence

Department of Classics—
1) 121 or 122, 123, 245, 246, 240 Greek Civilization
2) 121 or 122, 123, 245, 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

Department of Political Science—
1) 101, courses suggested under minor

Department of Theology—
1) Courses suggested under minor

Fine Arts—
1) 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)

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 U.S. Army, U.S. Army Reserve, 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 profession and the role it plays in our system of government.

The 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 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 the role 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

Freshmen (MS I)

Fall Semester
MS 101 Survival Techniques 0-1 cr
MS 102 Individual Skills 0-1 cr

Spring Semester
MS 201 Leadership and Management 0-1 cr

ADVANCED COURSE

Junior (MS II)

Fall Semester
MS 202 Introduction to Military Skills 0-1 cr

Spring Semester
MS 301 Military Development 0-2 cr

Summer Between Juniors and Seniors
Attend a six-week ROTC Advanced Camp

Seniors (MS III)

Fall Semester
MS 300 Professional Seminar 0-2 cr

Spring Semester
MS 401 Professional Seminar 0-2 cr

DIRECT ENTRY INTO THE ADVANCED COURSE

Students may receive placement credit for MS I and II and be granted direct entry into the Advanced Course. This placement credit may be granted for:

1. Completion of Army Basic Training or its equivalent in the Navy, Air Force, Coast Guard or Marine Corps
2. Attendance at a service academy for one or more years
3. Completion of equivalent level training in Navy or Air Force ROTC
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 saluted 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 or officer trainee at the same time. The advantage to SMP is that the student will receive regular drill pay from the Reserve or National Guard as well as the $100 per month living allowance for participating in the Army ROTC.

TWO-YEAR PROGRAM

This two-year program is designed primarily for 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 four, three, and two-year scholarships which are awarded on a competitive basis. ROTC students as well as those students not currently participating in ROTC are eligible to apply. Each scholarship pays for tuition, textbooks, laboratory fees and other purely academic expenses, and Rotc students also receive a tax-free living allowance of $100 each month during the school year while on scholarship status. For details, see the ROTC Scholarship listing in the Financial Aid Section of this catalog on page 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.
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 for two hours, 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. All students are required to attend unless a conflict exists between this class and their academic course work.

VOLUNTARY ADVENTURE AND SOCIAL ACTIVITIES

In an urban environment, it is 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. 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, an Awards Ceremony, and the Annual ROTC Commissioning Program.

Part III:
Student Life: Programs, Services and Organizations

A DIVISION OF STUDENT LIFE

MISSION

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

PHILOSOPHY

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

ORGANIZATION

The Vice President for Student Life and his Assistant coordinate the Departments of Athletics, Career Planning and Placement, Dean of Students Office, Duquesne Union, Health Services, Residence Life, Retention and Testing. These Departments are briefly described below. Additional information may be obtained directly from each Department and through the Student Handbook and Code of Student Rights, Responsibilities and Conduct.

ATHLETICS

Duquesne University is a member of the National Collegiate Athletic Association (Division I) and the Atlantic 10 Conference. All rules of these organizations, including those pertaining to a student's eligibility for a varsity team, are followed. Duquesne University believes in and promotes the concept of the student athlete, manifested in part by the appointment of the Academic Supervisor for Intercollegiate Athletics. Athletic grants-in-aid are available for most varsity sports. The Athletic Department fields men's varsity teams in baseball, basketball, cross-country, football (Division III), swimming, tennis and volleyball; women's varsity teams in basketball, softball, swimming, tennis and volleyball, coed varsity teams in golf and rifle, and club teams in bowling and hockey.

Duquesne sponsors a very active intramural program in such fields as tennis (touch football, volleyball, chess, street hockey, basketball, softball, ultimate frisbee and marathons.

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, job referrals and credentials. The graduating student may also be interested in campus interviews with visiting employers.

Undergraduate students may earn academic credit for approved preprofessional work under the University's Cooperative Education Program which is administered by the Career Planning and Placement Office.

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.

DEAN OF STUDENTS OFFICE

This office is directly responsible for implementing several programs and services which provide individual students and groups with opportunities for personal, intellectual and social growth. Chief among these programs and services are the University Judicial System, Orientation, Freshman/Transfer Assistance Program, College Skills, Special Scholarships and Awards, Disabled Student Services, Life Planning Seminars, Positive Profile Records, Commuter Concerns, National Honor Societies and Counseling Services.

The University Judicial Board plays an important role in developing responsible student conduct, serving to protect the rights and freedoms of all students while insuring that these rights and freedoms are not misused within the context of students' responsibilities to the University. The Board is comprised of administrators, faculty, students, and a student chairperson, and instead focuses on the developmental process.
DUQUESNE UNION

The Duquesne Union is more than a unique building. It is a unique partnership of professional staff, faculty and students working together to provide the environment necessary to develop mature, effective members of society. The Union staff provides advice and assistance for all phases of campus programming and establishes goals for as well as produces all aspects of a student-centered series of cultural, educational, recreational and social programs with the goal of community. All aspects of the Union are open to the entire campus. It is not the "Student" Union, but the Duquesne Union.

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

Facilities within the Union include administrative and student organization offices, meeting rooms, information center, recreation center bookstore cafeteria video arcade, ballroom, Rathskellar Restaurant and student lounge.

HEALTH SERVICE

The University Health Service provides primary health care to all resident students and to commuters enrolled in the University Commuter Health Plan. Services include evaluation, treatment of illness and injury, starter doses of medication, allergy injections, diagnosis of common colds and screening physicals and health counseling referrals and health education materials and programming. Additionally, emergency care is given to faculty, staff and visitors. In addition to Registered Nurses and a Nurse Practitioner, the staff includes a Board Certified Physician and Consulting Psychiatrist.

Although in-patient facilities and services are provided by community centers adjacent to and close by Duquesne's Campus, a completely equipped ambulance is maintained by the University.

It is strongly recommended that each student carry a form of health insurance. The University provides a Student Health Care Plan designed to meet the needs of students and which is priced lower than individual health insurance policies.

RESIDENCE LIFE

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

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

RETENTION OFFICE

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

TESTING BUREAU

The primary role of the staff of the Testing Bureau is to provide the student with the opportunity to explore interests and abilities as they pertain to choosing a degree major or minor and planning a career. Trained counselors focus on test results and the student's personal style when considering the student's questions or concerns. Counseling is also available to students whose concerns are of a more personal nature, such as adjusting to college life, anxiety, etc. Professional assistance with study skills, test anxiety and personal concerns is available in both individual and group counseling formats.

In addition to the applications for national qualification examinations, (CLEP, GRE, LSAT, MAT, SAT, etc.) are available at the Testing Bureau.

B OTHER DEVELOPMENTAL SERVICES

INTERNATIONAL EDUCATION

One of the five (5) primary tenets of Duquesne University centers on International Education. Consistent with this focus, an increasing number of international students from all over the world, representing an increasing variety of countries are pursuing undergraduate and graduate degrees at the University.

The responsibility of the International Student Advisor is to be of service to all International Students in the areas of adjustment, personal counseling, preparation of forms and facilitating the integration, understanding and communication among International Students and American students. Additionally, the International Student Advisor coordinates opportunities for Duquesne students interested in studying abroad as part of their education.

LEARNING SKILLS PROGRAM

The Learning Skills Program is an ancillary academic service whose primary charge is the intellectual development of students. Services are provided in coordination with academic offices of the University.

As part of its academic assistance efforts, the Learning Skills Program delivers diagnostic and prescriptive services. Individual and developmental study skills and cognitive abilities 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.

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 the individual's ability to find one's own solutions for difficulties of a personal nature. Services of the Center are composed of teams of graduate and professional staff members. Counseling can be arranged at the Center's Office.

C 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 commuter population 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 Living Learning Center activities and is involved with the Office of Residence Life in developing and implementing Living Learning Center policies and procedures. All resident students are automatically members of the Residence Council.

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 Student Life Advisory Committee and on the Food Service Committee to provide student input for the formulation and review of University policies affecting residence living.

INTER-FRATERNITY COUNCIL

The Inter-Fraternity Council serves as a clearing house for general fraternity social information and as a forum for liaison constructive proposals for 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 CIF establishes all rules governing inter-fraternity sports and regulates pledging.

PANHELLENIC COUNCIL

The Panhellicn 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. The Panhellenic Council is composed of the presidents and elect representatives of each of the six women's social fraternities. Panhellenic Council establishes all rules concerning the rushing and pledging of new fraternity members.

D STUDENT ORGANIZATIONS

GENERAL

There are more than 80 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 or Panhellenic Council.

PERFORMANCE GROUPS
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 Tamburitzia 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
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 disk 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 Information Center.

The Duquesne Duke, the University campus newspaper is written and edited by the students for the students. It appears every Thursday during the academic year except during examination periods and holidays, and provides an array of campus news, student opinions, editorials and advertisements. The paper is geared to all members of the University, administrators, faculty 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 contains information about the University which concerns the students. Copies are available at the Duquesne Union Information Center.

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 the Sacrament of Reconciliation is available by appointment. For all students, whatever their faith, the chaplains are available to help with spiritual direction, counseling, advice, or sympathetic listening. The Campus Ministry provides a listing of Sunday services in nearby churches or synagogues and referrals can be made to introduce the student to the various ministers or rabbis in the area. The University Chapel is open each day for private prayer and quiet meditation. It is available too, to groups for specific services of a religious nature.

The Campus Ministry sees itself 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, and almost all other campus buildings. Its main office is Room 102 on the first floor of the Administration Building, with additional offices in Duquesne Towers, Assumption Hall and St. Martin's dormitories.
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) 396-2620, 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 of the applicant, including his/her religious preference, sex, racial characteristics, and ethnic origin. They are 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 two-thirds of the class and demonstrated exemplary personal conduct in that institution. Applicants who have completed four years of high school must submit a High School Equivalency Diploma issued by their state department of education.

2. High School curriculum must include 16 units distributed as follows: four units in English, eight units in any combination from the area of social studies, language, mathematics, and science, and four elective units for which the secondary school offers credit toward graduation. In specific instances, and at the discretion of the Committee on Admissions, the genuine equivalent of these requirements may be accepted in lieu of the precise requirements specified. (Note: Candidates planning to enroll in Pharmacy or Pre-Health programs, 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.)

4. Notification of early decisions for regular admission is made by the Committee on Admissions.

5. Notification of decisions for regular admission begins once Early Decision applicants have been notified. If accepted, students are to submit a non-refundable tuition deposit of $100 for commuters or $250 for resident students by May 1 of their senior year. Students must submit a non-refundable tuition and room and board deposit of $650. It is the responsibility of the applicant to arrange for all supporting credentials to be filed with the Admissions Office prior to the deadline dates.

EARLY ADMISSION

1. Applicants 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.

2. The application procedure is as follows:
   - Obtain, complete, and file the Application for Admission with the Office of Admissions.
   - Include the $20 non-refundable application fee with the application form. International students must pay a $30 non-refundable application fee. No application will be processed for consideration by the Committee on Admissions unless accompanied by the required fee.
   - Request the secondary school principal or guidance counselor to submit a transcript of the candidate’s academic record. A recommendation is requested.
   - 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 the candidate to have test scores forwarded to the University.
   - An interview is highly recommended for prospective students. Auditions are required for School of Music applicants.
   - Students interested in being considered for University Scholarships should submit their application by February 1 of their senior year.
   - Early Decision Deadline (for students who have been accepted as first College choice is November 15. Notification will be December 15. If accepted under the Early Decision Plan, commuting students are asked to submit a non-refundable tuition deposit of $100 within two weeks. Resident students are asked to submit a $250 non-refundable deposit.

6. Admission of International Students

Admission of Undergraduate International Students

1. All international applicants must meet the admissions requirements for freshmen and/or transfer candidates as determined by the academic unit in which they propose to study. In addition, official transcripts of all degrees, diplomas, or other academic awards must be sent with certified translations, where applicable, from all schools attended. These documents must be submitted to the Admissions Office.

2. A declaration of financial support must be submitted which has been completed and certified by the appropriate persons. Acceptance letters will not be issued until the Admissions Office is in receipt of this form and approval has been granted.

3. If English is the applicant’s principal language of instruction, test results must be submitted. If English is not the applicant’s native language, test results must be submitted. If English is not the applicant’s native language, the Test of English as a Foreign Language (TOEFL) is required unless the applicant has finished one year of college in the United States and has successfully completed at least 16 semester credit hours and demonstrated proficiency in English. All TOEFL scores must be submitted.

4. Applicants are to apply for admission or readmission through the Office of Admissions, Duquesne University, Pittsburgh, Pennsylvania 15282.
the student must supply to the dean of his school a description of the courses which appear on the transcript of his school. He must contact the Admis-
sions Office of the school for placement and curric-
ulum 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 appli-
cants who have an Associate Degree in Arts from a
regionally accredited two-year institution.

Student transferring from a regionally accred-
ited institution must present academic records
which show an overall average of C (2.0 on a 4.0
quality point system) in the Summer Session. Duquesne students who were chs-
SUMMER

A temporary transfer student must reapply if he/she intends to return to the original institu-
tion 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 announc-
ment 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 sec-
ondary schools and have performed satisfactorily in
the advanced placement examinations are eligi-
ble for advanced placement. Duquesne University transfers students as well as placement, for achieve-
ment that merits such consideration Subjects
included in the program are: English composition,
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 informa-
tions about the minimal score acceptable for
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 place-
ment credits must request that scores be sent to
the University Information about equivalent Uni-
versity courses for which qualifying students may
receive credit may be obtained from the Univer-
sity’s Director of Testing Bureau or the Assistant
Dean for Administration, College of Liberal Arts
and Sciences

COLLEGE LEVEL EXAMINATION

The special examinations for which the College of
Liberal Arts and Sciences will award credits, with
acceptable scores, are:

1. General Examinations in Humanities, social

   sciences

2. Subject Examinations American government,

   American history, analysis and interpretation of

   literature, biology, college algebra, college algebra-

   trigonometry, college composition, computers and
data processing, elementary computer program-

   ming, FORTRAN IV, general chemistry, general

   physics, introd. business management, introd. mar-

   keting, introd. money and banking (only validation

   of comparable course(s) taken at regionally accred-

   ited schools where courses were offered at the 200

   level or above). Students must have completed the
course(s) with a "C" or better to be eligible.

   introd. sociology, microbiology, macro-economics,

   micro-economics, statistics, western civilization
   A student who has accumulated 30 or more
   credits is not eligible to take the General Examina-
   tion for credits When a student has accumulated
   30 credits or more, they will be given credits on the basis of
   CLEP exams. This total of 60 includes the CLEP
   credit i.e. if a student has completed 57 credits, he
   could not receive more than 3 credits on CLEP exams.

   The University is continuing to evaluate
   CLEP subject scores and performance at Duquesne 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 Alge-
bra 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 Uni-
versity courses for which qualifying students may
receive credit may be obtained from the Univer-
sity’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 col-
george courses prior to official enrollment. The maxi-
mum number of credits that may be taken is 15
per semester, so that students may earn up to 150
credit hours over a summer period until the student applies and ful-

lills all regular admissions requirements. Upon reg-
ular admittance all credits are then evaluated
toward a degree program.

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

Generally, all first year courses in the College of
Liberal Arts and Sciences are open to Credit Hour Bank students. The school of music also partici-
pates in the Credit Hour Bank program providing the
applicants passes a music audition.

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 par-
ents should not be overwhelmed by the variety
and apparent complexities of modern student
financial aid. Rather a patient thorough examina-
tion 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
duquesne. However, to the extent they cannot rea-
sion is to be expected, duquesne entily, there is a
analyst 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 abil-
ty to contribute to these costs. The costs consid-
ered include tuition, fees, room and board or an
allowance for maintenance at home, travel or
commuting expenses, books, and necessary per-
necessary


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 care-
fully comprehend the information provided to 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 finan-
cial responsibility for the cost. This principle
is reflected in both the determination of need and the
amounts of aid available. In determining need, consider-
ations are provided for at least a minimum con-
tribution to cost from the student’s summer earn-
ings, savings, and resources. Two types of self-help
programs of aid are available: loans and work.

Student loans provide rates, terms, and conditions
superior to those provided by aid sources, and
offer the student the opportunity to help himself or
herself by accepting future repayment respon-
sibility. Student employment programs provide
the opportunity to help earn a portion of the edu-
cational costs.

GIFT ASSISTANCE

Non-repayable scholarships or grants are available in accordance with one or a combination of the
following criteria: 1) Financial Need, 2) Superior Academic Potential or Achievement, and 3) Special
Ability, which reflects proficiency in a special-
ized field or activity, such as music, debate, athlet-
ics, etc. It should be noted that many sources of
MEETING STUDENT NEED

The Financial Aid Office attempts to provide aid equal to need for all student applicants. Normally, this requires an aid package consisting of funds from multiple aid sources and programs. 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 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 application. 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 officer, 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 AND 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 the Admissions Office. Continuing students must obtain the form 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 March 1 for the Spring Semester no later than December 1. Late applications will be considered on the basis of available funds. Students interested in being considered for scholarships should submit financial aid application by February 1.

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

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

5. Applications must be filed annually.

PROGRAMS

The following programs for which the foregoing regulations and procedures apply are administered directly by the Financial Aid Office:

- University Scholarships: The University awards scholarships annually to exceptional high school scholar students. These awards are not based on a demonstrated need and may be renewed each year.
- Competitive Scholarships: These awards are given to students of outstanding ability and achievement with demonstrated 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 level of need.
- Parish Grant-In-Aid Program: Available to incoming freshmen from the parishes in the Diocese of Pittsburgh. Students are recommended by their pastor to the University’s Admissions Office. These awards are based on academic achievement and demonstrated need. They are renewable yearly based on continued academic achievement and continued need. Continued academic achievement is normally reflected by a cumulative Quality Point Average of 2.75 and above. Renewal amounts may vary relative to the level of need.
- Federal 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 Federal Government.
- Parent Loans for Undergraduate Students: Available to parents of dependent undergraduate students.
- Federal Direct Student Loans: Available to both full-time and half-time students who demonstrate financial need and are making acceptable progress toward a degree. It should be noted that due to limited funding, these loans are normally awarded only to full-time students. Recipients are selected in accordance with guidelines published by the Federal Government.
- State Grant Assistance: Available to Pennsylvania residents who are attending full-time undergraduate degree programs.
- Federal Work-Study Program: Available to undergraduate students who demonstrate financial need and are making acceptable progress toward a degree. Work-study is limited to maximum of fifteen working hours a week. Students working under either program may not retain outside jobs during academic periods.

OTHER SOURCES OF AID

PELL GRANT PROGRAM

Direct grant assistance through the Federal government is available to undergraduates based on an eligibility determination reviewed and adjusted each year by Congress. All undergraduates are advised to apply for this form of aid. 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 state legal status of residence, direct grant assistance from the state may be available for study at Duquesne University.

Pennsylvania residents should contact their high school guidance counselor or state Department of Education to determine eligibility. If grants are available, and to determine application procedures.

Non-Pennsylvania residents should obtain the State Application Grant from high school guidance offices, the University Financial Aid Office or the Pennsylvania Higher Education Assistance Agency (PHEAA). At current levels, grants range from $100 to $1500 a year to full-time undergraduate students, based on information of financial need. Filing deadline is normally May 1.

GUARANTEED STUDENT LOANS

This program provides long-term, low interest student loans through the cooperative efforts of federal and state governments and participating private lending institutions. The guarantee to students 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 inquire at a local lending institution where the student or parents have an account. The maximum that may be guaranteed is 100% of academic year cost. A four to six week processing period should be anticipated.

Parent Grants: Available to undergraduate students.

Parent Loans are available to independent students. Loans are available to parents of independent undergraduate students, INDEPENDENT undergraduates and graduate students may apply. The maximum amount that can be borrowed for any academic level is $3000. Repayment begins 60 days after disbursement of funds. Applications and information are available through banks and other lending institutions.

OHER 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) Parents' employers or labor unions.
3) Fraternal, social, religious or professional organizations.
4) Local government.
5) Specific private foundations.

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 Chair-
mans of the Journalism Department assisted by the
Journalism faculty Loan inquires and applica-
tions should be made to the Chairman of the
Department of Journalism

The Eleanor Polis Capone Memorial Award The
award honors, in perpetuity, the memory of Elea-
nor P. Capone. The scholarship consists of the
total annual income from a restricted growth
endowment fund and is awarded to an undergrad-
uate student enrolled at the University who will
be selected on the basis of merit in the field of
creative writing with need a secondary considera-
tion. Interested students should contact the Chair-
man Honors and Awards Committee English
Department, prior to January 15

Indeza Kozora Memorial Scholarship This award
was established to honor in perpetuity the mem-
ory of Andrew Kozora. Full-time third or fourth
er year students enrolled at Duquesne University
and having declared a major field of study to be
either Physics or Mathematics are eligible for such scholarship. The primary considerations will be
financial need with academic achievement sec-
ondary. Recipients are selected by the University's
Director of Financial Aid upon nomination by the
Chairman of the Physics or Mathematics Depart-
ments after they have previously consulted with the
Dean of the College of Arts and Sciences

The Rev Joseph A. Laurits C S, Sp Journalism
Scholarship This is an annual scholarship in tribu-
te to the Rev Joseph A. Laurits C S, Sp founder of the Department of Journalism and the
University's WDUQ-FM. It is available to a fresh-
man entering Duquesne University who is planning to major in journalism. The
award is administered by the Laurits Scholarship
Committee of Journalism faculty and friends
Deadline for application is April 1

Ludwig Leech Scholarship This annual schol-
arship was established in 1971 by the Scraps-
Howard Foundation for journalism minors or
students who demonstrate outstanding academic
promise, concurrent financial need, and are pre-
paring for a journalism career in the newspaper or
broadcasting fields. It is administered by the
faculty of the Department of Journalism

Colechla Scholarship Award The award honors,
in perpetuity, the memory of the sisters of
Ambrosia Colechla. The Scholarship award is
available to juniors and seniors in the undergradu-
ate College of Arts and Sciences majoring in any of
the following disciplines: Modern Language Lit-
erature; The Classics, Philosophy, English, Math,
Chemistry, Computer Sciences, Physics, or Bio-
logy All recipients must be full-time students of
good moral character and demonstrate a potential for leader-
ship. The scholarship is awarded annually.

SCHOOL OF BUSINESS AND
ADMINISTRATION

Alcoa Scholarships Two awards are made annu-
ally, one in transportation and one in accounting,
to undergraduate students in the School of Busi-
ness and Administration. Recipients are selected by the School on the basis of academic achieve-
ment

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

Traffic Club of Pittsburgh Scholarship This award
is made to an undergraduate student in transporta-
 tion. Recipient is selected by the School based upon
academic achievement

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
recommending letters representing the areas of ac-
ademic 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 1,200, with a minimum of 400
on any one test. Transfer applicants must be new
students to Duquesne. To apply, contact the
School of Education. For renewal requirements
and procedures contact the Office of Financial Aid

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 those quali-
ties of scholarship, character, and professionalism
which merit special recognition. The award
must have 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 receiv-
ing 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

Jazz Scholarship Available to all full-time under-
graduate music students involved in the jazz pro-
gram. Applications available in the Dean's Office
of Music

George Barree Memorial Scholarship The Pitts-
burgh Music Club offers a scholarship in flute in
memory of George Barree, founder of the first
flute club in the United States. This $300 scholar-
ship is awarded to a freshman or a sophomore
flute major

Polish INs League Scholarship This award is
made annually by the Polish Arts League of Pitts-
burgh 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.

Music School Scholarships These awards are
made possible by donations from individuals and
organizations in appreciation of performances by
School of Music students

Univeris Solo Wind Scholarships These scholar-
ships in varying amounts are awarded only to
potentially First Chair performers

Univeris Piano Scholarships These scholarships
are awarded to students showing outstanding tal-
tant in piano

SCHOOL OF NURSING

Behan Scholarship The R. J. Behan Annual Nurs-
ing Scholarship is a $500 scholarship awarded
annually to a nursing student who is in good aca-
demic standing. The award is based on need pro-
fessional involvement, and future aspirations. Stu-
dents may apply in the School of Nursing in early
fall

SCHOOL OF PHARMACY

Women of Galen. The Women's Auxiliary of the
Galen Pharmaceutical Society of Pittsburg annu-
ally provides scholarship funds to be awarded
to deserving pharmacy students in their last years of
attendance in the School of Pharmacy

Beaver County Pharmaceutical Association Grant
and Aid 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

Sun Drug Company Loan Fund This fund is
intended to provide financial assistance for stu-
dents in the School of Pharmacy

Chilson Loan Fund A revolving loan fund estab-
lished in 1946 through the generosity of Francis P.
Chilson and expanded by the contributions of
Pharmacy alumni provides special assistance to
worthy students in the School of Pharmacy

Joel P. Laughlin Scholarship In honor of Joel P.
Laughlin a fraternity brother whose life was ter-
minal 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 achieve-
manship and active participation in the func-
tion 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

Clintond Eddy Goodman Memorial Scholarship
This scholarship was established to honor the
memory of Clintond Eddy Goodman by making annu-
al awards to deserving Pharmacy students. Can-
didates must be a declared Pharmacy major
attained a minimum quality point average and
have an interest in and demonstrated support of
the University's Athletic Program. Apply through the
Dean of Student Affairs

Mary McPartland Beek Scholarship Award Schol-
arship 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 Drugists in honor of its execu-
tive secretary John W. Dargavel, this founda-
tion provides a $200 scholarship to qualified
students 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 wor-
thy students in pharmacy during times of urgent finan-
cial distress

Fred Schiller Loan Fund This loan fund was
founded by Mr. Fred Schiller, Pittsburgh pharma-
cist 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 Clohessy Sons Memorial Fund This revolv-
ing fund, established in 1954 was made possible
through the generosity of the friends of the late
Mr. Simms, executive of Sun Drug (now Eckerd)
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 Pha-
ramceutical 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 academic
progress, and good standing in the pharmacy program


Tuition and Fees

The University reserves the right to change tuition and fee charges if exigencies require such action. The figures shown apply to the 1984-85 term only, unless otherwise indicated.

**TUITION**

- Undergraduate Tuition: $70 per semester hour credit
- Graduate Tuition: $180 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): $150
- Change of Schedule: $5 per processing each form
- Credit by Examination: $5 per semester hour for recognition of proficiency of course credit (See policy in Section VI, page 144)
- Orientation (New Students): $20
- Late Registration: $25
- Removal of I Grade: $5
- Registration Correction Fee: $15
- Continuing Registration Fee: $50
- 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: $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, this is proportionately refundable, depending upon the losses incurred.
Laboratory fees apply to the 1984-1985 academic year

Biology (each laboratory) $35
Chemistry (each laboratory) $35
Computer Science $10
Education 490, 491 (Student Teaching) $25
English 203, 380, 381, 382 383 384, 385 $5
English 439 $10
English as a Second Language* $300
Journalism 267, 268 370, 378 379, 381, 413 $15
Journalism 375 $25
Mathematics 307 308 $10
Music-Organ Practice Room 20 $15
Music-Class Piano $25
Music-Class Methods $20
Music-String Class Methods 381, 382 $35
Music-Student Teaching $25
Pharmacy 011 012 016 017, 022, 027, 031 032, 035, 054 $40
Physiology (each laboratory) $35
Psychology 336 $5
Speech 101 220, 251 263, 264, 311, 351 $5
Graduate Biology With Laboratory $35
Graduate Chemistry 520 561 $35
Graduate Classics 551 $160
Graduate Communications 512 $170
Graduate Modern Languages 051 & 052 $15
Graduate Psychology 571 $15
Graduate Pharmacy (each laboratory) $30
Graduate Education 512 692 693 $10
Graduate Music 501 502 503 504, 505, 601, 602 603, 604, 605 606 $200
Graduate Music 511 512, 513 514 515 $100
Graduate-Organ Practice Room $30
**Laboratory Breakage Fee $15

SUMMER AND SPECIAL SESSION TUITION AND FEE CHARGES
Undergraduate Tuition for each semester hour credit $75
Graduate Tuition for each semester hour credit $180
University Fee $11 per credit

GRADUATION FEES
Bachelor Degree $30
Master Degree $40
Doctor of Pharmacy Degree $40
Juris Doctor Degree $85
Doctor of Philosophy Degree $85
Thesis Binding Fee—Doctoral Dissertation $80
Thesis Binding Fee—Master Thesis $70

WITHDRAWAL AND TERMINATION OF ATTENDANCE

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

The Effective Date of Withdrawal is determined by the 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 Business and Management.

TUITION REMISSION SCHEDULE

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

Within the Semester Percent of Remission
First Week 80
Second Week 80
Third Week 40
Fourth Week 40
After Fourth Week None
Within the Summer Session—Based on a Six Week Session Standard
First Week 60
Second Week 20
After Second Week None

ROOM AND BOARD

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

The University requires that a prepayment of $150, which is applicable to the following semester, be deposited on or before the effective date of the application. The balance remains on the student's meal plan, up to the rate of 75 percent of the balance remaining on the student's meal plan, up to the mid-semester point. After the mid-semester point, no refund will be made. No reduction of charges for room and board will be refunded at the rate of 75 percent of the balance remaining on the student's meal plan, up to the mid-semester point. After the mid-semester point, no refund will be made. No reduction of charges for room and board will be refunded at the rate of 75 percent of the balance remaining on the student's meal plan, up to the mid-semester point.
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 (Bank Americard) can be utilized to pay tuition and fees.

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

- Balance Forward, Credits, Payments
- Deposits—Accounts Receivable Office
- Student Finance Program, Deferred Payment Plan—Accounts Receivable Office
- Housing Reservations and Housing Charges—Office of the Assistant Dean of Residence Life

STUDENT FINANCING PROGRAM
(All prior balances must be paid in full before the student is eligible for this plan.) Duquesne University students desiring payment of their tuition and other charges for the semester by installment contact 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 and authorized and other payments, to be repaid to the University in two equal installments. Interest is charged at the rate of 3/4 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 on the Ground Floor of the Administration Building between 9:00 A.M. and 4:00 P.M. Monday through Friday, except during registration, with a validated ID Card for the current semester.

BAD CHECKS
It is the policy of the University to charge bad checks to the student who cashes them regardless of the maker. A $3.00 service charge will be assessed on checks that are returned from a bank for lack of funds.

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.

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
- Duquesne University
- La Roche College
- Pittsburgh Theological Seminary
- Robert Morris College
- University of Pittsburgh
- University of Pittsburgh at Johnstown
- University of Pittsburgh at Greensburg
- University of Pittsburgh at McKeesport
- University of Pittsburgh at Washington

The opportunity for cross-registration will be available to each full-time student enrolled in any...
The University regards the student's personal confidentiality obligations owed records have been fulfilled the office of the registrar bear the signature of the primary office of the home registrar after the close of each semester grades to the permanent address on record sooner obligations to the University is sent a report of her complete academic record at the close of the academic calendar.

Every registered student who is free of financial RECORDS obligations of the penalty fee late registration may pay the full amount of the fee of $2.00 is charged for each course.

No transcript will be issued unless all financial obligations owed by the student to the University have been satisfied. The delivery of academic support systems to students is the responsibility of the academic advisor.

The student should consult with the academic advisor about the program and any questions of the student. The student should consult with the academic advisor about the program and any questions of the student.

The academic progress of student athletes engaged in intercollegiate competition is monitored by the Asia. The delivery of academic support systems to those student athletes who need them is facilitated via this office.

AUDITING COURSES

Regularly enrolled Duquesne students are permitted to audit courses. In addition non-degree students from the general community who would like to audit courses for personal enrichment and who are not matriculated or pursuing a degree program are also allowed to audit. Regular students should consult their academic advisor for details on auditing. Non-degree students should contact Duquesne's Division of Continuing Education to complete a brief application form. Admission is granted on a space available basis by submitting the Office of the Registrar and the individual schools Fees for auditing are uniform for all students.

Registration for a course as an auditor must be declared at registration and is irrevocable after the last date for change of schedule each semester as indicated in the University Calendar (see pages 2-7). Records will show “Audit” in the grade space on the transcript of a regularly matriculated student. A “Certificate of Attendance” for non-degree students will be awarded by the Division of Continuing Education. Audited courses are not eligible to be converted to matriculated credits. Courses audited may not be challenged later or completed after the last day for withdrawal.

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

1. No courses in the School of Law are available for audited courses.
2. No clinical courses in the School of Nursing and Pharmacy can be audited.
3. In the College of Humanities and Social Sciences, audited courses are eligible for grading. Audited courses may not be audited. Students enrolling for audit may attend lectures, complete course readings and, at the discretion of the professor in charge of the course, may participate in classroom discussion and examinations.

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 is the prerogative of each school to establish policy for attendance at classes, laboratories, tests, examinations, deadlines for reports and specific course requirements. It is the instructor's responsibility to make the school's policy known at the very beginning of the course and to the student.

The student who is unable to attend class because of serious illness, hospitalization, a serious accident or other extenuating circumstances must notify the Office of the Registrar. The student must submit the work assigned and take the examination in the course at the specified time. If the work is not submitted or an examination is not taken at the scheduled time, the policy is to assign a zero for that part of the course. An accumulation of zero grades could result in a final grade of "F." If a student has for significant reasons missed a part of the course or an examination, the grade may be submitted as an "I." If the temporary 'I' grade is to be replaced by a passing grade, the work must be completed by the time stated in the Academic Calendar Failure on the part of the student to receive the temporary grade results in conversion of that grade to an "F" recorded on the transcript.

CLASSIFICATION OF STUDENTS

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

1. Full-time Student: A student with an academic schedule of at least 12 credits is considered a full-time student. This status is subject to the benefits of various activities. A student may change status during the semester without the permission of the academic advisor and the Dean of the student's school.
2. Part-time Student: Anyone who carries 12 credits is regarded as a part-time student.
3. Post-graduate Student: A person who has completed a baccalaureate degree and is seeking additional undergraduate credits.

COURSE EXAMINATIONS

Unit examinations are given on the dates announced by the instructor at the beginning of each semester. Grades for these are obtained from the instructor. Final examinations are given at the end of each session and during the 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 for a particular School of the University, are available to currently enrolled students whose 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 the school and the examination procedure.

GRADING SYSTEM

The officially recognized method of grading course work and rating academic performance of undergraduate students at the University is as follows:

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

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

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

b) A student athlete must be making satisfactory academic progress. This means that a student must have successfully completed 24 credits during the previous academic year. This would allow a student the fall, spring, and summer semesters in which to earn these 24 credits. In addition the student athlete must satisfy the student standing policy as outlined in the Student Handbook and University catalogs.

c) A student athlete (as all students in the University) is academically dismissed if the student athlete fails three courses in one semester. Student athletes can be readmitted by the student standing committee of the college or school to which the student athlete is returning. If a student transfers to another school within the University, the student athlete can be admitted only by the Dean of that school.

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

**Academic Warning** 1.75 to 1.99 QPA (Letter of warning may be sent by appropriate Dean)

**Probation** 1.50 to 1.74 QPA (Subject to the jurisdiction of the appropriate Committee on Student Standing and may be required to modify or restrict academic program)

**Dismissal** Less than 1.50 QPA (Readmission may be permitted on recommendation of the appropriate Committee on Student Standing)

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

**Academic Warnings** 1.85 to 1.99 QPA (Letter of warning may be sent by appropriate Dean)

**Probation** 1.75 to 1.84 QPA (Subject to the jurisdiction of the appropriate Committee on Student Standing and may be required to modify or restrict academic program)

**Dismissal** Less than 1.75 QPA (Readmission may be permitted on recommendation of the appropriate Committee on Student Standing)

Students who have attempted 61 or more credits and who have attempted a GPA 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 GPA 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. 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.

**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 3.5, 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 or who have attempted the courses taken in each semester are subject to dismissal. Appeals of academic dismissal must be directed to the appropriate College or School Committee on Student Standing. Students subject to the jurisdiction of the appropriate Committee on Student Standing in accordance with the established guidelines who are permitted to re-enroll on a full-time basis but continue participation in non-curricular and extra-curricular activities shall be without appeal if they are subsequently dismissed from the University for poor scholarship.

**GRADUATION REQUIREMENTS**

The candidate for a University degree must be a person of good moral character who has satisfactorily completed all requirements for the degree and in addition has the recommendation of the appropriate Academic Dean, the application for the University Degree, 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:

1. The bachelor's degree requires a minimum of 120 semester hours of course credits in all except Radiological Health, Medical Technology, Pharmacy which require, respectively, 123, 125, and 160 semester hours.

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, minor or science, 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 liberal arts programs 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 timely 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**

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, 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 of work in lecture or recitation, or
a 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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Pittsburgh PA

Harry Menk
Director of Pharmacy
Monongahela Valley Hospital
Monongahela PA

Sandy Mitchell
Allegheny Valley Hospital
Natrona Heights PA

Connie Metz
Director of Pharmacy
McKee'sport Hospital
McKee'sport PA

William Montgomery
Franklin Hospital Pharmacy
Franklin, PA

Joseph Mosh
Mosh's Pharmacy Inc
Latrobe PA

David Niedzielski
Director of Pharmacy
Andrew Kaul Memorial Hospital
St Mary's PA

Phillip Neri
Divine Providence Hospital
Pittsburgh PA

Elaine Negro
Jefferson Medical Center
Pittsburgh PA

Robert Nix
John Kane Hospital
Pittsburgh PA

Leonard O. Hara
Chief Pharmacist
Mercy Hospital
Scranon, PA

Mark H. O'Toole
Braddock General Hospital
Braddock, PA

Richard A. Ottmar
Sacred Heart Hospital
Cumberland MD

Anthony R. Passeri
Public Drug Store/Tusca Plaza
Beaver, PA

Loretta Patton
High Point Pharmacy
Erie PA

John Rosencrance
Richland Drug Store Inc
Johnstown, PA

John P. Rosile
Pike Pharmacy
Canonsburg, PA

Charles Rossko
South Side Hospital of Pittsburgh
Pittsburgh, PA

James Rossano
St Francis Hospital of New Castle
New Castle PA

Lee Ann Rossman
Hamot Medical Center
Erie PA

James F. Roverno
Lawrence Park Apothecary
Erie PA

John Russo Jr
Russo's Pharmacy Inc
New Castle PA

Henry Sagan
Meadowlands Hospital
Weston WV

James E. Sandala
West Penn Hospital
Pittsburgh PA

John P. Samsone
Woodville State Hospital
Pittsburgh PA

Frank Scalise
Bevco's Pharmacy
Pittsburgh PA

Sidney Shabrin
American's Pharmacy
Allentown PA

Phillip B. Sollon
Sollon Pharmacy
Canonsburg PA

Donald L. Spencer
Executive Director
Cumberland Area Health Education Center
Cumberland MD

Robert B. Stanek
Director of Pharmacy Services
Good Samaritan Hospital
Pittsburgh PA

Willard A. Stephens
Stephens Prescription Drug Store Inc
Moscow PA

Lee Staley
Sharon General Hospital
Sharon PA

Frank J. Stroker Jr
Waran General Hospital Pharmacy
Warren PA

Tim Stukus/Dan Fritz
Central Medical Health Services
Pittsburgh PA

Dolores M. Sudar
Alquippa Hospital
Alquippa PA

Robert D. Swenson
Westmoreland Hospital
Greensburg PA

Edward P. Szarnicki
Ecker Drug Store/Heights Plaza
Natrona Heights PA

Ronald Taormina
St Francis General Hospital
Pittsburgh PA

Charles Tarasovic
Mt. Margaret Memorial Hospital
Pittsburgh PA

Charles D. Thomas
Charlottesville Drug Store
Pittsburgh, PA

George Teth
Director of Pharmacy
Altoona Hospital
Altoona PA

Charles F. Traeger
Avco's Drug Store
McKee'sport PA

Mary L. Vito
Mallard Pharmacy
McKee'sport PA

Daniel Wagner
Media Pharmacy
Gibsonia PA

Louis Wakefield
Director of Pharmacy Services
St Joseph Hospital
Reading, PA

Donald Walkem
Ray Westbrook
Westbrook Pharmacy and Surgical Supply
Pittsburgh, PA

Thomas Weimer
McKee'sport Hospital
McKee'sport PA

Jack Welch
Jameson Memorial Hospital
New Castle, PA

Lavonne Weizerek
H C Frick Community Hospital
Mt. Pleasant PA

Stephen W. Wiley
Director of Pharmacy
The Milton S HERSHEY Medical Center
HERSHEY PA

May Winek
Apothecary Shoppe
Allison Park, PA
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## RESERVE OFFICERS TRAINING CORPS (ROTC)

### ADMINISTRATION

- Captain Kenneth P Bostelman
  - BS Professor of Military Science

### FACULTY—DEPARTMENT OF MILITARY SCIENCE

- Captain Gerald L Boldt
  - Assistant Professor of Military Science
  - BS M A Mankato State University

- Captain Kenneth P Bostelman
  - Professor of Military Science
  - BS Eastern Kentucky Military University

- Captain Richard F Sollner Jr
  - Professor of Military Science
  - BS United States Military Academy

## THRIFT DRUG

- Clifford Beisel #51
  - McKnight Siebert Shopping Center
  - Pittsburgh PA

- Dave Bracken
  - Grant Plaza
  - Coats & Clark PA

- Paul Culan
  - Kenmore Plaza
  - McKees Rocks PA

- David Dolan
  - Ritzlans Shopping Center
  - Pittsburgh PA

- William F Donley
  - 1956 Greenshore Road
  - Pittsburgh PA

- Alan Hart
  - Southland Shopping Center
  - Pittsburgh PA

- Frank Koseczny #90
  - 2200 Northway Mall
  - Pittsburgh PA

- Mort Kuber #24
  - 300 Mt Lebanon Boulevard
  - Pittsburgh PA