<table>
<thead>
<tr>
<th>July</th>
<th>Monday</th>
<th>Independence Day (University closed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Wednesday</td>
<td>Fall Term deadline for continuing students to register</td>
</tr>
</tbody>
</table>

### August

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Monday</td>
<td>Graduate International Student Check-In and Orientation</td>
</tr>
<tr>
<td>4-21, incl.</td>
<td>Friday-Sunday</td>
<td>Undergraduate International Student Orientation</td>
</tr>
<tr>
<td>22</td>
<td>Monday</td>
<td>Residence halls open</td>
</tr>
<tr>
<td>22-28, incl.</td>
<td>Monday-Sunday</td>
<td>New and Transfer Student Orientation</td>
</tr>
<tr>
<td>24</td>
<td>Wednesday</td>
<td>New Student Convocation</td>
</tr>
<tr>
<td>25</td>
<td>Thursday</td>
<td>New Faculty Orientation</td>
</tr>
<tr>
<td>26</td>
<td>Friday</td>
<td>New Teaching Assistant Orientation</td>
</tr>
<tr>
<td>29</td>
<td>Monday</td>
<td>Fall Term enrollment period ends for all students</td>
</tr>
<tr>
<td>29</td>
<td>Monday</td>
<td>Fall Term classes begin</td>
</tr>
</tbody>
</table>

### September

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Monday</td>
<td>Labor Day (University closed)</td>
</tr>
<tr>
<td>9</td>
<td>Friday</td>
<td>Fall Term add/drop period ends</td>
</tr>
<tr>
<td>17</td>
<td>Saturday</td>
<td>Constitution Day</td>
</tr>
<tr>
<td>30-Oct 1, incl.</td>
<td>Friday-Saturday</td>
<td>Family Weekend</td>
</tr>
</tbody>
</table>

### October

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-9, incl.</td>
<td>Friday-Sunday</td>
<td>Homecoming Activities</td>
</tr>
<tr>
<td>17</td>
<td>Monday</td>
<td>Fall Break for students (no classes); University offices and buildings remain open and staffed during Fall Break (see note below)</td>
</tr>
<tr>
<td>18</td>
<td>Tuesday</td>
<td>Monday classes normally scheduled to meet Monday, October 17th will meet on Tuesday, October 18th. Tuesday classes will not meet this week (see note below)</td>
</tr>
<tr>
<td>28</td>
<td>Friday</td>
<td>Fall Term deadline for students to submit Monitored Withdrawal forms to Dean’s Office</td>
</tr>
<tr>
<td>28</td>
<td>Friday</td>
<td>Spring Term enrollment appointments begin (Veteran Students)</td>
</tr>
<tr>
<td>31</td>
<td>Monday</td>
<td>Spring Term enrollment appointments begin (Non-Veteran Students)</td>
</tr>
</tbody>
</table>

### November

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Friday</td>
<td>Last day for Spring Term enrollment appointments</td>
</tr>
<tr>
<td>12</td>
<td>Saturday</td>
<td>Spring Term open enrollment begins</td>
</tr>
<tr>
<td>23-27, incl.</td>
<td>Wednesday-Sunday</td>
<td>Thanksgiving Recess for students (no classes), all schools</td>
</tr>
<tr>
<td>24-25, incl.</td>
<td>Thursday-Friday</td>
<td>Thanksgiving Recess for faculty and staff (University closed)</td>
</tr>
<tr>
<td>28</td>
<td>Monday</td>
<td>Classes resume (all schools)</td>
</tr>
</tbody>
</table>

### December

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Friday</td>
<td>Fall Term: Last day for undergraduate day classes</td>
</tr>
<tr>
<td>9</td>
<td>Friday</td>
<td>Spring Term deadline for continuing students to register</td>
</tr>
<tr>
<td>10</td>
<td>Saturday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>10-17, incl.</td>
<td>Saturday-Saturday</td>
<td>College of General Studies classes, Saturday Only classes, graduate classes, and evening classes will continue to meet during this period; final examinations should be held during the last scheduled class meeting</td>
</tr>
<tr>
<td>12-17, incl.</td>
<td>Monday-Saturday</td>
<td>Final examination period for undergraduate day classes</td>
</tr>
<tr>
<td>17</td>
<td>Saturday</td>
<td>Fall Term Ends: Official date for degrees awarded in Fall Term</td>
</tr>
<tr>
<td>18</td>
<td>Sunday</td>
<td>Residence halls close</td>
</tr>
<tr>
<td>18-Jan 3, incl.</td>
<td>Sunday-Tuesday</td>
<td>Winter Recess for students (no classes), all schools</td>
</tr>
<tr>
<td>20</td>
<td>Tuesday</td>
<td>Fall Term grades must be approved by instructors by 11:59 p.m.</td>
</tr>
<tr>
<td>23-Jan 2, incl.</td>
<td>Friday-Monday</td>
<td>Winter Recess for faculty and staff; designated University offices, including major responsibility centers and research projects, will be staffed as necessary during this period*</td>
</tr>
</tbody>
</table>

Note: Regarding Fall Break, students in the professional programs in the Schools of Dental Medicine, Law, Medicine, Pharmacy, as well as the Joseph M. Katz Graduate School of Business, should contact their Dean’s Office.

*Employees covered by collective bargaining agreements will be governed by the terms of those agreements.

Visit our Web site at [www.pitt.edu/calendars.html](http://www.pitt.edu/calendars.html)
### 2017 SPRING TERM (2174)

<table>
<thead>
<tr>
<th>January</th>
<th>2</th>
<th>Monday</th>
<th>Residence halls reopen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>Tuesday</td>
<td>All University offices and buildings reopen</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Wednesday</td>
<td>Spring Term enrollment period ends for all students</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Wednesday</td>
<td>Spring Term classes begin</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Monday</td>
<td>Dr. Martin Luther King’s birthday observance (University closed)</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Wednesday</td>
<td>Spring Term add/drop period ends</td>
</tr>
<tr>
<td>February</td>
<td>10</td>
<td>Friday</td>
<td>Summer Term enrollment appointments begin (Veteran Students)</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Monday</td>
<td>Summer Term enrollment appointments begin (Non-Veteran Students)</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Friday</td>
<td>Honors Convocation</td>
</tr>
<tr>
<td>March 5-12 incl.</td>
<td>Sunday-Sunday</td>
<td>Spring Recess for students (no classes); University offices and buildings remain open and staffed during Spring Recess except on Friday, Spring Holiday</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Friday</td>
<td>University’s observance of Spring Holiday (University closed)</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Wednesday</td>
<td>Spring Term deadline for students to submit Monitored Withdrawal forms to Dean’s Office</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Friday</td>
<td>Fall Term enrollment appointments begin (Veteran Students)</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>Monday</td>
<td>Fall Term enrollment appointments begin (Non-Veteran Students)</td>
</tr>
<tr>
<td>April 7</td>
<td>Friday</td>
<td>Last day for Fall Term enrollment appointments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Saturday</td>
<td>Fall Term open enrollment period begins</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>Friday</td>
<td>Spring Term: Last day for undergraduate day classes</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>Saturday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>22-29 incl.</td>
<td>Saturday-Saturday</td>
<td>College of General Studies classes, Saturday Only classes, graduate classes, and evening classes will continue to meet during this period; final examinations should be held during the last scheduled class meeting</td>
<td></td>
</tr>
<tr>
<td>24-29 incl.</td>
<td>Monday-Saturday</td>
<td>Final examination period for all undergraduate day classes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>Saturday</td>
<td>Spring Term Ends: Official date for degrees awarded in Spring Term</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Sunday</td>
<td>Residence halls close (except for graduating seniors)</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Sunday</td>
<td>Annual Commencement Convocation</td>
</tr>
</tbody>
</table>

### 2017 SUMMER TERM (2177)

| May 3 | Wednesday | Spring Term grades must be approved by instructors by 11:59 p.m. |
|       | 7       | Sunday | Summer Term: Residence halls open |
|       | 8       | Monday | Summer Term enrollment period ends and classes begin |
|       | 15      | Monday | Summer 12-WEEK, 6-WEEK-1, 4-WEEK-1 sessions enrollment period ends and classes begin |
|       | 17      | Wednesday | Summer 4-WEEK-1 and 6-WEEK-1 sessions add/drop period ends |
|       | 19      | Friday | Summer Term add/drop period ends |
|       | 22      | Monday | Summer 12-WEEK session add/drop period ends |
|       | 27      | Saturday | Official date for degrees awarded in the School of Law and School of Dental Medicine |
|       | 29      | Monday | Memorial Day (University closed) |
|       | 31      | Wednesday | Summer 4-WEEK-1 session deadline for students to submit Monitored Withdrawal forms to Dean’s Office |
| June 2 | Friday | Summer 6-WEEK-1 session deadline for students to submit Monitored Withdrawal forms to Dean’s Office |
|       | 10     | Saturday | Summer 4-WEEK-1 session ends: Final examinations scheduled during last class meeting |
|       | 12     | Monday | Summer 4-WEEK-2 session enrollment period ends and classes begin |
|       | 14     | Wednesday | Summer 4-WEEK-1 session grades must be approved by instructors by 11:59 p.m. |
|       | 14     | Wednesday | Summer 4-WEEK-2 session add/drop period ends |
|       | 24     | Saturday | Summer 6-WEEK-1 session ends: Final examinations scheduled during last class meeting |
|       | 24     | Saturday | Official date for awarding of degrees |
|       | 26     | Monday | Summer 6-WEEK-2 session enrollment period ends and classes begin |
|       | 28     | Wednesday | Summer 6-WEEK-1 session grades must be approved by instructors by 11:59 p.m. |
|       | 28     | Wednesday | Summer 6-WEEK-2 session add/drop period ends |
|       | 28     | Wednesday | Summer 4-WEEK-2 session deadline for students to submit Monitored Withdrawal forms to Dean’s Office |
### 2017 SUMMER TERM (2177)

<table>
<thead>
<tr>
<th>July</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Tuesday</td>
<td>Independence Day (University Closed)</td>
</tr>
<tr>
<td>7</td>
<td>Friday</td>
<td>Summer Term and 12-WEEK session deadline for students to submit Monitored Withdrawal forms to Dean’s Office</td>
</tr>
<tr>
<td>8</td>
<td>Saturday</td>
<td>Summer 4-WEEK-2 session ends: Final examinations scheduled during last class meeting</td>
</tr>
<tr>
<td>10</td>
<td>Monday</td>
<td>Summer 4-WEEK-3 session enrollment period ends and classes begin</td>
</tr>
<tr>
<td>12</td>
<td>Wednesday</td>
<td>Summer 4-WEEK-2 session grades must be approved by instructors by 11:59 p.m.</td>
</tr>
<tr>
<td>12</td>
<td>Wednesday</td>
<td>Fall Term deadline for continuing students to register</td>
</tr>
<tr>
<td>21</td>
<td>Friday</td>
<td>Summer 6-WEEK-2 session deadline for students to submit Monitored Withdrawal forms to Dean’s Office</td>
</tr>
<tr>
<td>26</td>
<td>Wednesday</td>
<td>Summer 4-WEEK-3 session deadline for students to submit Monitored Withdrawal forms to Dean’s Office</td>
</tr>
</tbody>
</table>

### August

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Saturday</td>
</tr>
<tr>
<td>9</td>
<td>Wednesday</td>
</tr>
<tr>
<td>12</td>
<td>Saturday</td>
</tr>
<tr>
<td>12</td>
<td>Saturday</td>
</tr>
<tr>
<td>13</td>
<td>Sunday</td>
</tr>
<tr>
<td>16</td>
<td>Wednesday</td>
</tr>
</tbody>
</table>

### 2017 FALL TERM (2181)

The beginning, ending, and add/drop dates for 2017 Fall Term (2181) classes and the beginning date for 2018 Spring Term (2184) classes are firm; ALL OTHER DATES ARE TENTATIVE.

The following classes are firm:

- Summer Term and 12-WEEK session deadline for students to submit Monitored Withdrawal forms to Dean’s Office
- Summer 4-WEEK-2 session ends: Final examinations scheduled during last class meeting
- Summer 4-WEEK-3 session enrollment period ends and classes begin
- Summer 4-WEEK-2 session grades must be approved by instructors by 11:59 p.m.
- Fall Term deadline for continuing students to register
- Summer 6-WEEK-2 session deadline for students to submit Monitored Withdrawal forms to Dean’s Office
- Summer 4-WEEK-3 session deadline for students to submit Monitored Withdrawal forms to Dean’s Office
- Summer 12-WEEK, 6-WEEK-2, 4-WEEK-3 sessions end: Final examinations scheduled during last class meeting
- Summer 12-WEEK, 6-WEEK-2, 4-WEEK-3 sessions grades must be approved by instructors by 11:59 p.m.
- Summer Term Ends: Final examinations scheduled during last class meeting
- Official date for awarding degrees
- Residence halls close
- Summer Term grades must be approved by instructors by 11:59 p.m.

### August

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Monday</td>
</tr>
<tr>
<td>28</td>
<td>Monday</td>
</tr>
<tr>
<td>28</td>
<td>Monday</td>
</tr>
</tbody>
</table>

### September

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Monday</td>
</tr>
<tr>
<td>8</td>
<td>Friday</td>
</tr>
<tr>
<td>17</td>
<td>Sunday</td>
</tr>
</tbody>
</table>

### October

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBD</td>
<td>Monday</td>
</tr>
<tr>
<td>TBD</td>
<td>Tuesday</td>
</tr>
<tr>
<td>27</td>
<td>Friday</td>
</tr>
<tr>
<td>27</td>
<td>Friday</td>
</tr>
<tr>
<td>30</td>
<td>Monday</td>
</tr>
</tbody>
</table>

### November

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Friday</td>
</tr>
<tr>
<td>11</td>
<td>Saturday</td>
</tr>
<tr>
<td>22-26, incl.</td>
<td>Wednesday-Sunday</td>
</tr>
<tr>
<td>23-24, incl.</td>
<td>Thursday-Friday</td>
</tr>
<tr>
<td>27</td>
<td>Monday</td>
</tr>
</tbody>
</table>

### December

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Friday</td>
</tr>
<tr>
<td>8</td>
<td>Friday</td>
</tr>
<tr>
<td>9</td>
<td>Saturday</td>
</tr>
<tr>
<td>9-16, incl.</td>
<td>Saturday-Saturday</td>
</tr>
<tr>
<td>11-16, incl.</td>
<td>Monday-Saturday</td>
</tr>
<tr>
<td>16</td>
<td>Saturday</td>
</tr>
<tr>
<td>17</td>
<td>Sunday</td>
</tr>
<tr>
<td>17-Jan. 2, incl.</td>
<td>Sunday-Tuesday</td>
</tr>
</tbody>
</table>
2017 FALL TERM (2181)

December 20 Wednesday Fall Term grades must be approved by instructors by 11:59 p.m.
22-Jan. 1, Friday-Monday Winter Recess for faculty and staff; designated University offices, including major responsibility centers and research projects, will be staffed as necessary during this period*
incl.

Note: Regarding Fall Break, students in the professional programs in the schools of Dental Medicine, Law, Medicine, Pharmacy, as well as the Joseph M. Katz Graduate School of Business, should contact their Dean’s Office.

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2018 SPRING TERM (2184)

January 2 Tuesday Residence halls open
2 Tuesday All University offices and buildings reopen
3 Wednesday Spring Term classes begin

NOTE: THE UNIVERSITY RESERVES THE RIGHT TO MAKE SUCH CALENDAR CHANGES AS IT DEEMS NECESSARY.
<table>
<thead>
<tr>
<th>ENROLLMENT and ADD/DROP BEGINS MONDAY, FEBRUARY 13th</th>
<th>4WK1 4-Week-1</th>
<th>4WK2 4-Week-2</th>
<th>4WK3 4-Week-3</th>
<th>6WK1 6-Week-1</th>
<th>6WK2 6-Week-2</th>
<th>12 WK 12-Week</th>
<th>TERM Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence Halls Open</td>
<td>* Mon 5/15 Sat 6/10</td>
<td>+ Mon 6/12 Sat 7/8</td>
<td>Mon 7/10 Sat 8/5</td>
<td>* Mon 5/15 Sat 6/24</td>
<td>+ Mon 6/26 Sat 8/5</td>
<td>*+ Mon 5/15 Sat 8/5</td>
<td>*+ Mon 5/8 Mon 8/14</td>
</tr>
<tr>
<td>Enrollment Ends/ Classes Begin</td>
<td>Mon 5/15</td>
<td>Mon 6/12</td>
<td>Mon 7/10</td>
<td>Mon 5/15</td>
<td>Mon 6/26</td>
<td>Mon 5/15</td>
<td>Mon 5/8</td>
</tr>
<tr>
<td>Classes End/Final Exam Held in Last Class Meeting</td>
<td>Sat 6/10</td>
<td>Sat 7/8</td>
<td>Sat 8/5</td>
<td>Sat 6/24</td>
<td>Sat 8/5</td>
<td>Sat 8/5</td>
<td>Sat 8/12</td>
</tr>
<tr>
<td>Residence Halls Close</td>
<td>Sun 6/11</td>
<td>Sun 7/9</td>
<td>Sun 8/6</td>
<td>Sun 6/25</td>
<td>Sun 8/6</td>
<td>Sun 8/6</td>
<td>Sun 8/13</td>
</tr>
</tbody>
</table>

* Memorial Day, Monday 5/29, University Closed  + Independence Day, Tuesday 7/4, University Closed
### 2016–17

<table>
<thead>
<tr>
<th>Faculty Assembly</th>
<th>Senate Council</th>
<th>Staff Association Council</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuesday</strong></td>
<td><strong>Wednesday</strong></td>
<td><strong>Tuesday</strong></td>
</tr>
<tr>
<td>June 7, 2016 (tentative)</td>
<td>June 15, 2016 (tentative)</td>
<td>July 12, 2016 (New Member Orientation Luncheon)</td>
</tr>
<tr>
<td>September 13, 2016</td>
<td>September 21, 2016</td>
<td>Wednesday</td>
</tr>
<tr>
<td>October 11, 2016</td>
<td>October 19, 2016</td>
<td>Wednesday</td>
</tr>
<tr>
<td>November 8, 2016</td>
<td>November 16, 2016</td>
<td>Wednesday</td>
</tr>
<tr>
<td>December 6, 2016</td>
<td>December 14, 2016</td>
<td>Wednesday</td>
</tr>
<tr>
<td><strong>2017</strong></td>
<td><strong>2017</strong></td>
<td></td>
</tr>
<tr>
<td>January 17, 2017</td>
<td>January 25, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>February 14, 2017</td>
<td>February 22, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>March 14, 2017</td>
<td>March 22, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>April 11, 2017</td>
<td>April 19, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>May 9, 2017</td>
<td>May 17, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>June 6, 2017 (tentative)</td>
<td>June 14, 2017 (tentative)</td>
<td>Wednesday</td>
</tr>
<tr>
<td>September 12, 2017</td>
<td>September 20, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>October 10, 2017</td>
<td>October 18, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>November 7, 2017</td>
<td>November 15, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td>December 5, 2017</td>
<td>December 13, 2017</td>
<td>Wednesday</td>
</tr>
<tr>
<td><strong>University Senate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thursday</td>
<td>October 2016, TBA (Plenary Session)</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>March 2017, TBA (Plenary Session)</td>
<td>November 15, 2017</td>
</tr>
</tbody>
</table>
Welcome to the University of Pittsburgh Catalog for the Bradford Campus! ................................................................. 4
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Welcome to the University of Pittsburgh Catalog for the Bradford Campus!

Whether you are interested in attending the University of Pittsburgh, or are already enrolled, you can search the Catalog to obtain campus information, academic programs, policies, and courses. Should you have any questions about the content in the catalog, please email us at catalogs@pitt.edu.

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University of Pittsburgh Nondiscrimination Policy Statement

The University of Pittsburgh, as an educational institution and as an employer, values equality of opportunity, human dignity, and racial/ethnic and cultural diversity. Accordingly, as fully explained in Policy 07-01-03, the University prohibits and will not engage in discrimination or harassment on the basis of race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, gender identity and expression, genetic information, disability, or status as a veteran. The University also prohibits and will not engage in retaliation against any person who makes a claim of discrimination or harassment or who provides information in such an investigation. Further, the University will continue to take affirmative steps to support and advance these values consistent with the University's mission. This policy applies to admissions, employment, access to and treatment in University programs and activities. This is a commitment made by the University and is in accordance with federal, state, and/or local laws and regulations.

For information on University equal opportunity and affirmative action programs, please contact: University of Pittsburgh, Office of Affirmative Action, Diversity and Inclusion, Pamela W. Connelly, Associate Vice Chancellor, 500 Craig Hall, Pittsburgh, PA 15260 (412) 648-7860.

For complete details on the University's Nondiscrimination Policy, please refer to Policy 07-01-03. For information on how to file a complaint under this policy, please refer to Procedure 07-01-03.

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About the University of Pittsburgh at Bradford

The University of Pittsburgh at Bradford (Pitt-Bradford) is a comprehensive four-year undergraduate college of the University of Pittsburgh. Founded in 1963, Pitt-Bradford traces its roots back to 1787, the founding year of the University of Pittsburgh. Pitt-Bradford awards the Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Nursing degrees in 25 major areas of study, the Associate of Science degree in two major areas of study, and the Associate of Arts degree in one area of study. In addition, the college provides certification programs in elementary and secondary education, preprofessional programs in a variety of health-related and other areas, and minor concentrations in more than 40 areas of study.

Pitt-Bradford is located in northwestern Pennsylvania near the New York state border on north-south U.S. Route 219, just 10 miles south of Interstate 86. Nearby are the major population centers of Pittsburgh (165 miles), Buffalo (80 miles), and Toronto, Canada (165 miles). The modern 170-acre Pitt-Bradford campus, which was first constructed in 1970, completed a major capital expansion program in 2003. This resulted in the renovation and expansion of a comprehensive sport and fitness center and a student center, and the construction of a fine arts building and theater. Combined with other existing buildings and a mountain setting that is unparalleled for its beauty, Pitt-Bradford has become one of the most physically attractive campuses in the northeastern United States.

Because of Pitt-Bradford's location near the Allegheny National Forest, opportunities for outdoor recreation are plentiful. This includes cross-country and downhill skiing in the winter (the slopes of Holiday Valley are just minutes away) and boating, swimming, fishing, hiking, and camping in the warmer months both in and around the Allegheny Reservoir.

The city of Bradford and its environs, population 20,000, has a rich historic heritage. It was founded during the Pennsylvania oil boom, and some of the world's finest crude oil is still pumped from Bradford wells. Shopping and banking facilities, a well-staffed regional medical center, and all the other amenities of an established small city are available to Pitt-Bradford students.

Accreditation

The University of Pittsburgh at Bradford is fully accredited through the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, (267) 284 - 5000.

Campus Buildings, Centers, and Facilities

Blaisdell Hall

Blaisdell Hall is the new building that houses the Division of Communication and the Arts and all programs in the fine arts, which include drama, music, and studio arts. Opened in the summer of 2003, the academic wing houses classrooms, art studios, music practice rooms, a state-of-the art broadcast studio, a rehearsal facility, and faculty offices and meeting rooms. In spring 2004, the Bromeley Family Theater, housed within Blaisdell Hall, opened. Included are a 500-seat theater with a full-stage house, and facilities for designing and building sets for a variety of productions.

Fisher Hall

Fisher Hall contains classrooms, laboratories, and faculty offices for the Departments of Biology, Chemistry, Computer Science, Geology and Environmental Science, Engineering, Psychology, and Physics. Fisher Hall also houses the College's Computing, Telecommunications, and Media Services Center. Students have 24-hour access to one of the two computer-aided learning centers (CALCs). Fisher Hall also houses the 100-seat Rice Auditorium.

Frame-Westerberg Commons

The Frame-Westerberg Commons (the student union), newly expanded and remodeled in 2003, is the "living room" of the campus. The Commons contains on its first floor the college dining rooms; the snack bar/coffee shop; the Panther Shop, formerly known as the Book Center; the campus post office; a game room, meeting and conference rooms; student lounges; and WDRQ, the campus radio station. The Office of Conference Services is also there. On the second floor are the Offices of Student Affairs and Career Services, Student Health and Counseling Services, Residential Life and
Housing, and Student Activities, as well as the student offices for the Student Government Association, Student Activities Council, and student publications.

**T. Edward and Tullah Hanley Library/Administration Building**

Dedicated and named in October of 1989, the T. Edward and Tullah Hanley Library holds 84,000 volumes and more than 400 periodical titles. PITTCAT, the online computerized catalog, includes the Hanley Library's holdings as well as 3.9 million additional volumes from other University of Pittsburgh libraries. Hanley Library contains a number of small-group study areas, an AV listening/viewing room, an art gallery, and the Academic Success Center. The Hanley Library also houses the Offices of the President, Admissions, Admissions, and TRiO Student Support Services.

**Sport and Fitness Center**

The Sport and Fitness Center, opened in fall of 2002, provides a magnificent addition to the campus. Included in this complex is a 1,200-seat performance arena that is designed for basketball, volleyball, and general recreation; a fully equipped Fitness Center with the latest in physical conditioning equipment; and an Exercise Arts Studio to support dance, martial arts, and aerobics instruction. In addition, the Tom L. McDowell Fieldhouse is a full-sized auxiliary gymnasium used primarily for recreation and intramurals, physical education classes, and other events. Also included is a six-lane National Collegiate Athletic Association (NCAA) regulation-length swimming pool, which supports swim instruction, recreation, and intercollegiate swim teams. The building also houses offices and facilities for the Department of Athletics and Recreational Sports, as well as offices and classrooms for Sport and Exercise Science and Athletic Training majors. The latter includes a computer lab, physiology lab, and a National Athletic Training Association (NATA) standard athletic training room. Outdoor recreational facilities include a lighted softball field, a baseball field, tennis courts, two handball courts, several outdoor basketball courts, football/softball fields, a sand volleyball court, and the Richard E. McDowell Community Trail.

**Swarts Hall**

Swarts Hall contains classrooms and faculty offices for the Departments of Criminal Justice, Nursing, Business Management, English, French, Spanish, Philosophy, Writing, Mathematics, Anthropology, Sociology, History, Political Science, and Economics. The Office of the Vice President and Dean of Academic Affairs is on the second floor of Swarts. Two state-of-the-art computer labs are also available for student use. One of them also serves as an interactive television (ITV) and multimedia classroom.

**Computer Facilities**

All Pitt-Bradford students have access to six computer areas, five computer-aided learning centers (CALCs), and an open lab area, giving students access to more than 130 high-powered Windows XP-based computers. Each computer area has access to a laser printer. The 113 Fisher Hall CALC is the primary CALC on campus. It currently contains a variety of hardware, including a number of Windows-based computers, full-page scanner, CD-RW units, laser printer, and high-quality color laser printer. The 110 Fisher Hall CALC is a 24-hour-a-day lab and is used for instructional purposes during the day. It contains Windows-based computers, a laser printer, and an instructor's computer connected to an overhead projection system. The Hanley Library open lab area is an unsupervised computing area containing Windows-based systems. The CALC in 106 Swarts Hall is an instructional lab that comes equipped with Pentium-level Windows-based computers, a laser printer, and an instructor's computer connected to an overhead projection system. The CALC in 158 Sport and Fitness Center is an instructional lab that comes equipped with Windows-based computers, all with CD-RW units, a laser printer, and an instructor's computer connected to an overhead projection system. This is our largest lab with 28 student machines. The 236 Swarts Hall lab is a computerized multimedia room. It has 20 Windows computers, cameras, televisions, and a rear projection system to facilitate remote instruction. All computers are networked and fully enabled for Internet access. Likewise, all residence halls are wired for Internet access.

**Continuing Education and Regional Development**

Pitt-Bradford is committed to engaging in the communities within northwest and north central Pennsylvania to promote continuing education, economic development and partnerships that allow the resources of the University and the resources of the community to work synergistically.
Professional and Workforce Education

The Professional and Workforce Education programs make continuing education accessible and affordable to individuals interested in advancing a career or satisfying a personal interest. Offerings include a range of certificate programs, professional development courses, computer skills training courses, personal instruction in fine arts and summer youth programs.

Workforce Education refers to specialized and contracted training programs designed to meet specific requests from business and industry. Facilitating critical job training programs increases the sophistication of a regional workforce competing in a global economy with ever-changing demands for employee and technologic proficiency.

Programs are held on campus as well as at outreach sites in cooperation with the Community Education Council of Elk and Cameron Counties (St. Marys site), the Potter County Community Education Council (Coudersport, Port Allegany and Galeton sites), and the Warren/Forest County Higher Education Council (Warren site). Customized job training programs are offered either on campus or on location for business and industry.

Conference Services

The University provides full service conference and catering for conferences, summer camps/events, meetings, banquets, workshops and seminars. Overnight accommodations are available during the summer months (May-mid August).

WEDnetPA

Pitt-Bradford is a partner in Pennsylvania's Guaranteed Free Training Program (WEDnetPA). WEDnetPA enables eligible companies to receive grant money for either basic skills or information technology training, and BRC assists in the application for and administration of State funds.

Sponsored Programs

Pitt-Bradford pursues an intentional strategy to compete for Federal and State grant monies, as well as to seek funding from corporations and private foundations. These efforts focus on the development and enhancement of academic programs and student services, and enable Pitt-Bradford to participate in regional community and economic development projects.

Division of Student Affairs

The Division of Student Affairs is concerned with creating an atmosphere on campus that is complementary to and supportive of the academic environment. This division includes the Offices of the Vice President and Dean of Student Affairs, Admissions, Athletics and Recreational Sports, Career Services, Counseling Services, Financial Aid, Health Services, Residential Life and Housing, and Student Activities. Each of these offices provides important support services for students, as well as cocurricular programs that enhance the college experience for all. Offices for the Division of Student Affairs are located on the second floor of the Frame-Westerberg Commons. Athletic Department offices are located in the Sport and Fitness Center, and Admissions is located in Hanley Library. Financial Aid is located in The Hanger.

Athletics and Recreational Sports

The University of Pittsburgh at Bradford is a Division III member of the National Collegiate Athletic Association (NCAA) and the Allegheny Mountain Collegiate Conference (AMCC). A diversified program of seven intercollegiate sports for men and seven intercollegiate sports for women is maintained. Men's sports are basketball, soccer, swimming, cross-country, golf, tennis and baseball. Women's sports include basketball, bowling, soccer, swimming, volleyball, cross-country, softball, and tennis. A professional medical staff, including a team physician and two certified athletic trainers, support the student athletes at Pitt-Bradford.

Intercollegiate and recreational sports are an integral part of campus life at the University of Pittsburgh at Bradford. The intercollegiate athletic program is consistent with the established University mission dedicated to the education of undergraduate students prepared to deal effectively with and contribute to a changing society. A balance between academic achievement and athletic accomplishment is emphasized. The University of Pittsburgh at Bradford believes in athletics as a valuable part of a well-rounded education.
Recreational Sports

The primary goal of the intramural and recreational sports program is to provide individuals of various ability levels with opportunities for fun and leisure through recreational competition. The intramural and recreational sports program provides a year-round schedule for seasonal sports with voluntary participation in regularly organized and supervised activities. Under the direction of the director of recreation and intramurals, students organize and implement most activities.

The intramural and recreational sports program includes opportunities for both men and women in team, individual, coed, and leisure-time sports such as basketball, flag football, tennis, softball, volleyball, indoor soccer, downhill and cross-country skiing, fishing, hiking, camping, canoeing, and bicycling. Opportunities to compete in club sports programs are also available. Outdoor recreation facilities include a lighted softball field, outdoor basketball courts, tennis courts, soccer/football fields, and a sand volleyball court.

Career Services

The Office of Career Services provides career counseling and career-related programs and services, and coordinates placement assistance functions for students and alumni. Career Services helps students explore various academic majors, minors and career options through individual career counseling and vocational interest testing. Also, FOCUS 2 and Siggy 3, computer-based guidance systems, are available to help students explore how their interests, skills and values relate to academic and career decisions.

Students are encouraged to use PantherLink, Pitt-Bradford's powerful career management system that connects students and alumni with full-time and part-time employment opportunities, internships, and employers. Career Services helps students develop a comprehensive career action plan and develop and enhance life-long skills in areas such as goal setting, resume writing, interviewing and conducting a job search. Students may also access Optimal Resume, a cutting-edge resume development software program. Workshops, job fairs and special career-related events, such as From Backpack to Briefcase program, the annual Spring Career Fair and the Career Networking Luncheon, are held throughout the year. The University of Pittsburgh at Bradford is member of the WestPACS and PERC consortiums and participates in the Fall and Spring WestPACS Job Fairs and the annual PERC Teacher Job Fair. Career Services also maintains a comprehensive Career Services Library and a career website which provides information on employment opportunities, graduate and professional schools, employers, job boards, internships, upcoming events and job fairs.

Counseling Services

Counseling services are available to students who have personal concerns or problems. The director of counseling services, a licensed psychologist, provides individual counseling and crisis intervention, as well as programs to assist students in identifying and resolving problems that may interfere with their adjustment. Referrals for counseling or psychiatric services are also sometimes made to The Guidance Center, a community counseling facility located near campus. Confidentiality is maintained in all contacts.

Health Services

The director of health services, a registered nurse, provides health services and programs for Pitt-Bradford students. Primary assessment and treatment of health problems and injuries, health counseling, and referrals are included in the scope of services. A campus physician provides verbal consultation daily and a medical clinic on campus every 2-3 weeks. The Student Health Center also includes a Self-Care Center for colds, cuts, and upset stomachs.

Immunization Requirements

Immunization requirements for all new full-time students born after 1956 are as follows:

- Measles immunization two doses
- Rubella immunization one dose
- Mumps immunization one dose

The month, day, and year of immunization must be provided.
Note: One current MMR (measles, mumps, and rubella) vaccine received within the past three years satisfies the University immunization requirement. Written proof or a photocopy of the immunization record must be submitted with the student health evaluation form. MMR vaccine is available for a $60 fee at Student Health Services 814-362-5272

Meningitis vaccine is highly recommended by the State of Pennsylvania for students who will be living in campus housing. If a student living on campus does not wish to receive the meningitis vaccine, he/she must sign a waiver (or the parent must sign the waiver if the student is under the age of 18) prior to moving on campus.

Please call 814-362-5272 if you have questions about either of these important immunization requirements.

Office of Community Engagement

The Office of Community Engagement (OCE) works with individual students and student organizations to connect them with community service projects and civic engagement opportunities that are compatible with their interests and goals. Students have the opportunity to get involved in a variety of community service projects in the Bradford area and beyond. The OCE also hosts the annual Leadership Development Series, which is offered during the month of February. At the end of the year, students are recognized at the Leadership and Service Awards Ceremony for their contributions to the university and the community.

The Harriett B. Wick Chapel hosts a variety of events including music recitals, lectures, poetry readings, induction ceremonies and weddings. Once a month, a program called "Stress Free Sunday" is offered to students as a way to relax and rejuvenate for the week ahead. A special craft is featured and refreshments are available. Worship services are offered to students on the weekends and the chapel is open daily for prayer, meditation and reflection.

Residential Life and Housing

Pitt-Bradford has established a distinctive approach to campus living through its apartment-style housing facilities. Seventy-six townhouse apartments, thirty-nine garden apartments, and twenty-seven suite-style apartments provide accommodations for two to six students each and are complete with kitchenettes and living rooms. Twenty resident advisors (RAs) trained in interpersonal skills, mediation, fire safety, CPR, and first aid staff the apartment units.

All freshmen and sophomores who do not live in their own homes or with immediate relatives in the Bradford area are required to live on campus. Juniors, seniors, and students 21 years of age or older may live off campus. All freshmen living on campus are required to purchase the 260-meal per-term board plan; a 195-meal option and a 145-meal option are available for upperclassmen. All meal plans may be purchased with Flex dollars that can be used for additional food items only at various locations on campus. Resident students must submit a housing application and a housing reservation fee before being assigned to a room. Students may indicate their choice of roommates; however, the University reserves the right to make all room assignments.

Rules, regulations, and policies regarding on-campus living are published in the Pitt-Bradford Student Handbook, which is distributed to all students at the beginning of the term. Students are expected to conduct themselves as adults and respect the rights of others at all times.

Student Activities

More than 50 campus clubs and organizations exist to serve the cocurricular needs of students. In addition, the Student Activities Council of the Student Government Association provides students with a variety of programs, which includes but is not limited to lectures, comedy, dances, concerts, trips, and special events (such as Alumni and Family Weekend, Sibs and Kids Day, and Winter Week). The director of student activities serves as advisor to the Student Activities Council and is available to work with students who wish to form a new club or organization on campus. Most programs in student activities take place in the Frame-Westerberg Commons (student union facility), which provides a variety of facilities to help meet the cocurricular needs of the campus community.

Other Student Services

TRiO Student Support Services (SSS) program provides opportunities for academic development, assists students with basic college requirements and serves to motivate students toward the successful completion of the college education. The goal of TRiO-SSS is to increase the college retention
and graduation rates of its participants and facilitate the process of transition from one level of higher education to the next. Services provided include but are not limited to: basic study skill instruction; and academic, personal, career, or financial counseling.

Campus Ministries

The Board of Campus Ministries is composed of local Bradford clergy representing Christian (Protestant and Roman Catholic) and Jewish traditions. This ecumenical board provides programs for the campus community throughout the year and encourages interested students to become involved in one of the local churches or synagogue. During the fall and spring terms, Bible studies and retreats are made available and are generally coordinated by representatives of campus ministries, faculty advisors, and a representative from the Coalition for Christian Outreach. A Roman Catholic mass is celebrated on campus each weekend, and Protestant and Jewish students enjoy easy access to the local downtown churches and synagogue.

New Student Orientation

All new full-time students of traditional age are required to attend a two-day pre-orientation session (called Beginnings) in July, at which time they receive academic advising from the faculty, register for fall term courses, and participate in a number of social and educational programs. Group discussions on topics related to college life are also part of this program.

Immediately prior to the start of the fall term is an extended three-day orientation, which is designed to help make the transition to college a successful one, while also giving students the opportunity to meet all other members of the incoming class. For those who enter college in January, a one-day orientation session is held on the day before classes begin.

New nontraditionals, as well as incoming transfer students, participate in a one-day orientation program that takes place on designated dates in the summer months or on the day before classes begin in January.

Campus Government and Judicial Organizations

Student Government Association

The Student Government Association (SGA) is elected by the student body and is authorized by the University to represent students on all matters related to college life. SGA is headed by an executive board of seven students: president, vice president, secretary, treasurer, Student Activities Council president, parliamentarian, and one freshman representative. The purpose of SGA is to provide students with opportunities to participate in the decision-making processes of the University, to consider and make recommendations on all phases of student life, and to serve as a principal forum for discussion and dialogue regarding student concerns. The SGA also allocates all revenues to clubs and organizations that are generated through the Student Activities Fee.

Student Judicial Board

The Student Judicial Board is authorized to hear cases of student policy violations and make recommendations to the vice president and dean of student affairs regarding what sanctions, if any, should be imposed.

Greek Council

The Greek Council is the governing body that oversees the affairs and concerns of the five social fraternities and sororities. Headed by an Executive Board comprised of a president, vice president, secretary, treasurer, activities chairperson, and sergeant at arms, the Greek Council meets weekly to establish standards and coordinate activities for the Greek organizations. In addition, it reviews and recommends dates for fall and spring term new member programs. Greek Council also serves as the judicial body for Greek organizations that have violated Greek Council and/or University policies.
Student Campus Media

*The Source* is the official student newspaper of the University of Pittsburgh at Bradford. It is written and edited by students with the advice and support of a faculty advisor and is published twice monthly during the fall and spring terms. Membership on the staff is open to all students.

The college literary magazine, *Baily's Beads*, publishes students' prose, poetry, and art once a year at the end of the spring term.

WDRQ is the Pitt-Bradford college radio station. It broadcasts to the campus at 1620 on the AM dial. Membership on the radio staff is open to all students.

Clubs and Organizations

The majority of student clubs and organizations are approved and funded by the Student Government Association. Any group of students desiring to form a new club or organization may do so by submitting a constitution, list of officers and members, and proposed budget to the SGA.

Registered and Recognized Clubs and Organizations (Funded by SGA)


Registered and Recognized Clubs and Organizations (Not Funded by SGA)

National Society of Leadership and Success Student Athlete Advisory Committee

Registered Clubs and Organizations (Not Funded by SGA)

Alpha Phi Omega

Registered Social Organizations (Not Recognized, Not Funded by SGA)

Delta Omega Phi Gamma Psi Omega Kappa Sigma Lambda Xi Phi Beta Chi Phi Kappa Epsilon Sigma Lambda Chi Theta Sigma Delta Zeta Alpha Chi
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University Centers and Institutes

Learning Research and Development Center
University Center for Social and Urban Research
University Center for International Studies
University of Pittsburgh Cancer Institute

Centers, Institutes, Laboratories, and Clinics by School

Dietrich School of Arts and Sciences

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Allegheny Observatory
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Center for American Politics and Society
Center for Combinatorial Chemistry
Center for Experimental Game Theory
Center for Industry Studies
Center for Parallel, Distributed, and Intelligent Systems
Clinical Psychology Center
Economic Policy Institute
Economics Computer Laboratory
English Language Institute
Robert Henderson Language Media Center
Humanities Center
Institute for Statistics and Applications
Less Commonly Taught Languages Center
Math Assistance Center
Pittsburgh Bacteriophage Institute
Pymatuning Laboratory of Ecology
Robert Henderson Language Media Center
Surface Science Center
Western Pennsylvania Writing Project
World History Center
The Writing Center
Also, see" Jointly-Administered Centers."

College of General Studies

McCarl Center for Nontraditional Student Success
Osher Lifelong Learning Center

Graduate School of Public and International Affairs

Center for Disaster Management
Innovation Clinic
Johnson Institute for Responsible Leadership Non-Profit Clinic

Also, see" Jointly-Administered Centers."
Katz Graduate School of Business

Artificial Intelligence Management Laboratory
Center for Economic Education
Center for Executive Education
Center for Health and Care Work
David Berg Center for Ethics and Leadership
Institution for Entrepreneurial Excellence, which includes:

- Agricultural Entrepreneurial
- Entrepreneurial Fellows Center
- The Family Enterprise Center
- PantherlabWorks
- Small Business Development Center,

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Center for Urban Education
Institute for Higher Education Management
Institute for International Studies in Education
Motor Behavior Laboratory
Office of Child Development
Physical Activity and Weight Management Research Center
Pittsburgh Learning Policy Center
Reading Center

Swanson School of Engineering

Basic Metals Processing Research Institute
Center for Bioengineering
Center for Complex Engineered Multifunctional Materials
Center for Energy
Center for Medical Innovation
Center for National Preparedness
Center for Sustainable Transportation
Engineering Education Research Center
Engineering Research Center in Biometallics
Manufacturing Assistance Center
Mascaro Center for Sustainable Innovation
Materials-Micro Characterazation Center
Musculoskeletal Research Center
Radio Frequency Identification (RFID) Center of Excellence
Swanson Center for Micro and Nano Systems
Swanson Center for Product Innovation
Swanson Institute for Technical Excellence
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Civil Practice Law Clinic
Environmental Law Clinic
Family Law Clinic
Immigration Law Clinic
Innovation Practice Institute
Low Income Taxpayer Clinic
Securities Arbitration Clinic
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Center for Disaster Management
Center for Metropolitan Studies
Graduate School of Public and International Affairs Nonprofit Clinic
Innovation Clinic
Johnson Institute for Responsible Leadership
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Social Work

Center on Race and Social Problems

School of Information Sciences

Decision Systems Laboratory
Geoinformatics Laboratory
Institute for Information Ethics and Policy
Laboratory of Education and Research on Security Assured Information Systems (LERSAIS)
Teaching and Learning Research Lab
Sara Fine Institute for Interpersonal Behavior and Technology
Teaching and Learning Research Lab
U/Lab
Visual Information Systems Center (VISC)
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Center for Craniofacial Regeneration
Center for Dental Health Research in Appalachia
Center for Dental Informatics
Center for Patients with Special Needs
Dental Registry and DNA Repository
Multidisciplinary Implant Center
Also, see "Jointly-Administered Centers."

School of Nursing

Center for Research and Evaluation
Center for Research in Chronic Disorders
Also, see "Jointly-Administered Centers."
School of Pharmacy

Center for Education and Drug Abuse Research
Center for Pharmacogenetics
Computation Chemical Genomics Center
Pharmacodynamic Research Center
Pharmacoinformatics and Outcomes Research
Also, see" Jointly-Administered Centers."

Graduate School of Public Health

Center for Aging and Population Health
Center for Free Radical and Antioxidant Biochemistry
Center for Healthy Aging
Center for Healthy Environments and Community
Center for Global Health
Center for Maternal and Child Health Leadership in Public Health Social Work
Center for Minority Health
Center for Occupational Biostatistics and Epidemiology
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Epidemiology Data Center
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Pennsylvania and Ohio Public Health Training Center
Pennsylvania Medicaid Policy Center
Pennsylvania/Mid-Atlantic AIDS Education and Training Center
Pennsylvania Prevention Project
Public Health Dynamics Laboratory
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School of Medicine

Advanced Center for Interventions and Services Research for Late Life Mood Disorders
Alzheimer Disease Research Center
Asthma, Allergy, and Airway Research Center
Asthma Institute
Brain Trauma Research Center
Center for ALS Research
Center for Advanced Brain Magnetic Imaging
Center for Biologic Imaging
Center for Detection, Diagnosis, and Intervention in Dementia
Center for Endovascular and Exovascular Therapy
Center for Modeling Pulmonary Immunity
Center for Primary Care Community-Based Research
Center for Research in Reproductive Physiology
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Otolaryngology Research Center
Pittsburgh Center for Pain Research
Pittsburgh Institute for Neurodegenerative Diseases
Safar Center for Resuscitation
Translational Neuroscience Program
Udall Center for Parkinson's Research
Vascular Medicine Institute
Also, see "Jointly-Administered Centers."

School of Health and Rehabilitation Sciences

Center for Assistive and Rehabilitative Technology- Hiram G. Andrews Center
Cognitive Skills Enhancement Program-Hiram G. Andrews Center
Engineering Research Center-Quality of Life Technology
Neuromuscular Research Laboratory
Rehabilitation Engineering Research Center on Spinal Card Injury
Rehabilitation Engineering Research Center in Telerehabilitation
Rehabilitation Engineering Research Center on Wheelchair Transportation Safety
Wheeled Mobility Research Center
Also, see "Jointly-Administered Centers."

Centers, Institutes, Laboratories, and Clinics: Other Academic Units and the Regional Campuses

Office of the Provost

Center for Instructional Development and Distance Education
Center for Philosophy of Science

Student Affairs

Student Health Service
University Counseling Center

University Center for International Studies

African Studies Program
Asian Studies Center
Center for Latin American Studies
Center for Performing Arts of India
Center for Russian and East European Studies
European Studies Center
European Union Center of Excellence
Global Studies Center
*Also, see* "Jointly-Administered Centers."

**University Library System**

Center for American Music
Johnstown Campus
John P. and Joyce Murtha Center for Continuing Education and Professional Development

**Greensburg Campus**

The Westmoreland Heritage

**Titusville Campus**

George J. Barco Center for Continuing Education

**Bradford Campus**

Allegheny Institute of Natural History
Business Resource Center
Center for Rural Health Practice
Energy Institute

**Centers, Institutes, Laboratories, and Clinics: Jointly-Administered Centers**

**Graduate School of Public and International Affairs/Joseph M. Katz Graduate School of Business**

Center for Conflict Resolution and Negotiation

**Graduate School of Public and International Affairs/University Center for International Studies**

Global Studies Program
Matthew B. Ridgway Center for International Security Studies, which includes the Ford Institute for Human Security

**Health Sciences**

Center for Clinical Pharmacology
Center for Continuing Education in the Health Sciences
Center for Environmental Oncology
Center for Injury Research and Control
Division of Laboratory Animal Resources
Facial Nerve Center
Health Sciences/Bioengineering

Human Movement and Balance Laboratories
Magnetic Resonance Research Center
Medical Virtual Reality Center
Musculoskeletal Research Center
Pepper Center

Health Sciences/Children's Hospital of Pittsburgh/Magee Womans Hospital and Research Institute

Pittsburgh Cytogenetics Laboratory
Disabilities Resource Center

Health Sciences/UPMC Health System

Center for Assistive Technology
Center for Biosecurity
Center for Environmental Oncology
Center for Sports Medicine
Center for Vaccine Research
Clinical and Translational Science Institute
Neuromuscular Research Laboratory
Peter M. Winter Institute of Simulation Education and Research (WISER)
Swallowing Disorders Center

Joseph M. Katz Graduate School of Business/University Center for International Studies

International Business Center

Dietrich School of Arts and Sciences of Arts and Sciences/Swanson School of Engineering

Center for Molecular and Materials Simulations
Center for Simulation and Modeling
Petersen Institute of NanoScience and Engineering

Dietrich School of Arts and Sciences of Arts and Sciences/Health Sciences²

Drug Discovery Institute
Dietrich School of Arts and Sciences of Arts and Sciences/Health Sciences²/School of Law

Center for Bioethics and Health Law

Dietrich School of Arts and Sciences of Arts and Sciences/School of Medicine

Center for Neuroanatomy with Neurotropic Viruses
Center for Neuroscience
Conte Center for the Neuroscience of Mental Disorders
Pittsburgh Institute for Neurodegenerative Diseases
University Community Leaders and Individuals with Disabilities Center

School of Health and Rehabilitation Sciences/Swanson School of Engineering/VA Pittsburgh Health Care System/UPMC Health System

Human Engineering Research Laboratories
University of Pittsburgh Model Center on Spinal Card Injury

School of Information Sciences/Graduate School of Public Health/School of Medicine

Center for National Preparedness

School of Law/University Center for International Studies

Center for International Legal Education

School of Medicine/Children's Hospital of Pittsburgh

Benedum Pediatric Trauma Program
Pediatric Center for Neuroscience
Pediatric Neurotrauma Center

School of Medicine/Children's Hospital of Pittsburgh/Magee-Womens Hospital and Research Institute

Fetal Diagnosis and Treatment Center
Pittsburgh Diabetes Institute

School of Medicine/Magee-Womens Hospital and Research Institute

Pregnancy and Diabetes Center
Center for Family Planning Research
Center for Fertility and Reproductive Endocrinology
Center for Research in Continence and Pelvic Floor Disorders
School of Medicine/UPMC Health System

Affect Regulation and Adolescent Brain Center
Audiology Center
Benedum Geriatric Center
Brachial Plexus and Peripheral Nerve Injury Center and Clinic
Brain and Spine Injury Center
Charles T. Campbell Ophthalmic Microbiology Laboratory
Cardiovascular Institute
Center for Clinical Neurophysiology
Center for Diabetes and Endocrinology
Center for Emergency Medicine of Western Pennsylvania
Center for Balance Disorder
Center for Hemochromatosis and Iron Overload Disorders
Center for Image-Guided Neurosurgery
Center for Integrative Medicine
Center for Intestinal Health And Nutrition Support
Center for Liver Diseases
Center for Overcoming Problem Eating
Center for Women's Digestive Health
Comprehensive Epilepsy Center
Comprehensive Lung Center
Comprehensive Pain Center
Cosmetic Surgery and Skin Health Center
Cutaneous Oncology Center
Digestive Disorders Clinic
Emphysema Resource Center
Eye Center
Gastrointestinal Cancer Prevention and Treatment Center
Heart, Lung and Esophageal Surgery Institute
Hillman Cancer Center
Inflammatory Bowel Disease Center
Institute of Aging
Institute for Doctor-Patient Communication
Institute to Enhance Palliative Care
Institute for Rehabilitation and Research
Raymond E. Jordan Center for Balance Disorders
LHAS Women's Heart Center
Late-Life Depression Evaluation and Treatment Center
McGowan Institute for Regenerative Medicine
Neurogastroenterology and Motility Center
Osteoporosis Prevention and Treatment Center
Spasticity Evaluation and Treatment Institute
Pancreas and Biliary Center
Minimally Invasive Endoneurosurgery Center
Position Emissions Tomography Center
Simmons Center for Interstitial Lung Diseases
Center for Sleep Medicine
Sinus and Allergy Center
STAR Center (Services for Teens at Risk)
Stroke Institute
Thomas E. Starzl Transplantation Institute
University of Pittsburgh Headache Center
Vascular Medicine Institute
Weight Management Center
Paul Wellstone Muscular Dystrophy Cooperative Research Center
Western Psychiatric Institute and Clinic
Late-Life Mood Disorder Evaluation and Treatment Center

School of Medicine/VA Pittsburgh Health Care System
Geriatric Research Education and Clinical Center
Center for Health Equity and Research Promotion

University of Pittsburgh/Carnegie Mellon University
Brain Imaging Research Center
Center for the Neural Basis of Cognition
Real-time Outbreak and Disease Surveillance Laboratory
Pittsburgh Center for Social History
Pittsburgh Mind/Body Center
Pittsburgh NMR Center for Biomedical Research

University of Pittsburgh/Carnegie Mellon University/Duquesne University/UPMC Health System/Windber Research Institute
Pittsburgh Tissue Engineering Initiative

University of Pittsburgh/Carnegie Mellon University/Westinghouse Electric Corporation
Pittsburgh Supercomputing Center

University-wide

Institute of Politics

1 Centers and institutes in the category "University Centers and Institutes" are distinguished by organizational permanence, programmatic autonomy, and an annual operating budget fiscally independent of any other academic, research, and/or service unit.

2 Centers and institutes listed are jointly-administered by two or more schools of the Health Sciences, which includes: Graduate School of Public Health, School of Dental Medicine, School of Health and Rehabilitation Sciences, School of Nursing, School of Pharmacy, and School of Medicine.

Note: The centers, institutes, laboratories, and clinics listed are University of Pittsburgh or University affiliated organizations. They are either single or multidisciplinary in scope, and are generally involved in some combination of education, research or service activities. Each center, institute, laboratory, and clinic is listed under the name of the unit with which it is associated.

The Office of Management Information and Analysis modifies this listing throughout the year.
Admissions

Students are encouraged to submit an application for admission, along with a $45 application fee and complete credentials, during the first half of their senior year in high school for the following fall term. Students wishing to enter the University in the spring term should submit application materials by the University's priority deadline of December 1.

Admissions Procedure

Candidates for admission are expected to forward:

1. A completed, signed application form with a $45 fee;
2. Official transcripts from all secondary schools attended; and
3. All official test scores (SAT/ACT) to:
   University of Pittsburgh at Bradford
   Director of Admissions
   300 Campus Drive
   Bradford, PA 16701-2898

The following criteria are considered when rendering an admissions decision: high school curriculum and course load, standardized test scores, rank in class, recommendations, and extracurricular activities. Minimum course preparation should include four years of English, three years of history (social science), two/three years of mathematics, two/three years of science, and two years of modern language.

Students are strongly encouraged to come to campus for an interview and a tour. Contact the Office of Admissions to arrange for an appointment by calling either 814-362-7555 or 1-800-872-1787, or by sending an e-mail message to admissions@www.upb.pitt.edu.

Requirements for Admissions

Applicants must complete 15 or 16 high school units (a unit refers to one year of study in high school), depending on program of study. Students are encouraged to complete as many college preparatory courses and Advanced Placement courses whenever possible to help academically prepare them for the rigors of the University of Pittsburgh at Bradford's curriculum.

Admissions requirements are as follows:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra</td>
<td>1 unit</td>
</tr>
<tr>
<td>English</td>
<td>4 units</td>
</tr>
<tr>
<td>Plane Geometry</td>
<td>1 unit</td>
</tr>
<tr>
<td>(required for engineering and math students only)</td>
<td>1/2 unit</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>1 unit</td>
</tr>
<tr>
<td>History</td>
<td>1 unit</td>
</tr>
<tr>
<td>Modern Language</td>
<td>2 units*</td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>1 unit**,#</td>
</tr>
<tr>
<td>Academic Electives</td>
<td>5 units</td>
</tr>
</tbody>
</table>

TOTAL

15 units

* Two units of the same language
Admissions Requirements for Associate Degree in Nursing and Bachelor of Science Degree in Radiological Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2</td>
</tr>
<tr>
<td>Social Science</td>
<td>3</td>
</tr>
<tr>
<td>Biology with Lab</td>
<td>1</td>
</tr>
<tr>
<td>Chemistry with Lab</td>
<td>1</td>
</tr>
<tr>
<td>Academic Electives</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>16</td>
</tr>
</tbody>
</table>

Prospective students applying to the Associate Degree in Nursing program will be admitted directly with a minimum cumulative high school grade point average of 2.75 and a minimum SAT score (or ACT equivalent score) of 1025. Students transferring from another college or university must have completed a minimum of 12 college-level credits with a minimum cumulative grade point average of 2.75. Students failing to meet these criteria may be admitted to a preparatory program, which would include courses in college success, basic math and English, preparatory chemistry, and human biology.

Prospective students applying to the Bachelor of Science degree in radiological science program will be admitted with a minimum cumulative high school grade point average of 2.50 and a minimum SAT score (or ACT equivalent score) of 960. Students transferring from another college or university must have completed a minimum of 12 college-level credits with a minimum cumulative grade point average of 2.50. Students failing to meet these criteria may be admitted to a preparatory program.

All applicants must arrange for all information to be released and sent to the Office of Admissions before any admissions decision can be rendered.

The following are requirements for students enrolled in the nursing and radiological science majors. Information related to each of these items is detailed in the respective program's orientation packet, provided to the student, and reviewed during the summer orientation program.

- Annual Health Evaluation
- Annual Criminal Background Check
- Health Insurance Liability
- Insurance Uniform for Clinical Experience
- Cardiopulmonary Resuscitation (CPR) Certification
- HIPAA Training and Certification

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Admission Plans

**Early Admission:** High school students who have completed the requirements for graduation by the end of the junior year may apply for early admission to Pitt-Bradford.

Applications should be submitted to the Office of Admissions. A decision on early admission requires the following:

1. Academic excellence throughout high school
2. Consent of parents or legal guardian
3. Approval of Admissions Committee
4. Approval by school district to complete requirements on collegiate level

**Readmission:** Previously registered students who wish to return to Pitt-Bradford and continue their studies who have been away from the University for more than three consecutive terms must request readmission to the University prior to registration.

Students transferring credit into the University must have a grade of C- or better. Quality points are not transferred into the University from other institutions. Therefore, the cumulative grade point average is computed only on the basis of quality points earned at the University of Pittsburgh at Bradford. A student must complete no fewer than 30 undergraduate credit hours at the University of Pittsburgh at Bradford.

A student must complete no less than 60 undergraduate credit hours at the University of Pittsburgh at Bradford.

**Commonwealth Fund for Disadvantaged Students:** Sponsored by the Commonwealth of Pennsylvania, this program helps to meet the needs of Pitt-Bradford students who, because of special financial circumstances, may not be able to afford to attend college.

**International Students:** Applicants for admission from foreign countries are urged to complete their applications, online, by February 1 for fall term enrollment and by October 1 for spring term (January) enrollment. In addition to the information required for secondary students, international students should follow the following guidelines:

1. If the student's first language is not English, he/she must successfully complete the Test of English as a Foreign Language (TOEFL) and achieve a minimum score of 550 on the written exam, a 213 on the computer-based test, or a 79-80 on the Internet-based test.
2. All documentation must have English translations submitted.

A confirmation deposit of $100 is required before any student visa is issued from the University. The student must then process the visa and a valid passport through the U.S. Consulate or Embassy and apply for an F-1 Student Visa.

Limited scholarship money is available to international students.

**Confirmation Deposit:** A $225 confirmation deposit is required of all full-time students. The deposit is a down payment for the first term tuition and is nonrefundable.

**Deferred Admission:** Applicants who have been admitted into the University can defer their admission for up to one (1) year (two terms). A $225 nonrefundable confirmation deposit is required to reserve the student's place for the desired term.

**Transfer Students:** Students wishing to transfer to the University of Pittsburgh at Bradford from other two- and four-year accredited institutions must be in academic and disciplinary good standing.

The following information needs to be submitted for transferring:

1. Application for admission;
2. Official transcripts from all institutions attended; and
3. High school records or GED.

The University of Pittsburgh at Bradford may consider for transfer only those credits earned in courses with academic fields in which the other university's programs are recognized. Credit may be applied toward transfer for completed courses with a grade of C- or better from the transfer institution.

**Education Majors Only:** due to Pennsylvania regulations for teacher education programs, students transferring more than 60 credit hours to Pitt-Bradford must provide evidence of basic skills competencies in mathematics, reading and writing. For further information about the basic skills assessment options, please visit our Teacher Education Program website at this link http://websites.pdesas.org/UPBTeacherEd/2010/5/13/42859/page.aspx.

If you have more than 60 credit hours and have not passed a basic skills assessment, please contact the Education Program Office to discuss your options.

**General Equivalency Diploma (GED):** Applicants with incomplete high school preparation and who have been out of school more than two years may qualify for admission by taking the professional examinations given by the Pennsylvania Department of Education and earning a General Equivalency Diploma (GED). Information about these examinations may be obtained by writing to: Commonwealth of Pennsylvania, Department of Education, Bureau of Special Services for Pupils, Division of Guidance and Testing, Harrisburg, PA 17102.
Freshman Guarantees For Pitt Graduate/Professional Schools Through Pitt's Regional Campuses

- Business Administration
- Communication Science (Speech Pathology/Audiology)
- Education
- Engineering
- Health Information Systems
- Information Sciences
- Law
- Nursing
- Occupational Therapy
- Physical Therapy
- Public Health
- Public and International Affairs
- Social Work

The University of Pittsburgh is a member of the Association of American Universities, which includes the top 62 research institutions in North America. It is also one of the top recipients of National Institutes of Health research dollars and is affiliated with the internationally renowned University of Pittsburgh Medical Center (UPMC). For outstanding freshman applicants, the University offers a limited number of freshman guarantees to some of its most competitive graduate and professional programs.

During your undergraduate career at one of Pitt's regional campuses, as you complete the academic course work related to your guarantee program, there also will be plenty of out-of-the-classroom learning opportunities available to you that will allow you to complement your course work with experiential learning in the form of volunteer work, internships, and/or undergraduate research. The cities where our regional campuses are located offer many such opportunities. You are encouraged to take full advantage of them as you plan your undergraduate career.

To be considered for a graduate/professional school guarantee, as a prospective freshman you must apply to one of our regional campuses at Bradford, Greensburg, Johnstown, or Titusville and indicate the pre-professional field of study on your admissions application unless otherwise noted, below. Note that these are guidelines for guarantee consideration, as competition may vary from year to year. Application early in the senior year of high school is recommended.

Master of Business Administration (MBA) and Master of Science in Accounting Guarantees Katz Graduate School of Business

- Apply for freshman admission to a regional campus as a business major.
- Be in top 10% of high school graduating class and score 1350 or higher on SAT (combined Critical Reading and Math) or 31 ACT.
- Students who do not attend high schools that rank but who have an "A" average in high school, and who score 1350 or higher on the SAT, will be considered.
- Earn a business degree as a full-time undergraduate student at a University of Pittsburgh regional campus.
- Earn a cumulative GPA at the University of Pittsburgh of at least 3.50.
- For enrollment in the MBA program, you must achieve a score of 630 on the Graduate Management Admissions Test (GMAT) within three years prior to enrollment, have a minimum of two years of relevant work experience, and participate in a successful interview by the MBA admissions team. Students must apply to the full-time or part-time MBA program after graduation from a regional campus.
- The GMAT is waived for the MS in accounting program. Students must apply to the MS in accounting program during their senior year in business at a regional campus or after graduation from business.
- The offer of guaranteed admission for the MBA or MS in accounting program remains in effect for five years after graduation from a business major at a regional campus.
- For information about the Katz Graduate School of Business, go to www.katz.pitt.edu
Communication Science Disorders (speech pathology/audiology) Grantee
School of Health and Rehabilitation Sciences

- Indicate Pre-Communication Science on admissions application.
- Achieve a minimum SAT score of 1300 (combined Critical Reading and Math) or 29 ACT.
- Complete the Bachelor of Arts degree at a regional campus with an overall grade point average (GPA) of 3.5 or higher, as well as a GPA of 3.5 or higher in the core pre-requisite courses for communication science disorders.
- Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the Graduate Record Examination (GRE).
- Complete the CSD Centralized Application Service (CSDCAS) process as required.
- For information about the CSD graduate program, go to www.shrs.pitt.edu/macsd.

School of Education Guarantee for Admission into the Master of Education (M.Ed.) or the Master of Teaching (MAT) Programs

- Indicate Pre-Education on admissions application.
- Earn a 3.5 grade point average in high school and a minimum 1250 SAT (combined Critical Reading and Math) or 28 ACT.
- Maintain a 3.25 grade point average as a full-time undergraduate student at a regional campus (individual instances where a student's grade point average falls below 3.25 will be reviewed by the Dean of the School of Education).
- Attend a School of Education Information Session.
- Declare the specific teacher education program by the end of the junior year.
- Complete all prerequisite courses for the teacher education specialty area.
- Candidates in foreign language must also attain a rating of at least Advanced Low on the OPI examination administered by ACTFL.
- Show evidence of substantial experience working or volunteering with children or adolescents as a teacher, tutor, camp counselor, etc.
- For information about the Graduate School of Education, go to www.education.pitt.edu/programs/graduate.aspx.

Swanson School of Engineering Guarantee

- Indicate Pre-Engineering as your intended field of study on the admissions application.
- Achieve a minimum SAT score of 1400 (combined Critical Reading and Math) or 32 ACT.
- Be in the top 5 percent of your high school graduating class or have an equivalent grade point average (GPA).
- Complete relocation to the Pittsburgh campus Swanson School of Engineering after accruing 34 credits at a regional campus in the required pre-requisite courses with a 3.00 GPA for all graduate programs except Bioengineering; for Bioengineering, a 3.5 is required.
- Complete an undergraduate degree in the Swanson School of Engineering at the University of Pittsburgh with a cumulative GPA of 3.5 or better.
- For more information about graduate engineering programs, go to www.engr.pitt.edu.

Health Information Systems Guarantee School of Health and Rehabilitation Sciences

- Indicate pre-HIM on admissions application.
- Complete an undergraduate degree at Pitt with an overall QPA of 3.5 or higher.
- Completion of prerequisite courses with a minimum grade of C.
- Students offered the guarantee will be given the options of pursuing either the MS-HIS or MS-HIS RHIA Options.
- For information about the Health Information Systems graduate program go to www.shrs.pitt.edu/mshis.
School of Information Science Guarantee

- A bachelor's degree from a Pitt campus earned in a STEM Field.
- An undergraduate GPA of 3.0 or better.
- Complete at least one undergraduate programming course.
- For more information about the School of Information Sciences, go to www.ischool.pitt.edu.

School of Law Guarantee

- Indicate Pre-Law on admissions application.
- Be in top 10 percent of high school graduating class with a 1300 SAT (combined Critical Reading and Math) or 29 ACT test result.
- While enrolled full-time at a regional campus, maintain a 3.5 grade point average.
- Complete an undergraduate degree at a regional campus.
- At point of application to law school, satisfy a standard character review and attain a 162 LSAT result.
- Note: For students not eligible for a freshman guarantee, working toward early admission to the School of Law after three years of study in arts and sciences or applying through our early decision program may be a desirable alternative.
- For information about the School of Law, go to www.law.pitt.edu.

School of Nursing Guarantee

- Indicate Nursing on admissions application for the University of Pittsburgh at Bradford or Johnstown.
- Be in the top 10% of high school graduating class with a minimum 1350 SAT (combined Critical Reading and Math) score or 31 ACT.
- Participate in research opportunities in addition to curricular requirements.
- Establish a relationship with a faculty member (for mentoring) in area of interest by first term of senior year.
- Complete the Bachelor of Science in nursing degree at a Pitt campus with a science and general grade point average of 3.5 or higher as a nursing student.
- Attain a score of 310 or higher on the Graduate Record Examination (GRE).
- Fulfill all specific requirements for selected graduate program.
- Note: Students offered the guarantee will be given the option of pursuing either the master's, DNP, or PhD program in nursing.
- For information about the graduate programs in the School of Nursing, go to http://www.nursing.pitt.edu/degree-programs.

Occupational Therapy Guarantee - School of Health and Rehabilitation Sciences

- Indicate Pre-Occupational Therapy on admissions application.
- Complete an undergraduate degree at a regional campus with an overall grade point average (GPA) of 3.5 or higher; completion of the prerequisite courses with a minimum grade of C and prerequisite GPA of 3.5.
- Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the GRE General Test.
- Complete the OT Centralized Application Service (OTCAS) process as required.
- For information about the OT program, go to www.shrs.pitt.edu/mot.

Physical Therapy Guarantee - School of Health and Rehabilitation Sciences

- Indicate Pre-Physical Therapy on admissions application.
- Rank in the top 10 percent of high school graduating class and achieve a 1350 SAT I (combined Critical Reading and Math) or 30 ACT score.
- Maintain a 3.5 or better science and overall grade point average (GPA) while enrolled in an undergraduate program at a regional campus.
• Complete all prerequisite coursework required for admission to the DPT program.
• Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the Graduate Record Examination (GRE).
• Demonstrate evidence of adequate exposure to the field of physical therapy.
• Complete the PT Centralized Application Service (PTCAS) process as required.
• For information about Pitt Public Health, go to www.publichealth.pitt.edu.

Graduate School of Public Health (Pitt Public Health) Guarantee

• Apply to a regional campus.
• Maintain a minimum 3.3 grade point average while satisfying the minimum course work requirements.
• Complete an undergraduate degree at a regional campus.
• Achieve minimum scores of 155 (70th percentile) on the Verbal section, 152 (60th percentile) on the Quantitative section, and a score of 3.5 or better on the Analytical Writing section of the Graduate Record Examination (GRE).
• For information about Pitt Public Health, go to www.publichealth.pitt.edu.

Graduate School of Public and International Affairs (GSPIA) Guarantee

• Apply to a regional campus.
• Be in top 10 percent of high school graduating class with a 1300 SAT (combined Critical Reading and Math) or 29 ACT result.
• Maintain a minimum 3.5 grade point average in arts and sciences while satisfying the minimum course work requirements.
• Achieve minimum scores of 154 each on verbal and quantitative sections and a scores of 4.0 or above on the analytical writing section of the Graduate Record Examination (GRE).
• Demonstrate a commitment to public service through internships, volunteer, and/or work experience in the fields of public and international affairs.
• Apply to the Master of Public Administration, Master of Public and International Affairs, or Master of International Development programs. The offer of guaranteed admission remains in effect for three years after graduation from one of the regional campuses with a bachelor's degree.
• For information about GSPIA, go to www.gspia.pitt.edu.

School of Social Work Guarantee

• Apply to a regional campus.
• Indicate Pre-Social Work on the admissions application.
• Earn a 3.5 grade point average in high school with a 1200 SAT combined Critical Reading and Math) or 26 ACT result.
• For information about the School of Social Work, go to www.socialwork.pitt.edu.

Students have two options

Option 1

• Complete the requirements for admission to the Bachelor of Arts in Social Work (BASW) in the School of Social Work with a 3.5 or higher quality point average (QPA). The BASW program is an upper division program beginning in the junior year offered at the Oakland Campus only.
• Complete the BASW program with an overall 3.0 QPA.
• Complete the application to the Masters of Social Work program.

Option 2

• Complete your undergraduate degree at a regional campus with a minimum of a 3.0 QPA
• Have completed no less than 30 credits in both liberal arts and social sciences and a 3-credit course in statistics.
• Complete the application to the Masters of Social Work program.
• For information about the School of Social Work go to www.socialwork.pitt.edu.
Re-admission: Returning Students

Matriculated students (not including continuing education, nondegree-seeking, or visiting students) who interrupt their enrollment for more than three consecutive terms or have attended another school, and who have not been suspended for academic reasons must reapply for admission through the Office of Admissions. Students who interrupt their enrollment for less than three consecutive terms may return and register for classes by contacting the Enrollment Services Office.

Student Right-to-Know Graduation Rate Disclosure

Statistical information concerning the graduation rate for the Bradford campus of the University of Pittsburgh, as required by the Student Right-to-Know and Campus Security Act, is available upon request from the Office of Admissions.

Academic Procedures and Policies

Patent Policy

A University student, during his/her period of enrollment, may be responsible for new discoveries and inventions that could have commercial value and contribute to scientific, technological, social, and cultural progress. Those accomplishments should be patented in the best interest of the student, the University, the public, and the government. The University's policy on patent rights and technology transfer determines the rights and obligations of the student and the University in any technology the student may invent while enrolled in the University. Details of this University policy are available from the Office of Technology Transfer and Intellectual Property, or online at https://www.cfo.pitt.edu/policies/policy/11/11-02-01.html.

Master's Degrees

Through special arrangements with other schools of the University of Pittsburgh, Pitt-Bradford offers classroom space and facilities for graduate students enrolled in the graduate programs listed below. Pitt-Bradford does not administer the programs, nor grant the degrees. Students interested in these programs must apply directly to the school that administers them.

Master of Science in Nursing (MSN)

The Family Nurse Practitioner (FNP) program, administered by the University of Pittsburgh School of Nursing, offers both full- and part-time study on the Oakland and regional campuses (Bradford and Johnstown). The 52-credit curriculum consists of 18 master's core credits; 25 credits in the specialty of family primary health care, and elective credits. The FNP is prepared as a generalist, principal provider of primary health care nursing. For more information, visit the School of Nursing Web site at www.nursing.pitt.edu. For particular questions, contact Donna G. Nativio at 412-624-3827 or dgn@pitt.edu.

Master of Social Work (MSW)

The University of Pittsburgh School of Social Work offers the Master of Social Work program at the Pitt-Bradford campus. This program is geared toward working professionals, functioning with a part-time schedule at 6 credits a semester, for 10 consecutive semesters. All classes are provided at Pitt-Bradford, with a combination of traditional instruction and interactive television (ITV).

This program is accredited by the Council on Social Work Education, and meets state social work licensure requirements. For more information, please contact Stephanie Eckstrom, MSW program coordinator in Bradford at 814-362-7527; Sandra Wexler, MSW Program Director in Pittsburgh at 412-624-6329; or visit the Web at www.socialwork.pitt.edu.

Baccalaureate (Bachelor's) Degrees
BS in Accounting  BS in Applied Mathematics  BS in Athletic Training  BS in Biology  BS in Biology Education 7-12  BS in Business Management  BS in Chemistry  BS in Chemistry Education 7-12  BS in Business, Computer and Information Technology (K-12)  BS in Computer Information Systems and Technology  BS in Early Level Education Pre K-4  BS in Energy Science and Technology  BS in English Education 7-12  BS in Environmental Education 7-12  BS in Entrepreneurship  BS in Exercise Science  BS in Health and Physical Education (K-12)  BS in Hospitality Management  BS in Mathematics Education 7-12  BSN in Nursing  BS in Physical Sciences  BS in Psychology  BS in Radiological Science  BS in Social Studies Education 7-12  BS in Sport and Recreation Management  BA in Criminal Justice  BA in Broadcast Communications  BA in Economics  BA in English  BA in Environmental Studies  BA in General Studies  BA in History/Political Science  BA in Interdisciplinary Arts  BA in International Affairs  BA in Public Relations  BA in Sociology  BA in Writing

General Requirements for the Bachelor's Degree

The University's general requirements for the bachelor's degree include satisfactory completion of the following:

1. Minimum of 120 semester credits with at least 30 credits in upper-level courses; a maximum of 12 credits of directed research/study/undergraduate faculty assistant may be counted toward the 120-credit requirement
2. The General Education Program
3. The major, which includes satisfying the requirements of the department(s) responsible for the major
4. A minor, if one is required by the department responsible for the major, with a minimum GPA of 2.00
5. A cumulative GPA of 2.00 in all University courses, and a cumulative GPA of 2.00 in the major(s)
6. The residence requirement (the final 30 semester credits and at least half of the credits in the major must be completed through Pitt)
7. No more than 12 credits with S grades may count toward the 120
8. All courses required for a major, minor, and General Education Program must be taken for letter grades with the exception of those courses designated as graded S or N only.
9. Settlement of all financial obligations to the University

Minors


Professional Preparation

Course work preparing students for professional programs is available for the following fields:

Chiropractic  Clinical Dietetics and Nutrition  Communication Science  Dentistry  Emergency Medicine  Engineering  Health Information Management  Law  Medicine  Occupational Therapy  Optometry  Pharmacy  Physical Therapy  Podiatry  Pre-communication Science and Disorders  Pre-Physician's Assistant  Pre-podiatry  Veterinary Medicine

Credential programs (also offered as a double major) are offered in:

Elementary Education  Secondary Education

Double Majors

Students may simultaneously complete requirements for two academic majors in accordance with the following regulations:

1. Both majors must be completed under the same set of degree requirements.
2. Students must complete all general education, core, and related area requirements for each major. A course used to satisfy a core requirement in one major might not be used to satisfy a core requirement in the other major.
3. General education requirements may be the same for both majors, with the exception of those specified by the major.
4. Courses required for either major may not be used for a minor.
5. If one of the majors leads to the BA degree and another to the BS degree, the student must decide between the two degree options at the time of graduation, since only one diploma is awarded.

**Dual Degrees**

Students may elect to complete the requirements for two different bachelor's degrees (e.g., a BS and a BA). If a student wishes to earn two different bachelor's degrees, he or she must complete a minimum of 30 credits beyond the primary degree (a minimum of 150 credits), as well as satisfy all the requirements for the two majors. Students must maintain a 2.00 GPA in all courses.

**Associate Degrees**

AS in Engineering Science AS in Information Systems AA in Liberal Studies AS in Nursing AS in Petroleum Technology

**General Requirements for the Associate's Degree**

The University's general requirements for the associate's degree include satisfactory completion of the following:

1. Minimum of 60 semester credits
2. The general education requirements designated in the specific program requirements
3. The major, which includes satisfying the requirements of the department(s) responsible for the major
4. A cumulative GPA of 2.00 in all University courses, and a cumulative GPA of 2.00 in the major
5. The residence requirement (the final 15 semester credits and at least half of the credits in the major must be completed at Pitt-Bradford; refer to the specific degree requirements in nursing for special restrictions)
6. All courses required for the major, minor, and General Education Program must be taken for letter grades with the exception of those courses designated as graded S or N only.
7. Settlement of all financial obligations to the University

**General Education Program**

All students matriculating at Pitt-Bradford must satisfy the General Education Program requirements before they graduate. It is important that in addition to the depth and breadth of knowledge acquired in a student's major discipline of study, every student must have an appreciation and understanding of the many other fields of study that affect our understanding of the human experience. The college's General Education Program is designed to provide that appreciation and understanding, as well as the foundation skills essential for academic success and lifelong learning.

The following is an outline of Pitt-Bradford's General Education Program. Courses fulfilling requirements for the General Education Program will have, at the end of their course description, a GE designation (e.g., GE: Arts).

**Competencies**

*(A minimum grade of C- is required in courses taken to satisfy competency requirements.)*

**Written Literacy**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 0101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 0102</td>
<td>English Composition II</td>
<td>3</td>
</tr>
</tbody>
</table>
Mathematics 3 credits
MATH 0098  College Algebra II or designated higher-level math course (GE: Mathematics).

Freshman Seminar

FS 0102  Freshman Seminar 3 credits

Students enrolling in associate-degree, pre-engineering, or pre-pharmacy programs are exempt from this requirement.

The Human Experience

Note: The human experience curriculum must include at least one course designated as Non-Western. Students who matriculate and enroll beginning with the Fall of 2013 are required to complete two courses designated as "Global" part of the human experience curriculum. This replaces the previous Non-Western requirements.

Arts and Letters 9 credits

Literature (GE: Literature)
Creative, Fine, and Performing Arts (GE: Arts)
Second Languages (GE: Language)

Must include at least one course in literature, and at least one course in the creative, fine, and performing arts.

Behavioral, Economic, and Political Sciences 9 credits

Behavioral Sciences (GE: Behavioral Sciences)
Economics (GE: Economics)
Political Science (GE: Political Science)

Courses must be selected from at least two different categories (the categories are behavioral science, economics, and political science).

History, Culture, and Philosophical Inquiry 9 credits

History (GE: History)
Cultures (GE: Cultures)
Philosophical Inquiry (GE: Philosophy)

At least one history course is required and at least one course from either of the other two categories (Culture or Philosophical Inquiry)

Physical, Life, and Computational Sciences 10 credits

Physical Sciences (GE: Physical Sciences)
Life Sciences (GE: Life Sciences)
Laboratory

Computational Sciences (GE: Computational Sciences)

*Must include one course each in physical sciences and life sciences, one of which must have a laboratory.*

Physical Education

1 credit

One course in Physical Education (GE: Physical Education).

## Course Placements

### English Composition

There are two courses in English composition: All students in Pitt-Bradford baccalaureate programs must pass ENG 0101 with a grade of C- or better before attempting ENG 0102 English Composition II. All baccalaureate degree students must pass ENG 0102 with a grade of C- or better in order to qualify for graduation.

### Mathematics

Entering students are placed in mathematics courses based on their high school performance and math SAT/ACT scores or transfer credit evaluation. Students who place into College Algebra I (MATH 0097) must pass it with a grade of C- or better before they register for a higher level math course. For students who place beyond beginning algebra, the specific math course placement is dependent on the student's academic major. Students who wish to appeal their math placement can enroll in the next higher math course or use the three-week policy to move to a lower math course if necessary.

Mathematics Three-Week Policy: At the end of the first three weeks of the term, students may move to a lower or higher level math course (with agreement of the instructor) without penalty.

## Enrollment and Changes in Enrollment of Courses

### Full-Time and Part-Time Enrollment Status

Students registered for 12 or more credits are considered full-time; those registered for fewer than 12 credits are considered part-time. Eligibility for a scholarship or loan may be contingent on fulltime registration status.

### Active and Inactive Enrollment Status

A student is active when admitted and enrolled in the term of admission. A student must register for at least one credit in a 12-month period in order to maintain active status. An inactive student who has not enrolled for three consecutive terms must request readmission to the University.
Directed Research

Directed research opportunities that provide students with research experiences in their majors are available in many Pitt-Bradford baccalaureate degree programs. Approval of a directed research application is contingent upon satisfaction of the following requirements:

1. Directed Research topic must be related to the student's major
2. Students must meet good academic standing
3. Approval of the faculty supervisor, the student's academic advisor, the program director, the division chair, and the dean of academic affairs

Internships

Internships that provide students with practical experience in their majors are available in many Pitt-Bradford baccalaureate degree programs. Students must apply to their academic advisor for internship placement. Approval of an internship application is contingent upon satisfaction of the following requirements:

1. Junior standing
2. Student must meet good academic standing
3. Approval of the faculty intern supervisor, the student's academic advisor, the division chair, and the dean of academic affairs

A maximum of 6 credits of internship may be applied toward graduation requirements. No more than 6 credits of internship may be taken at any one time. A minimum of 45 on-site hours must be completed per credit hour earned. Student interns are directed in their work by the employing agency and evaluated jointly with the faculty intern advisor. Grading is on a pass-for-credit basis.

Overload

A student who wants to take more than 18 credits in a term or more than nine credits in a six-week summer session must obtain the permission of both the advisor and the Registrar.

Cross Registration

Pitt-Bradford students may cross register for up to 18 credits per term at another regional campus of the University of Pittsburgh (Greensburg, Johnstown, or Titusville) or for up to 3 credits (excluding external studies) in Pittsburgh. Bradford remains the home institution for student records and student accounts. Courses taken through cross registration must be approved by the student's advisor and the dean of academic affairs.

Repeating Courses for Credit

The student is responsible for filing a course repeat form when registering for a course that is being repeated. The following rules define the circumstances under which a course may be repeated:

1. A course may be taken for credit only once. The repeated course does not increase the number of credits earned unless the original grade was an F, G, or I.
2. No course passed with a grade of C or higher may be repeated.
3. A Pitt-Bradford course can be repeated for credit only at Pitt-Bradford or (with prior permission) at another campus of the University of Pittsburgh. A Pitt-Bradford course may not be repeated for credit at another institution.
4. A course completed with a grade of C- or lower may be repeated. NOTE: Prerequisite courses must be passed before attempting further courses in a sequence.
5. When a course is repeated, the most recent grade and credits earned are used in the computation of the GPA. The original grade is not removed from the transcript but is marked as a repeat.
6. Students may repeat a course no more than two times.

Student Self Service Enrollment
Student Self Service Enrollment allows students to enroll in classes and add/drop classes for a particular term and/or session. All undergraduate students are required to meet with an advisor prior to enrolling in classes. An Academic Advisement Required Hold has been placed on all undergraduate student records; and students must see an advisor in order for the hold to be removed. Some graduate students may also encounter an Academic Advisement Required Hold. They too must see an advisor to have it removed.

Each term students will be assigned an enrollment appointment, which indicates the date and time that the student becomes eligible to enroll for classes. You can find your appointment information at the "Student Center" at my.pitt.edu. Students are assigned an enrollment appointment based on the total number of credits earned in their current career. A student's enrollment appointment will begin on the date and time specified. Students may enroll and change their schedule until the end of the published add/drop period for a given term and or session.

Students should be aware that dropping a course or courses may affect athletic and/or financial aid eligibility.

Withdrawal (from one or more, but not all classes)

Failing to attend the classes for which a student is registered, or failing to notify the appropriate academic and administrative offices of nonattendance, is not considered an official withdrawal. A student who stops attending a course and does not complete the withdrawal procedure may be assigned an F grade.

After the published deadline for dropping a course, a student may withdraw from a course by processing a Withdrawal Request form in the Enrollment Services Office. The deadline for submitting a Withdrawal Request form is published in the Schedule of Classes. W grades are assigned for all courses for which registration is terminated by withdrawal.

Resignation: Termination of Enrollment for All Classes

After the end of the add/drop period, students who wish to terminate their enrollment for all courses must do so by processing a resignation form. Full-time students must meet with the dean of student affairs to be issued a Resignation Authorization form. This form is submitted to the Enrollment Services Office. A resignation form is generated for the student to complete and sign.

Part-time students must go to the Enrollment Services Office to be issued a resignation form to complete and sign.

Resignation will be processed only through the "last date to resign" for each term or session. This date is published in the Schedule of Classes each term.

Failing to attend the classes for which a student is registered, or failing to notify the appropriate academic and administrative offices of nonattendance, is not considered an official resignation. Students who fail to follow proper procedures for termination of their registration are responsible for all tuition and fees assessed for the term or session. A student who stops attending a course and does not complete the withdrawal or resignation procedures may be assigned an F grade. The effective date of resignation is determined by one of the following: (1) the date of in-person contact with the Enrollment Services Office; (2) the date of the postmark on the letter of intent to resign (or the date of receipt if no postmark exists); or (3) the date of notification by telephone at 814-362-7535.

Student Resignation Fee Schedules of Adjusted Tuition Charges

Title IV Refund Policy

Adjustments to tuition charges resulting from official resignations are based on the effective date of resignation and in accordance with the federally mandated calculation.

The calculation is based on the period of enrollment completed. That percentage is computed by dividing the total number of calendar days in the term into the number of calendar days completed, as of the date of student notification. The percentage of Title IV assistance to which the student is entitled (has "earned") is equal to this percentage of the term completed, up to 60 percent. If the resignation occurs after 60 percent of the term is completed, the percentage is equal to 100 percent.

The amount of Title IV aid which must be returned is based on the percentage of "unearned" aid. That percentage is computed by subtracting earned aid from 100 percent. The University is required to return the lesser of 1) the unearned aid percentage applied to institutional charges or 2) the unearned aid percentage applied to the total Title IV aid received.
The student is required to return the difference between the amount of unearned aid and the amount returned by the University. If the student (or parents in the case of PLUS loans) is required to return a portion or all of their loan proceeds, the calculated amount is to be repaid according to the loan's terms. Students must return only half the amount of grant funds calculated.

Funds are returned to the following Title IV sources in order of priority:

1. Unsubsidized Federal Family Education Loans (FFEL)
2. Subsidized Federal Family Education Loans (FFEL)
3. Federal Perkins Loans
4. FFEL PLUS loans
5. Federal Pell Grants
6. Federal Supplemental Educational Opportunity Grant (SEOG) program
7. Other Title IV assistance for which a return of funds is required
8. Other federal, state, private, or institutional financial assistance
9. Student

Cancellation of Courses

The University reserves the right to cancel any course, including those in which enrollment is insufficient to justify the offering.

Course Numbering System

6000-6199 Developmental courses
0001-0199 Freshman-level courses
0200-0299 Sophomore-level courses
1300-1399 Junior-level courses
1400-1499 Senior-level courses

Students are required to satisfy the competency requirements in ENG 0101 and ENG 0102 English Composition I and II and mathematics prior to enrolling in more advanced courses.

Credit by Examination

Advanced Placement

The following information regarding Advanced Placement is unique to Pitt-Bradford. Students who plan to relocate to a different campus or school within the University of Pittsburgh should refer to that specific campus or school's policy.

Students who have participated in the Advanced Placement (AP) program of the College Board may request college credit from Pitt-Bradford by having the Educational Testing Service forward their AP scores to the registrar's office. Advanced placement credit is awarded for AP scores of 3, 4, or 5, as follows:

<table>
<thead>
<tr>
<th>AP Examination</th>
<th>Test Scores</th>
<th>Pitt-Bradford Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art: History</td>
<td>3, 4, or 5</td>
<td>ART 0000</td>
<td>3</td>
</tr>
<tr>
<td>Art: Studio Drawing</td>
<td>3, 4, or 5</td>
<td>ART 0101</td>
<td>3</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>BIOL 0101</td>
<td>4</td>
</tr>
</tbody>
</table>
Biology 4 or 5 BIOL 0101, BIOL 0102 8
Chemistry 3 CHEM 0101 4
Chemistry¹ 4 or 5 CHEM 0101, CHEM 0102 8
Computer Science A² 3, 4, or 5 CS 0101 4
Computer Science B³ 3, 4, or 5 CS 0101, CS 0102 7
English: Language and Composition⁴ 3, 4, or 5 ENG 0101 3
English: Literature and Composition⁴ 3, 4, or 5 ENG 0101 or ENG 0000 3
Environmental Science 3, 4, or 5 ES 0110 3
French: Language 3, 4, or 5 FR 0201, FR 0202 6
German: Language 3, 4, or 5 GER 0201, 0202 6
Government and Politics: American 3, 4, or 5 PS 0102 3
Government and Politics: European 3, 4, or 5 PS 0103 3
History: American 3, 4, or 5 HIST 0106, HIST 0107 6
History: European 3, 4, or 5 HIST 0103, HIST 0104 6
Human Geography 3, 4, or 5 GEOG 0101 3
Mathematics AB⁵ 3, 4, or 5 MATH 0140 4
Mathematics BC⁶ 3, 4, or 5 MATH 0140, MATH 0150 8
Music: Theory 3, 4, or 5 MUSIC 0101 3
Music: Listening and Literature 3, 4, or 5 MUSIC 0102 3
Physics B 3, 4, or 5 PHYS 0101, PHYS 0102 8
Physics C⁷ 3, 4, or 5 PHYS 0201, PHYS 0202, PHYS 0203, PHYS 0204 8
Psychology 3, 4, or 5 PSY 0101 3
Spanish: Language 3, 4, or 5 SPAN 0201, SPAN 0202 6
Statistics 3, 4, or 5 MATH 0133 or PSY 0201 3
World History 3, 4, or 5 HIST 0000 6

¹ Placement into CHEM 0201 for biology and chemistry majors
² Placement into CS 0102 for computer science majors
³ Placement into CS 0201 for computer science majors
⁴ Placement into ENG 0102 for all students
⁵ Placement into MATH 0150 for applied mathematics, chemistry, computer science (BS degree), engineering, and physical sciences majors
⁶ Placement into MATH 0201 for applied mathematics, chemistry, and engineering majors
⁷ Placement into PHYS 0205 for chemistry and engineering majors

**College Level Examination Program (CLEP)**

Pitt-Bradford administers the general and subject examinations of the College Level Examination Program (CLEP). Information about CLEP examinations is available in the Office of Career Services. CLEP credits may be earned with scores that meet or exceed an established minimum score. A list of the CLEP examinations and scores required for credit are available in the Office of Career Services and the Enrollment Services office. Eligibility for CLEP credit is subject to the following conditions:
1. Students are eligible for CLEP credit only if CLEP examinations are taken prior to the completion of 30 college credits, including transfer credits.
2. Students who earned CLEP credit at other institutions must have their test scores reevaluated to determine eligibility for credit at Pitt-Bradford.

Challenge Examinations

Credit for some courses can be earned by passing a comprehensive challenge examination. The chair of the division in which the course is offered must approve each challenge. Challenge exam requests are available in the Enrollment Services Office. Equivalent tuition and/or a fee will be charged.

Attendance

Students are expected to attend classes as scheduled. Faculty members establish their own rules and penalties for absences.

Final Exam Policy

Students having more than two final examinations scheduled for the same day (excluding evening classes) may petition their instructors to assist in rescheduling one exam at a time mutually agreeable to the student and instructor. If it is not possible to reach an agreement with one of the instructors, students should contact the appropriate division chairs.

Academic Integrity

Members of a university community, both faculty and students, bear a serious responsibility to uphold personal and professional integrity and to maintain complete honesty in all academic work. Violations of the code of academic integrity are not tolerated. Students who cheat or plagiarize or who otherwise take improper advantage of the work of others face harsh penalties, including permanent dismissal. The academic integrity guidelines set forth student and faculty obligations and the means of enforcing regulations and addressing grievances. The guidelines are available on the Web at: www.pitt.edu/~provost/ai1.html or copies are available in the Office of the Dean of Academic Affairs (232 Swarts Hall). Students who wish to appeal a final grade must first meet with the instructor who awarded the grade. Students may then continue to appeal the final grade by seeking a meeting with the chair of the division in which the course in question resides. The final level of appeal may be made with the Vice President and Dean of Academic Affairs, whose decision is final.

Grading System

Students may register for courses under three grading options: letter grade, pass for credit, or audit. The letter grade option is assumed unless otherwise declared. See sections on each option for more details.

Letter Grades

All courses required to satisfy associate and baccalaureate degree requirements—including all courses required for a major, a minor, or general education—must be taken for letter grades, with the exception of those courses designated as graded S and NC only. Pitt-Bradford uses 13 earned letter grades. They are listed below with their equivalent quality point values.

\[
\begin{align*}
\text{A+} & = 4.00 \\
\text{A} & = 4.00 \text{ superior achievement} \\
\text{A-} & = 3.75
\end{align*}
\]
B+ = 3.25
B = 3.00 meritorious achievement
B- = 2.75
C+ = 2.25
C = 2.00 adequate achievement
C- = 1.75
D+ = 1.25
D = 1.00 minimal achievement
D- = 0.75
F = 0.00 failure

**Pass for Credit (S/NC Grades)**

General elective courses and certain designated courses may be taken on a pass-for-credit basis. A student enrolled in a course on a pass-for-credit basis receives either a grade of S or NC.

- S = equivalent of a C or better
- NC = no credit

Students must elect the S/NC option by the fourth week of a term or the second week of a six week summer session. For sessions that are shorter than six weeks, the decision has to be made in the first week. This decision may not be reversed, nor may a grade of one kind be replaced by a grade of the other kind for that course. Courses for which an S is received are counted toward graduation but are not computed in the GPA. No more than 12 credits with S grades may be counted toward graduation. All courses required for a major, minor, and General Education Program must be taken for letter grades with the exception of those courses designated as graded S or NC only.

**Audit**

Any student who has been formally admitted to Pitt-Bradford may audit any course offered by the University. Audited courses appear on the transcript with a grade of NC, but no credit is earned. Regular tuition rates apply to courses taken for audit. Students must elect the audit option at the time of registration. This decision may not be reversed.

**Temporary Grades**

Two temporary letter grades may be issued under appropriate circumstances:

- G = course work interrupted (for reasons beyond student's control)
- I = research in progress (reserved for directed research and internship)

It is expected that the student and instructor form a contract detailing how and when the course work is to be completed, as a temporary grade must be changed to a final letter grade within one year. If the necessary work is not completed by the date that was agreed upon, either the temporary grade
will remain on the student's record, or the instructor may change it to the grade that would have normally been assigned without the course work having been completed.

**Grade Point Average (GPA)**

The grade point average is an indicator of the level of academic achievement. It is used to determine academic standing and to establish eligibility for honors. The GPA is computed by dividing total quality points earned by total number of credits attempted. (Attempted credits include all classes for which a regular letter grade was earned.) Total quality points are calculated by multiplying the number of credits that each course carries by the numerical value of the grade earned for that course. For example, an A in a 3-credit course is worth 12 quality points (4.0 points x 3 credits = 12 quality points). The official GPA is determined in the Office of the Registrar.

**Grade Reports**

At the end of each term or session, faculty assign grades for each student enrolled in their respective classes. Students may view their grades online by logging into my.pitt.edu using their University of Pittsburgh username and password. Students will be able to view the total credits carried, the grade received in each course, the total quality points earned that term, the grade point average (GPA) for that term, and the cumulative grade point average. Grades are posted to the Web as the faculty assign them.

**Hybrid Courses**

All hybrid/blended courses must provide 50% or more of the instruction in a face-to-face modality. For a three credit course this would amount to 22.5 hours of face-to-face contact. The percentage of face-to-face (in-classroom) hours and the percentage of online hours must be stipulated in the course syllabus so that the expectations are clear to students.

**Academic Level by Credits Earned**

<table>
<thead>
<tr>
<th>Level</th>
<th>Credits Earned</th>
<th>Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0.0 - 23.0</td>
<td>Freshman</td>
</tr>
<tr>
<td>20</td>
<td>23.5 - 53.0</td>
<td>Sophomore</td>
</tr>
<tr>
<td>30</td>
<td>53.5 - 83.0</td>
<td>Junior</td>
</tr>
<tr>
<td>40</td>
<td>83.5 - 113.0</td>
<td>Senior</td>
</tr>
</tbody>
</table>

**Academic Honors**

**Dean's List**

Full-time students who earn at least 12 credits in a term from Pitt-Bradford (excluding courses with S grades), with no grade lower than a C and no temporary grades, and with a term GPA of at least 3.50 or higher, are placed on the Dean's List at the end of each regular term. A Dean's List is also published annually, at the end of the spring term, for part-time students who have accrued 12 credits in the previous summer, fall, and/or spring semesters and meet the same academic criteria as stated for full-time students.

**Graduation Honors**

Those students of a graduating class who have attained an outstanding scholastic record may be graduated with honors. To qualify for honors, a student must have earned a minimum of 60 credits at Pitt-Bradford and attained a cumulative GPA of 3.25 for cum laude, 3.50 for magna cum laude, or 3.75 for summa cum laude.
Academic Probation and Dismissal

Academic Standing

Good Academic Standing: A student is in good academic standing so long as both the GPA in the previous term and the cumulative GPA are 2.00 or higher. Note: Minimum GPA requirements for some programs may be higher than 2.00.

Academic Probation: If the GPA for a given term is below 2.00, or if the cumulative GPA is below 2.00, a student is placed on academic probation.

Satisfactory Academic Progress: A student placed on academic probation must maintain satisfactory progress toward a degree in order to avoid suspension. Satisfactory academic progress is defined as a 1.00 or higher for first-term freshmen and a 2.00 or higher for all other students.

Academic Suspension

Students who are on academic probation for two consecutive regular (fall and spring) terms are subject to academic suspension from the University. First-term students who have completed only one term of full-time study and who have failed to attain a grade point average of at least 1.00 are subject to suspension. Factors such as academic motivation and campus citizenship will be considered in making such decisions for suspension after only one term.

Students who are suspended for academic reasons are not eligible to enroll for the following regular (fall or spring) term and are required to wait at least one full term before a reinstatement request will be considered. Students are either expected to take courses at another institution or do summer work at Pitt-Bradford to qualify for reinstatement. These requirements will be waived only for truly extraordinary circumstances.

Summer Course Work

Students who have been suspended may be allowed, with the permission of the dean of academic affairs, to enroll in course work at Pitt-Bradford during the summer sessions. A student who moves back to good academic standing through summer course work may request reinstatement to resume studies on continued probation in the following fall term.

Reinstatement

Reinstatement after suspension is not automatic. A suspended student seeking to resume studies in a subsequent term, after one or more terms of nonattendance, must request reinstatement in a letter to the dean of academic affairs. If the request is approved, the reinstatement letter will stipulate the conditions that must be met the following term, e.g., a limited load, repeats of courses, or change of major. Reinstatement does not cancel the suspension; rather, the reinstated student continues to be on academic probation.

Dismissal

A student who has been reinstated after suspension and subsequently fails to remain in good academic standing is subject to dismissal. A student who is dismissed for academic reasons may not request reinstatement.

Graduation Application

An application for graduation must be filed with the Enrollment Services Office prior to the anticipated graduation date. A $15 late fee will be assessed when a graduation application is submitted after the deadline.

<table>
<thead>
<tr>
<th>Anticipated Date of Graduation</th>
<th>Deadline for Application</th>
</tr>
</thead>
</table>

55
Official transcripts of the student's record are available to order online through my.pitt.edu. Choose Academic Resources and the link to Order Transcripts and Enrollment Verification. There is a small fee charged for transcripts. Students will not be issued an official transcript until they have satisfied all financial obligations to the University.

Transfer Credits

All accepted students who have taken courses at other institutions must have official transcripts sent to the Pitt-Bradford Office of the Registrar. Transfer students will receive written verification of the transfer credits accepted by Pitt-Bradford. The number of accepted transfer credits will be posted on the Pitt-Bradford transcript. The registrar is responsible for the evaluation of transcripts to determine which credits are accepted in accordance with the following guidelines:

1. Only courses taken for credit on a standard (A, B, C, D, F) grading scale are eligible for transfer credit.
2. Courses completed with grades of C- or better at an accredited institution are eligible for transfer credit.
3. Courses completed with grades of D or F are not eligible for transfer credit.
4. Credits earned at another institution through CLEP, through Advanced Placement tests, or through credit by examination are not eligible for transfer credit. Note: CLEP or Advanced Placement scores may be reevaluated for Pitt-Bradford credit.
5. Developmental or remedial courses are not eligible for transfer credit.
6. Quarter system credits will be converted to the equivalent semester credits (quarter system credits x 2/3 = semester system credits).
7. All Pitt-Bradford course restrictions also apply to transfer credits, including rules for repeating courses for credit and baccalaureate degree requirement distribution eligibility.
8. The academic advisor, the program director, and the registrar will approve the application of transfer credits toward degree requirements.
9. Not more than half of the credits in a student's major or minor may be transferred from another institution.
10. Certain programs may invoke a statute of limitations. For example, course work with a scientific or technical basis will not be accepted by the Department of Nursing if eight or more years have elapsed since the course was completed.
11. No more than 75 credits may be transferred from two-year institutions.
12. No more than 90 credits may be transferred from four-year institutions.
13. Grades earned at other colleges are not included in the Pitt-Bradford GPA. Only the academic credit is transferred.

Anti-harassment Policy Statement

No University employee, University student, or individual on University property may intentionally harass or abuse a person (physically or verbally) with the purpose or effect of unreasonably interfering with such person's work or academic performance, or of creating an intimidating, hostile, or offensive work or academic environment. Consistent with the University Nondiscrimination Policy Statement, this Anti-harassment Policy includes cases where the conduct is based on race, color, religion, national origin, ancestry, sex, age, marital status, familial status, sexual orientation, disability, or veteran status. This policy will be applied with due respect for the University's commitment to equality of opportunity, human dignity, diversity, and academic freedom.

Sexual Harassment Policy Statement

The University of Pittsburgh is committed to the maintenance of a community free from all forms of sexual harassment. Sexual harassment violates University policy as well as federal, state, and local laws. It is neither permitted nor condoned. The coverage of this policy extends to all faculty, researchers, staff, student, vendors, contractors, and visitors to the University.
It is also a violation of the University of Pittsburgh's policy against sexual harassment for any employee or student at the University of Pittsburgh to attempt in any way to retaliate against a person who makes a claim of sexual harassment.

Any individual who, after a thorough investigation, is found to have violated the University's policy against sexual harassment will be subject to disciplinary action, including, but not limited to, reprimand, suspension, termination, or expulsion. The disciplinary action taken will depend upon the severity of the offense.

AIDS Policy Statement

The University of Pittsburgh does not discriminate against individuals who are diagnosed as HIV positive or as having AIDS.

The University recognizes that the health condition of individuals is personal and confidential. Reasonable precautions will be taken to protect information regarding the health condition of all members of the University community.

Based on medical evidence that indicates that there is no risk of transmitting HIV through casual contact in the classroom, or circumstances involving only casual contact with others, the University will impose no undue restrictions on faculty, staff, or students who are infected with HIV.

Policy on Faculty-Student Relationships

The University's educational mission is promoted by professional relationships between faculty members and students. Relationships of an intimate nature compromise the integrity of a faculty-student relationship whenever the faculty member has a professional responsibility for the student.

The University prohibits intimate relationships between a faculty member and a student whose academic work, teaching, or research is being supervised or evaluated by the faculty member. If an intimate relationship should exist or develop between a faculty member and a student, the University requires the faculty member to remove himself or herself from all supervisory, evaluative, and/or formal advisory roles with respect to the student. Failure to do so may subject the faculty member to disciplinary action.

Transgressions of this policy may result in the forfeiture of the legal and monetary protections of the University's indemnification policy. See Policy 07-06-06, Faculty and Staff Indemnification.

Procedures for dealing with complaints related to discrimination, harassment, sexual harassment, or faculty-student relationships can be obtained by contacting any of the individuals listed below:

Elizabeth Greville, Affirmative Action Officer
K. James Evans, Staff Representative
Lizbeth Matz, Faculty Representative

Smoking Policy

Smoking is prohibited in all University owned and leased facilities and in all University vehicles.

Drug-Free Workplace/Drug-Free Schools Policy

The University of Pittsburgh prohibits the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance on University property or as part of any University activity. Faculty, staff, and students of the University must also comply with the laws of the Commonwealth of Pennsylvania on the possession and consumption of alcohol.

Violation of this policy will result in disciplinary action, including, but not limited to a warning, written reprimand, suspension (with or without pay), dismissal, expulsion, and/or mandatory participation and successful completion of a drug abuse assistance or rehabilitation program approved by an appropriate health or law enforcement agency.

Any University employee paid from federally funded grants or contracts, or any student participating in any federally funded or guaranteed Student Loan Program, must notify the University of any criminal drug statute conviction for a violation occurring at the University while engaged in University activities.

For further information, contact the Office of Student Affairs (Room 222, Frame-Westerberg Commons).
Computing Use Policy

Every member of the University community has two basic rights regarding computing: privacy and a fair share of resources. It is unethical for another person to violate these rights. Computing resources are intended for research and educational purposes only; they should be used in a manner consistent with the instructional and research objectives of the University. All users, in turn, are expected to exercise common sense and decency with regard to the campus computing resources. Please read Computing Ethics and Guidelines.

Students are subject to the rules and regulations as described in the University of Pittsburgh Student Code of Conduct. Students should realize that misuse of computing resources could result in the suspension of computing privileges and prosecution under state and federal laws, where applicable.

Student Code of Conduct

The Student Code of Conduct is an outline of the non-academic rights and responsibilities of University students. The code defines offenses by and against students. A student or University official may file a complaint of violation of the Student Code of Conduct in the Office of Student Affairs, located in Room 211 of the Frame-Westerberg Commons. A copy of the code is printed in the Student Handbook, published in August of each year, and available in the Office of Student Affairs/Housing.

Judicial System

The associate dean of student affairs coordinates and advises the Student Judicial Board. The associate dean receives, reviews, and acts upon complaints of violation of the Student Code of Conduct. The goal is to provide due process and fair treatment in disciplinary actions. All complaints about student behavior should be filed with the associate dean.

Research Integrity

The University of Pittsburgh seeks excellence in the discovery and dissemination of knowledge. Excellence in scholarship requires all members of the University community to adhere strictly to the highest standards of integrity with regard to research, instruction, and evaluation. Research misconduct carries potential for serious harm to the University community, to the integrity of science, and to society as a whole. The University's Research Integrity Policy is available online at http://www.provost.pitt.edu/info/ai1.html.

Family Educational Rights and Privacy Act of 1974

The Federal Family Educational Rights and Privacy Act (FERPA), also known as the Buckley Amendment, is designed to protect the privacy of students. It requires the University to comply with the following principles:

- Student records are open for inspection by students upon request. Specific documents that students have waived their right to inspect remain confidential.
- Students have a right to challenge the accuracy of records and to request that they be amended.
- The institution may not release student records outside the institution without student consent, unless one of several exceptions applies.
- Requests from outside the institution for information regarding students should be documented, as should releases of student information.
- Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of the Family Educational Rights and Privacy Act.
- Students have a right to obtain a copy of the University policy regarding the Family Educational Rights and Privacy Act. It may be obtained in the Offices of the Registrar and Enrollment Services.
- The University may establish categories of information known as "Directory Information" and release this information without student consent, upon request by individuals external to the institution. Students may request that the categories below be excluded from Directory Information that would be released without student consent, upon request by a third party.

Directory Information includes the following information:

- Name
• Address
• Telephone number and e-mail address
• Major field of study
• Achievements, degrees, academic awards or honors
• Weight and height, if a member of athletic teams
• Place of birth
• Previous educational institutions
• Participation in officially recognized activities and sports
• Student's photograph

When the Offices of the Registrar and Enrollment Services receive a student's refusal to permit the release of "Directory Information," no further disclosures are made without that student's written consent (except to parties who have legal access to student records without written consent). To rescind this action, the student must submit a request in writing to the Offices of the Registrar and Enrollment Services. Note that the following procedures apply:

1. Students may review their educational records by submitting a written request to the records custodian in the appropriate University unit. A listing of those University offices that routinely possess educational records of students are set forth in University Procedure 09-08-01.
2. Students may request amendment of educational records by submitting a written request to the records custodian and following the steps set forth in University Procedure 09-08-01.
3. As set forth in University Policy 09-08-01, access to a student's educational records may be required and permitted by University faculty and staff for legitimate educational purposes where access by such individuals is necessary to complete their University-related duties.

Financial Information

Student Financial Aid

The Office of Financial Aid at Pitt-Bradford is committed to serving students and families by providing counseling and consumer information to students and families to assist them in receiving the maximum assistance for which he/she qualifies. Pitt-Bradford has designed a comprehensive financial aid Web site to assist in understanding the process and answering many general questions. (For information, please go to www.upb.pitt.edu/financialaid.aspx) Additionally, our financial aid professionals are available to address any questions or concerns.

Financial aid is awarded from three major sources: federal, state and institutional funds. A financial aid award is made up of one or several different types of aid: grants/scholarships, loans and work opportunities.

Financial need is determined by calculating the difference between Expected Family Contribution (EFC) and the expected total cost of attending school for a year. The EFC is determined by the information provided on the Free Application for Federal Student Aid (FAFSA). After the FAFSA is filed, a Student Aid Report (SAR) is received via email from the federal processor with the EFC listed on the first page. Cost of attendance (COA) is comprised of average tuition, fees, room and board, transportation, and personal costs. EFC and COA can be viewed on the Financial Aid tab in the Student Service Center.

Student Financial Aid Rights and Responsibilities

Students have the right to know:

• What financial aid programs are available.
• The deadlines for submitting applications for each of the financial aid programs available.
• How financial aid is distributed and how decisions on that distribution are made.
• How financial need is determined. This includes how costs for tuition and fees, room and board, travel, books and supplies, personal and miscellaneous expenses, etc., are considered in the student budget.
• What resources (such as parental contribution, other financial aid, student and family assets, etc.) are considered in the calculation of financial need.
• How much of the financial need as determined by the institution has been met.
• An explanation of the various programs in the student aid package.
The school's refund policy.
What portion of the financial aid must be repaid and what portion is grant aid. If the aid is a loan, the student has a right to know what the interest rate is; the total amount that must be repaid; the repayment procedures; the length of time to repay the loan; and when repayment is to begin.
How the school determines satisfactory academic progress and what happens if progress is less than satisfactory.
That all documents submitted to the Office of Financial Aid are confidential.

Student and financial aid recipients' responsibilities are to:

- Complete all documents required for financial aid accurately and to submit them before the deadlines to the proper place.
- Provide correct information. In most instances, misrepresentation of information on financial aid application forms is a violation of law and may be considered a criminal offense which could result in indictment under the U.S. Criminal Code.
- Read, understand and retain a copy of all forms requiring signature.
- Accept responsibility for all signed agreements.
- Return all additional documentation, verification, corrections, and/or new information requested by the financial aid office or the agency to which the application was submitted.
- Be aware of the school's refund procedures.
- Participate in an entrance interview before applying for loans from any source. The interview will review available loans and the terms and conditions of each.
- Participate in an exit interview prior to graduation or transferring to another school.

Awards are Subject to Change

- Financial aid applications are evaluated using other general information provided by the student concerning enrollment plans (full- or part-time study), housing status, dependency status, and state residency.
- Should any of this original information change, the financial aid package will be reviewed and may be adjusted by this office.
- A change to less than full-time enrollment may cause awards to be canceled, as some programs of financial aid are only available to full-time students.
- Changes to housing arrangements may affect financial aid. Off-campus housing may require to document with our office.
- If financial aid awards assumed In-State tuition assessment and the student is assessed tuition as Out-of-State, financial aid will be reviewed and adjusted.
- If changes are necessary, our office will make the necessary adjustments to financial aid at the time we are aware of the changes. A revised award notification will be sent accordingly.

Grants and Scholarships

Federal Pell Grant - Awarded to students based on need. EFC and enrollment status determine eligibility based on the U.S. Department of Education Pell Payment Schedule. Limited to six (6) years.

Federal SEOG - (Supplemental Educational Opportunity Grant) - This award is based on need. It is funded by the federal government but administered by the school. Must be Pell eligible. Priority is given to the students with the most need. Awards may differ from school to school.

Pennsylvania State Grant - Must be a PA resident at least 12 months prior to enrolling in the university and must have completed the FAFSA by May 1. Eligibility and amount are determined by Pennsylvania Higher Education Assistance Agency (PHEAA), not the university. For questions regarding residency, status notice information, or income validation call PHEAA at 1-800-692-7392.

Pitt-Bradford Academic and Geographic Scholarships and Awards - Scholarships offered at-entry. Although the Free Application for Federal Student Aid (FAFSA) is not required, we do recommend and encourage all students to file the FAFSA in order to find all sources of aid for which they qualify. Please see our website for more information, specific requirements, and renewal criteria.

Donor Scholarships - These scholarships are awarded to returning students only. They are not automatically renewed each year. Priority consideration is given to students who complete a FAFSA by March 1 of each year, enrolled in at least 6 credits by April 15, and have at least a 2.0
cumulative GPA. Students will be required to submit a thank-you note to be considered in subsequent years. Completion of the verification process, if selected, is required before the scholarship will be credited to student accounts. Please see our website for more information.

Other Scholarships
Students are encouraged to explore all opportunities for financial support in their local communities. Funding sources and agencies include civic groups, churches, charitable foundations, fraternal organizations, hospitals, unions, and businesses. Students who receive a scholarship or grant from a source other than federal or state government or Pitt-Bradford are required to report the award to the Office of Financial Aid. Students can send the office a written statement providing the information about the outside scholarship/grant or send a copy of the notification received from the organization that made the award. Pitt-Bradford is required by the federal government to monitor the total amount of financial aid each student receives from all sources to ensure the student's total financial aid is limited to the demonstrated need and/or cost of education. The Web is a great place for free scholarship search services. For more information on outside scholarships we have created the following link:
http://www.upb.pitt.edu/outsidescholarships.aspx

Self Help

Federal Work Study - This is a need based program. It is funded by a match between the federal government and the school. An award of work study does not guarantee a position; all jobs are filled at the discretion of individual departments. Biweekly paychecks are deposited for hours worked; the amount is not deducted from the student account balance.

Federal Perkins Loan:
- Funded by the federal government and administered by the university.
- Need based. The Office of Financial Aid determines eligibility and the amount of the loan. It is not uncommon for loan awards to differ from school to school.
- Fixed low-interest (5%) subsidized loan. Repayment begins 9 months after the student is no longer enrolled or drops below 6 credits.
- The federal government is discontinuing this program in September 2017. Awards are only made to current borrowers at Pitt campuses.

Federal Direct Student Loan:
- This is a federally guaranteed loan in the student's name.
- Generally a student cannot be turned down for a Federal Direct Student Loan unless they have defaulted on a previous student loan or are not a U.S. citizen or eligible non-citizen.
- Must be enrolled in at least 6 credits.
- Repayment begins 6 months after the student is no longer enrolled or drops below 6 credits.
  **Subsidized** Federal Student Loan:
    - Need based. Interest accrued on this loan is paid by the federal government while the student is enrolled in at least 6 credits.
    - Interest accrues during repayment at a fixed rate of 3.76% as of July 2016.
  **Unsubsidized** Federal Direct Student Loan:
    - Not need based. The student is responsible for the interest that accrues on the loan from the time it is disbursed until it is paid in full.
    - Interest accrues at a fixed rate of 3.76% as of July 2016.
    - Please see our website for additional information.

Figuring out Your Financing

When borrowing, it is important to consider how to manage debt when repaying the loan.

- A manageable level of debt payment is considered to be between 8% and 15% of your first year's gross income.
- Monthly student loan payments normally last up to 10 years.

Ways to Meet the "Gap"

*Federal Direct Parent PLUS Loans* - The Federal Direct Parent PLUS Loan is a credit based loan with a fixed interest rate of 6.31% as of July 2016, with default and up-front origination fees of 4.272% as of July 2016.
Students must be enrolled at least half-time in a degree seeking program, be meeting the Federal Academic Progress Standards (SAP), and have a completed FASFA on file for parents to access a Federal Direct Parent PLUS loan.

The borrower must be either a biological or adoptive parent, or step parent. Parent borrowers and their student must be U.S. citizens or eligible noncitizens and not currently in default on federal aid. Through the Federal Direct Parent PLUS Loan Program, parents of dependent students may borrow up to the cost of education less any other financial aid received by the student.

If a parent is denied a Federal Direct Parent PLUS Loan, the student may automatically be considered for an additional unsubsidized Federal Direct Student loan in an amount up to $4,000/year for freshman and sophomores and up to $5,000/year for juniors and seniors. Students will receive an email to their Pitt email asking if they want additional unsubsidized loan funds. Students must respond in order for these funds to be processed. Parent borrowers also have the option to either appeal the credit decision with the U.S. Department of Education or get an endorser for the loan by choosing the associated bubble on the results page after submitting the online Federal Direct Parent PLUS Loan application at studentloans.gov.

For more information, please see our website.

Alternative Loans

- A private alternative loan is a non-federal loan, through a private lender, typically in the student's name and usually requiring a cosigner. Approval and interest rates are based on the creditworthiness of the borrower and cosigner. Each alternative lender has different eligibility requirements, loan rates, terms, and conditions.
- The Office of Financial Aid can assist with information on lenders. FAST CHOICE is a landing page that offers comparisons of loans, loan counseling, and borrowing options to fit your individual needs. However, the University of Pittsburgh at Bradford does not endorse, recommend nor promote any particular lender.
- The loan must go through a credit check for approval. Students may borrow up to the cost of attendance less other financial aid.
- Interest rates vary. Payment may be deferred until a student is out of school or enrolled in fewer than 6 credits; however, the interest will be accruing and should be paid, if possible, while in school. These private education loans do not have an interest rate cap and may or may not be a fixed interest rate.
- Federal guidelines determine the time line for actual disbursement of funds. The Financial Aid tab on the Student Service Center at my.pitt.edu provides cost of attendance information needed for the self-certification process of the alternative loans. Click on the above link for additional information.
- The Self Certification form can be downloaded from here.

Payment Plan

The university offers a payment plan each semester for balances of $500 or more. Access PittPay and view the most recent eBill. Click on the Payment Plan option to walk through the steps of enrollment. There is a nonrefundable fee charged each semester the Payment Plan is used. Contact Enrollment Services at (814) 362-7602 or upbacct@pitt.edu for more detailed information or view the Web information: www.upb.pitt.edu/Paymentplan

Other Important Information

Release of Student Information to Parents and Others

The Family Educational Rights and Privacy Act of 1974 (FERPA), as amended, states that when a student begins attending a college or university, the rights previously held by the parents shall be accorded to the student.

The university may release information to the parents of a student, without the student's written consent, only if the student is a dependent as defined in Section 152 of the Internal Revenue Code of 1954.

The payment of a student's tuition by the parent does not, by itself, give the parent access to a student's record. You may request this form from the Enrollment Services Office.

Special Note to Undergraduate Students

It normally takes 120 credits to earn a bachelor's degree. To graduate in four years, a student must enroll in a minimum of 15 credits per semester. Enrolling in 12 credits (minimum for full-time students) would extend graduation 1 to 1 ½ years. There are some financial aid program limits that could make this last year financially difficult. For example, PHEAA State Grant has a limit of 8 semesters (part-time is proportionately more).
Renewal of Financial Aid
Financial aid awards are not automatically renewed each year. The FAFSA for the 2017-18 academic year will be available after October 1, 2016. The priority deadline for filing is March 1. Pennsylvania's state grant deadline is May 1.

Making Corrections on Your FAFSA
Students may jeopardize their eligibility for financial aid if corrections are made to the household or income/asset sections of the FAFSA after a financial aid award letter is received. Making corrections also increases the likelihood of being selected for verification. If students need to make corrections, it is important to contact the Office of Financial Aid.

Changes in Circumstances
It is the student's responsibility to report changes that may affect eligibility for financial aid: for example, a scholarship that is not listed on the award letter, or if enrollment, residency or housing status changes, let the Office of Financial Aid know.

Special Conditions
For special circumstances that are not reflected in the information provided on the FASFA, contact our office. The Office of Financial Aid will only make earned income adjustments after the 2016 federal taxes are completed. IRS Tax Transcripts and w2s from both 2015 and 2016 must be submitted for review no later than the end of the first week of April 2017. Changes may be made retroactive to the 2016 fall semester.

Summer Financial Aid
Limited financial assistance may be available for the summer term, usually in the form of student and parent loans and/or Federal Pell Grants.

Students need to be registered in at least 6 credits and have loan eligibility left from the previous academic year in order to receive a Federal Direct Student Loan for summer. Alternative educational loans are also available to students with no federal student loan eligibility left from previous academic year. Students should complete a separate application (available in the Office of Financial Aid) after registering for summer classes.

Study Abroad
If you are planning to participate in a Study Abroad program contact the Office of Financial Aid as early in the term before the study abroad experience as possible so that we may help you plan for your term abroad. Financial aid is available for Pitt approved programs only.

Veteran and Soldier Benefits
Pitt-Bradford does not have a veteran's liaison on-campus; only a certifying official. It is the responsibility of the veteran to obtain the proper paperwork, and file the necessary applications on-time for their benefits.

Pitt-Bradford requires a Letter of Eligibility (LOE) before we can certify any benefits. Also, for those that receive Federal Tuition Assistance (FTA), veterans must submit the Army Tuition Assistance Authorizations for all approved classes. VA Beneficiaries must notify the Office of Financial Aid of all changes in enrollment.

www.gibill.va.gov
www.goarmyed.com
www.vabenefits.vba.va.gov/vonapp/default.asp

ROTC Scholarships
The U.S. Army awards financial aid on a competitive basis to outstanding young men and women who are interested in a military career and who pursue a commission as an officer through a Reserve Officers Training Corps (ROTC) program while in college.

All U.S. Army ROTC scholarships pay up to 100% of tuition or $10,000 for room and board per year, $600 per semester for books, and a tax-free subsistence allowance (ranging from $300-$500 per month depending on academic level, for up to 10 months). Students who enroll in the U.S. Army ROTC program as freshman and sophomores may apply for two- and three-year scholarships, and all students who accept U.S. Army ROTC scholarships enter a contractual agreement with the U.S. Army.
Specific information is available through the Office of Student Affairs at Pitt-Bradford, or from the Department of Military Science, which has offices on the campus of Saint Bonaventure University.

Mailing Address
All correspondence from the university will be mailed either to the permanent/mailing address provided on the admission application or to your campus mailbox (if you live on campus). It is your responsibility to keep addresses current, which includes off-campus addresses. Change of Address Forms are in the Enrollment Services Office.

Pitt-Bradford Email
Students admitted to Pitt-Bradford will receive a Pitt email account. This is the official means of communication. If you use a private account, please
forward your Pitt email to your private email so that you will receive the important information that is sent directly to the student or the student distribution list from this office.

### Verification of FAFSA Information

**New Students:** If you are selected for verification, we will not be able to credit your student account with federal funds until you have completed the verification process.

**Returning Students:** If you are selected for verification, you will not be awarded federal funds until you have completed the verification process and your FAFSA status is Official.

Both new and returning students will receive a Verification Worksheet or packet of verification materials to complete and return to our office via email.

### Federal Tax Information

FAFSA filers are strongly encouraged to use the IRS Data Retrieval Tool (IRS DRT). This process allows the IRS to automatically pre-fill FAFSA income questions.

If an applicant selected for verification has not successfully transferred information from the IRS, or has changed information provided by the IRS, the Department of Education expects the institution to require the applicant, and if necessary, the applicant's spouse or parent(s), to provide an IRS Tax Return Transcript (*some conditions do apply):

**IRS Tax Return Transcript**

Tax filers can request a transcript of their 2015 tax return from the IRS, free of charge, in one of three (3) ways:

- Online request - www.irs.gov
- Telephone request - 1-800-908-9946
- Paper request - IRS Form 4506T-EZ

*Some applicants who are selected for verification will not be able to participate in the IRS DRT and will need to submit an IRS Tax Return Transcript of 2015 tax year information for the applicant and/or their parents/spouse (as applicable) to their institution. The list includes the following:

1. When the applicant or parent did not use the IRS DRT - either at initial FAFSA filing or when making corrections.
2. When information included on the FAFSA using the IRS DRT was subsequently changed.
3. When a married independent applicant and spouse filed separate tax returns.
4. When the married parents of a dependent student filed separate tax returns.
5. When an applicant or applicant's parents had a change in marital status after the end of the tax year on 12/31/15.
6. When the applicant, or parents, or spouse, as applicable, filed an amended tax return.
7. When the applicant, or parents, or spouse, as applicable, did not file a U.S. 1040/A/EZ tax return (this includes U.S. territory tax returns and foreign country tax returns).

### Non Tax Filers

Students and parents who are not required to file federal taxes and are selected for verification must turn in a letter of non-filer status from the IRS. The IRS form 4506-T is required in order to fulfill this request.

### PITT-BRADFORD SATISFACTORY ACADEMIC PROGRESS POLICY

The Office of Financial Aid is required by federal regulations to monitor student progress toward the completion of a degree. Below are the guidelines, which determine if a student is maintaining Satisfactory Academic Progress (SAP).

Student progress will be reviewed at the end of each spring term. Students will be notified in writing by the Office of Financial Aid if not meeting academic progress and given instructions on the appeal requirements and process. Those not making progress will be denied student aid. This includes:

- Federal Pell Grant
- Federal SEOG (Supplemental Educational Opportunity Grant)
• Federal Direct Student Loans
• Federal Direct Parent PLUS Loans
• Most University funds*

*Merit scholarship recipients (Panther, and Dean's), must meet housing and GPA requirements (CUM 2.25 at the end of the spring term) to receive the award. CHS and Bridges scholarships, Go Beyond NYS, and Seneca Book Award must meet minimum GPA requirements (CUM 2.25 at the end of the spring term).

If a student is academically dismissed or leaves to attend elsewhere (i.e., transfer to another institution) and then later return to Pitt-Bradford, the student is no longer eligible to receive the original scholarship awarded.

**Standards of Academic Progress for Financial Aid**

- Full- and part-time students who are in their first academic year must complete 67% of all attempted credits and must maintain a 1.5 Cumulative GPA.
- Full- and part-time students who are in their second or greater academic year must complete 67% of all attempted credits and must maintain at least a 2.0 cumulative GPA.

**What to Do If Denied Aid Due To SAP**

If denied aid, students have the option of paying for classes using their own funds until they reach satisfactory academic progress.

Or, if a student has experienced circumstances beyond their control, they may appeal the decision to the Financial Aid Appeal Committee using the Satisfactory Academic Progress Appeal Form that was sent via email following the spring semester.

Incomplete forms and requests without proper documentation will be automatically returned to the student for completion. Appeal must include:

- An explanation of why the student failed to make satisfactory academic progress

**AND**

- What has changed that will allow the student to make satisfactory academic progress at the next evaluation.

The completed appeal and the required documentation must be submitted to the Office of Financial Aid. The appeal form and the required documentation will then be forwarded to the Financial Aid Appeal Committee for review. The decision of the Appeal Committee is final and may not be appealed. Students will receive email notification of the committee's decision.

If an appeal is approved, the student is placed on "financial aid probation" or "academic plan" status and Title IV aid eligibility is reinstated for the next payment period or term (with possible requirements specified by the school).

If the student does not make satisfactory progress or meet requirements of the academic plan by the end of the next payment period or term, the student loses eligibility for Title IV aid again. The student must then complete at least six credits on their own before they can appeal again.

**PHEAA (PA State Grant) Academic Progress**

PHEAA has separate guidelines for checking academic progress. Students will be notified by PHEAA if they are not making progress for their state grant. All appeals for this grant are handled through PHEAA directly.

Generally speaking, full-time students, must complete 24 credits per academic year. Part-time students must complete 12 per academic year.

**Tuition, Fees, and Other Expenses**

(These are actual costs for 2016-2017; costs normally increase each year.)

*Note: Pitt-Bradford reserves the right to increase or revise tuition, room, board, and other charges without advance notice. Other course-specific fees (i.e., labs, nursing) may apply.*

**Full-Time Students (12 credits or more)**

The following are the costs for the two-term academic year (fall and spring) 2016-2017:
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<tr>
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<th>Pennsylvania Resident</th>
<th>Out-of-State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$12,688</td>
<td>$23,710</td>
</tr>
<tr>
<td>Nursing Tuition</td>
<td>$16,254</td>
<td>$30,234</td>
</tr>
<tr>
<td>Room (double)</td>
<td>$5,330</td>
<td>$5,330</td>
</tr>
<tr>
<td>Meals (full plan)</td>
<td>$3,324</td>
<td>$3,324</td>
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</tbody>
</table>

Other meal plans (resident and commuter) are available: please see the office of Housing and Residence Life.

<table>
<thead>
<tr>
<th></th>
<th>Pennsylvania Resident</th>
<th>Out-of-State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Fee</td>
<td>$350</td>
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<tr>
<td>Activity Fee</td>
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<td>$200</td>
</tr>
<tr>
<td>Recreation Fee</td>
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<tr>
<td>Health Service Fee</td>
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<tr>
<td>Parking and Transportation Fee</td>
<td>$80</td>
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</table>

* Undergraduate students registering for more than 18 credits are charged additional tuition beyond the flat fee on a per-credit basis.

**Part-Time Students (1-11 credits)**

<table>
<thead>
<tr>
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<th>Pennsylvania Resident</th>
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<tbody>
<tr>
<td>Tuition</td>
<td>$528/credit</td>
<td>$987/credit</td>
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<tr>
<td>Nursing Tuition</td>
<td>$677/credit</td>
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<td>$200</td>
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<tr>
<td>Recreation Fee</td>
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<td>$30</td>
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<tr>
<td>Activity Fee</td>
<td>$40</td>
<td>$40</td>
</tr>
<tr>
<td>Parking and Transportation Fee</td>
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<td>$40</td>
</tr>
</tbody>
</table>

**Students registered during the summer term and/or summer sessions will also be billed on a per-credit basis only, regardless of the number of credits taken.**

**Miscellaneous Fees:**

- Physical Education Fee: $35/course
- Sciences lab fee: $35-$50/course
- Nursing lab fee: $35-$75/course
- Nursing Liability Insurance Fee: $12/year
Athletic Training Liability Insurance Fee: $12/year

Late payment fee: $50/month (maximum of three per term)

Late Graduation Application Fee: $15

The following fees must be paid prior to initially enrolling:

Application fee: $45, submitted with the application for admission.

Tuition deposit: $225, guarantees matriculation in the incoming freshman class. It is nonrefundable and is credited as partial payment of tuition.

Housing reservation: $125, reserves on-campus housing for returning students. It is nonrefundable and is credited as partial payment of the first term room charge.

Orientation fee for new students: $90 full time/ $15 part time

Title IV Refund Policy

Adjustments to tuition charges resulting from official resignations are based on the effective date of resignation and in accordance with the federally mandated calculation.

The calculation is based on the period of enrollment completed. That percentage is computed by dividing the total number of calendar days in the term into the number of calendar days completed, as of the date of student notification. The percentage of Title IV assistance to which the student is entitled (has "earned") is equal to this percentage of the term completed up to 60 percent. If the resignation occurs after 60 percent of the term is completed, the percentage is equal to 100 percent.

The amount of Title IV aid that must be returned is based on the percentage of "unearned" aid. The percentage is computed by subtracting earned aid from 100 percent. The University is required to return the lesser of 1) the unearned aid percentage applied to institutional charges or 2) the unearned aid percentage applied to the total Title IV aid received.

The student is required to return the difference between the amount of unearned aid and the amount returned by the University. If the student (or parents in the case of PLUS loans) is required to return a portion or all of the loan proceeds, the calculated amount is to be repaid according to the loan's terms. Students must return only half the amount of grant funds calculated.

Funds are returned to the following Title IV sources in order of priority:

1. Unsubsidized FFEL loans
2. Subsidized FFEL Loans
3. Federal Perkins loans
4. FFEL PLUS loans
5. Federal Pell Grants
6. Federal SEOG
7. Other Title IV assistance for which a return of funds is required
8. Other federal, state, private, or institutional financial assistance
9. Student

Board

Board (meal plan) changes are prorated on a separate basis.
Office of Academic Affairs

Major

Environmental Studies, BA

Contact: Professor Stephen Robar, Program Director

Environmental studies is an interdisciplinary academic program that explores the relationships between humankind and its environment. Because the environment is complex and consists of many different environments, including the natural, constructed, and cultural environments, the environmental studies program fundamentally integrates the bodies of knowledge of the natural sciences, the social sciences, and the arts and humanities. A degree in environmental studies provides a comprehensive, interdisciplinary education that gives students the ability to analyze complex environmental problems and generate solutions.

Our environmental studies program focuses on:

- teaching students how to describe and analyze ecosystems;
- generating sound scientific understandings of biological, chemical, and geologic systems;
- evaluating the legal, political, and policy systems that impact ecosystems;
- appreciating the influence of artistic and literary explorations of the environment;

Note: Please visit the Environmental Studies Web page for more information on faculty and student research activities, internships, and the region in general.

Degree Requirements

Core Requirements:

- ENVSTD 0101 - INTRO TO ENVIRONMENTAL STUDIES or
- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES
- BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOL or
- BIOL 0217 - PRINCPL OF ECOLOGY & EVOLUTION
- CHEM 0106 - CHEMISTRY OF THE ENVIRONMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 1307 - ECONMCS OF ENERGY & ENVIRONMNT
- ENG 0218 - INTRO TO LITERATURE & ENVIRON
- ES 0112 - INTRO TO ENRGY SCIENCE & TECHN
- PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS
- PHIL 1445 - ENVIRONMENTAL ETHICS
- PS 1367 - ENVIRONMENTAL POLITICS or
- PS 1385 - GLOBAL ENVIRONMENTAL POLITICS
- ENVSTD 1451 - CAPSTONE: ENVIRNMNTL STUDIES

Three Lab sections:

Students must complete three lab sections in biology and/or chemistry approved by their advisor.
One course in statistics

One course in statistics, choose one of the following:

- PSY 0201 - STATISTICS
- MATH 0133 - STATISTICS
- ECON 0204 - STATISTICAL METHODS

Note:

Many of the courses in the core, as well as the electives, can be utilized to satisfy your general education requirements. You should consult with your primary advisor as soon as possible to set up a program of study.

Environmental Studies Elective Requirements

In addition to the core requirements, five additional classes, two of which must be upper-level, must be taken from an approved list of environmental studies electives. You should consult with your advisor as to which classes would best serve your professional interests and career goals.

Total Elective Credits: 15-20

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

General Studies, BA

Contact: Professor Stephen Robar, Program Director

General Studies is a major that is designed for students who prefer a broader and more varied approach to learning than that of the traditional single-discipline major. It is a flexible degree program designed to meet the needs of a variety of students. The major is ideal for: those seeking a strong foundation in general education, thereby preparing them to move on and pursue a graduate degree in fields that require no specific major or that encourage multi-disciplinary undergraduate study; individuals wanting to develop marketable job skills and meet many employer's basic requirement of holding a college degree; those seeking retraining and upgrading of general knowledge to enhance personal and professional growth.

Degree Requirements

The general studies major consists of 72-73 credits distributed over at least three areas of study, each representing a different category. Five courses (15 credits) must be at the 1300 level or above. Students select three areas of study from a list of five possible categories, and credits are distributed as follows:

- Area of Study I: 36 credits
- Area of Study II: 18 credits
- Area of Study III: 12 credits
Students may choose from the following categories and must complete three areas as detailed above:

- Category I: Arts and Letters (ENG, WRITNG, ART, MUSIC, THEA, languages)
- Category II: Behavioral, Economic, and Political Sciences (PSY, SOC, ECON, PS)
- Category III: History, Cultures, and Philosophical Inquiry (HIST, ANTH, PHIL)
- Category IV: Physical, Life and Computational Sciences (ASTRON, BIOL, CHEM, ENGR, ES, GEOL, PHYS, PET, MATH)
- Category V: Professional Studies (ACCT, ADMJ, CIST, COMM, EDUC, ENTR, ENVSTD, FIN, HPRED, HMGT, INTS, MGMT, MIS, MRKT, NUR, PR)

Students must also complete a three-credit experience in directed research, internship, service learning, or study abroad.

Capstone: Students must complete a three- or four-credit capstone in an area of focus for which all prerequisites have been met.

Total credits required for the major: 72-73

Required Minor: 15-21 Credits

(Note: Transfer students who have earned a previous degree, or Pitt-Bradford students with a second major, do not need to complete a minor.)

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Suggested Course of Study

First Year-first semester

- ENG 0101 - ENGLISH COMPOSITION 1
- Area I course in major - 3 Credits
- Area II course in major - 3 Credits
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- General education elective course - 3 Credits

Credits: 15

First Year-second semester

- ENG 0101 - ENGLISH COMPOSITION 1
- Area I course in major - 3 Credits
- Area II course in major - 3 Credits
- Area III course in major - 3 Credits
- General education elective course - 3 Credits

Credits: 15

Second Year-first semester
• Area I course in major - 3 Credits
• Area II course in major - 3 Credits
• General education elective course - 3 Credits
• Course in the required minor

Credits: 15

Second Year-second semester

• Area I course in major - 3 Credits
• Area III course in major - 3 Credits
• General education elective course - 6 Credits
• Course in the required minor - 3 Credits

Credits: 15

Third Year-first semester

• Area I course in major - 6 Credits
• Area II course in major - 3 Credits
• General education or elective course - 3 Credits
• Course in the required minor - 3 Credits

Credits: 15

Third Year-second semester

• Area I course in major - 6 Credits
• Area II course in major - 3 Credits
• General education or elective course - 3 Credits
• Course in the required minor - 3 Credits

Credits: 15

Fourth Year-first semester

• Area I course in major - 6 Credits
• Area III course in major - 3 Credits
• General education or elective course - 3 Credits
• Course in the required minor - 3 Credits

Credits: 15

Fourth Year-second semester

• Area I course in major - 6 Credits
• Area II course in major - 3 Credits
• Area III course in major - 3 Credits
• Capstone
Liberal Studies, AA

Contact: Professor Stephen Robar, Program Director

The Associate of Arts in Liberal Studies is the perfect program for you to enroll in and finally earn the college degree you have been thinking about for years. It's a great start on the way to a bachelor's degree, too. The liberal studies program provides incredible flexibility for moving on to a "4-year degree." Online and evening courses are available. Students may enroll part-time or fulltime.

Degree Requirements

Competencies (12 credits)

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 or higher level MATH course

Arts and Letters (9 credits)

Must include at least one course in literature, and at least one course in the creative, fine, and performing arts

Literature (GE: Literature) Creative, Fine, and Performing Arts (GE: Arts) Second Languages (GE: Language)

Behavioral, Economic, and Political Sciences (9 credits)

Courses must be selected from three different disciplines (e.g., sociology, psychology, political science) representing at least two different categories (e.g., behavioral science, economics, and political science).

Behavioral Sciences (GE: Behavioral Sciences) Economics (GE: Economics) Political Science (GE: Political Science)

History, Culture, and Philosophical Inquiry (9 credits)

Selections must include at least one Non-Western and Global category course.

History (GE: History) Cultures (GE: Cultures) Philosophical Inquiry (GE: Philosophy)

Physical, Life, and Computational Sciences (10 credits)

Selections must include one course in physical sciences and one course in life sciences, one of which must have a lab.

Physical Sciences (GE: Physical Sciences) Life Sciences (GE: Life Sciences) Computational Sciences (GE: Computational Sciences)

General Electives (14 credits)

Choose any four or five courses.

Total Credits to Graduate: 60 credits
Minor

Gender, Sexuality and Women's Studies Minor

Program Contact: GSWS Administrative Council: Dr. Nancy McCabe, Program Coordinator, Dr. Helma de Vries-Jordan, Ms. Stephanie Eckstrom, MSW, Dr. Tammy Haley, Dr. Tracee Howell, Dr. Nancy McCabe

A minor in Gender, Sexuality, and Women's Studies can be earned by completing the following 18 credits: (Students must earn a C- or better in all courses in the minor and a GPA of 2.0 in the minor is required.)

Required course:

- GSWS 0101 - INTRODUCTION TO GENDER, SEXUALITY, AND WOMEN'S STUDIES

Electives

Select five electives from the following list of approved courses. Courses selected must reflect at least two disciplines and include at least three at the upper-level.

- CLP 1315 - CRITICAL METHODS
- CLP 1350 - LATINA WRITERS
- ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR
- ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR
- ENG 0205 - INTRODUCTION TO SHAKESPEARE
- ENG 0214 - INTRO TO LITERATURE BY WOMEN
- ENG 1308 - 20TH-CENTURY AMERICAN LIT
- NUR 1303 - WOMEN'S HEALTH ISSUES
- PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES
- PS 0225 - WOMEN IN POLITICS
- PS 1354 - LGBTQ POLITICS
- PS 1337 - IDENTITY POLITICS
- SOC 1337 - IDENTITY POLITICS
- PS 1355 - POLITICS OF DEVELOPING WORLD
- PS 1365 - SOCIAL MOVEMENTS
- PSY 1335 - PSYCH OF PREJUDICE & DISCRIMINATION
- SOC 0201 - SOCIOLOGY OF GENDER
- SOC 1318 - SOCIOLOGY OF SEXUALITY
- SOC 1301 - THE FAMILY
- SOC 1308 - INEQUALITY IN SOCIETY
- SOC 1314 - IMAGES OF WOMEN AND MEN
- THEA 0203 - PLAY ANALYSIS

Students may double-count courses from the major, in secondary majors or minors. However, at least two courses must be unique to the minor (and may not be double-counted). By permission of the program coordinator, students may apply to have directed study, directed research, and internships in a range of disciplines substituted as electives in the Gender, Sexuality, and Women's Studies minor. Further, the program coordinator will also evaluate coursework completed during study abroad in terms of course substitutions for the minor.

Total Credits for Minor: 18
The Division of Behavioral and Social Sciences

Major

Criminal Justice, BA

Contact: Professor Tony Gaskew, Program Director

The criminal justice major is designed to foster a broadly based understanding of the diverse nature of crime and justice and its relationship with society, with an emphasis on the components of policing, courts, and corrections. The program goes beyond the narrow, practicum-oriented criminal justice requirements of many colleges and universities, allowing students to also explore interdisciplinary connections with other fields of study.

Students must take 48 total credits in the major. Seven courses (21 credits) are required for all criminal justice majors.

Degree Requirements

Course requirements in the major

- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ADMJ 0205 - POLIC & SOCTY:RACE,CRIME JUSTC
- ADMJ 0206 - CRIMINOLOGY
- ADMJ 1320 - RSRCH MTHS IN CRIMINAL JUSTICE
- ADMJ 1321 - LAW & SOCIAL CTRL IN SOCIETY
- ADMJ 1451 - CAPSTONE: CRIMINAL JUSTICE
- ADMJ 1496 - FIELD PLACEMENT or
- ADMJ 1497 - DIR STUDY: ADMIN OF JUSTICE

Note:

*An earned minimum grade of C- is required in the above core courses.

Other core requirements

choose three of the following four courses:

- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0205 - LAW AND THE COURTS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Credits: 30

Area Requirements

Students must take six additional courses (18 credits), including at least two from each of the three areas of study in criminal justice. At least three of the courses must be at the 1300/1400 level.
Law Enforcement

- ADMJ 0215 - LAW ENFORCEMENT OPERATIONS
- ADMJ 0230 - INTRO TO FORENSIC SCIENCE
- ADMJ 0255 - WHITE COLLAR CRIMES
- ADMJ 1302 - CRIMINAL LAW AND PROCEDURE
- ADMJ 1325 - CRIMINAL EVIDENCE/INVESTIGATION
- ADMJ 1330 - CRIMINAL FORENSICS 1
- ADMJ 1331 - CRIMINAL FORENSIC 1 LAB
- ADMJ 1401 - CONTEMP ISSUES LAW ENFORCEMENT
- ADMJ 1430 - CRIMINAL FORENSICS 2
- ADMJ 1431 - CRIMINAL FORENSICS 2 LAB
- ADMJ 1447 - SPECIAL TOPICS IN POLICING
- ADMJ 1305 - MEDIA, CRIME, AND THE CRIMINAL JUSTICE SYSTEM
- ADMJ 1306 - CRIME, JUSTICE, AND THE MENTALLY DISORDERED OFFENDER
- ADMJ 1404 - THE POLICING CULTURE-POLITICS, COMMUNITY, AND ACCOUNTABILITY

Corrections

- ADMJ 0102 - AMERICAN CORRECTIONS
- ADMJ 0203 - PROBATION AND PAROLE
- ADMJ 0240 - COMMUNITY-BASED CORRECTIONS
- ADMJ 1315 - MGT & SUPVSN CRIMINAL JUSTICE
- ADMJ 1335 - CONFLICT AND CRISIS MANAGEMENT
- ADMJ 1360 - REENTRY AND THE OFFENDER
- ADMJ 1365 - SUBS ABUSE & TRMNT IN COMNY
- ADMJ 1370 - VCTMLGY-CHILD ABUS/EXPLTD CHILD
- ADMJ 1375 - JUVNL CORRCS AND TRNMT ALTNTVS
- ADMJ 1402 - CONTEM ISSUES IN CORRECTIONS
- ADMJ 1405 - PSYCHOLOGY AND CRIME
- ADMJ 1435 - JUVENILES WHO MURDER
- ADMJ 1448 - SPECIAL TOPICS IN CORRECTIONS

Courts, Policy, and Justice

- ADMJ 0235 - TERRORISM IN A POST-9/11 WORLD
- ADMJ 0245 - ETHICS IN CRIMINAL JUSTICE
- ADMJ 0260 - VIOLENCE AND CRIME
- ADMJ 1304 - JUVENILE JUSTICE SYSTEM
- ADMJ 1310 - DRUGS, CRIME, & SOCIAL POLICY
- ADMJ 1340 - GANGS: THR, PRACT, & SUPPRSSN
- ADMJ 1345 - INTERNATIONAL AND GLOBAL CRIME
- ADMJ 1355 - ORGANIZED CRIME IN AMERICA
- ADMJ 1403 - CONTEM ISS CRTS, POLICY, JUST
- ADMJ 1415 - ISLAM AND SOCIAL JUSTICE
- ADMJ 1449 - SPECIAL TOPICS IN COURTS
- ADMJ 1307 - COMPARATIVE JUSTICE SYSTEMS

Total additional credits: 18
Total credits required for the major: 48

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ADMJ 0204 - POLICE AND SOCIETY
- ADMJ 0206 - CRIMINOLOGY
- General education or elective courses - 9 Credits
- ADMJ Lower level elective - 3 Credits

Credits: 30

Second Year

- ADMJ Lower level electives - 6 Credits
- ADMJ Upper level electives - 6 Credits
- General education or elective courses - 20 Credits

Credits: 32

Third Year

- ADMJ 1320 - RSRCH MTHS IN CRIMINAL JUSTICE
- ADMJ 1321 - LAW & SOCIAL CTRL IN SOCIETY
- ADMJ 1451 - CAPSTONE: CRIMINAL JUSTICE
- ADMJ Upper level electives - 6 Credits
- General education or elective courses - 15 Credits

Credits: 30

Fourth Year
• ADMJ Upper level electives - 6 Credits
• ADMJ Lower level electives - 6 Credits
• General education or elective courses - 13 Credits

• ADMJ 1496 - FIELD PLACEMENT or
• ADMJ 1497 - DIR STUDY: ADMIN OF JUSTICE

Credits: 28

History/Political Science, BA

Contact: Professor Richard Frederick, Program Director

The history/political science major offers students a foundation in two disciplines that study the institutions, the processes, the people, and the ideas and cultures that have shaped the United States and other countries. The study of history and political science develops insight into current affairs and into the possibilities and limitations of individual and public action.

The major prepares students for careers in journalism, teaching, or government service and for graduate study in business, history, law, political science, or public administration.

Secondary teacher certification in social studies is available with the BA degree in history/political science.

Degree Requirements

Course Requirements in the Major

• HIST 0106 - US HISTORY 1
• HIST 0107 - US HISTORY 2

• HIST 1449 - CAPSTONE 1: RESEARCH METHODS or
• PS 1449 - CAPSTONE 1: RESEARCH METHODS

• HIST 1451 - CAPSTONE 2: HISTORY or
• PS 1451 - CAPSTONE 2: POLITICAL SCIENCE

Credits: 12

Area Requirements in History

Two of the following courses:

• HIST 0103 - EUROPE IN THE 18TH CENTURY
• HIST 0104 - EUROPE IN THE 19TH CENTURY
• HIST 0105 - EUROPE IN THE 20TH CENTURY
• HIST 0108 - MEDIEVAL EUROPE
• HIST 0109 - RENAISSANCE/REFORMATION EUROPE

• History electives (three courses, including at least two at the 1300 level or above) - 9 Credits

Total additional credits in history: 15
Area Requirements in Political Science

Seven courses, including at least one course from each of the four sets of courses representing the four areas of study in political science, including at least two at the 1300/1400 level or above:

American Government and Politics

- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0204 - PUBLIC POLICY PROCESS
- PS 0205 - LAW AND THE COURTS
- PS 0207 - CONGRESS AND THE PRESIDENCY
- PS 1310 - CONSTITUTIONAL LAW
- PS 1319 - POL PARTIES & INTEREST GROUPS
- PS 1367 - ENVIRONMENTAL POLITICS

Comparative Government and Politics

- PS 0103 - COMPARATIVE POLITICS
- PS 0220 - MEDIA AND INTERNET IN POLITICS
- PS 0225 - WOMEN IN POLITICS
- PS 1340 - DEMOCRATIZATION
- PS 1337 - IDENTITY POLITICS
- PS 1355 - POLITICS OF DEVELOPING WORLD
- PS 1354 - LGBTQ POLITICS

International Politics

- PS 0110 - INTRODUCTION TO INT'L AFFAIRS
- PS 0201 - WORLD POLITICS
- PS 0215 - EUROPEAN POLIT & EU
- PS 1304 - AMERICAN FOREIGN RELATIONS
- PS 1365 - SOCIAL MOVEMENTS
- PS 1385 - GLOBAL ENVIRONMENTAL POLITICS

Political Theory

- PS 0202 - GREAT POLITICAL THINKERS
- PS 1307 - LIBRLSM, CONSERVATISM & SOCLSM
- PS 1308 - AMERICAN POLITICAL THOUGHT

Total additional credits in political science: 21

Total credits required for the major: 48

General Education Program Requirements and Electives-Variable
Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- HIST 0106 - US HISTORY 1
- HIST 0107 - US HISTORY 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Political science courses - 6 Credits
- General education or elective courses - 9 Credits

Credits: 30

Second Year

- History courses - 6 Credits
- Political science courses - 6 Credits
- General education or elective courses - 18 Credits

Credits: 30

Third Year

- History course - 3 Credits
- Political science course - 3 Credits
- General education or elective courses - 24 Credits

Credits: 30

Fourth Year

- History course - 3 Credits
- Political science course - 3 Credits
- General education or elective course - 21 Credits

- HIST 1451 - CAPSTONE 2: HISTORY or
PS 1451 - CAPSTONE 2: POLITICAL SCIENCE

Credits: 30

Note:

Students seeking secondary teacher certification in social studies should meet with the director of teacher education each semester to plan out their course of study. Please refer to the section on Education Programs for further details.

International Affairs, BA

Contact: Dr. Helma de Vries-Jordan

The International Affairs major program integrates a strong foundation in political science and economics with interdisciplinary electives and foreign language study. Students are required to gain intercultural competency via an approved study abroad program or international field experience. International Affairs majors are encouraged to participate in applied service-learning, internship, and research experiences that are multicultural or international in scope. Students pursuing the International Affairs major may be interested in careers and graduate study in fields such as international affairs, international relations, comparative politics, public policy, diplomacy, global environmental policy, human rights, international law and organization, international business, international political economy, international development, peace and conflict resolution, international service, and international humanitarian relief.

International Affairs Curriculum

Core classes (24 credits):

- PS 0103 - COMPARATIVE POLITICS
- PS 0110 - INTRODUCTION TO INT'L AFFAIRS
- PS 1307 - LIBRLSM, CONSERVATISM & SOCLSM
- PS 1366 - PUBLIC POLICY ANALYSIS
- HIST 1317 - CONTEM US HISTORY 1941-PRESENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 1301 - POVERTY AND SOCIETY

Research Methods (3 or 4 credits):

- PS 1449 - CAPSTONE 1: RESEARCH METHODS or
- ECON 0204 - STATISTICAL METHODS

Capstone Course (3 credits):

- PS 1451 - CAPSTONE 2: POLITICAL SCIENCE or
- ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS

Electives in Comparative Government and Politics and International Politics (9 credits, at least two upper division):

- PS 0201 - WORLD POLITICS
Electives in Economics, Finance, Management, or Marketing (9 credits, at least one upper division):

- ECON 0111 - MONEY IN THE REAL WORLD
- ECON 0112 - TOURISM
- ECON 0201 - MONEY AND BANKING
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 1307 - ECONOMCS OF ENERGY & ENVIRONMNT
- FIN 1401 - INTERNATIONAL FINANCE
- MGMT 1305 - INTERNATIONAL MANAGEMENT
- MGMT 1449 - ECONOMIC SYSTEMS
- MRKT 1420 - INTERNATIONAL MARKETING

Interdisciplinary electives (9 credits, in at least two disciplines):

In addition to the core requirements, three additional classes must be taken in at least two disciplines. These courses must be selected from an approved list of interdisciplinary electives. Students should consult with their advisor as to which classes best serve their professional interests and career goals. Possible electives include:

- ADMJ 0235 - TERRORISM IN A POST-9/11 WORLD
- ADMJ 1345 - INTERNATIONAL AND GLOBAL CRIME
- ADMJ 1307 - COMPARATIVE JUSTICE SYSTEMS
- ADMJ 1415 - ISLAM AND SOCIAL JUSTICE
- ANTH 0101 - INTRO TO CULTURAL ANTHROPOLOGY
- ANTH 1305 - RELIGION AND CULTURE
- ANTH 1330 - ETHNIC AND TOURIST ARTS
- ANTH 1335 - GLOBALIZATION
- ART 0105 - WORLD ART SURVEY 1
- ART 0106 - WORLD ART SURVEY 2
- CLP 0206 - HISPANC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 0208 - FRNCH LITRATUR IN TRANSLATION
- CLP 0216 - MODERN AFRICAN LIT: THE NOVEL
- CLP 0220 - CARIBBEAN LITERATURES & CULT
- CLP 0230 - MIDDLE EASTERN LITS & CULTURES
- CLP 1310 - POSTCOLONIAL LITERATURE
- CLP 1320 - AFRICAN LIT AND SPIRITUALITY
- CLP 1350 - LATINA WRITERS
- COMM 0120 - INTERCULTURAL COMMUNICATION
- COMM 0215 - BOLLYWOOD: POPULAR INDIAN CINE
Intercultural Competency via Approved Study Abroad Program or International Field Experience (3 or more credits):

International Affairs majors are required to gain intercultural competency by participating in an approved study abroad program or international field experience. Students may study abroad during the fall, spring, or summer terms. If planning on studying abroad, students should consult with the Director of Study Abroad as well as their advisor in planning their course of study. In lieu of studying abroad, students may also participate in a directed research, directed study, or internship experience that is international in scope. Students should consult with their advisor as to which type of experience would meet this requirement and best serve their professional interests and career goals.

Foreign Language Study (0 to 6 credits):

International Affairs majors are required to gain foreign language competency in preparing for careers and graduate study in which foreign language competency is often used as a criterion in hiring and admissions decisions.

- This requirement can be met via any of the following credit-bearing options:
  - 1 semester of language study during a study abroad program
  - 2 semesters of elementary-level language study in one language
  - 2 semesters of language study of two different languages (1 semester in each language)
  - Student who has passed at least 1 semester of language study at the intermediate level or higher (students may also count such intermediate or advanced language courses as interdisciplinary electives for the International Affairs major)
Additional specialization:

Students are encouraged to select minors or a secondary major that complement their International Affairs curriculum and allow them to specialize further. This concentration will allow students to focus on particular themes, geographic regions, and disciplines. Students may double-count courses from the major, in secondary majors or minors. However, at least two courses must be unique to any minor (and may not be double-counted). For double-majors, a unique capstone course must be taken in each major.

Total Credits for Major: 60-67

Psychology, BS

Contact: Professor Warren Fass, Program Director

The psychology major at Pitt-Bradford is designed to reflect the diverse nature of psychology and the varied interests of psychologists. Students are required to take courses in different content areas of psychology to assure exposure to this diversity; however, there is also an opportunity for students to concentrate in an area of psychology of primary interest. The psychology major provides students with knowledge in the scientific and theoretical aspects of psychology in addition to an emphasis on the application of this knowledge.

The psychology major prepares students for graduate work in psychology and related disciplines and for employment in social service agencies, mental health centers, industries, and not-for-profit and governmental agencies.

Degree Requirements

Course Requirements in the Major

A C- or better is required in ALL Psychology Courses

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0201 - STATISTICS
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0204 - PERSONALITY THEORIES
- PSY 0206 - ABNORMAL PSYCHOLOGY
- PSY 0207 - PROFESSIONAL SEMINAR IN PSY
- PSY 0265 - DATA ANALYSIS & RESEARCH WRIT
- PSY 1301 - EXPERIMENTAL PSYCHOLOGY *
- PSY 1452 - CAPSTONE: PSYCHOLOGY *

Content area requirements in psychology

(two courses from each of the three following content areas)*

- This requirement can also be met via any of the following non-credit-bearing options, by permission of the program director:
  - Bilingual student if testing in at intermediate level
  - Student who has studied at a secondary-level institution or university outside the United States, in a non-English language
Experimental Focus

(min two courses)

- PSY 1304 - HUMAN MEMORY
- PSY 1406 - LEARNING AND BEHAVIOR
- PSY 1335 - PSYCH OF PREJUDICE & DSCRMNTN
- PSY 1340 - PSY AND ENVIRONMENTAL PROBLEMS
- PSY 1345 - THE PSYCHOLOGY CLOSE RELTNSHP
- PSY 1410 - PSYCHOLOGY AND LAW
- PSY 1447 - TOPICS IN COGV-DEVLP PSY
- PSY 1448 - TOPICS IN APPLIED-SOCIAL PSY
- PSY 1307 - PSYCHOLOGY OF MUSIC

Applied Focus

(min two courses)

- PSY 1303 - PSYCHOLOGICAL ASSESSMENT
- PSY 1317 - CHILD & ADOLSC PSYCHOPATHOLOGY
- PSY 1337 - HEALTH PSYCHOLOGY
- PSY 1405 - INTELLIGENCE AND TESTING
- PSY 1407 - COUNSELING PSYCHOLOGY
- PSY 1408 - COUNSELING PSYCHOLOGY LAB
- PSY 1449 - TOPICS IN COUNSELING PSY

Other required courses

- COMM 0104 - PUBLIC SPEAKING or
- COMM 0115 - INTERPERSONAL COMMUNICATION

Other possible psychology electives

- PSY 1496 - INTERNSHIP IN COUNSELING PSYCH
- PSY 1497 - DIRECTED STUDY: PSYCHOLOGY
- PSY 1498 - DIRECTED RESEARCH: PSYCHOLOGY
- PSY 1449 - TOPICS IN COUNSELING PSY

*Required minor (min 15 credits)*

(min GPA 2.00 required for all minors)

Note: Transfer students who have earned a previous degree do not need to complete a minor.
Please be advised

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Suggested Course of Study

First Year

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- FS 0102 - FRESHMAN SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0132 - PRECALCULUS
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0204 - PERSONALITY THEORIES or
- PSY 0206 - ABNORMAL PSYCHOLOGY
- General education or elective courses - 9 Credits

Credits: 30-31

Second Year

- PSY 0201 - STATISTICS
- PSY 0265 - DATA ANALYSIS & RESEARCH WRIT
- COMM 0104 - PUBLIC SPEAKING or
- COMM 0115 - INTERPERSONAL COMMUNICATION or
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0204 - PERSONALITY THEORIES or
- PSY 0206 - ABNORMAL PSYCHOLOGY
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- General education or minor courses - 6 Credits
Credits: 30

Third Year

- PSY 1301 - EXPERIMENTAL PSYCHOLOGY
- Psychology upper-level courses - 9 Credits
- General education or minor courses - 18 Credits

Credits: 30

Fourth Year

- PSY 1452 - CAPSTONE: PSYCHOLOGY
- Psychology upper-level courses - 6 Credits
- General education, electives or courses in minor - 20-22 Credits

Credits: 29-31

Sociology, BA

Contact: Professor Helene Lawson, Program Director

Sociology is the study of social life and the social causes and consequences of human behavior. We examine urban and rural life, family patterns and gendered relationships, social change, race and ethnic relations, work and occupations, social stratification, the environment, health services, technology, communications, social movements, global issues, and deviance.

The Sociology Major will prepare you for work in social service and government agencies, community organizations, school systems, correctional facilities, industrial settings, public relations firms, or prepare you to go on for graduate studies in fields such as law, social work, higher education and public administration. The possibilities are endless, given the breadth, adaptability and utility of sociology.

Degree Requirements

Course requirements in the Major

- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 1310 - SOCIOLOGICAL THEORY
- SOC 1401 - SOCIAL RESEARCH
- SOC 1451 - CAPSTONE: SOCIOLOGY

Corerequirements

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
• PSY 0201 - STATISTICS or
• ECON 0204 - STATISTICAL METHODS

Total core requirements: 19

Area Requirements in Sociology

The Individual in Society:

(2 courses - 1 must be upper-level)

• SOC 0204 - SOCIOLOGY OF DEVIANCE
• SOC 0205 - DEATH AND DYING
• SOC 0209 - SOCIAL PROBLEMS
• SOC 1302 - SOCIALIZATION
• SOC 1303 - SOCIETY AND THE INDIVIDUAL
• SOC 1304 - SMALL GROUPS
• SOC 1316 - SOCIAL AND CULTURAL CHANGE

Credits: 6

Inequalities and Social Differences:

(2 courses - 1 must be upper-level)

• SOC 0201 - SOCIOLOGY OF GENDER
• SOC 0207 - SOCIOLOGY OF RACE & ETHNICITY
• SOC 1308 - INEQUALITY IN SOCIETY
• SOC 1313 - SOCIOLOGY OF AGING
• SOC 1314 - IMAGES OF WOMEN AND MEN
• SOC 1337 - IDENTITY POLITICS
• SOC 1318 - SOCIOLOGY OF SEXUALITY

Credits: 6

Social Institutions:

(2 courses; 1 must be upper-level)

• SOC 0202 - SOCIOLOGY OF SPORT
• SOC 0206 - CRIMINOLOGY
• SOC 0235 - ENVIRONMENTAL SOCIOLOGY
• SOC 1301 - THE FAMILY
• SOC 1305 - ORGANIZATIONAL BEHAVIOR
• SOC 1306 - WORK AND SOCIETY
• SOC 1307 - SOCIOLOGY OF HEALTH
• SOC 1311 - SOCIAL WORK

Credits: 6
Psychology:

(2 courses)

- PSY 0202 - CHILD DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0206 - ABNORMAL PSYCHOLOGY

Credits: 6

Total Credits: 24

Total credits required for the major: 43

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

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Suggested Course of Study

First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- Sociology electives - 6 Credits
- General education or elective courses - 9 Credits

Credits: 30

Second Year

- PSY 0201 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS

- Sociology elective - 3 Credits
- Psychology elective - 3 Credits
- General education or elective courses - 20 Credits
Credits: 30

Third Year

- SOC 1310 - SOCIOLOGICAL THEORY
- SOC 1401 - SOCIAL RESEARCH
- Sociology electives - 6 Credits
- Psychology elective - 3 Credits
- General education or elective courses - 15 Credits

Credits: 30

Fourth Year

- SOC 1451 - CAPSTONE: SOCIOLOGY
- Sociology elective - 3 Credits
- General education or elective courses - 24 Credits

Credits: 30

Minor

Administration of Justice Minor

Contact: Professor Tony Gaskew, Program Director

Minor Requirements

A minor in Administration of Justice may be earned by completing the following requirements:

- ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
- ADMJ 0205 - POLIC & SOCTY:RACE,CRIME JUSTC
- ADMJ 0206 - CRIMINOLOGY
- Three upper-level criminal justice courses - 9 Credits

Total credits required for the minor: 18

*An earned minimum grade of C- is required in these courses

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Anthropology Minor
Minor Requirements

Anthropology is one of the required areas of concentration in the human relations major. A minor in anthropology can be earned by satisfying the following requirements:

- ANTH 0101 - INTRO TO CULTURAL ANTHROPOLOGY
- ANTH 0230 - PRACTICING ANTHROPOLOGY
- Anthropology upper-level electives (three courses, all at the 1300 level or above) - 9 Credits

Total Credits: 15

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Counseling Psychology Minor

Contact Professor Greg Page

A minor in counseling psychology can be earned by completing the requirements listed below. Please note that a minimum grade of C- or better is required for all courses. A student must earn a minimum overall 2.00 GPA in the minor.

Minor Requirements

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0206 - ABNORMAL PSYCHOLOGY
- PSY 1407 - COUNSELING PSYCHOLOGY
- PSY 1408 - COUNSELING PSYCHOLOGY LAB
- PSY 1496 - INTERNSHIP IN COUNSELING PSYCH
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 1311 - SOCIAL WORK

Note:

Psychology majors cannot use PSY 1407 and PSY 1408 to satisfy the counseling psychology content area or the applied focus area in their respective psychology major requirements.

Choose one of the Following:

- PSY 1303 - PSYCHOLOGICAL ASSESSMENT
- PSY 1317 - CHILD & ADOLSC PSYCHOPATHOLOGY
PSY 1405 - INTELLIGENCE AND TESTING
SOC 1301 - THE FAMILY

Total Credits for Minor: 22

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Criminal Forensic Studies Minor

Contact: Tony Gaskew, Program Director

A minor in criminal forensic studies is designed to provide students with a theoretical and applied understanding of the nature of criminal investigations and how forensic tools are used to conduct criminal investigations. Students will be exposed to variety of mock crime scenes, which will include violent crimes, property crimes, drug crimes, computer and white collar crimes. Students will also apply investigative report writing techniques and crime scene processing methods.

Minor Requirements

A minor in criminal forensic studies can be earned by completing the following 20 credits:

*(students must earn a C- or better in all minor courses and a GPA of 2.0 in the minor is required)*

Required courses:

- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- ADMJ 0230 - INTRO TO FORENSIC SCIENCE
- ADMJ 1302 - CRIMINAL LAW AND PROCEDURE
- ADMJ 1325 - CRIMNL EVIDENCE/INVESTIGATION
- ADMJ 1330 - CRIMINAL FORENSICS 1
- ADMJ 1331 - CRIMINAL FORENSIC 1 LAB
- ADMJ 1430 - CRIMINAL FORENSICS 2
- ADMJ 1431 - CRIMINAL FORENSICS 2 LAB

Students who are criminal justice majors cannot use the courses in the minor to satisfy the law enforcement content area of the criminal justice major.

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.
History Minor

Minor Requirements

Students who major in any discipline other than history/political science may earn a minor in history by completing the following requirements:

American or European History

- HIST 0106 - US HISTORY 1
- HIST 0107 - US HISTORY 2

or

Two of the following courses:

- HIST 0103 - EUROPE IN THE 18TH CENTURY
- HIST 0104 - EUROPE IN THE 19TH CENTURY
- HIST 0105 - EUROPE IN THE 20TH CENTURY
- HIST 0108 - MEDIEVAL EUROPE
- HIST 0109 - RENAISSANCE/REFORMATION EUROPE
- Three history electives (at least two at the 1300 level or above) - 9 Credits

Total Credits: 15

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

International Studies Minor

Contact: Kristin Asinger, Director of International Studies

An interdisciplinary minor in international studies can be earned by completing the following requirements; a minimum of 18 credits is required. It should be noted that study abroad (either in one of the many immersion programs or a Semester at Sea program) is a requirement of the minor. Information can be obtained from Ms. Julie Dykstra in the Office of Academic Affairs in 232 Swarts Hall.

Minor Requirements

- GEOG 0101 - WORLD REGIONAL GEOGRAPHY
- Second language proficiency through and including the intermediate level (or the equivalent) - 0-9 Credits
- Study Abroad - 3-12 Credits
- Electives - 3-9 Credits

International Studies Electives
Arts and Letters

- ART 0211 - JAPANESE VISUAL ARTS & CRAFTS
- CLP 0206 - HISPANC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 0208 - FRNCH LITERATUR IN TRANSLATION
- CLP 0209 - 20TH CENTUR JAPANESE LITERATURE
- CLP 0216 - MODERN AFRICAN LIT: THE NOVEL
- CLP 0220 - CARIBBEAN LITERATURES & CULT
- CLP 0255 - Introduction to Japanese Literature
- CLP 1320 - AFRICAN LIT AND SPIRITUALITY
- ENG 0105 - MASTERPIECES OF WORLD LITRATUR
- ENG 0203 - BRITISH LITERATURE BEFORE 1800
- ENG 0204 - BRITISH LITERATURE SINCE 1800
- ENG 0205 - INTRODUCTION TO SHAKESPEARE
- ENG 1306 - TWENTIETH-CENTURY IRISH LIT
- INTS 0112 - JAPANESE LANGUAGE AND CULTURE
- INTS 0115 - INTRO CHINESE CULTURE & LANG
- INTS 0250 - SPECIAL TOPICS
- INTS 1450 - Topics in International Studies
- WRITNG 0230 - POETRY ACROSS CULTURES

History and Cultures

- ANTH 0101 - INTRO TO CULTURAL ANTHROPOLOGY
- ANTH 0110 - THE STORY OF BUDDHISM
- ANTH 0112 - TOURISM
- ANTH 0207 - MESOAMERICAN ARCHAEOLOGY
- ANTH 1304 - ECOLOGICAL ANTHROPOLOGY
- ANTH 1305 - RELIGION AND CULTURE
- ANTH 1325 - LATIN AMERICA TODAY
- ANTH 1330 - ETHNIC AND TOURIST ARTS
- HIST 0105 - EUROPE IN THE 20TH CENTURY
- HIST 1310 - EAST ASIA: CHINA, KOREA, JAPAN
- HIST 1319 - ANCIENT ROME
- HIST 1324 - ANCIENT EGYPT
- INTS 0250 - SPECIAL TOPICS
- INTS 1450 - Topics in International Studies
- PHIL 0215 - GREAT POLITICAL THINKERS
- PHIL 1303 - EASTERN PHILOSOPHY
- SOC 1316 - SOCIAL AND CULTURAL CHANGE

Politics and Economics

- ECON 0112 - TOURISM
- ECON 1403 - International Trade
- INTS 0250 - SPECIAL TOPICS
- INTS 1450 - Topics in International Studies
- PS 0103 - COMPARATIVE POLITICS
- PS 0110 - INTRODUCTION TO INT'L AFFAIRS
Management and Education

- FIN 1401 - INTERNATIONAL FINANCE
- INTS 0250 - SPECIAL TOPICS
- INTS 1450 - Topics in International Studies
- MGMT 1305 - INTERNATIONAL MANAGEMENT

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Legal Studies Minor

Contact: Tony Gaskew, Program Director

A minor in legal studies is designed to provide students with an interdisciplinary understanding of the nature of law and crime, and how it's applied from a variety of pedagogical perspectives within the behavioral and social sciences.

Minor Requirements

A minor in legal studies can be earned by completing the following 18 credits:

*(students must earn a C- or better in all minor courses and a GPA of 2.0 in the minor is required)*

Required courses:

- PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES
- SOC 0204 - SOCIOLOGY OF DEVIANCE
- PS 0205 - LAW AND THE COURTS
- ADMJ 1321 - LAW & SOCIAL CTRL IN SOCIETY
- ADMJ 1302 - CRIMINAL LAW AND PROCEDURE
Select one elective from the following:

- PS 1310 - CONSTITUTIONAL LAW
- ADMJ 1403 - CONTEM ISS CRTS, POLICY, JUST
- PSY 1410 - PSYCHOLOGY AND LAW
- PHIL 1445 - ENVIRONMENTAL ETHICS

Please be advised

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**Political Science Minor**

Contact: Professor Stephen Robar

**Minor Requirements**

Students who major in a discipline other than history/political science may earn a minor in political science by completing the following requirements:

- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0103 - COMPARATIVE POLITICS or
- PS 0110 - INTRODUCTION TO INT'L AFFAIRS
- Three political science electives (at least two at the 1300 level or above) - 9 Credits

Total Credits: 15

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Psychology Minor**

Contact: Professor Warren Fass, Program Director

A minor in psychology can be earned by completing the requirements listed below. Please note that a minimum grade of C- or better is required for all courses. A student must earn a minimum overall 2.00 GPA in the minor.

**Minor Requirements**
Choose 2 of the Following

- PSY 0202 - CHILD DEVELOPMENT
- PSY 0203 - SOCIAL PSYCHOLOGY
- PSY 0204 - PERSONALITY THEORIES
- PSY 0206 - ABNORMAL PSYCHOLOGY
- Complete Three Upper-Level Psychology Electives - 9 Credits

Total Credits for Minor: 18

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Sociology Minor

Contact: Professor Helene Lawson, Program Director

Sociology is an integral part of the BA degree in human relations and is an optional area of concentration in the BA degree social sciences.

Minor Requirements

Students in any major can earn a minor in sociology by completing the following requirements:

- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- PSY 0201 - STATISTICS or ECON 0204 - STATISTICAL METHODS
- SOC 1310 - SOCIOLOGICAL THEORY
- SOC 1401 - SOCIAL RESEARCH
- Sociology electives (two courses, one of them must be upper level) - 6 Credits

Total Credits: 19

Transfer Program

Pre-Law

Contact: Professor Stephen Robar or Professor Richard Frederick
Students interested in earning a Doctor of Jurisprudence (JD) degree after completing a bachelor's degree at the University of Pittsburgh at Bradford may choose to major in any academic discipline. Before the second semester of their junior year, students should consult with the pre-law advisor or the Office of Career Services for specific information concerning law school admissions and the Law School Admissions Test (LSAT).

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.
The Division of Biological and Health Sciences

Major

Athletic Training, BS

Contact: Professor Jason Honeck, Program Director

Pre-admission Requirements for the Athletic Training Major

Only those students interested in becoming Board of Certification (BOC)-certified athletic trainers can major in athletic training.

1. Completion of HPRED 0101 Introduction to Sports Medicine, HPRED 0110 Practicum in Athletic Training, HPRED 0180 Sports Safety Training, and BIOL 0212, 0213, 0222, and 0223, Human Anatomy and Physiology I and II and Human Anatomy Labs I and II.
2. Completion of a minimum of 24 credits (i.e., sophomore standing).
3. Minimum GPA of 3.00 in major and 2.75 overall.
4. Complete a minimum of 50 observation hours with the Pitt-Bradford Athletic Training faculty/staff.
5. Current CPR/First Aid/AED certification verification.
6. Must have a current physical examination completed by a physician and current proof of medical insurance.
7. Each student must meet the technical standards outlined below.
8. Must have completed Blood Borne Pathogen Workshop.
9. Must complete a formal interview with AT Program Faculty.

Admission is competitive, and all who apply may not be accepted into the program.

Technical Standards For Admission

The Athletic Training Program at the University of Pittsburgh at Bradford is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the Athletic Training Program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills, and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency (Commission on Accreditation of Allied Health Education Programs [CAATE]). The following abilities and expectations must be met by all students admitted to the Athletic Training Program. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for the NATA/BOC certification exam.

Candidates for selection to the Athletic Training Program must demonstrate:

1. The mental capacity to assimilate, analyze, synthesize, integrate concepts, and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm.
2. Sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examinations using accepted techniques; accurately, safely, and efficiently use equipment and materials during the assessment and treatment of patients.
3. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice.
4. The ability to record the physical examination results and a treatment plan clearly and accurately.
5. The capacity to maintain composure and continue to function well during periods of high stress.
6. The perseverance, diligence, and commitment to complete the athletic training education program as outlined and sequenced.
7. Flexibility and ability to adjust to changing situations and uncertainty in clinical situations.
8. Effective skills and appropriate demeanor and rapport that relate to professional, educational, and quality patient care.
Candidates for selection to the Athletic Training Program will be required to verify that they understand and meet these technical standards or that they believe that, with certain accommodations, they can meet the standards.

Students with documented learning, physical, or emotional disabilities may receive accommodations services through the University of Pittsburgh at Bradford's Office of Disability Resources and Services (DRS) if the student states that he/she could meet the program's technical standards with accommodation and confirm that the stated condition qualifies as a disability under applicable laws. The required testing needed to determine the type of accommodation needed will be at the student's own expense. The University of Pittsburgh at Bradford does not pay for any accommodations testing.

If a student states he/she can meet the technical standards with accommodation, then the University of Pittsburgh at Bradford's Office of Disability Resources and Services (DRS) will determine whether it agrees that the student can meet the technical standards with reasonable accommodation. This includes a review of whether the accommodations requested are reasonable, taking into account whether the accommodation would jeopardize clinician/patient safety or the educational process of the student or the institution, including all course work, clinical experiences, and internships deemed essential to graduation.

I certify that I have read and understand the technical standards for selection listed above, and I believe to the best of my knowledge that I meet each of these standards without accommodation. I understand that if I am unable to meet these standards I will not be admitted into the program.

Signature of Applicant, Date

UNIVERSITY OF PITTSBURGH AT BRADFORD
ATHLETIC TRAINING PROGRAM
TECHNICAL STANDARDS FOR ADMISSION

I certify that I have read and understand the technical standards of selection listed above, and I believe to the best of my knowledge that I can meet each of these standards with certain accommodations. I will contact the University of Pittsburgh at Bradford's Academic Coaching and Tutoring Center (ASC) to determine what accommodations may be available. I understand that if I am unable to meet these standards with or without accommodations, I will not be admitted into the program.

Signature of Applicant, Date

Athletic Training Guidelines and Requirements:

1. Formally be admitted into the athletic training program.
2. Complete 900 hours of clinical rotation.
3. Provide immunization records and be current with all required immunizations each year.
4. Have a physical exam completed by a physician each year, and have proof of current medical insurance.
5. Complete annual blood-borne pathogen workshop and HIPAA workshop.
6. Students may participate in no more than one intercollegiate sport per academic year.
7. Pay the lab fee to cover liability insurance costs each semester (automatically charged to students' accounts).
8. Be compliant with the program's technical standards.
9. Transportation to external professional experience sites may be necessary and is the responsibility of the student.
10. Adhere to the profession's code of ethics, and the ATEP policies and procedures.
11. Satisfy all requirements for graduation.
12. Earn a minimum grade of C- in each of the program's required core courses.
13. Successfully complete the clinical sequence of courses.
14. Successfully complete all the clinical proficiencies for each of the clinical courses with an 80 percent or better.
15. Maintain a GPA of 3.0 in the major and a 2.75 overall.
16. Must have current FBI fingerprints and certified background check.
17. Must be a current student member of the NATA in good standing during the senior year.
18. Students are required to purchase ATS name badge (a cost of $5.30) that must be worn at clinical sites.

Athletic Training Guidelines and Requirements for Transfer Students:

The University of Pittsburgh at Bradford accepts transfers into the Athletic Training (AT) program under the following conditions:
1. The student must be accepted to The University of Pittsburgh at Bradford in order to be considered for admission into the AT major.
2. Students must apply to the AT major with the same application process as all other students.
3. Students must meet all selection criteria.
4. Students who were not accepted into a CAATE accredited AT major at their prior institution must complete the entire three-year clinical education program.
5. Students transferring (following admission into) from another CAATE-accredited athletic training education program must show verification of proficiencies met and clinical experiences satisfied if they wish to (eliminate) waive some of the requirements in the clinical education component of the AT program. Students need to realize that the AT major at the University of Pittsburgh at Bradford may not parallel their original school's clinical education structure. Therefore, one year of clinical education at their original school may not transfer in as one year of clinical education at the University of Pittsburgh at Bradford.
6. Students transferring (following admission into) from another CAATE-accredited athletic training education program must take the University of Pittsburgh at Bradford AT semester-end competency examinations to show their proficiency in AT skills if they wish to eliminate (waive) a clinical education course or courses. In order to be eligible to test out of a clinical course students must show proof of successful completion of the experience requirement and proficiencies assigned to this course. Proof typically entails the syllabus and a letter from the (original) Program Director of the program transferred from, verifying the proficiencies that have been satisfied.
7. Didactic course work will be waived based on content taught in the University of Pittsburgh at Bradford AT courses. It is the responsibility of the student to show prior course content completed. A course syllabus is typically the best means of comparing Pitt-Bradford and other institution courses. Transfer students are held to the same retention criteria as Pitt-Bradford students. Grades in AT major courses must be C- or better.
8. Transfer applications are reviewed by the AT program director for completeness and to determine the most appropriate level for this student in the Pitt-Bradford AT major.

Admission is competitive, and all who apply may not be accepted into the program.

Additional Athletic Training Program Costs:

1. Required uniform $100
2. Required criminal background clearances $100 (approximate) for off-campus high school clinical rotations
3. ATS student liability insurance annual fee $11 (automatically posted to students’ accounts)
4. Transportation to off-campus clinical rotations (transportation costs depend on the distance to the off-campus clinical rotation site)
5. Average laboratory fees per year $65
6. NATA Membership Annual Dues (includes NATA, EATA, and PATS) $85 (mandatory senior year)
7. Students are required to purchase an ATS name badge (a cost of $5.30) that must be worn at all clinical sites.

Degree Requirements

Students may earn a bachelor of science degree in athletic training by completing the following requirements:

- HPRED 0101 - INTRO TO ATHLETIC TRAINING
- HPRED 0108 - NUTRITION
- HPRED 0110 - PRACTICUM IN ATHLETIC TRAINING
- HPRED 0180 - SPORT SAFETY TRAINING
- HPRED 0206 - EVAL AND REHAB OF ATHL INJRY 1
- HPRED 0207 - EVAL AND REHAB OF ATHL INJRY 2
- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- HPRED 0220 - MEDICAL ASPECTS IN ATHL TRNG
- HPRED 0280 - CLINICAL IN ATHLETIC TRAINING 1
- HPRED 0281 - CLINICAL IN ATHLETIC TRAINING 2
- HPRED 1302 - THERAPEUTIC MODALITIES
- HPRED 1305 - BIOMECHANICS
- HPRED 1306 - EXERCISE PHYSIOLOGY 1
- HPRED 1309 - THERAPEUTIC EXERCISE
- HPRED 1320 - PRIN STRENGTH TRAINING/CONDITNG
- HPRED 1380 - CLINICAL IN ATHLETIC TRAINING 3
- HPRED 1381 - CLINICAL IN ATHLETIC TRAINING 4
• HPRED 1405 - RES METH IN SPRTS & EXERCS SCI
• HPRED 1420 - REHABILITATION MGMT & ADMIN
• HPRED 1451 - CAPSTONE: ATHLETIC TRAINING
• HPRED 1480 - CLINICAL IN ATHLETC TRAINING 5
• HPRED 1481 - CLINICAL IN ATHLETC TRAINING 6
• BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
• BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
• BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
• BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
• PSY 0101 - INTRODUCTION TO PSYCHOLOGY
• PSY 0201 - STATISTICS

Total credits required for the major: 79

Students must receive a C- or better in all above core courses.

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Recommended general education courses and electives:

• CHEM 0101 - GENERAL CHEMISTRY 1
• CHEM 0187 - DRUGS AND SOCIETY
• COMM 0205 - SMALL GROUP COMMUNICATION
• HPRED 0202 - PSYCHOLOGY OF SPORT
• PEDC 0108 - PHYSCL CONDG/WEIGHT TRAINING 1
• PHIL 0214 - BIOETHICS
• PHYS 0103 - CONCEPTS OF MODERN PHYSICS
• PSY 1407 - COUNSELING PSYCHOLOGY
• SOC 0202 - SOCIOLOGY OF SPORT

Suggested Course of Study

First Year, 1st Term

• FS 0102 - FRESHMAN SEMINAR
• HPRED 0101 - INTRO TO ATHLETIC TRAINING
• ENG 0101 - ENGLISH COMPOSITION 1
• BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
• BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
• HPRED 0190 Sports Safety Training - 2 Credits

Credit hours per term: 15

First Year, 2nd Term

• HPRED 0108 - NUTRITION
• HPRED 0110 - PRACTICUM IN ATHLETIC TRAINING
• ENG 0102 - ENGLISH COMPOSITION 2
• BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
• BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
• GE Math - 3 Credits

Credit hours per term: 16

Credit hours per academic year: 31

Second Year, 1st Term

• HPRED 0206 - EVAL AND REHAB OF ATHL INJRY 1
• HPRED 0280 - CLINICAL IN ATHLETIC TRAINING 1
• PSY 0101 - INTRODUCTION TO PSYCHOLOGY
• HPRED 0209 - PERSONAL HEALTH AND WELLNESS
• GE: Physical Science - 3-4 Credits

Credit hours per term: 15-16

Second Year, 2nd Term

• HPRED 0207 - EVAL AND REHAB OF ATHL INJRY 2
• HPRED 0281 - CLINICAL IN ATHLETIC TRAINING 2
• HPRED 0220 - MEDICAL ASPECTS IN ATHL TRNG
• Elective - 2 Credits
• GE: Arts and Letters - 3 Credits

Credit hours per term: 14

Credit hours per academic year: 29-30

Third Year, 1st Term

• HPRED 1302 - THERAPEUTIC MODALITIES
• HPRED 1380 - CLINICAL IN ATHLETIC TRAINING 3
• HPRED 1306 - EXERCISE PHYSIOLOGY 1
• GE: Arts and Letters - 3 Credits
• GE: Behavioral, Economics or Political Science - 3 Credits

Credit hours per term: 16

Third Year, 2nd Term

• HPRED 1309 - THERAPEUTIC EXERCISE
• HPRED 1381 - CLINICAL IN ATHLETIC TRAINING 4
• HPRED 1305 - BIOMECHANICS
• GE: History, Culture, or Phil. Inquiry - 3 Credits
• GE: Arts and Letters - 3 Credits
Credit hours per term: 15

Credit hours per academic year: 31

Fourth Year, 1st Term

- HPRED 1405 - RES METH IN SPRTS & EXERCS SCI
- HPRED 1420 - REHABILITATION MGMT & ADMIN
- HPRED 1480 - CLINICAL IN ATHLETIC TRAINING 5
- PSY 0201 - STATISTICS
- GE: History, Cultures, or Phil. Inquiry - 3 Credits

Credit hours per term: 15

Fourth Year, 2nd Term

- HPRED 1451 - CAPSTONE: ATHLETIC TRAINING
- HPRED 1481 - CLINICAL IN ATHLETIC TRAINING 6
- GE: History, Cultures, or Phil. Inquiry - 3 Credits
- GE: Behavioral, Economics or Political Science - 3 Credits
- HPRED 1320 - PRIN STRENGTH TRAINING/CONDITNG

Credit hours per term: 14

Credit hours per academic year: 29

Total Credits Required for Major: 120-121

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Biology, BS

Contact: Professor David Merwine, Program Director

The biology major prepares students for various careers in biology and for graduate or professional studies. Biology is a common entry point into the health sciences, including schools of medicine, dentistry, optometry, osteopathy, podiatry, chiropractic medicine, physical and occupational therapy, and veterinary medicine.

Degree Requirements

Course requirements in the major
• BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
• BIOL 0102 - INTRODUCTION TO BIODIVERSITY
• BIOL 0203 - GENETICS
• BIOL 0217 - PRINCPL OF ECOLOGY & EVOLUTION
• BIOL 1451 - CAPSTONE: BIOLOGY
• BIOL Upper-level Biology Electives (two of which must include a lab). A maximum of 2 credits may be taken as BIOL 1499 Internship. - 16 Credits

Other required courses

• CHEM 0101 - GENERAL CHEMISTRY 1
• CHEM 0102 - GENERAL CHEMISTRY 2
• CHEM 0206 - ORGANIC CHEMISTRY 1
• CHEM 0207 - ORGANIC CHEMISTRY 1 LAB

The mathematic requirement may be satisfied by taking any one of the following:

• MATH 0132 - PRECALCULUS or
• MATH 0136 - APPLIED CALCULUS or
• MATH 0140 - CALCULUS 1

The physics requirement may be satisfied by taking any of the following:

• PHYS 0101 - INTRODUCTION TO PHYSICS 1 or
• PHYS 0103 - CONCEPTS OF MODERN PHYSICS or
• PHYS 0201 - FOUNDATIONS OF PHYSICS 1

Total credits required for the major: 57-60

Students interested in applying to schools of chiropractic, dentistry/dental medicine, medicine, optometry, podiatry, and veterinary medicine must complete one year of Organic Chemistry with labs (CHEM 0206, 0207, 0208, and 0209); one year of General Physics with labs (PHYS 0101 and 0102 or 0201, 0202, 0203, and 0204); and one semester of Calculus (Math 0140).

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year
• ENG 0101 - ENGLISH COMPOSITION 1
• ENG 0102 - ENGLISH COMPOSITION 2
• BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
• BIOL 0102 - INTRODUCTION TO BIODIVERSITY
• CHEM 0101 - GENERAL CHEMISTRY 1
• CHEM 0102 - GENERAL CHEMISTRY 2
• General education requirement - 3-4 Credits
• Physical education requirement - 1 Credit

Math option Precalculus for Business Majors,

• MATH 0130 or
• MATH 0132 - PRECALCULUS or
• MATH 0136 - APPLIED CALCULUS or
• MATH 0140 - CALCULUS 1

Credits: 29-31

Second Year

• BIOL 0203 - GENETICS
• BIOL 0217 - PRINCPL OF ECOLOGY & EVOLUTION
• CHEM 0206 - ORGANIC CHEMISTRY 1
• CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
• General education or elective courses - 18 Credits

Credits: 30

Third Year

• Upper-level biology electives - 8 Credits
• General education or elective courses - 18-19 Credits

Physics option

• PHYS 0101 - INTRODUCTION TO PHYSICS 1 or
• PHYS 0103 - CONCEPTS OF MODERN PHYSICS or
• PHYS 0201 - FOUNDATIONS OF PHYSICS 1

Credits: 29-31

Fourth Year

• BIOL 1451 - CAPSTONE: BIOLOGY
• BIOL 1453 - SENIOR SEMINAR
• Upper-level biology electives - 8 Credits
• General education or elective courses - 18 Credits

Credits: 30
Note:

Students seeking secondary teacher certification in biology should meet with an advisor in biology each semester to plan their course of study in biology and with the director of teacher education each semester to plan their course of study in education. Please refer to the section on Education Programs for further details.

Exercise Science, BS

Contact: Professor Mark Kelley

The Exercise Science major will prepare students to work as a professional in the health and fitness industry and will prepare students to be accepted and successful in a variety of graduate programs in the health care professions. These professions include physical therapy, occupational therapy, chiropractic, physician's assistant and medical doctor. Students will learn how to conduct fitness assessments, evaluate risks factors and health behaviors, develop and implement safe & effective exercise prescriptions. The curriculum will provide a strong science base in anatomy & physiology, exercise physiology, biomechanics, exercise prescription and assessment and working with special populations.

Degree Requirements

Students may earn a major in exercise science by completing the following requirements:

- HPRED 0102 - INTRO TO EXERCISE SCIENCE
- HPRED 0108 - NUTRITION
- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- HPRED 0225 - FUNCTIONAL HUMAN ANATOMY
- HPRED 1305 - BIOMECHANICS
- HPRED 1306 - EXERCISE PHYSIOLOGY 1
- HPRED 1320 - PRIN STRENGTH TRAINING/CONDITIONING
- HPRED 1405 - RES METH IN SPORTS & EXERCISE SCI
- HPRED 1410 - EXERCISE PRESCRIPTION
- HPRED 1416 - CLINICAL EXERCISE PHYSIOLOGY
- HPRED 1430 - WORKSITE HEALTH PROMOTION
- HPRED 1435 - EXERCISE ASSESSMENT
- HPRED 1440 - EXERCISE PRESCRIPTION SPECIAL POPULATION
- HPRED 1453 - CAPSTONE: EXERCISE SCIENCE
- PEDC 0108 - PHYSICAL CONDITIONING/WEIGHT TRAINING 1
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY AND PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY AND PHYSIOLOGY LAB 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Total credits required for the major: 55

General Education Program Requirements and Electives- Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at
facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

Fall

- ENG 0101 - ENGLISH COMPOSITION 1
- HPRED 0102 - INTRO TO EXERCISE SCIENCE
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- FS 0102 - FRESHMAN SEMINAR
- MATH 0098 - COLLEGE ALGEBRA 2

Total Credits: 16

Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- HPRED 0108 - NUTRITION
- BEH/ECON/PS GE - 3 Credits
- HIST/CULT/PHIL GE - 3 Credits

Total Credits: 16

Second Year

Fall

- HPRED 1306 - EXERCISE PHYSIOLOGY 1
- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- GE/ Electives - 4 Credits
- ARTS/LETTERS GE - 3 Credits
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Total Credits: 17

Spring

- HPRED 0225 - FUNCTIONAL HUMAN ANATOMY
- HPRED 1305 - BIOMECHANICS
- PEDC 0108 - PHYSCL CONDG/WEIGHT TRAINING 1
- HIST/CULT/PHIL GE - 3 Credits
• GE/Electives - 4 Credits

Total Credits: 14

Third Year

Fall

• HPRED 1416 - CLINICAL EXERCISE PHYSIOLOGY
• HPRED 1410 - EXERCISE PRESCRIPTION
• GE/Electives - 4 Credits
• HIST/CULT/PHIL GE - 3 Credits
• ARTS/LETTERS GE - 3 Credits

Total Credits: 16

Spring

• HPRED 1430 - WORKSITE HEALTH PROMOTION
• HPRED 1320 - PRIN STRENGTH TRAINING/CONDITIONING
• GE/Electives - 6 Credits
• ARTS/LETTERS GE - 3 Credits

Total Credits: 15

Fourth Year

Fall

• HPRED 1435 - EXERCISE ASSESSMENT
• HPRED 1405 - RES METH IN SPORTS & EXERCISES
• GE/Electives - 9 Credits

Total Credits: 16

Spring

• HPRED 1453 - CAPSTONE: EXERCISE SCIENCE
• HPRED 1430 - WORKSITE HEALTH PROMOTION
• BEH/ECON/PS GE - 3 Credits
• GE/Electives - 4 Credits

Total Credits: 13

Nursing, AS
The Unit in Nursing prepares professional nurses for entry to practice at the associate degree level and provides further education for the registered nurse at the more advanced baccalaureate level of practice. This includes advanced clinical skills and preparation for independent leadership and management roles in a variety of settings.

The Associate of Science in Nursing degree program (ASN) is fully approved by the Commonwealth of Pennsylvania and accredited by ACEN - Accreditation Commission for Education in Nursing (formerly NLNAC). ASN graduates are required to take the national examination for registered nurse licensure. A person with criminal convictions may be prohibited from licensure as a registered nurse by the boards of nursing in various states. Prospective students in that situation should call the board of nursing in the state where they plan to practice.

The RN-BSN degree completion program is accredited by ACEN - Accreditation Commission for Education in Nursing (formerly NLNAC)

ACEN - Accreditation Commission for Education in Nursing (formerly NLNAC) 3343 Peachtree Road, NE, Suite 850 Atlanta, Georgia, 30326-800-669-1656

Degree Requirements

Course Requirements in the Major

Students must attain a minimum grade of "C" in all required nursing courses and a minimum grade of "C-" in all required General Education and elective courses.

- NUR 0109 - CLINICAL CALCULATIONS
- NUR 0111 - FUNDAMENTALS OF NURSING
- NUR 0106 - SUCCEEDING IN NURSING EDUCATION
- NUR 0112 - COMPREHENSIVE NURSING 1
- NUR 0113 - PHARMACOLOGY IN NURSING
- NUR 0211 - COMPREHENSIVE NURSING 2
- NUR 0212 - COMPREHENSIVE NURSING 3

Credits: 38

Required for some students:

- NUR 0100 - TRANSITION NURSING FOR LPN'S

Other required courses:

- BIOL 0202 - MICROBIOLO FOR ALLD HEALTH PROF
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANATOMY & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANATOMY & PHYSIOLOGY LAB 2
- CHEM 0103 - BIOLOGICAL CHEMISTRY
- ENG 0101 - ENGLISH COMPOSITION 1
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Human experience electives:
(choose 6 credits from two of the following three area)

Arts and Letters; Behavioral, Economic, and Political Sciences; History, Cultures, and Philosophical Inquiry

Credits: 28

Minimum credits required for graduation: 66

Suggested Course of Study

First Year

- NUR 0109 - CLINICAL CALCULATIONS
- NUR 0111 - FUNDAMENTALS OF NURSING
- NUR 0106 - SUCCEEDING IN NURSING EDUCATION
- NUR 0112 - COMPREHENSIVE NURSING 1
- NUR 0113 - PHARMACOLOGY IN NURSING
- ENG 0101 - ENGLISH COMPOSITION 1
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

Credits: 34

Second Year

- NUR 0211 - COMPREHENSIVE NURSING 2
- NUR 0212 - COMPREHENSIVE NURSING 3
- BIOL 0202 - MICROBIOL FOR ALLD HEALTH PROF
- CHEM 0103 - BIOLOGICAL CHEMISTRY
- Human experience electives - 6 Credits

Credits: 32

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Nursing, BSN
Admission Criteria

- Official High School Transcripts
- Official College/University Transcripts (all school attended)
- Copy of current Pennsylvania RN licensure*

*PA-RN licensure must be maintained throughout the student's enrollment in the program.

- Minimum cumulative GPA of 2.5 or above
- 35 credits of lower level nursing courses (ASN or Diploma) from an approved school
- One of the following:
  1. Graduation from an approved associate or diploma program within 3 years prior to consideration for admission to the RN-BSN Program.
  2. Graduation from an approved associate or diploma program more than 3 years ago but with evidence of at least 1000 hours nursing practice within 3 years prior to consideration for admission to the RN-BSN Program.

Minimum Prerequisites

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- ANTH 0101 - INTRO TO CULTURAL ANTHROPOLOGY

Pre-BSN Prerequisite Courses

Includes all General Education Program requirements with the exception of capstone and upper-level writing requirements.

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS

- ANTH 1305 - RELIGION AND CULTURE or
- ANTH 0101 - INTRO TO CULTURAL ANTHROPOLOGY or
- ANTH 1307 - Poverty and Society - 3 Credits or
- ECON 1301 - POVERTY AND SOCIETY
- BIOL 0202 - MICROBIOL FOR ALLD HEALTH PROF
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- CHEM 0103 - BIOLOGICAL CHEMISTRY
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- Courses in GE: Arts and Letters - 9 Credits
- Course in GE: History - 3 Credits
- Course in GE: History, Cultures, or Philosophical Inquiry - 3 Credits

Course in statistics

4 Credits
Required Courses

Required Courses (degree completion track)

- NUR 1302 - PROFESSIONAL NURSING CONCEPTS
- NUR 1401 - INTRODCTN TO NURSING RESEARCH
- NUR 1402 - HLTH PROMOTION/HLTH ASSESSMNT
- NUR 1403 - ADVANCED CLINICAL PRACTICUM
- NUR 1404 - COMMUNITY HEALTH NURSING
- NUR 1451 - CAPSTONE: PROFESSIONAL NURSING
- NUR 1310 - ETHICAL DIMENSIONS OF NURSING
- Upper level elective course* - 6 Credits

Note:

*a minimum of 3 credits must be designated to NUR

Suggested Course of Study (full-time study, degree completion track)

Term 1 (Fall)

- NUR 1302 - PROFESSIONAL NURSING CONCEPTS
- NUR 1401 - INTRODCTN TO NURSING RESEARCH
- NUR 1402 - HLTH PROMOTION/HLTH ASSESSMNT
- NUR 1404 - COMMUNITY HEALTH NURSING
- Upper level elective* - 3 Credits

Term 2 (Spring)

- NUR 1310 - ETHICAL DIMENSIONS OF NURSING
- NUR 1403 - ADVANCED CLINICAL PRACTICUM
- NUR 1451 - CAPSTONE: PROFESSIONAL NURSING
- Upper level elective* - 3 Credits

Note:

*a minimum of 3 credits must be designated to NUR

Suggested Course of Study BS in Nursing (part-time study, degree completion track)

Term 1 (Fall)
- NUR 1302 - PROFESSIONAL NURSING CONCEPTS
- NUR 1401 - INTRODUCTN TO NURSING RESEARCH
- Upper level elective* - 3 Credits

Term 2 (Spring)

- NUR 1310 - ETHICAL DIMENSIONS OF NURSING
- Upper level elective* - 3 Credits

Term 3 (Fall)

- NUR 1402 - HLTH PROMOTION/HLTH ASSESSMENT
- NUR 1404 - COMMUNITY HEALTH NURSING

Term 4 (Spring)

- NUR 1403 - ADVANCED CLINICAL PRACTICUM
- NUR 1451 - CAPSTONE: PROFESSIONAL NURSING

Note:

*a minimum of 3 credits must be designated to NUR

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Pre-Communication Science and Disorders

Program Designation: Pre-Professional

Program Contact: Mulcahy, Mary

If you're considering a career in speech-language pathology or audiology, this undergraduate major provides the scientific foundation you'll need to pursue graduate school or clinical training.

A professional career in speech-language pathology or audiology requires graduate study (a two-year master's program) in an accredited program and completion of a clinical fellowship year.

Speech-language pathology and audiology are diverse fields with many opportunities to work in a variety of settings including schools, hospitals, universities, research institutes, industry, and private practice, and with a variety of populations ranging from infant to elderly.

An undergraduate major in communication science is also appropriate for graduate work in the neurosciences, speech and hearing sciences, health-related professions (including dentistry, medicine, and physician assistant studies) as well as graduate work in a range of education specializations such as special education, education of the deaf and hard of hearing, and early intervention.

See what you can do with a major in Communication Sciences and Disorders.
Program Requirements

Students apply for admission to the communication science program in Pittsburgh after successful completion of at least 45 of the 60 required general education credits. Students may complete some of their required general education courses after they have relocated to the School of Health and Rehabilitation Sciences. There is no minimum grade requirement for each course, but students must earn a cumulative QPA of at least 2.50. The required 60 general education credits should be distributed as follows:

- English Composition I
- English Composition II
- College Algebra II
- Foreign Language - minimum
- Statistics
- Literature
- Music or Art
- History
- Sociology
- Psychology
- Philosophy
- Physical Science
- Life Sciences
- Non-Western Cultures
- Political Science

Additional Information

Pitt Freshman Guarantee:

Communication Science Disorders (speech pathology/audiology) Guarantee

School of Health and Rehabilitation Sciences

- Indicate Pre-Communication Science on admissions application.
- Achieve a minimum SAT score of 1300 (old test) or 1360 (new test) combined Critical Reading and Math or 29 ACT.
- Complete the Bachelor of Arts degree at a regional campus with an overall grade point average (GPA) of 3.5 or higher, as well as a GPA of 3.5 or higher in the core pre-requisite courses for communication science disorders.
- Achieve minimum scores at the 50th percentile on the verbal and quantitative sections and a score of 3.5 or better on the analytical writing section of the Graduate Record Examination (GRE).
- Complete the CSD Centralized Application Service (CSDCAS) process as required.
- For information about the CSD graduate program, go to www.shrs.pitt.edu/macsd.

Pre-Health and Rehabilitation Sciences

Program Designation: Pre-Professional

Program Contact: Dr. Mark Kelley

The University of Pittsburgh at Bradford's Pre-Health & Rehabilitation Sciences curriculum is a two-year course of study. Students typically earn 60 credits at Pitt-Bradford and apply directly to the University of Pittsburgh's Rehabilitation Science Program in the School of Health and Rehabilitation Sciences (SHRS) during the final semester at Pitt-Bradford.

Program Requirements

The two-year program at the University of Pittsburgh at Bradford should include the following recommended prerequisite courses:

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
Radiological Science, BS

Contact: Professor Lisa Fiorentino, Program Director

Students may earn a bachelor's degree in radiological science after taking the required courses at Pitt-Bradford and successfully completing Bradford Regional Medical Center's (BRMC) two-year School of Radiography program. The two-year School of Radiography program has been provided by BRMC for many years to prepare certified professionals to work in clinical settings as radiographers. This new program will give students two ways to earn a bachelor's degree in radiological science, accommodating both incoming freshmen and those who have already completed BRMC's program.

The main track is what we call a 2+2 program: Students complete four full semesters (during the freshman and sophomore years) of course work on the Pitt-Bradford campus. Then during the third and fourth years, students pursue full-time study at BRMC's School of Radiography. Students must have a minimum of 2.5 or higher GPA to be considered for admission to the major at Bradford Regional Medical Center.

The second option is available to those people already certified and employed in radiography and who have graduated from a program accredited by the Joint Review Committee on Education in Radiological Technology such as the one at BRMC. These students attend Pitt-Bradford for two years of full-time study or its equivalent in part-time study to earn a bachelor's degree.

In both options, 50 academic credits from the accredited radiographic program are applied toward the 120 credits needed to graduate from Pitt-Bradford with a bachelor's degree.

Required general education courses include:

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- FS 0102 - FRESHMAN SEMINAR
- WRITNG 1305 - TECHNICAL WRITING
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Arts and Letters three courses * - 9 Credits
- SOC 0101 - INTRODUCTION TO SOCIOLOGY *
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY *
- Economics or Political Science-one course* - 3 Credits
- History-one course * - 3 Credits
- PHIL 0214 - BIOETHICS
- History, Cultures, and Philosophical Inquiry-one course*
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS
• PEDC - Physical Education - 1 Credit
• RADSC 1451 - CAPSTONE: RADTN SCI

Others:
• RADSC 0111 - BASIC HUMAN NEEDS
• Electives (6 upper level credits) - 6 Credits

Note:
* Challenge examinations and CLEP options available for select courses.

Required radiological science courses include:

- Introduction to Radiological Technology and Medical Ethics
- Medical Terminology
- Elementary Radiation Protection
- Radiographic Anatomy
- Radiographic Physics
- Radiographic Procedures I
- Methods of Patient Care
- Radiographic Procedures II
- Radiation Protection II
- Radiographic Film Evaluation I
- Radiographic Film Processing
- Radiographic Pathology
- Radiographic Exposures
- Film Evaluation II
- Radiographic Procedures III
- Special Equipment and Maintenance
- Radiation Biology
- Radiographic Film Evaluation III
- Department Administrative Technique
- Radiographic Film Evaluation IV
- Clinical Experience
- Clinical Review

Suggested Course of Study

First Year

Fall Semester
• ENG 0101 - ENGLISH COMPOSITION 1
• FS 0102 - FRESHMAN SEMINAR
• BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
• BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
• MATH 0110 - FUNDAMENTALS OF MATHEMATICS
• PSY 0101 - INTRODUCTION TO PSYCHOLOGY
• PEDC - Elective - 1 Credit

Spring Semester
• ENG 0102 - ENGLISH COMPOSITION 2
• BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
• BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
• PHYS 0103 - CONCEPTS OF MODERN PHYSICS
• Electives - 6 Credits

Second Year

Fall Semester
• RADSC 0111 - BASIC HUMAN NEEDS
• SOC 0101 - INTRODUCTION TO SOCIOLOGY
• Electives - 7 Credits

Spring Semester
• PHIL 0214 - BIOETHICS
• WRITNG 1305 - TECHNICAL WRITING
• Electives (6 credits upper level) - 12 Credits

Third Year: BRMC

Fall Semester
• Introduction to Radiologic Technology and Medical Ethics
• Medical Terminology
• Elementary Radiation Protection
• Radiographic Anatomy & Physiology
• Radiographic Physics
• Radiographic Procedures I
• Radiographic Image Evaluation I
• Clinical Experience

Spring Semester
• Radiographic Procedures II
• Radiation Protection II
• Radiographic Film Evaluation I
• Radiographic Film Processing
• Radiographic Pathology
• Radiographic Exposures
• Clinical Experience

Summer Semester
• Clinical Experience

Fourth Year: BRMC

Fall Semester
• Radiographic Procedures III
• Special Equipment and Maintenance
• Clinical Experience
• Radiographic Image Evaluation II
• CT Instrumentation and Physics
Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Minor

Exercise Science Minor

Contact: Professor Mark Kelley

Minor Requirements

- HPRED 0102 - INTRO TO EXERCISE SCIENCE
- HPRED 0108 - NUTRITION
- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- HPRED 0225 - FUNCTIONAL HUMAN ANATOMY
- HPRED 1306 - EXERCISE PHYSIOLOGY 1
- HPRED 1320 - PRIN STRENGTH TRAINING/CONDITIONING
- HPRED 1416 - CLINICAL EXERCISE PHYSIOLOGY

Total Credits: 22

Transfer Program
**Pre-Chiropractic**

Contact: Professor Lauren Yaich

Students interested in earning a Doctor of Chiropractic (DC) degree must complete a minimum of 60, 75, or 90 (depending on the school) credits with a minimum cumulative 2.25 grade point average at the University of Pittsburgh at Bradford before applying to a chiropractic college. Most students attending chiropractic colleges have earned a baccalaureate degree in biology prior to admittance. Each professional school may have specific requirements, in addition to the minimum courses required by all chiropractic colleges, so students are advised to check with the chiropractic schools of their choice prior to completing their bachelor's degree.

**Transfer Program Requirements**

Minimum prerequisites, which must be completed include the following:

- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
- PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- Humanities/Social Sciences - 15 Credits COMM 0104 Public Speaking is highly recommended by some schools and is required by several.

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Pre-Dental Medicine**

Contact: Professors Lauren Yaich or David Merwine

The University of Pittsburgh at Bradford and the University of Pittsburgh School of Dental Medicine in Pittsburgh have an articulation agreement that allows students to be admitted to the School of Dental Medicine after completing three or four years of study with a minimum of 90 credits earned at the University of Pittsburgh at Bradford.
Transfer Program Requirements

To be eligible for dental school admission, students must meet stringent requirements as follows:

1. For admission to Pitt-Bradford a student must:
   - Complete at least 18 college prep courses with four units each in English, social studies, mathematics, science with lab, and two units in second language.
   - Rank in the upper 20 percent of the high school graduating class.
   - Score 1100 or higher on the pre-2005 SAT, with a score of at least 560 in the SAT quantitative section; or 24 or higher on the ACT, with a 24 on the quantitative section.
   - Complete an application for admission, supplemented by a detailed personal statement concerning a career in dentistry and two letters of reference from high school teachers or counselors.
   - Receive a favorable recommendation from the Pitt-Bradford Health Related Professions Committee.

2. Meet the following standards while earning 90 or more credits at Pitt-Bradford:
   - Achieve a 3.00 grade point average (GPA) at the end of the first year of study.
   - Achieve a major and cumulative GPA of 3.25 at the end of the second and third years of study.
   - Complete other Pitt-Bradford course requirements for general education and a major in an approved baccalaureate degree. (During a student's first term of enrollment, in consultation with an advisor, the course requirements will be detailed for the student, based on the student's intended major.)
   - Compile a consistent record of participation and leadership in campus affairs.
   - Demonstrate interest in dentistry by observing or working in a dental environment.
   - Be recommended by the vice president and dean of academic affairs and the Health Related Professions Committee at Pitt-Bradford.

Complete and receive a 3.00 GPA in the following courses:

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

3. Attain Dental Aptitude Test (DAT) scores acceptable to the dental school.

Students who withdraw from this special program are eligible to apply, without prejudice, directly to the School of Dental Medicine under the prevailing admission requirements and standards.

University of Pittsburgh Freshman Guarantee for School of Dental Medicine
• Indicate PDENT Pre-Dentistry on admissions application,
• Rank in the top 5 percent of high school class with a pre-2005 SAT I score of 1300 (29 ACT) or better,
• Maintain a 4.0 science and general grade point average as a full-time student,
• Complete the minimum coursework required of pre-dental students,
• Attain an overall DAT (Dental Aptitude Test) score of 25,
• Complete the AADSAS application process,
• Participate in a satisfactory preadmission interview prior to School of Dental Medicine admission.

Pre-Emergency Medicine

Contact: Professors Lauren Yaich or David Merwine

The pre-emergency medicine curriculum is a two-year course of study at the University of Pittsburgh at Bradford. Upon completion of a minimum of 60 credits at the University of Pittsburgh at Bradford, students must apply to the emergency medicine program in the School of Health and Rehabilitation Sciences (SHRS) at the University of Pittsburgh. Students accepted into the University of Pittsburgh's emergency medicine Bachelor of Science program will need to take four credits of EMT with lab, which is not offered by the University of Pittsburgh at Bradford, prior to continuation of their degree program at the University of Pittsburgh SHRS.

Transfer Program Requirements

Students are admitted into the emergency medicine program after successful completion of a minimum of 60 college credits, including the following prerequisite courses:

• BIOL 0102 - INTRODUCTION TO BIODIVERSITY
• BIOL 0202 - MICROBIOL FOR ALLD HEALTH PROF
• BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
• BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
• BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
• BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
• CHEM 0101 - GENERAL CHEMISTRY 1
• MATH 0110 - FUNDAMENTALS OF MATHEMATICS
• CS 0103 - INTEGRATED BUSINESS MICROCOMPUTING or
• MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT or
• PSY 0201 - STATISTICS or
• PHIL 0104 - INTRODUCTION TO LOGIC
• ENG 0101 - ENGLISH COMPOSITION 1
• ENG 0102 - ENGLISH COMPOSITION 2
• PSYED 0005 - LIFE SPAN DEVELOPMENT
• PSY 0101 - INTRODUCTION TO PSYCHOLOGY
• SOC 0101 - INTRODUCTION TO SOCIOLOGY
• COMM 0104 - PUBLIC SPEAKING
• PHIL 0214 - BIOETHICS
• HPRED 0108 - NUTRITION
• Health-Focus Electives - 6 Credits

Health-Focus Electives

Health-focus electives may be chosen from:

• LIFSCI 0103 - Biological Chemistry or
CHEM 0103 - BIOLOGICAL CHEMISTRY
CHEM 0187 - DRUGS AND SOCIETY
SOC 0205 - DEATH AND DYING
SOC 1307 - SOCIOLOGY OF HEALTH

SOC 1313 - SOCIOLOGY OF AGING or
PSY 1310 - Sociology of Aging

PSY 0206 - ABNORMAL PSYCHOLOGY
PSY 0202 - CHILD DEVELOPMENT
PSY 1407 - COUNSELING PSYCHOLOGY

Note:
In addition to completing the required courses listed above, the student must earn a minimum cumulative and prerequisite GPA of 2.5 and earn a minimum grade of C- in all courses designated as prerequisites.

Pre-Medicine
Contact: Professors Lauren Yaich or David Merwine
Students interested in earning either a Doctor of Medicine (MD) or a Doctor of Osteopathic Medicine (DO) degree upon completing a bachelor's degree at the University of Pittsburgh at Bradford may choose to major in any academic discipline. Most students currently attending medical schools majored in biology. Each medical school may have specific requirements, in addition to the minimum courses required by all medical schools, so students are advised to check with the medical schools of their choice prior to completing their bachelor's degree.

Transfer Program Requirements
Minimum prerequisites include:

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
- PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
Lake Erie College of Osteopathic Medicine (LECOM) Affiliation Agreement (3 + 4 Accelerated Program in Primary Care Medicine)

If you have successfully completed specific core course requirements on our campus, you may continue your education in medicine at LECOM after your third year of undergraduate coursework. A bachelor's degree from Pitt-Bradford will be awarded after the successful completion of your first year of medical school classes at LECOM. In order to be admitted into this program, you must have an SAT (or ACT equivalent) score of 1170 (math and critical reading sections), a high school GPA of 3.5, exhibit potential for osteopathic medicine, and complete a personal interview at LECOM. If you're interested in participating in this program, you should contact Dr. Lauren Yaich at yaich@pitt.edu.

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Pre-Occupational Therapy

Contact: Professors Mark Kelley or Jason Honeck

Transfer Program Requirements

The University of Pittsburgh's occupational therapy program is an entry-level master's degree program. The student will complete a bachelor's degree at the University of Pittsburgh at Bradford and then apply to the University of Pittsburgh's Master of Occupational Therapy program in the School of Health and Rehabilitation Sciences (SHRS). No specific bachelor's degree is mandated, but biology, psychology, and sports medicine are majors commonly chosen. Any bachelor's degree should include the following courses:

- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2

- PHYS 0101 - INTRODUCTION TO PHYSICS 1 or
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS

- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0206 - ABNORMAL PSYCHOLOGY
- PSY 0201 - STATISTICS

Word Processing Computing Competency
• CS 0103 - INTEGRTD BUSINSS MICROCOMPUTNG or
• MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT

Note:

In addition to earning a bachelor's degree and completing the required courses listed above, the student must earn a minimum overall and prerequisite 3.00 grade point average (GPA), take the general Graduate Record Examination (GRE), and complete a minimum of 20 hours of volunteer or paid work in occupational therapy in at least two different practice areas.

The University of Pittsburgh School of Health and Rehabilitation Sciences offers a freshman guarantee to the occupational therapy master's program.

Pitt Freshman Guarantee: Students must apply for this guarantee the very first time they register as freshmen at Pitt-Bradford by specifying occupational therapy, and then the Office of Enrollment Services will automatically review for granting of the guarantee. If all MOT admissions criteria are met, students are automatically accepted into the master's program and will not have to compete for admission, but they will have to apply for admission during the senior year of their undergraduate program.

University of Pittsburgh Freshman Guarantee in Occupational Therapy in the School of Health and Rehabilitation Sciences:

• Indicate PREOT Pre-occupational therapy on the admissions application,
• Minimum pre-2005 SAT score of 1200,
• Complete an undergraduate degree at Pitt with an overall GPA of 3.3 or higher, as well as a GPA of 3.3 or higher in the prerequisite courses,
• Achieve a combined score of 1000 or greater on the Verbal and Quantitative sections and a minimum score of 3.5 on the Analytical section of the GRE,
• Complete 20 hours of volunteer experience.

Check with the School of Health and Rehabilitation Sciences (admissions@shrs.pitt.edu) for its most current requirements for the Freshman Guarantee.

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Pre-Optometry

Contact: Professor David Merwine

Affiliation Agreement Pre-Optometry Programs

The University of Pittsburgh at Bradford and the Pennsylvania College of Optometry at Salus University (PCO) have an affiliation agreement establishing a joint undergraduate/professional program of education leading to the Doctor of Optometry (OD) degree. PCO agrees to provide places in its first professional year class to University of Pittsburgh at Bradford students who have successfully completed their undergraduate pre-optometry program prerequisites at Pitt-Bradford and have satisfied other admission requirements of PCO. Students may apply to PCO after completing three years and 90 credits at Pitt-Bradford. The work at Pitt-Bradford will include general education program requirements and major requirements, which lead to a baccalaureate degree in biology, chemistry, or psychology. Upon successful completion of one year of basic science education at PCO, students will earn a BS from the University of Pittsburgh at Bradford. Upon successful completion of four years (including the first year of basic sciences) of the optometry education program, PCO shall award the OD degree.

Transfer Program Requirements
Minimum requirements for biology or chemistry or psychology majors include:

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB

- BIOL 1402 - MOLECULAR BIOLOGY or
- CHEM 1306 - BIOCHEMISTRY

- BIOL 1302 - MICROBIOLOGY
- MATH 0140 - CALCULUS 1

- PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
- PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

- PSY 0201 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS or
- MATH 0133 - STATISTICS

Strongly recommended:

- MATH 0150 - CALCULUS 2

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Pre-Physical Therapy

Contact: Professors Mark Kelley or Jason Honeck

The University of Pittsburgh's program is an entry-level Doctor of Physical Therapy program. The student will complete a bachelor's degree at the University of Pittsburgh at Bradford and then apply to the University of Pittsburgh's Doctor of Physical Therapy program in the School of Health and Rehabilitation Sciences (SHRS). No specific bachelor's degree is mandated, but biology, psychology, and sports medicine are majors commonly chosen.
Transfer Program Requirements

Any bachelor's degree must include the following courses:

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PHYS 0101 - INTRODUCTION TO PHYSICS 1
- PHYS 0102 - INTRODUCTION TO PHYSICS 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- PSY 0202 - CHILD DEVELOPMENT or
- PSY 0206 - ABNORMAL PSYCHOLOGY
- PSY 0201 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS or
- MATH 0133 - STATISTICS
- ECON 0101 - ECONOMICS IN THE MODERN WORLD

Note:

In addition to earning a bachelor's degree and completing the required courses listed above, the student must earn a minimum overall grade point average (GPA) of 3.00 and a 3.0 GPA in the prerequisite courses; score 1000 or better on the Graduate Record Examination (GRE) Verbal and Quantitative sections (a minimum of 500 on each) and a minimum score of 3.5 on the Analytical section; and have physical therapy experience in more than one setting. (Applicants who do not meet the minimum requirements for admission may be admitted provisionally if strong supporting evidence of their ability to complete a graduate program is provided.)

The University of Pittsburgh School of Health and Rehabilitation Sciences offers a freshman guarantee to the physical therapy doctoral program.

Pitt Freshman Guarantee:

Students must apply for this guarantee the very first time they register as freshmen at Pitt-Bradford by specifying physical therapy, and then the Office of Enrollment Services will automatically review for granting of the guarantee. If all physical therapy admissions criteria are met, students are automatically accepted into the doctoral program and will not have to compete for admission, but they will have to apply for admission during the senior year of their undergraduate program.

University of Pittsburgh Freshman Guarantee in Physical Therapy in the School of Health and Rehabilitation Sciences:

- Indicate PREPT Pre-physical therapy on the admissions application and/or on first registration as freshman at Pitt-Bradford,
- Minimum SAT score of 1350,
- Complete an undergraduate degree at Pitt-Bradford with an overall GPA of 3.5 or higher, as well as a GPA of 3.5 or higher in the prerequisite courses,
- Achieve a combined score of 1000 or greater on the Verbal and Quantitative sections and a minimum score of 3.5 on the Analytical section of the GRE,
- Demonstrate evidence of adequate exposure to the field of physical therapy.

Check with the School of Health and Rehabilitation Sciences for its most current requirements for the Freshman Guarantee (admissions@shrs.pitt.edu).
Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Pre-Physician Assistant

Program Contact: Yaich, Lauren, Biology

The physician assistant (PA) is one of the fastest growing occupations in the country. These health care providers work under the supervision of a physician to diagnose and treat illnesses and injuries in patients.

Transfer Program Requirements

To enter a physician assistant graduate program, a student must usually complete a bachelor's degree first, which should include the prerequisite courses below:

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- MATH 0098 - COLLEGE ALGEBRA 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0203 - GENETICS
- BIOL 1302 - MICROBIOLOGY
- PSY 0201 - STATISTICS or
- MATH 0133 - STATISTICS

In addition, many PA programs also recommend the following courses:

- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- PSY 0202 - CHILD DEVELOPMENT
- PSY 0206 - ABNORMAL PSYCHOLOGY
- BIOL 1320 - CELL BIOLOGY
- CHEM 1306 - BIOCHEMISTRY
Note:

Keep in mind that requirements do vary from program to program, so be sure to contact the schools you plan to apply to early on during your undergraduate career to ensure that you have met all of their prerequisite requirements. Many programs also require some previous working experience in a health care environment, which can often be met by working as a nurse's aide, an EMT, or in some other health care professional capacity.

Freshman Guarantee for the Physician Assistant Studies Program

The Physician Assistant Studies Program in the School of Health and Rehabilitation Sciences, Department of Rehabilitation Science and Technology, has developed a freshman guarantee program for students at the regional campuses of the University of Pittsburgh.

To obtain the freshman guarantee in Physician Assistant Studies students must:

- Earn the highest grade point average available in student's high school with a curriculum showing the greatest academic rigor possible
- Top 1% of class
- Combined Math & Critical Reading (verbal) score of 1400
- Indicate Pre-physician's Assistant as an intended field of study on the admissions application
- Have a completed admissions application on file, including all required documents, by December 15
- Submit directly to the program, three letters of recommendation and a personal statement describing their interest in a career as a physician assistant
- Successfully complete an interview with the program faculty

To maintain the freshman guarantee, the student must:

- Maintain an overall GPA of 3.75 or higher and a science GPA of 3.75 or higher at Pitt
- Complete the prerequisite courses and requirements for the PA Program
- Must have at least 40 hours of shadowing a PA
- Must meet with PA faculty member at least once a year providing proof of GPA and courses taken
- Complete their undergraduate degree in four years

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Pre-Veterinary Medicine

Contacts: Professor Mary Mulcahy

Students interested in earning a Doctor of Veterinary Medicine (DVM) upon completing a bachelor's degree at the University of Pittsburgh at Bradford may choose to major in any academic discipline. Most students attending veterinary medical schools majored in biology. Each professional school may have specific requirements, in addition to the minimum courses required by most veterinary medicine colleges, so students are advised to check with the veterinary medicine schools of their choice prior to completing their bachelor's degree.

Transfer Program Requirements

Minimum prerequisites include:

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
• BIOL 0102 - INTRODUCTION TO BIODIVERSITY
• CHEM 0101 - GENERAL CHEMISTRY 1
• CHEM 0102 - GENERAL CHEMISTRY 2
• CHEM 0206 - ORGANIC CHEMISTRY 1
• CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
• CHEM 0208 - ORGANIC CHEMISTRY 2
• CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
• CHEM 1306 - BIOCHEMISTRY
• PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
• PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
• PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
• PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
• PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
• PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
• ENG 0101 - ENGLISH COMPOSITION 1
• ENG 0102 - ENGLISH COMPOSITION 2
• MATH 0132 - PRECALCULUS
• Social Sciences and/or Humanities - 6-10 Credits

Highly recommended electives:

• BIOL 1302 - MICROBIOLOGY
• BIOL 1310 - ANIMAL PHYSIOLOGY
• BIOL 1315 - Genetics - 4 Credits
• Statistics - 4 Credits

Note:
Veterinary-related experience is extremely important. This can be gained through paid employment, volunteer work, or internships and may be done in veterinary clinics, farms, zoos, wildlife parks, or ranches. Students should keep a daily time and activity log of their veterinary-related experiences.

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

The Division of Communications and the Arts

Major

Broadcast Communications, BA

Contact: Professor Jeffrey Guterman, Program Director and Chair of the Communication and the Arts Division
Television and Radio

The communications major at the University of Pittsburgh at Bradford prepares students for careers in radio and television, careers related to the electronic media, and for graduate study. The comprehensive program combines a liberal arts background with specialized instruction in radio and television communication.

The communications student explores media history, message design and production techniques, advertising strategies, theories of communication, and programming and management principles. The program provides production training in radio and television, using professional-quality digital equipment both in the studio and in the field. Students engage in a number of audio and video projects while learning to use the technology needed for assembling effective electronic messages.

Graduates of the communications program are prepared for positions in media production, on-air performance, advertising, sales, and programming. The program includes internship opportunities at local and regional television and radio stations.

Degree Requirements

Course requirements in the major

- COMM 0102 - SURVEY OF BROADCASTING
- COMM 0103 - BROADCAST JOURNALISM
- COMM 0202 - RADIO PRODUCTION
- COMM 0203 - INTRODUCTION TO TV PRODUCTION
- COMM 0210 - SOCIAL MEDIA COMMUNICATION
- COMM 1301 - ADVANCED TELEVISION PRODUCTION
- COMM 1302 - MEDIA ADVERTISING
- COMM 1401 - BROADCAST PROGRAMMING AND MGT
- COMM 1403 - CURRENT ISSUES IN MASS MEDIA
- COMM 1451 - CAPSTONE: COMMUNICATIONS
- COMM 0101 - INTRO TO HUMAN COMMUNICATION or
- COMM 0104 - PUBLIC SPEAKING
- COMM 0201 - MASS MEDIA AND SOCIETY

Total credits required for the major: 39

Required minor*: 15-21

Note: Transfer students who have earned a previous degree, or Pitt-Bradford students with a second major, do not need to complete a minor.

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.
Suggested Course of Study

First Year

- COMM 0102 - SURVEY OF BROADCASTING
- COMM 0103 - BROADCAST JOURNALISM
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS

- COMM 0101 - INTRO TO HUMAN COMMUNICATION or
- COMM 0104 - PUBLIC SPEAKING

- General education or elective courses - 12 Credits

Credits: 30

Second Year

- COMM 0201 - MASS MEDIA AND SOCIETY
- COMM 0202 - RADIO PRODUCTION
- COMM 0203 - INTRODUCTION TO TV PRODUCTION
- COMM 0210 - SOCIAL MEDIA COMMUNICATION
- Course in minor - 3 Credits
- General education or elective courses - 12 Credits

Credits: 29

Third Year

- COMM 1301 - ADVANCED TELEVISION PRODUCTION
- COMM 1302 - MEDIA ADVERTISING
- Courses in minor - 6 Credits
- General education or elective courses - 16 Credits

Credits: 29

Fourth Year

- COMM 1401 - BROADCAST PROGRAMMING AND MGT
- COMM 1403 - CURRENT ISSUES IN MASS MEDIA
- COMM 1451 - CAPSTONE: COMMUNICATIONS
- Courses in minor - 6-12 Credits
- General education or elective courses - 13-19 Credits

Credits: 28-40

English, BA
From medieval Europe to African villages to the back roads of America, an English major will take students to new places and introduce them to the company of authors and characters they won't meet anywhere else. Building on a solid core of British, American, and contemporary world literature, students design a curriculum to suit their own interests and career plans, drawing on courses from creative writing, environmental literature, and literatures from around the world.

The English major provides one of the strongest foundations for a wide range of careers, including business, law, teaching, public service, journalism, creative writing, and publishing. The reading, writing, research, and critical thinking skills students will develop in the English major are the skills that will eventually take them past the entry-level position and into a career. Many English majors supplement their primary program with internships, academic minors, study abroad programs, and other enhancements.

A minor is not required, but many students combine the English major with minors in business, environmental studies, theater, public relations, or philosophy. Once students have chosen to major in English, an advisor will work with them to design a program that best meets their needs.

**Degree Requirements**

**Course Requirements in the Major**

- ENG 0110 - LITERATURE AND INTERPRETATION
- ENG 0205 - INTRODUCTION TO SHAKESPEARE or THEA 1310 - SHAKESPEAREAN PERFORMANCES
- CLP 1315 - CRITICAL METHODS
- ENG 1451 - CAPSTONE: ENGLISH

Six courses required from the following list:

including at least one course from a period prior to 1800 (indicated with asterisks), and one course from each group (18 credits)

**American Literature Survey**

- ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR *
- ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR
- ENG 1308 - 20TH-CENTURY AMERICAN LIT

**British/European Literature Survey**

- ENG 0203 - BRITISH LITERATURE BEFORE 1800 *
- ENG 0204 - BRITISH LITERATURE SINCE 1800
- ENG 1306 - TWENTIETH-CENTURY IRISH LIT

**Contemporary World Literature**

- CLP 0206 - HISPANC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 0216 - MODERN AFRICAN LIT: THE NOVEL
- CLP 1310 - POSTCOLONIAL LITERATURE
- CLP 1350 - LATINA WRITERS

**Western Foundations**
(these courses cannot count as pre-1800)

- ENG 0105 - MASTERPIECES OF WORLD LITERATURE
- PHIL 0101 - INTRODUCTION TO PHILOSOPHY
- Second language proficiency through and including the intermediate level (or the equivalent) - 0-9 Credits

Note:

Twelve additional credits of electives in English, writing, or comparative literature courses: At least 9 credits from all of the credits counting toward the major (in addition to capstone and critical methods) must be taken at the 1300 or 1400 level. Three of those credits may include ENG 1499 Internship.

Total credits required for the major: 42-51

Minor (recommended): 15-24

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- ENG 0110 - LITERATURE AND INTERPRETATION
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Freshman Seminar - 3 Credits
- Physical education course - 1 Credit
- Second language (2 semesters) - 6 Credits
- General education or elective courses - 9 Credits

Credits: 31

Second Year

- 3 English coverage courses - 9 Credits
- CLP 1315 - CRITICAL METHODS
• ENG 0205 - INTRODUCTION TO SHAKESPEARE or
  THEA 1310 - SHAKESPEAREAN PERFORMANCES

• Second language (2 semesters) - 6 Credits
• Minor courses, general education or elective courses - 9 Credits

Credits: 30

Third Year

summer semester or year studying abroad suggested

• 3 English coverage courses - 9 Credits
• Upper-level electives - 9 Credits
• Minor courses, general education, or elective courses - 12 Credits

Credits: 30

Fourth Year

• ENG 1451 - CAPSTONE: ENGLISH
• English electives - 6 Credits
• Senior colloquium - 3 Credits
• Minor courses, general electives - 18 Credits

Credits: 30

Interdisciplinary Arts, BA

Contact: Professor Jeffrey Guterman, Chair of the Division of Communication and the Arts

The interdisciplinary arts major at the University of Pittsburgh at Bradford provides learners with a broad-based education in art, music, theater, and writing. The major explores the thematic relationships among the fine and performing arts through a combination of theoretical study and experiential learning. Students take courses within four academic disciplines, selecting two disciplines as major components of study. The interdisciplinary experience culminates with the completion of the Capstone course, in which senior students create projects that encompass multiple arts disciplines. Students majoring in interdisciplinary arts complete a total of 45 credits in the program - 9 general program credits taken by all students, 18 credits in each of two major areas of study.

Students are required to select two arts areas from art, music, theater, and writing disciplines as their major components in their Interdisciplinary Arts Major program.

Major Requirements:

Select two arts areas from Art or Music or Theater or Writing (18 credits/discipline) 36 credits

• IA 0101 - ARTS AWARENESS
• IA 1310 - PRINCIPLES OF ARTS MANAGEMENT
• COMM 1307 - VISUAL COMMUNICATIONS
• IA 1451 - CAPSTONE: INTERDIS ARTS

Total: 48
The Art Requirements

The art requirements of a major in Interdisciplinary Arts with selection of Art as one of two major components are completed with the following courses:

- Four studio art OR art history courses, which can include upper-level course(s) - 12 Credits
- One art history course - 3 Credits
- One upper-level studio art OR art history course - 3 Credits

Total credits required for Art: 18

Available lower-level studio art courses:

- ART 0101 - DRAWING 1
- ART 0102 - FIGURE DRAWING
- ART 0201 - PAINTING 1
- ART 0208 - WATERCOLOR PAINTING
- ART 0109 - MURAL DESIGN
- ART 0112 - PRINTMAKING 1
- ART 0103 - DIGITAL GRAPHIC DESIGN
- ART 0113 - DIGITAL PHOTOGRAPHY & IMAGING
- ART 0110 - CERAMICS 1
- ART 0213 - Japanese Visual Arts & Crafts

Available lower-level art history courses:

- ART 0105 - WORLD ART SURVEY 1
- ART 0106 - WORLD ART SURVEY 2
- ART 0111 - ART APPRECIATION

Available upper-level studio art and art history courses:

- ART 1301 - ADVANCED DRAWING
- ART 1303 - ADV DIGITAL GRAPHIC DESIGN
- ART 1305 - Advanced Painting
- ART 1315 - ADVANCED CERAMICS
- ART 1310 - ADVANCED PAINTING
- ART 1450 - TOPICS IN ART
- ART 1497 - DIRECTED STUDY: ART
- ART 1498 - DIRECTED RESEARCH
- ART 1499 - INTERNSHIP IN ART

The Music Requirements

The music requirements of a major in Interdisciplinary Arts with selection of Music as one of two major components are completed with the following courses:

- Five 3-credit music courses - 15 Credits
- MUSIC 1339 - MUSICAL STYLES

Total credits required for Music: 18
Available lower-level music courses:

- MUSIC 0101 - ELEMENTS OF MUSIC (formerly Basic Musicianship)
- MUSIC 0102 - INTRODUCTION TO MUSIC
- MUSIC 0215 - DIGITAL MUSIC CREATION
- MUSIC 0202 - THE SYMPHONY
- MUSIC 0203 - OPERA
- MUSIC 0205 - COLLEGE/COMMUNITY CHOIR (1 cr. x 3)
- MUSIC 0195 - APPLIED MUSIC (1 cr. x 3)

The Theater Requirements

The theater requirements of a major in Interdisciplinary Arts with selection of Theater as one of two major components are completed with the following courses:

- THEA 0101 - INTRODUCTION TO THEATRE
- THEA 0203 - PLAY ANALYSIS
- One upper-level theatre course - 3 Credits
- One further elective course in theater, lower or upper level - 3 Credits

Two courses from

- THEA 0102 - THEATR PRACTCM: BASC STAGECRAF and/or
- THEA 0103 - THEATRE PRACTICUM: PERFORMANCE

Total credits required for Theater: 18

Available upper-level theater courses:

- THEA 1302 - DIRECTING
- THEA 1303 - PLAYWRITING: STRUCTURE OF ACTN
- THEA 1304 - ADVANCED ACTING
- THEA 1310 - SHAKESPEAREAN PERFORMANCES
- THEA 1497 - DIRECTED STUDY: THEATRE ARTS
- THEA 1498 - DIR RESEARCH: THEATRE ARTS
- THEA 1499 - INTERNSHIP: THEATRE ARTS

The Writing Requirements

The writing requirements of a major in Interdisciplinary Arts with selection of Writing as one of two major components are completed with the following courses:

- Four writing courses, which can include upper-level course(s) - 12 Credits
- One literature course - 3 Credits
- One upper-level writing course - 3 Credits

Total credits required for Writing: 18

Available lower-level writing courses:
Available upper-level writing courses:

- WRITNG 1302 - ADVANCED FICTION WRITING
- WRITNG 1304 - ADVANCED POETRY WRITING
- WRITNG 1310 - ADVANCED FEATURE WRITING
- WRITNG 1311 - LITRY EDITING/MAGAZINE PROD 3
- WRITNG 1402 - WRITING FROM THE SELF
- WRITNG 1450 - TOPICS IN WRITING

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Public Relations, BA

Contact: Professor Tim Ziaukas, Program Director

The public relations major is built upon a combination of courses in writing, public relations, communication, and business management. Public relations majors are prepared for careers in advertising, business, government, journalism, and public relations.

Degree Requirements

Course Requirements in the Major

- COMM 001 - INTRO TO HUMAN COMMUNICATION
- COMM 004 - PUBLIC SPEAKING
- COMM 0201 - MASS MEDIA AND SOCIETY
- PR 001 - INTRODCTN TO PUBLIC RELATIONS
- COMM 1307 - VISUAL COMMUNICATIONS
- PR 1302 - PUBLIC RELATIONS CASE PROBLEMS
- PR 1304 - PROMOTIONAL WRITING
- PR 1451 - CAPSTONE: PUBLIC RELATIONS
- COMM 0106 - NEWS WRITING
- COMM 0107 - NEWS EDITING
- COMM 0108 - NEWSPAPER STAFF (THE SOURCE)
- COMM 0210 - SOCIAL MEDIA COMMUNICATION

- PR 1499 - INTERNSHIP: PUBLIC RELATIONS or
Total credits required for the major: 38

Required minor* variable

Note: Transfer students who have earned a previous degree do not need to complete a minor.

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

*A PR major must declare a minor in one of the following: art, business management, English, international studies, political science, psychology, or sociology. Upon approval, other minors may be used to complete the requirement.

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- PR 0101 - INTRODCTN TO PUBLIC RELATIONS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Electives or courses in minor - 12 Credits
- General education courses - 6 Credits

Credits: 30

Second Year

- COMM 0101 - INTRO TO HUMAN COMMUNICATION
- COMM 0104 - PUBLIC SPEAKING
- COMM 0201 - MASS MEDIA AND SOCIETY
- MGMT 0101 - INTRODUCTION TO BUSINESS
- COMM 0106 - NEWS WRITING
- COMM 0107 - NEWS EDITING
- COMM 0108 - NEWSPAPER STAFF (THE SOURCE) *
- Elective or courses in minor - 3 Credits
- General education courses - 6 Credits

Credits: 29
Third Year

- COMM 1307 - VISUAL COMMUNICATIONS
- PR 1302 - PUBLIC RELATIONS CASE PROBLEMS
- PR 1304 - PROMOTIONAL WRITING
- Electives or courses in minor - 6 Credits
- General education courses - 15 Credits

Credits: 30

Fourth Year

- Electives or courses in minor - 17 Credits
- PR 1451 - CAPSTONE: PUBLIC RELATIONS

- PR 1499 - INTERNSHIP: PUBLIC RELATIONS or
- COMM 1309 - ENVIRONMENTAL COMMUNICATIONS

- General education courses - 9 Credits

Credits: 32

Note:

* All PR students must complete two semesters of the one-to-three credit student newspaper course.

Writing, BA

Contact: Professor Nancy McCabe, Program Director

The writing program is designed to give students background for writing in a variety of genres and forms and to help them develop a critical and sensitive use of language for professional and creative application. Students complete a core group of courses before choosing either a creative or a professional concentration. The major includes literature courses that acquaint students with the tradition of writing in English and that serve as models for their own writing.

Writers can work professionally in journalism, arts administration, technical writing, publishing, communications, public relations, teaching, and business. Writing majors can pursue graduate study in creative writing, journalism, communications, business, law, education, or literature.

Degree Requirements

Course Requirements in the Major

- WRITNG 0111 - LITRY EDITING/MAGAZINE PROD 1

Take four courses from the following list:

- COMM 0106 - NEWS WRITING
- WRITNG 0106 - INTRODUCTION TO FICTN WRITING
- WRITNG 0107 - BEGINNING POETRY WRITING
- COMM 0108 - NEWSPAPER STAFF (THE SOURCE)
• WRITNG 0108 - INTRO TO CREATIVE NONFICTION
• WRITNG 0220 - FEATURE WRITING

Requirements in Literature

One course from each of the following groupings, including at least one course at the 1300 level or above

Survey Courses

• ENG 0105 - MASTERPIECES OF WORLD LITERATURE
• ENG 0201 - AMERICAN LITERATURE BEFORE CIVIL WAR
• ENG 0202 - AMERICAN LITERATURE SINCE THE CIVIL WAR
• ENG 0203 - BRITISH LITERATURE BEFORE 1800
• ENG 0204 - BRITISH LITERATURE SINCE 1800
• ENG 0205 - INTRODUCTION TO SHAKESPEARE
• ENG 0214 - INTRODUCTION TO LITERATURE BY WOMEN
• ENG 0218 - INTRODUCTION TO LITERATURE & ENVIRONMENT
• EDUC 0225 - THE DEVELOPING CHILD
• ENG 1306 - TWENTIETH-CENTURY IRISH LITERATURE
• ENG 1307 - 19TH-CENTURY AMERICAN LITERATURE
• ENG 1315 - BRITISH LITERATURE OF ROMANTIC ERA
• CLP 0208 - FRENCH LITERATURE IN TRANSLATION
• CLP 0216 - MODERN AFRICAN LITERATURE: THE NOVEL
• CLP 0220 - CARIBBEAN LITERATURES & CULTURES
• CLP 1310 - POSTCOLONIAL LITERATURE
• CLP 1320 - AFRICAN LITERATURE AND SPIRITUALITY

20th-Century Courses

• ENG 1305 - 20TH-CENTURY BRITISH LITERATURE
• ENG 1306 - TWENTIETH-CENTURY IRISH LITERATURE
• ENG 1308 - 20TH-CENTURY AMERICAN LITERATURE
• ENG 1310 - CONTEMPORARY AMERICAN POETRY
• ENG 1410 - MAJOR AUTHORS (when 20th century)
• ENG 1450 - TOPICS IN LITERATURE (when 20th century)
• CLP 0204 - 20th-Century Prose Narrative
• CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)
• CLP 0216 - MODERN AFRICAN LITERATURE: THE NOVEL
• CLP 1301 - The Modernist Tradition
• CLP 1310 - POSTCOLONIAL LITERATURE
• CLP 1320 - AFRICAN LITERATURE AND SPIRITUALITY
• EDUC 0275 - ADOLESCENT LITERATURE

Genre Courses

• ENG 0103 - INTRODUCTION TO POETRY
• ENG 0106 - INTRODUCTION TO SHORT STORY
• ENG 0207 - AMERICAN POETRY
• ENG 1301 - Contemporary American Poetry
• ENG 1309 - MAJOR AMERICAN NOVELS
CLP 0207 - SHORT FICTION IN SPANISH  
CLP 0216 - MODERN AFRICAN LIT: THE NOVEL  
THEA 0203 - PLAY ANALYSIS  
THEA 1310 - SHAKESPEAREAN PERFORMANCES

Other Required Courses

- One Arts and Letters General Education course in Theatre, Music, or Visual Art 3  
- WRITNG 1451 - CAPSTONE: WRITING  
- Second language proficiency through and including the intermediate level (or the equivalent) - 0-9 Credits

Total credits in the major: 39

Creative Writing Track Requirements

- WRITNG 0211 - LITRY EDITING/MAGAZINE PROD 2

Three of the following courses, two at the 1300 level or above

- WRITNG 1302 - ADVANCED FICTION WRITING  
- WRITNG 1304 - ADVANCED POETRY WRITING  
- WRITNG 1310 - ADVANCED FEATURE WRITING  
- WRITNG 1311 - LITRY EDITING/MAGAZINE PROD 3  
- WRITNG 1402 - WRITING FROM THE SELF

- WRITNG 0250 - SPECIAL TOPICS (appropriate to concentration) or  
- WRITNG 1450 - TOPICS IN WRITING

- SPAN 1316 - TRANSLATION SEMINAR

Professional Writing Track Requirements

- COMM 0108 - NEWSPAPER STAFF (THE SOURCE)

Three of the following courses, two at the 1300 level or above:

- IA 0101 - ARTS AWARENESS  
- WRITNG 0211 - LITRY EDITING/MAGAZINE PROD 2  
- COMM 0107 - NEWS EDITING  
- PR 1304 - PROMOTIONAL WRITING  
- WRITNG 1305 - TECHNICAL WRITING  
- WRITNG 1306 - BUSINESS WRITNG FOR 21 CENTUR  
- WRITNG 1310 - ADVANCED FEATURE WRITING  
- WRITNG 1311 - LITRY EDITING/MAGAZINE PROD 3  
- WRITNG 1450 - TOPICS IN WRITING (appropriate to concentration)

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)
*Students majoring in writing are required to complete a minor in a related area of study approved by their advisors.

Please be advised

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Suggested Course of Study BA in Writing

First Year

- FS 0102 - FRESHMAN SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- Literature course - 3 Credits
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Writing core courses - 6 Credits
- Second language courses - 6 Credits
- General education courses - 6 Credits

Credits: 33

Second Year

- Writing core courses - 10 Credits
- Literature course - 3 Credits
- Minor courses - 6 Credits
- General education courses - 12 Credits

Credits: 31

Third Year

- Writing core course - 3 Credits
- Writing courses - 7 Credits
- Literature course - 3 Credits
- Minor course - 3 Credits
- General education courses - 15 Credits

Credits: 31

Fourth Year

- Writing course - 3 Credits
- Writing elective - 3 Credits
Capstone - 3 Credits
Minor courses - 6 Credits
General education courses and electives - 13 Credits

Credits: 28

Minor

Africana Studies Minor

Contact: BioDun Ogundayo

Minor Requirements

A minor in Africana Studies may be earned by completing the following requirements (one course must be an upper-level):

Introduction

- AFRCNA 0101 - INTRODUCTION TO AFRICANA STUDIES

Cultural Perspectives (choose four courses):

- AFRCNA 0210 - MODERN BLACK THEATRE
- AFRCNA 0215 - MODERN AFRICAN-AMERICAN CINEMA
- CLP 0216 - MODERN AFRICAN LIT: THE NOVEL
- CLP 0220 - CARIBBEAN LITERATURES & CULT
- CLP 1310 - POSTCOLONIAL LITERATURE
- CLP 1320 - AFRICAN LIT AND SPIRITUALITY
- ENG 0219 - AFRICAN-AMERICAN WRITERS

Sociological, Behavioral, Historical Perspectives (choose one course):

- ADMJ 0205 - POLIC & SOCTY-RACE,CRIME JUSTC
- SOC 0207 - SOCIOLOGY OF RACE & ETHNICITY
- HIST 0208 - AFRICAN-AMERICAN HISTORY
- HIST 1321 - THE CIVIL WAR & RECONSTRUCTION

Total Credits: 18

Art Minor

Contact: Professor Anna K. Lemnitzer

Minor Requirements
A minor in art with concentrations in art history or studio arts is earned by completing the following courses:

- ART 0101 - DRAWING 1
- ART 0105 - WORLD ART SURVEY 1 or ART 0106 - WORLD ART SURVEY 2
- ART 0201 - PAINTING 1 or ART 0208 - WATERCOLOR PAINTING
- Concentration in art history or studio arts (two courses) - 6 Credits
- Upper-level art elective - 3 Credits

Total credits required for the minor: 18

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**Cinema Studies Minor**

Contact: James Salvo

In an era of saturation in both traditional and new media, media literacy is necessary for critical media consumption. A minor in cinema will serve students insofar as much of the research and developments in both media literacy and new media are rooted in cinema studies. A minor in cinema will thus provide not only the foundation for an understanding of the creative aspects of filmmaking, but the foundation for the critical consumption of media in general.

**Minor Requirements**

A minor in cinema studies may be earned by completing the following requirements:

- COMM 0109 - INTRODUCTION TO CINEMA
- CLP 0203 - FILM AND LITERATURE or AFRCN 0215 - MODERN AFRICAN-AMERICAN CINEMA
- MUSIC 0260 - MUSIC IN FILM
- COMM 0215 - BOLLYWOOD: POPULAR INDIAN CINE
- COMM 1306 - AMERICAN CINEMA
- COMM 1307 - VISUAL COMMUNICATIONS

Total Credits: 18

**Communications Minor**

Contact: Professor Jeffrey Guterman, Program Director and Chair of the Communication and the Arts Division
Minor Requirements

A minor in communications may be earned by completing the following course requirements:

- COMM 0102 - SURVEY OF BROADCASTING
- COMM 0103 - BROADCAST JOURNALISM
- COMM 0201 - MASS MEDIA AND SOCIETY
- COMM 0202 - RADIO PRODUCTION
- COMM 0203 - INTRODUCTION TO TV PRODUCTION
- COMM 1302 - MEDIA ADVERTISING

Total Credits: 20

Comparative Literature Minor

Contact: Professor 'BioDun J. Ogundayo

Minor Requirements

A minor in comparative literature may be earned by completing the following requirements:

Course Electives

- ENG 0110 - LITERATURE AND INTERPRETATION
- Second Language-2 courses in sequence at the 200 level - 6 Credits
- CLP 1315 - CRITICAL METHODS
- CLP 1450 - TOPICS IN COMPARATIVE LIT
- Electives - 2 CLP courses, including 1 at the 1300 level or above - 6 Credits

Credits: 21

Electives

- CLP 0206 - HISPANC LITERATURE (IN ENGLISH)
- CLP 0207 - SHORT FICTION IN SPANISH
- CLP 1301 The Modernist Tradition
- CLP 1320 - AFRICAN LIT AND SPIRITUALITY
- ENG 0105 - MASTERPIECES OF WORLD LITERATUR
- ENG 0219 African-American Writers
- PHIL 0203 - PHILOSOPHY IN LITERATURE
- PHIL 0207 - EXISTENTIALISM
- THEA 0203 - PLAY ANALYSIS
- THEA 1301 Dramatic Theory and Criticism

Please be advised

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33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Digital Graphic Design Minor**

Contact: Professor Anna K. Lemnitzer

**Minor Requirements**

The Digital Graphic Design minor incorporates a range of practical knowledge involving problem solving; creative and aesthetical thinking; visualization skills; digital imaging; and information design. The total credit hours of this minor is 18 credits. The Digital Graphic Design minor program covers the aesthetic, historical, theoretical, and practical components of graphic design. A minor in digital graphic design is earned by completing the following courses:

- IA 0101 - ARTS AWARENESS
- ART 0103 - DIGITAL GRAPHIC DESIGN
- ART 0113 - DIGITAL PHOTOGRAPHY & IMAGING
- ART 0101 - DRAWING 1 or CIST 0163 - INTRO TO WEB PROGRAMMING
- ART 1303 - ADV DIGITAL GRAPHIC DESIGN
- COMM 1307 - VISUAL COMMUNICATIONS

**Total credits required for the minor: 18**

**Please be advised**

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**English Minor**

Contact: Professor Donald Ulin, Program Director

**Minor Requirements**

A minor in English can be earned by completing the following requirements:

- ENG 0110 - LITERATURE AND INTERPRETATION
- CLP 1315 - CRITICAL METHODS
- English electives (no more than one course at the 0100 level; two upper-level courses required - 12 Credits

**Total Credits: 18**
Please be advised

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Public Relations Minor

Contact: Professor Tim Ziaukas, Program Director

Minor Requirements

A minor in public relations may be earned by completing the following course requirements:

- COMM 0101 - INTRO TO HUMAN COMMUNICATION
- COMM 0201 - MASS MEDIA AND SOCIETY
- PR 0101 - INTRODCTN TO PUBLIC RELATIONS
- COMM 1307 - VISUAL COMMUNICATIONS
- COMM 0106 - NEWS WRITING
- COMM 0107 - NEWS EDITING
- PR 1304 - PROMOTIONAL WRITING

Total Credits: 21

Please be advised

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Spanish Minor

Contact: Professor Carys Evans-Corrales, Program Director

Students entering the minor must have already completed or established competency in Elementary Spanish I and II. Students must either complete or establish competency in Intermediate Spanish I and II, take at least two courses from Group II, and take at least one in Group III. At least one course from Group II must be completed before proceeding to Group III.

Minor Requirements

- SPAN 0201 - INTERMEDIATE SPANISH 1
- SPAN 0202 - INTERMEDIATE SPANISH 2
- SPAN 1308 - ADVANCED SPANISH
- CLP 0207 - SHORT FICTION IN SPANISH
Complete one of the following:

- CLP 0206 - HISPANIC LITERATURE (IN ENGLISH)
- CLP 1350 - LATINA WRITERS (in English)

Complete one of the following:

- SPAN 1315 - BUSINESS SPANISH
- SPAN 1316 - TRANSLATION SEMINAR

Total Credits: 18

Please be advised

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Speech Communication Minor

Contact: Dr. James Salvo

The art of public speaking is only one focus of our speech communication minor. In the minor, you will also explore interpersonal, small group, and non-verbal communication. You will study and practice human communication techniques in a five-course minor designed to complement your major field of study. You will find that the communication skills examined in this minor are extremely valuable in today's workplace and in everyday life.

Course Requirements in the Minor

Total Credits for Minor: 18. If you major in communication or public relations, you cannot choose a minor in speech communication.

Required Courses

- COMM 0101 - INTRO TO HUMAN COMMUNICATION
- COMM 0104 - PUBLIC SPEAKING
- COMM 0120 - INTERCULTURAL COMMUNICATION

Three courses (9 credits) selected from the following (two must be upper level):

- COMM 0115 - INTERPERSONAL COMMUNICATION
- COMM 1308 - ORGANIZATIONAL COMMUNICATION
- COMM 1309 - ENVIRONMENTAL COMMUNICATIONS
- COMM 1410 - PERSUASION

Theater Minor

Contact: Professor Kevin Ewert
The theater program at Pitt-Bradford gives students the opportunity to learn about theater arts through academic course work and practical experience. Theater courses include basic and advanced acting, stagecraft, play analysis, Theater history, directing, and playwriting. Credit may also be earned through participation as a cast or crew member in the two full-length productions that are staged each academic year.

Minor Requirements

The minor in theater consists of 18 credits. The following requirements must be met:

Core requirements in theater

- THEA 0101 - INTRODUCTION TO THEATRE
- THEA 0102 - THEATR PRACTCM: BASC STAGECRAF and/or
- THEA 0103 - THEATRE PRACTICUM: PERFORMANCE
- THEA 0203 - PLAY ANALYSIS

Credits: 12

Electives in theatre

- Two additional theater courses, one of which must be an upper-level course - 6 Credits

Total Credits: 18

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Writing Minor

Contact: Professor Nancy McCabe, Program Director

The student with a minor in writing will take 15 credits in writing, including two core courses. At least 6 of the 15 credits must be upper level.

Minor Requirements

- Writing core courses - 6 Credits
- Writing electives (two upper level) - 9 Credits

Total Credits: 15

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The Division of Management and Education

Major

Accounting, BS

Contact: Professor Ernest Kallenbach, Program Director

The accounting major consists of a 120-credit curriculum leading to a Bachelor of Science degree. Consistent with the overall mission of the University of Pittsburgh at Bradford, the accounting major includes a liberal arts core curriculum, much of which is taken during the first two years of study. Accounting majors also take required foundation courses across the fundamental areas of business.

Degree Requirements

Courses within the major

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ACCT 1301 - INTERMEDIATE ACCOUNTING 1
- ACCT 1302 - INTERMEDIATE ACCOUNTING 2
- ACCT 1312 - INTERMEDIATE ACCOUNTING 3
- ACCT 1303 - STRATEGIC COST MANAGEMENT
- ACCT 1304 - FEDERAL INCOME TAXES
- ACCT 1306 - FEDERAL CORPORATE INCOME TAXES
- ACCT 1320 - ACCOUNTING INFORMATION SYSTEMS
- ACCT 1305 - AUDITING
- ACCT 1401 - ADVANCED ACCOUNTING

Credits: 33

Other Business coursework

- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 0204 - STATISTICAL METHODS
- FIN 1301 - CORPORATE FINANCE

- FIN 1302 - INVESTMENTS or
- FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS

- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MGMT 1304 - BUSINESS LAW
- MGMT 1451 - CAPSTONE: STRATEGIC MGMT

Credits: 34
Coursework outside the major

- MATH 0136 - APPLIED CALCULUS
- COMM 0104 - PUBLIC SPEAKING

Credits: 7

Total credits required for the major: 74

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

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Suggested Course of Study

First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MATH 0136 - APPLIED CALCULUS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- FS 0102 - FRESHMAN SEMINAR

General education or elective courses - 6 Credits

Credits: 31

Second Year

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0204 - STATISTICAL METHODS
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- COMM 0104 - PUBLIC SPEAKING

General education or elective courses - 15 Credits

Credits: 32
Third Year

- FIN 1301 - CORPORATE FINANCE
- FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1304 - BUSINESS LAW
- ACCT 1301 - INTERMEDIATE ACCOUNTING 1
- ACCT 1302 - INTERMEDIATE ACCOUNTING 2
- ACCT 1303 - STRATEGIC COST MANAGEMENT
- ACCT 1304 - FEDERAL INCOME TAXES
- ACCT 1306 - FEDERAL CORPORATE INCOME TAXES
- General education or elective courses - 3 Credits

Credits: 30

Fourth Year

- ACCT 1312 - INTERMEDIATE ACCOUNTING 3
- ACCT 1320 - ACCOUNTING INFORMATION SYSTEMS
- ACCT 1305 - AUDITING
- ACCT 1401 - ADVANCED ACCOUNTING
- MGMT 1451 - CAPSTONE: STRATEGIC MGMT
- General education or elective courses - 15 Credits

Credits: 30

**Biology Education (7-12), BS**

Degree Requirements

Course Requirements in the Major

*All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall.*

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 0203 - GENETICS
- BIOL 0217 - PRINCIPLES OF ECOLOGY & EVOLUTION
- BIOL 1451 - CAPSTONE: BIOLOGY
- BIOL 1453 - SENIOR SEMINAR
- Upper Level Biology Elective - 4 Credits
- Upper Level Biology Elective - 4 Credits
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0132 - PRECALCULUS or
- MATH 0136 - APPLIED CALCULUS or
- MATH 0140 - CALCULUS 1
- MATH (Second college-level math required) - 3-4 Credits
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 or
- PHYS 0103 - CONCEPTS OF MODERN PHYSICS or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELOPMENT OF EXCEPTIONAL CHILDREN
- EDUC 1330 - EDUCATING EXCEPTIONAL CHILDREN
- EDUC 1334 - LITERACIES ACROSS MIDL/SEC CURR
- EDUC 1345 - EDUCATIONAL THEORIES PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT
- EDUC 1481 - STUDENT TEACHING

General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

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**Business Computer, and Information Technology (K-12), BS**

**Degree Requirements**

**Course Requirements in the Major**

_All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall._

- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0101 - ECONOMICS IN THE MODERN WORLD
- ECON 0204 - STATISTICAL METHODS
- FIN 1301 - CORPORATE FINANCE
- MATH 0136 - APPLIED CALCULUS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MGMT 1304 - BUSINESS LAW
General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

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Business Management, BS

Contact: Professor Duane Mitchell, Program Director

The business management major consists of a 120-credit curriculum leading to a Bachelor of Science degree. Consistent with the overall mission of the University of Pittsburgh at Bradford, the business management major includes a liberal arts core curriculum, much of which is taken during the first two years of study. Business management majors also take required foundation courses across the fundamental areas of business. Students can specialize in a particular area by taking electives from one of the following five areas of concentration:

- Management Information Systems (MIS)
- Accounting
- Finance
- International Business
- Marketing

Degree Requirements

Course requirements in the major
MGMT 0110 - PRINCIPLES OF MANAGEMENT
MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
MIS 0208 - BUSINESS INFORMATION SYSTEMS
FIN 1301 - CORPORATE FINANCE
MRKT 1301 - PRINCIPLES OF MARKETING
MGMT 1303 - BUSINESS ETHICS
MGMT 1401 - BUSINESS SOCIETY & INTL ENVRN
MGMT 1451 - CAPSTONE: STRATEGIC MGMNT
Business management electives* - 9 Credits

Credits: 36

Other required courses:

- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 0204 - STATISTICAL METHODS
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- MATH 0136 - APPLIED CALCULUS
- COMM 0104 - PUBLIC SPEAKING

Credits: 20

Total credits required for the major: 56

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

* Courses required to complete a business management concentration may be applied toward the 9 credit business elective requirement.

Please be advised

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Suggested Course of Study

First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
\begin{itemize}
  \item ECON 0102 - INTRODUCTION TO MICROECONOMICS
  \item ECON 0103 - INTRODUCTION TO MACROECONOMICS
  \item MATH 0136 - APPLIED CALCULUS
  \item MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
  \item COMM 0104 - PUBLIC SPEAKING
  \item FS 0102 - FRESHMAN SEMINAR
\end{itemize}

Credits: 28

\section*{Second Year}
\begin{itemize}
  \item ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
  \item ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
  \item ECON 0204 - STATISTICAL METHODS
  \item ECON 0206 - INTERMEDIATE MICROECONOMICS
  \item MIS 0208 - BUSINESS INFORMATION SYSTEMS
  \item General education or elective courses - 15 Credits
\end{itemize}

Credits: 31

\section*{Third Year}
\begin{itemize}
  \item FIN 1301 - CORPORATE FINANCE
  \item MRKT 1301 - PRINCIPLES OF MARKETING
  \item Business electives - 6 Credits
  \item General education or elective courses - 18 Credits
\end{itemize}

Credits: 30

\section*{Fourth Year}
\begin{itemize}
  \item MGMT 1401 - BUSINESS SOCIETY & INTL ENVRN
  \item MGMT 1451 - CAPSTONE: STRATEGIC MGMNT
  \item Business elective - 3 Credits
  \item General education or elective courses - 19 Credits
\end{itemize}

Credits: 28

\section*{Chemistry Education (7-12), BS}

\subsection*{Degree Requirements}

\subsection*{Course Requirements in the Major}

\textit{All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall.}
General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Computer Information Systems and Technology, BS

Contact: Professor Don Lewicki, Program Director

The Computer Information Systems and Technology (CIS&T) major consists of a 120-credit curriculum leading to a Bachelor of Science degree. CIS&T majors gain hands-on experience as well as conceptual knowledge in a broad range of information technologies and systems. Foundation courses focus on specific technologies while upper level courses concentrate on application and integration of technologies in the business environment. Students are also encouraged to take the minor in business management or entrepreneurship to gain a deeper understanding of business fundamentals.
Degree Requirements

Course requirements in the major

- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- CIST 0163 - INTRO TO WEB PROGRAMMING
- CIST 0165 - NETWORKING 1
- CIST 0166 - NETWORKING 2
- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION
- CIST 0265 - OBJECT ORIENTED PROGRAMMING
- CIST 1307 - DATABASE DESIGN & MANAGEMENT
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN
- CIST 1311 - ELECTRONIC COMMERCE
- CIST 1325 - INTRO TO SUPPLY CHAIN MGMT
- CIST 1408 - PROJECT MGMT IN INFOR TECHN
- CIST 1499 - INTERNSHIP: CIS&T
- CIST 1451 - CAPSTONE: CIS&T

Credits: 45

Choose 4 approved electives - OR choose one of the concentrations listed below

(See advisor for other approved electives).

- CIST 1320 - USER INTERFACE DESIGN
- CIST 1401 - INFORMATION ASSURANCE
- CIST 1415 - DATA ANALYTICS
- CIST 1431 - INTRO TO MULTIMEDIA APPLCS
- CIST 1301 - ADVANCED WEB DEVELOPMENT
- CIST 1341 - LINUX OPERATING SYSTEM
- CIST 1327 - INTRUSION DETECTION AND RESPONSE
- CIST 1326 - DIGITAL FORENSICS
- CIST 1422 - GAME DESIGN AND PROGRAMMING

Credits: 12

Other required course

- MATH 0133 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS

Total credits required for the major: 61

General Education Program Requirements and Electives-Variable
Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- FS 0102 - FRESHMAN SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- CIST 0165 - NETWORKING 1
- ENG 0102 - ENGLISH COMPOSITION 2
- CIST 0163 - INTRO TO WEB PROGRAMMING
- CIST 0166 - NETWORKING 2
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS

Credits: 30

Second Year

- MATH 0135 - DISCRETE MATHEMATICS
- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION
- CIST 0265 - OBJECT ORIENTED PROGRAMMING
- MATH 0133 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN
- General education or elective courses - 12 Credits

Credits: 31

Third Year

- CIST 1307 - DATABASE DESIGN & MANAGEMENT
- CIST 1325 - INTRO TO SUPPLY CHAIN MGMT
- CIST Electives - 6 Credits
- General education or elective courses - 19 Credits
Fourth Year

- CIST 1408 - PROJECT MGMT IN INFOR TECHN
- CIST 1499 - INTERNSHIP: CIS&T
- CIST 1451 - CAPSTONE: CIS&T
- CIST Elective - 3 Credits
- General education or elective courses - 16 Credits

Credits: 28

Application Software Development Concentration

Concentration Requirements

For the Application Software Development concentration, CIS&T majors must complete a minimum of 12 credits from the following selection of courses in addition to completing the core curriculum:

Choose at least 4 from the following:

- CIST 1301 - ADVANCED WEB DEVELOPMENT
- EST 1301 - SENSORS AND AUTOMATION
- CIST 1320 - USER INTERFACE DESIGN
- CIST 1415 - DATA ANALYTICS
- CIST 1421 - MOBILE APPLICATION PROGRAMMING
- CIST 1422 - GAME DESIGN AND PROGRAMMING

Total Credits: 12

Cybersecurity and Digital Forensics Concentration

Concentration Requirements

For the Cybersecurity and Digital Forensics concentration, CIS&T majors must complete a minimum of 12 credits from the following selection of courses in addition to completing the core curriculum:

Choose at least 4 from the following:

- CIST 1326 - DIGITAL FORENSICS
- CIST 1327 - INTRUSION DETECTION AND RESPONSE
- CIST 1328 - NETWORK SECURITY & CRYPTOGRAPHY
- CIST 1432 - ETHICAL HACKING
- CIST 1401 - INFORMATION ASSURANCE

Total Credits: 12
Systems and Network Administration Concentration

Concentration Requirements

For the Systems and Network Administration concentration, CIS&T majors must complete a minimum 12 credits from the following selection of courses in addition to completing the core curriculum:

Choose at least 4 from the following:

- CIST 1341 - LINUX OPERATING SYSTEM
- CIST 1342 - HOST SCRIPTING
- CIST 1344 - VISUALIZATION & CLOUD TECHNOLOGY
- CIST 1327 - INTRUSION DETECTION AND RESPONSE
- CIST 1328 - NETWORK SECURITY & CRYPTOGRAPHY
- CIST 1443 - NETWORK & SYSTEM ADMINISTRATION PRACTICUM

Total Credits: 12

Early Level Education (PreK-4), BS

Degree Requirements

- Art or Music or Theater (GE) - 3 Credits
- Life/Environment Science GE - 3-4 Credits
- Physical Science/Environment Science (GE) - 3-4 Credits
- MATH (GE) - 3-4 Credits
- Math Elective - 3 Credits
- Economics or Political Science Elective - 3 Credits
- Culture or Philosophical Inquiry Elective - 3 Credits
- HIST 0106 - US HISTORY 1 or
- HIST 0107 - US HISTORY 2
- GEOG 0101 - WORLD REGIONAL GEOGRAPHY or
- GEOG 0102 - GEOGRAPHY OF NORTH AMERICA
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0225 - THE DEVELOPING CHILD
- EDUC 0230 - FAMILY & COMMUNITY RELTNSHPS
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1302 - ASSESSMENT TECHNIQUES
- EDUC 1305 - CLASSROOM MANAGEMENT
- EDUC 1309 - DIFFN READING INSTC & INTRV (PreK-1)
• EDUC 1312 - LANG DVLP & ERLY LITRCY FNJTNS (PreK-1)
• EDUC 1318 - EARLY MATH FOUNDATIONS (PreK-1)
• EDUC 1320 - ART, MUSIC, & MOVEMENT METHODS (Pre-K)
• EDUC 1322 - SOCIAL STUDIES METHODS (PreK-4)
• EDUC 1324 Math Methods for Primary Grades (2-4) - 3 Credits
• EDUC 1325 - DEVELOP OF EXCEPTIONAL CHILDREN
• EDUC 1327 - SCIENCE METHODS (PREK-4)
• EDUC 1330 - EDUCATING EXCEPTIONAL CHILDREN
• EDUC 1332 - LITRCY FNJTNS FOR PRIM GRADES (2-4)
• EDUC 1345 - EDUCATIONAL THEORIES PRACTICES
• EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT
• EDUC 1451 - CAPSTONE: EDUCATION
• EDUC 1481 - STUDENT TEACHING

General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Economics, BA

Contact: Professor Gautam Mukerjee, Program Director

Economics is the study of the allocation, production, and distribution processes in an economy and how policy decisions impact the economy. Students majoring in economics develop the analytical and quantitative skills required for careers in the private and public sectors.

Degree Requirements

Course Requirements in the Major

• ECON 0102 - INTRODUCTION TO MICROECONOMICS
• ECON 0103 - INTRODUCTION TO MACROECONOMICS
• ECON 0204 - STATISTICAL METHODS
• ECON 0206 - INTERMEDIATE MICROECONOMICS
• ECON 0207 - INTERMEDIATE MACROECONOMICS
• ECON 0201 - MONEY AND BANKING
• ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
• ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS

Credits: 25

Economics Electives (15-16 Credits)
Five courses selected from the following sets of courses:

Set 1 Applied economics (two courses)

- ECON 1301 - POVERTY AND SOCIETY
- ECON 1304 - ECONOMETRICS & BUS FORECASTING
- ECON 1307 - ECONOMICS OF ENERGY & ENVIRONMENT
- ECON 1315 - STATE & REGIONAL ECON DEVELOPMENT
- ECON 1401 American Economic History
- ECON 1402 - LABOR ECONOMICS

Set 2 Sectoral economics (three courses)

- ECON 1303 - INDUSTRIAL ORGANIZATION
- ECON 1305 Public Finance II
- ECON 1403 International Trade
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- FIN 1304 - FINANCIAL MARKETS & INSTITUTIONS
- FIN 1401 - INTERNATIONAL FINANCE

Choose four from the following list of electives courses (12 credits):

- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MATH 0136 - APPLIED CALCULUS
- HIST 0107 - US HISTORY 2
- HIST 0203 - RADICALISM IN THE US
- HIST 1317 - CONTEMPORARY US HISTORY 1941-PRESENT
- INTS 0101 - GLOBAL ISSUES
- PS 0110 - INTRODUCTION TO INT'L AFFAIRS
- PS 0201 - WORLD POLITICS
- ECON 0205 Public Finance I - 3 Credits
- ECON 0208 Mathematical Economics - 3 Credits
- MGMT 1401 - BUSINESS SOCIETY & INT'L ENVIRONMENT

Total credits required for the major: 52-53

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.
Suggested Course of Study

First Year

- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- General education or elective courses - 15 Credits

Credits: 30

Second Year

- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 0204 - STATISTICAL METHODS
- HIST 0107 - US HISTORY 2 or
- HIST 1317 - CONTEM US HISTORY 1941-PRESENT
- Economics elective - 6 Credits
- General education or elective courses - 11 Credits

Credits: 30

Third Year

- ECON 0201 - MONEY AND BANKING or
- ECON 0205 Public Finance I - 3 Credits or
- ECON 0208 Mathematical Economics - 3 Credits
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- Economics electives - 6 Credits
- INTS 0101 - GLOBAL ISSUES or
- PS 0201 - WORLD POLITICS
- General education or elective courses - 15 Credits

Credits: 30

Fourth Year

- ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS
- Economics electives - 3 Credits
General education or elective courses - 24 Credits

Credits: 30

**English Education (7-12), BS**

Degree Requirements

Course Requirements in the Major

*All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall.*

- ENG 0110 - LITERATURE AND INTERPRETATION

Coverage:

Six courses (18 credits), including at least one course from a period prior to 1800, one course from each group, and three upper-level courses.

*American Literature:British/European Literature:Contemporary World Literature:Western Foundations:*

- CLP 1315 - CRITICAL METHODS
- ENG 1451 - CAPSTONE: ENGLISH
- Writing Elective - 3 Credits
- ENG 0206 - HISTORY OF THE ENGLISH LANG
- ENG 0212 - GRAMMAR

- CLP 0203 - FILM AND LITERATURE or
- COMM 0201 - MASS MEDIA AND SOCIETY

- MATH (Second college-level math class required) - 3 Credits
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1307 - SECONDARY METHODS
- EDUC 1325 - DEVELP OF EXCEPTIONAL CHILDREN
- EDUC 1330 - EDUCATING EXCEPTIONAL CHILDREN
- EDUC 1334 - LITRCIES ACROSS MIDL/SEC CURR
- EDUC 1345 - EDUCATIONAL THEORIES PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT

- EDUC 1302 - ASSESSMENT TECHNIQUES or
- EDUC 1306 - CLASSROOM MANAGEMENT

- EDUC 1481 - STUDENT TEACHING

Shakespeare Course:
ENG 0205 - INTRODUCTION TO SHAKESPEARE or
THEA 1310 - SHAKESPEAREAN PERFORMANCES (GE)

Note:
EDUC 0215 and EDUC 0220 are required for those students who will not complete the program prior to January 2013.

General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

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Health and Physical Education (K-12), BS

Contact: Wayne Brinda, Program Director

The University of Pittsburgh at Bradford offers Bachelor of Science degrees in Elementary Education, Health and Physical Education (K-12), Biology Education, Business Education (K-12), Chemistry Education, English Education, Environmental Education (K-12), Mathematics Education and Social Studies Education. Students interested in Social Studies Education may choose history/political science, psychology, sociology, economics, or human relations as the focus area. In order to apply for Pennsylvania Level I certification in any of the above areas, students must graduate from Pitt-Bradford with a 3.0 grade point average, possess both Child Abuse and Criminal clearances, and pass all required Praxis exams. Pitt-Bradford also offers programs for post-baccalaureate certification programs for students interested in PA certification in any of the areas noted above. Most education courses require a field component.

Degree Requirements

Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained.

- HPRED 0180 - SPORT SAFETY TRAINING
- PEDC 0202 - LIFEGUARDING
- HPRED 0209 - PERSONAL HEALTH AND WELLNESS
- HPRED 1305 - BIOMECHANICS
- HPRED 1306 - EXERCISE PHYSIOLOGY 1
- HPRED 1307 - PRIN ETHICS & PRACT IN COACHNG
- HPRED 1308 - COACHING PRACTICUM
- HPEDU 0101 - CURRENT ISSUES COMMUNITY HLTH
- HPEDU 1300 - ADAPTIVE PHYSICAL EDUCATION
- HPEDU 1310 - TEACHING TEAM SPORTS
- HPEDU 1320 - TEACHING HEALTH
- HPEDU 1330 - MOTOR BEHAVIOR
- HPEDU 1335 - EDUCATIONAL MOVEMENT CONCEPTS
- HPEDU 1340 - INDIVIDUAL AND LEISURE SPORTS
- HPEDU 1400 - METHS TECHNG HLTH & PHYSCL ED
- HPEDU 1451 - CAPSTONE: HEALTH & PHYSICAL ED
- BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
- BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
- BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
- BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
- CHEM 0187 - DRUGS AND SOCIETY
- MATH 0098 - COLLEGE ALGEBRA 2 or higher-level mathematics competency - 3-4 Credits
- MATH 0133 - STATISTICS
- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0215 - ENGLISH LANGUAGE LEARNERS
- EDUC 0220 - SPECIAL EDUCATION LAW
- EDUC 0235 - INSTRUCTIONAL DESIGN
- EDUC 0255 - READINGS IN CHILDREN'S LITERATURE
- EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
- EDUC 1325 - DEVELOP OF EXCEPTIONAL CHILDREN
- EDUC 1345 - EDUCATIONAL THEORIES PRACTICES
- EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT
- EDUC 1481 - STUDENT TEACHING

General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0098 - COLLEGE ALGEBRA 2 or higher-level mathematics competency
- EDUC 0204 - INTRODUCTION TO EDUCATION
- FS 0102 - FRESHMAN SEMINAR
- Arts and Letters Elective - 3 Credits
• HPEDU 0101 - CURRENT ISSUES COMMUNITY HLTH
• ENG 0102 - ENGLISH COMPOSITION 2
• PSY 0101 - INTRODUCTION TO PSYCHOLOGY
• MATH 0133 - STATISTICS
• EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
• HPRED 0209 - PERSONAL HEALTH AND WELLNESS
• Arts and Letters Elective - 3 Credits

Total Credits First Year: 35-36

Second Year

• BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
• BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1
• Arts and Letters Elective - 3 Credits
• HPEDU 1405 - ASSMNT IN HEALTH & PHYSICAL ED
• PEDC 0202 - LIFEGUARDING
• HPRED 0204 - FIRST AID/CPR
• CHEM 0187 - DRUGS AND SOCIETY (GE/Physical)
• BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2
• BIOL 0223 - HUMAN ANAT & PHYSIOLOGY LAB 2
• HPEDU 1330 - MOTOR BEHAVIOR
• History, Cultural or Philosophy Inquiry elective - 3 Credits
• EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT
• Behavioral, Economics and Political Science elective - 3 Credits
• EDUC 0210 - EDUCATION PRACTICUM 1

Total Credits Second Year: 33

Third Year

• HPRED 1306 - EXERCISE PHYSIOLOGY 1
• HPEDU 1300 - ADAPTIVE PHYSICAL EDUCATION
• HPEDU 1305 - TEACHING LEISURE SPORTS
• HPEDU 1310 - TEACHING TEAM SPORTS
• History, Cultural or Philosophy Inquiry Elective - 3 Credits
• HPRED 1307 - PRIN ETHICS & PRACT IN COACHING
• HPRED 1305 - BIOMECHANICS
• HPEDU 1315 - TEACHING INDIVIDUAL SPORTS
• HPRED 0180 - SPORT SAFETY TRAINING
• EDUC 1310 - EDUCATION PRACTICUM 2
• History, Cultural or Philosophy Inquiry Elective - 3 Credits
• HPEDU 1320 - TEACHING HEALTH
• EDUC 1325 - DEVELOP OF EXCEPTIONAL CHILDREN

Total Credits Third Year: 35

Forth Year

• EDUC 1410 - EDUCATION PRACTICUM 3
Hospitality Management, BS

Contact: Jennifer Forney, Program Director

The hospitality management major consists of a 121 to 122 credit curriculum leading to a Bachelor of Science degree. Consistent with the overall mission of the University of Pittsburgh at Bradford, the hospitality management major includes a liberal arts core curriculum, much of which is taken during the first two years of study. Hospitality management majors also take required foundation courses across the fundamental areas of the industry.

Degree Requirements

Courses Within the Major

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- HMGT 0101 - INTRO HOSPITALITY MANAGEMENT
- HMGT 0201 - SERVC INDUSTRY STRUCT & LDRSHP
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- HMGT 0210 - LGL ISS HOSPTLY/TOURISM INDUST
- HMGT 0220 - FOODSERVICE MANAGEMENT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- HMGT 1310 - HOTEL OPERATIONS
- HMGT 1320 - HOSPITALITY INFORMATION SYSTEM
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- HMGT 1330 - PRINCIPLES OF FOOD PREPARATION
- HMGT 1340 - FOOD & BEVERAGE COST CONTROL
- HMGT 1370 - HOSPITALITY & TOURISM MARKETING
- HMGT 1451 - CAPSTONE: HOSPITALITY MGMNT
  (Capstone Requirement, Upper Level Writing Requirement)

Credits: 58

Other required courses

- MATH 0098 - COLLEGE ALGEBRA 2 (Math Requirement)
- ECON 0112 - TOURISM (1 Economics Requirement)
- MATH 0133 - STATISTICS (Computational Science)
Credits: 10

Electives - 9 Credits

Total Credits Hours: 77

Possible Elective Courses

- HMGT 1350 - FOODSERVICE PURCHASING
- HMGT 1360 - CONTEMPORARY LEISURE AND REC
- HMGT 1380 - SPECIAL EVENTS PLANNING
- HMGT 1410 - ANLC METHS HOSPITALITY PLANNING
- HMGT 1430 - COMMR FOOD PREP/MENU PLANNING
- HMGT 1440 - TOURISM DESTINATION-PLN DVLP
- HMGT 1445 - PROFESSIONALISM IN HOSPITALITY

Sequencing of Courses

Year 1

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- HMGT 0101 - INTRO HOSPITALITY MANAGEMENT
- ECON 0112 - TOURISM
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT
- MGMT 0110 - PRINCIPLES OF MANAGEMENT

- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0136 - APPLIED CALCULUS

- MATH 0133 - STATISTICS
- General Education or Electives - 6 Credits

Credits: 31

Year 2

- MATH 0133 - STATISTICS
- HMGT 0201 - SERVC INDUSTRY STRUCT & LDRSHIP
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- HMGT 0210 - LGL ISS HOSPITALITY/TOURISM INDUST
- HMGT 0220 - FOODSERVICE MANAGEMENT
- HMGT 1310 - HOTEL OPERATIONS
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- General Education or Electives - 6 Credits

Year 3
• HMGT 1330 - PRINCIPLES OF FOOD PREPARATION
• HMGT 1340 - FOOD & BEVERAGE COST CONTROL
• HMGT 1370 - HOSPITALITY & TOURISM MARKETING
• FIN 1301 - CORPORATE FINANCE
• MRKT 1301 - PRINCIPLES OF MARKETING
• HMGT 1320 - HOSPITALITY INFORMATION SYSTEM
• Hospitality Electives - 9 Credits
• General Education or Electives - 9 Credits

Year 4

• HMGT 1451 - CAPSTONE: HOSPITALITY MGMNT
• Hospitality Electives - 6 Credits
• General Education or Electives - 18 Credits
• General Education Electives - 27 Credits

Total Credit Hours: 121-122

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Information Systems, AS

Contact: Don Lewicki, Program Director

The Information Systems major consists of a 60 credit curriculum leading to an Associate of Science degree. Information Systems majors gain hands-on experience as well as conceptual knowledge in a broad range of information technologies and systems. Foundation courses focus on specific technologies while upper level courses concentrate on application and integration of technologies in the business environment. This program prepares students for entry-level positions in the field of Information Systems. It also prepares students to continue on to complete the Bachelor of Science degree in the Computer Information Systems and Technology (CIS&T) major at the university of Pittsburgh at Bradford.

Course Requirements in the Major

Core Requirements in Information Technology

• CIST 0150 - FUNDAMENTALS OF PROGRAMMING
• CIST 0161 - THE TECHNOLOGY OF COMPUTING
• CIST 0162 - SURVEY OF INFO TECHNOLOGY
• CIST 0163 - INTRO TO WEB PROGRAMMING
• CIST 0165 - NETWORKING 1
• CIST 0166 - NETWORKING 2
• CIST 0205 - WEB APPLICATION DEVELOPMENT
• CIST 0209 - INTRODUCTION TO WEB DATABASES
• CIST 0261 - COMPUTER SECURITY
CIST 0262 - SYSTEMS ADMINISTRATION

Credits: 30

Other required courses

- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0098 - COLLEGE ALGEBRA 2 or
- MATH 0110 - FUNDAMENTALS OF MATHEMATICS
- Approved Elective - 3 Credits

Credits: 12

General Education Courses

Six courses (18-19 credits) over the four human experience areas with at least one course in each area, and at least one course must be a physical or life science with laboratory.

Total credits: 60-61

Please be advised

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For those who intend to pursue the four year degree in Computer Information Systems and Technology

For those who intend to pursue the four year degree in Computer Information Systems and Technology, we recommend that the student take the following:

- MATH 0098 - COLLEGE ALGEBRA 2

Suggested Course of Study

Semester 1

- CIST 0161 - THE TECHNOLOGY OF COMPUTING
- CIST 0162 - SURVEY OF INFO TECHNOLOGY
- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- ENG 0101 - ENGLISH COMPOSITION 1
- CIST 0165 - NETWORKING 1
Credits: 15

Semester 2

- CIST 0166 - NETWORKING 2
- CIST 0163 - INTRO TO WEB PROGRAMMING
- MATH 0135 - DISCRETE MATHEMATICS
- ENG 0102 - ENGLISH COMPOSITION 2
- GE elective - 3 Credits

Credits: 15

Semester 3

- CIST 0209 - INTRODUCTION TO WEB DATABASES
- CIST 0205 - WEB APPLICATION DEVELOPMENT
- GE elective - 3 Credits
- GE elective - 3 Credits
- GE elective - 3 Credits

Credits: 15

Semester 4

- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION
- GE elective - 3 Credits
- GE elective - 3 Credits
- GE elective - 3 Credits

Credits: 15

Mathematics Education (7-12), BS

Degree Requirements

Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall.

- MATH 0135 - DISCRETE MATHEMATICS
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
• MATH 0207 - GEOMETRY
• MATH 1303 - MATHEMATICAL MODELING
• MATH 1309 - APPLIED PROBLTY AND STATISTICS
• MATH 1312 - ABSTRACT ALGBRA & NUMBER THEORY
• MATH 1315 - ADVANCED DIFFERENTIAL EQUATIONS
• MATH 1318 - INTRODUCTION TO ANALYSIS
• MATH 1452 - CAPSTONE: MATHEMATICS
• EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
• EDUC 0204 - INTRODUCTION TO EDUCATION
• EDUC 0215 - ENGLISH LANGUAGE LEARNERS
• EDUC 0220 - SPECIAL EDUCATION LAW
• EDUC 0235 - INSTRUCTIONAL DESIGN
• EDUC 0275 - ADOLESCENT LITERATURE
• EDUC 1307 - SECONDARY METHODS
• EDUC 1325 - DEVELOP OF EXCEPTIONAL CHILDREN
• EDUC 1330 - EDUCATING EXCEPTIONAL CHILDREN
• EDUC 1334 - LITERACIES ACROSS MIDL/SEC CURR
• EDUC 1345 - EDUCATIONAL THEORIES PRACTICES
• EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT
• EDUC 1481 - STUDENT TEACHING

General Education Program Requirements and Requirements-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

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Social Studies Education (7-12), BS

Degree Requirements

Course Requirements in the Major

All courses in the major must be completed with a C- or higher and a 3.0 grade point average must be maintained, in the major and overall. Students must complete all prescribed courses for the Social Studies Education Degree.

All social studies education majors must complete the following education courses:

• EDUC 0204 - INTRODUCTION TO EDUCATION
• EDUC 0215 - ENGLISH LANGUAGE LEARNERS
• EDUC 0220 - SPECIAL EDUCATION LAW
• EDUC 0235 - INSTRUCTIONAL DESIGN
• EDUC 0275 - ADOLESCENT LITERATURE
• EDUC 1301 - INSTRUCTIONAL TECHNOLOGY
• EDUC 1307 - SECONDARY METHODS
• EDUC 1325 - DEVELOP OF EXCEPTIONAL CHILDREN
• EDUC 1330 - EDUCATING EXCEPTIONAL CHILDREN
• EDUC 1334 - LITRCIES ACROSS MIDL/SEC CURR
• EDUC 1345 - EDUCATIONAL THEORIES PRACTICES
• EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT
• EDUC 1481 - STUDENT TEACHING

All social studies education majors must complete the following core content courses.

Twelve credits within the major must be international or cross-cultural in nature.

• HIST 0106 - US HISTORY 1
• HIST 0107 - US HISTORY 2

Two courses from the following list:

• HIST 0103 - EUROPE IN THE 18TH CENTURY
• HIST 0104 - EUROPE IN THE 19TH CENTURY
• HIST 0105 - EUROPE IN THE 20TH CENTURY
• HIST 0108 - MEDIEVAL EUROPE
• HIST 0109 - RENAISSANCE/REFORMATION EUROPE
• PS course in American Government & Politics - 3 Credits
• PS course in Comparative Government & Politics - 3 Credits
• PS course in International Politics - 3 Credits
• PS course in Political Theory - 3 Credits
• HIST 1449 - CAPSTONE 1: RESEARCH METHODS or
• PS 1449 - CAPSTONE 1: RESEARCH METHODS
• HIST 1451 - CAPSTONE 2: HISTORY or
• PS 1451 - CAPSTONE 2: POLITICAL SCIENCE

Required Electives

• Upper-level History elective - 3 Credits
• Upper-level Political Science elective - 3 Credits
• MATH (Second college-level math class required.) - 3-4 Credits

Collateral Areas

24 credits with at least one course in each area

• Anthropology (ANTH) - 3 Credits
• Geography (GEOG) - 3 Credits
• Economics (ECON) - 3 Credits
• Psychology ( PSY 0101 - INTRODUCTION TO PSYCHOLOGY )
• Sociology (SOC) - 3 Credits
• Two upper-level required collateral electives (Choose from ANTH, ECON, GEOG, PSY, and SOC) - 6 Credits
Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Sport and Recreation Management, BS

Contact: Professor Keary Rouff

Degree Requirements

Students may earn a major in sport and recreation management by completing the following requirements:

Course Requirements in the Major

- HPRED 0202 - PSYCHOLOGY OF SPORT
- HPRED 0210 - THE GOVERNANCE & MGMT OF SPORT
- HPRED 1301 - SPORTS MARKETING
- HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT
- HPRED 1401 - LEGAL LIABILITY IN SPORTS
- HPRED 1407 - FACILITY AND EVENT MANAGEMENT
- HPRED 1425 - SPORT ECONOMICS AND FINANCE
- HPRED 1452 - CAPSTONE: SPRT & RECREATN MGMT
- HPRED 1496 - FIELDWORK IN SPRT & REC MGMT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- MGMT 1304 - BUSINESS LAW
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- MRKT 1301 - PRINCIPLES OF MARKETING
- PR 0101 - INTRODCTN TO PUBLIC RELATIONS
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- SOC 0202 - SOCIOLOGY OF SPORT

- SOC 1301 - THE FAMILY or
- MGMT 1301 - ORGANIZATIONAL BEHAVIOR
Students must receive a C- or better in all above core courses.

Total credits required for the major: 66

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- FS 0102 - FRESHMAN SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0098 - COLLEGE ALGEBRA 2
- HPRED 0102 - INTRO TO EXERCISE SCIENCE
- PR 0101 - INTRODCTN TO PUBLIC RELATIONS
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ENG 0102 - ENGLISH COMPOSITION 2
- MIS 0208 - BUSINESS INFORMATION SYSTEMS

Second Year

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- General Education: Art elective
- General Education: Literature elective
- General Education: History elective
- General Education: Physical Education elective
- SOC 0202 - SOCIOLOGY OF SPORT
- HPRED 0202 - PSYCHOLOGY OF SPORT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- General Education: Science-(4 Credits including lab)
- General Education: Nonwestern-Anthropology

Third Year

- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
• MRKT 1301 - PRINCIPLES OF MARKETING
• MGMT 1304 - BUSINESS LAW
• Elective - 3 Credits
• General Education: Culture
• HPRED 1407 - FACILITY AND EVENT MANAGEMENT
• HPRED 1425 - SPORT ECONOMICS AND FINANCE
• MGMT 1310 - Organizational Behavior
• General Education: Science elective - 3 Credits
• Elective - 3 Credits

Fourth Year

• HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT
• HPRED 1307 - PRIN ETHICS & PRACT IN COACHING
• HPRED 1401 - LEGAL LIABILITY IN SPORTS
• General Education: Science elective - 3 Credits
• Elective - 3 Credits
• HPRED 1452 - CAPSTONE: SPRT & RECREATN MGMT
• HPRED 1496 - FIELDWORK IN SPORT & REC MGMT
• General Education: Art elective
• Elective - 3 Credits
• Elective * - 1-3 Credits

Minor

Accounting Minor

Contact: Professor Ernest Kallenbach, Program Director

Minor Requirements

A minor in accounting may be earned by completing the following requirements:

• ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
• ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
• ACCT 1301 - INTERMEDIATE ACCOUNTING 1
• ACCT 1302 - INTERMEDIATE ACCOUNTING 2
• ACCT 1303 - STRATEGIC COST MANAGEMENT
• ACCT 1304 - FEDERAL INCOME TAXES

Total credits required for the minor: 18

*required for the business management major

Please be advised

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licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Application Software Development Minor**

**Minor Requirements**

For the Application Software Development minor, students must complete 18 credits from the following:

- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0163 - INTRO TO WEB PROGRAMMING
- CIST 0265 - OBJECT ORIENTED PROGRAMMING

Choose at least 3 from the following:

- CIST 1301 - ADVANCED WEB DEVELOPMENT
- EST 1301 - SENSORS AND AUTOMATION
- CIST 1307 - DATABASE DESIGN & MANAGEMENT
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN
- CIST 1415 - DATA ANALYTICS
- CIST 1421 - MOBILE APPLICATION PROGRAMMING
- CIST 1422 - GAME DESIGN AND PROGRAMMING
- CIST 1320 - USER INTERFACE DESIGN

**Total Credits: 18**

**Athletic Coaching Minor**

**Contact:** Professor Keary Rouff

**Minor Requirements**

Students may earn a minor in athletic coaching by completing the following requirements:

- HPRED 0101 - INTRO TO ATHLETIC TRAINING
- HPRED 0202 - PSYCHOLOGY OF SPORT
- HPRED 0180 - SPORT SAFETY TRAINING
- HPRED 1307 - PRIN ETHICS & PRACT IN COACHING
- HPRED 1308 - COACHING PRACTICUM
- HPRED 1401 - LEGAL LIABILITY IN SPORTS

**Total Credits: 15-17**

**Note:**

*Students majoring in either sport and recreation management or sports medicine must take the following additional courses to earn a minor in athletic coaching:*
Please be advised

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Business Minor

Minor Requirements

Students who major in a discipline other than business management may earn a minor in business management by completing the following requirements:

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- FIN 1301 - CORPORATE FINANCE
- MRKT 1301 - PRINCIPLES OF MARKETING
- MGMT 1401 - BUSINESS SOCIETY & INT'L ENVIRONMENT

Total Credits: 21

Please be advised

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Cybersecurity and Digital Forensics Minor

Minor Requirements

For the Cybersecurity and Digital Forensics minor, students must complete 18 credits from the following:

- CIST 0165 - NETWORKING 1
- CIST 0166 - NETWORKING 2
- CIST 0261 - COMPUTER SECURITY

Choose at least 3 from the following:
Economics Minor

Contact: Professor Gautam Mukerjee, Program Director

Minor Requirements

A minor in economics can be earned by completing the following requirements:

- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ECON 0201 - MONEY AND BANKING
- ECON 0204 - STATISTICAL METHODS
- Choose any upper-level economics (ECON) elective - 3 Credits

Total Credits: 16

Please be advised

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Education Minor

Minor Requirements

A nonteaching education minor that will not result in certification may be earned by completing the following requirements:

- EDUC 0204 - INTRODUCTION TO EDUCATION
- EDUC 0230 - FAMILY & COMMUNITY RELTNSHPS
- EDUC 0255 - READINGS IN CHILDREN'S LITERTR or EDUC 0275 - ADOLESCENT LITERATURE
- EDUC 1325 - DEVELP OF EXCEPTIONAL CHILDREN
- EDUC 1350 - EDUCATNAL PSYCH & MEASUREMENT

Choose one course from the following:
• ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
• SOC 0201 - SOCIOLOGY OF GENDER
• SOC 0204 - SOCIOLOGY OF DEVIANCE
• SOC 1301 - THE FAMILY
• SOC 1306 - WORK AND SOCIETY
• PSY 0202 - CHILD DEVELOPMENT
• PSY 0206 - ABNORMAL PSYCHOLOGY

Total Credits: 18

_Students seeking the education minor must have an education advisor._

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**Finance Minor**

**Minor Requirements**

*required for the major

• FIN 1301 - CORPORATE FINANCE *

Four of the following courses:

• ACCT 1304 - FEDERAL INCOME TAXES
• FIN 1302 - INVESTMENTS
• FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS
• FIN 1304 - FINANCIAL MARKETS & INSTITUTIONS
• FIN 1401 - INTERNATIONAL FINANCE

Please be advised

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**International Business Minor**

**Minor Requirements**
A minor in international business can be earned by completing the following:

- GEOG 0101 - WORLD REGIONAL GEOGRAPHY
- MGMT 1305 - INTERNATIONAL MANAGEMENT
- MGMT 1449 - ECONOMIC SYSTEMS
- FIN 1401 - INTERNATIONAL FINANCE
- MRKT 1420 - INTERNATIONAL MARKETING

Note:

Second language proficiency through and including the intermediate level (or the equivalent) 0-9 credits.

A study abroad experience of at least four weeks in length. Information about the study abroad program can be obtained from either the Director of the Study Abroad Program or the Office of Academic Affairs.

Please be advised

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Management Information Systems Minor

Minor Requirements

A minor in management information systems (MIS) can be earned by completing the following 21 credits:

- MIS 0208 - BUSINESS INFORMATION SYSTEMS
- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- CIST 0163 - INTRO TO WEB PROGRAMMING
- CIST 0165 - NETWORKING I
- CIST 0209 - INTRODUCTION TO WEB DATABASES
- CIST 1310 - SYSTEMS ANALYSIS AND DESIGN

Plus one approved elective:

- CIST 1311 - ELECTRONIC COMMERCE
- CIST 1325 - INTRO TO SUPPLY CHAIN MGMT
- CIST 1408 - PROJECT MGMT IN INFOR TECHN

Please be advised

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Marketing Minor

For the marketing concentration, business management majors must complete 15 credits from the following selection of courses, in addition to those credits required for the major.

Minor Requirements

* required for the major

- MRKT 1301 - PRINCIPLES OF MARKETING *
- MRKT 1410 - MARKETING RESEARCH

Three of the following:

- MRKT 1302 - ADVERTISING AND PROMOTION
- MRKT 1303 - SELLING AND SALES MANAGEMENT
- MRKT 1304 - DIRECT MARKETING
- MRKT 1405 - MARKETING MANAGEMENT
- MRKT 1415 - CONSUMER BEHAVIOR
- MRKT 1420 - INTERNATIONAL MARKETING
- HPRED 1301 - SPORTS MARKETING
- ENTR 1302 - MARKETING THE NEW VENTURE
- HMGT 1370 - HOSPITALITY & TOURISM MARKETING
- COMM 1302 - MEDIA ADVERTISING

Please be advised

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Philosophy Minor

Contact: Professor David Schummer

Philosophy deals with the questions raised by people as they attempt to understand life and the world in which they live. The philosophy courses at Pitt-Bradford explore ways of thinking about such questions using the writings of philosophers, past and present, as guides and challenges. Philosophy examines methods of logical argumentation and critical thinking, particularly as they apply to moral issues and to ultimate issues such as the meaning of life and the reality of God.

Minor Requirements

A minor in philosophy may be earned by completing the following requirements:

- PHIL 0101 - INTRODUCTION TO PHILOSOPHY or
- PHIL 0110 - ETHICS

- Four additional courses in philosophy, at least one of which must be at the 1300 level or above - 12 Credits

Total Credits: 15

Please be advised

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Recreation Administration Minor

Contact: Professor Keary Rouff

Minor Requirements

Students may earn a minor in recreation administration by completing the following requirements:

- MGMT 0110 - PRINCIPLES OF MANAGEMENT
- HPRED 0202 - PSYCHOLOGY OF SPORT
- HPRED 0210 - THE GOVERNANCE & MGMT OF SPORT
- HPRED 1401 - LEGAL LIABILITY IN SPORTS

Two of the following specializations:

- MRKT 1301 - PRINCIPLES OF MARKETING
- HPRED 1301 - SPORTS MARKETING
- MGMT 1320 - HUMAN RESOURCES MANAGEMENT
- MGMT 1345 - LDRS/GOV/MGMT NONPROFIT ORG
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- FIN 1301 - CORPORATE FINANCE

Total Credits: 18

Note: Sport and recreation management majors may not minor in recreation administration.

Please be advised

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Systems and Network Administration Minor

Minor Requirements

For the Systems and Network Administration minor, students must complete 18 credits from the following:

- CIST 0165 - NETWORKING 1
- CIST 0166 - NETWORKING 2
- CIST 0261 - COMPUTER SECURITY
- CIST 0262 - SYSTEMS ADMINISTRATION

Choose at least 2 from the following:

- CIST 1341 - LINUX OPERATING SYSTEM
- CIST 1342 - HOST SCRIPTING
- CIST 1344 - VISUALIZATION & CLOUD TECHNOLOGY
- CIST 1327 - INTRUSION DETECTION AND RESPONSE
- CIST 1328 - NETWORK SECURITY & CRYPTOGRAPHY
- CIST 1443 - NETWORK & SYSTEM ADMINISTRATION PRACTICUM

Total Credits: 18
The Division of Physical and Computational Sciences

Major

Applied Mathematics, BS

Contact: Marius Buliga, Program Director

Mathematics includes the study of probability and statistics, modeling, computer simulation languages, and methods of application. Mathematics provides an excellent foundation for other fields of study ranging from the sciences and technology to business and law. The combination of mathematics, physics, and computer science creates opportunities for employment and also prepares students for graduate study. Applied Mathematics majors can simultaneously earn a degree in Mathematics Education by taking some education courses.

Degree Requirements

Course Requirements in the Major

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- MATH 1303 - MATHEMATICAL MODELING
- MATH 1312 - ABSTRACT ALGEBRA & NUMBER THEORY
- MATH 1309 - APPLIED PROBABILITY AND STATISTICS
- MATH 1318 - INTRODUCTION TO ANALYSIS
- MATH 1452 - CAPSTONE: MATHEMATICS
- MATH 0135 - DISCRETE MATHEMATICS
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1

Credits: 43

Other required courses:

- ENGR 0016 - INT TO ENGINEERING COMPUTING
- MATH 1320 - OPERATIONS RESEARCH

Credits: 6

Total credits required for the major: 49

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)
Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- FS 0102 - FRESHMAN SEMINAR
- General education or elective courses - 11 Credits
- MATH 0135 - DISCRETE MATHEMATICS

Credits: 32

Second Year

- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- MATH 1318 - INTRODUCTION TO ANALYSIS

Credits: 29

Third Year

- MATH 1303 - MATHEMATICAL MODELING
- MATH 1309 - APPLIED PROBABILITY AND STATISTICS
- General education or elective courses - 18 Credits

Credits: 28

Fourth Year

- MATH 1452 - CAPSTONE: MATHEMATICS
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- ENGR 0016 - INT TO ENGINEERING COMPUTING

Credits: 30
Actuarial Science Concentration

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- MATH 1308 - NUMERICAL ANALYSIS
- MATH 1309 - APPLIED PROBABILITY AND STATISTICS
- MATH 1315 - ADVANCED DIFFERENTIAL EQUATIONS
- MATH 1318 - INTRODUCTION TO ANALYSIS
- MATH 1452 - CAPSTONE: MATHEMATICS
- MATH 1455 - WRITINGS IN HIST OF MATHEMTC
- ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
- ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- ECON 0103 - INTRODUCTION TO MACROECONOMICS

Credits: 50

Note: Seniors will be required to take one of the first two actuarial exams in their senior year.

Although not required, it is suggested that students in actuarial science take as many of the following courses as possible:

- ECON 0204 - STATISTICAL METHODS
- ECON 0206 - INTERMEDIATE MICROECONOMICS
- ECON 0207 - INTERMEDIATE MACROECONOMICS
- ECON 0208 - Mathematical Economics - 3 Credits
- ECON 1304 - ECONOMETRICS & BUS FORECASTING
- FIN 1301 - CORPORATE FINANCE

Physics Concentration

Core Requirements in Mathematics

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- MATH 1303 - MATHEMATICAL MODELING
- MATH 1305 - PARTIAL DIFFERENTIAL EQUATIONS & FOURIER SERIES or
- MATH 1315 - ADVANCED DIFFERENTIAL EQUATIONS
- MATH 1307 - COMPLEX VARIABLES FOR SCIENCE AND ENGINEERING or
- MATH 1309 - APPLIED PROBABILITY AND STATISTICS
- MATH 1308 - NUMERICAL ANALYSIS or
- MATH 1325 - COMPUTR APPLCTNS MATHMTCL PHYS
- MATH 1315 - Advanced Differential Equations - 3 Credits
- MATH 1452 - CAPSTONE: MATHEMATICS
- MATH 1455 - WRITINGS IN HIST OF MATHEMTC

Credits: 37

Core Requirements in Physics

- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- PHYS 1301 - INTRO TO EXPERIMENTAL PHYSICS

Select two courses from the following:

- PHYS 1302 - MODERN PHYSICS, ATOMS & NUCLEI
- PHYS 1304 - ELECTROMAGNETIC THEORY
- PHYS 1306 - OPTICS

Credits: 18

Computer Science Requirements

- ENGR 0016 - INT TO ENGINEERING COMPUTING

Total credits required for the major: 59

Chemical and Petroleum Engineering, BS

Engineering

Contact: Professor Ronald Mattis, Program Director

Degree Requirements

The bachelor of science degree in engineering is completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and completing the degree at the Swanson School of Engineering in Pittsburgh.

An entering freshman must meet one of the following requirements to be admitted directly to the engineering program at Pitt-Bradford.

1. SAT Math score of 500 or better, or
2. SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in engineering but do not meet either of the above requirements, an one-year pre-engineering program is required consisting of the following:

Fall
- FS 0102 - FRESHMAN SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- CHEM 0101 - GENERAL CHEMISTRY 1 (or CHEM 0090)

Total: 12-13 credits

Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1

- CHEM 0101 - GENERAL CHEMISTRY 1 or
- CHEM 0102 - GENERAL CHEMISTRY 2

- A humanities elective
- A social sciences elective

Total: 17 credits

Note:

Progression to the engineering program is dependent upon successful completion of above coursework with a minimum GPA of 3.00.

Students must complete a minimum of 34 credits at Pitt-Bradford with a cumulative grade point average of 3.00 or higher before they are permitted to apply for relocation to the baccalaureate degree program at the Swanson School of Engineering in Pittsburgh. The first year of study is common to all engineering majors. Students pursuing bioengineering must relocate to the Swanson School of Engineering after completing 34 credits with a GPA of 3.50 or better. Students pursuing industrial engineering must relocate to the Swanson School of Engineering after completing 36 credits with a GPA of 3.00 or better. Mechanical and Electrical Engineering students must complete 2 years with a GPA of 3.00 or higher.

Students who have a verbal SAT score below 500 are required to complete ENG 0101, English Composition I and may be placed in ENG 0100 if their score is lower than 440. Students who have a math SAT score below 500 are required to take the following courses:

First Year

- ENGR 0015 - INTRODUCTION ENGINEERING ANAL
- ENGR 0016 - INT TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- Humanities or social science elective course - 6 Credits

Credits: 36

The second year of study
The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

**Second Year**

- CHE 0035 - INTRODUCTRY CHEMCL ENGINEERING
- CHE 0036 - CHEMCL ENGRNG THERMODYNAMICS 1
- CHE 1008 - INTRODCTN TO STAGED SEPARTEIS
- ENGR 0135 - STATICS & MECHC OF MATERIALS 1
- ENGR 0085 - ENGINEERING SEMINAR
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 3 Credits

**Credits: 34**

**Please be advised**

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Chemistry, BS**

Contacts: Professor Francis Mulcahy, Program Director

The Bachelor of Science degree in chemistry is an excellent preparation for careers in industry and government and for graduate study. Chemistry majors have the opportunity to become directly involved in research as part of their undergraduate studies.

**Degree Requirements**

**Course Requirements in the Major**

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0201 - INTRO TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- CHEM 1301 - PHYSICAL CHEMISTRY 1
- CHEM 1302 - PHYSICAL CHEMISTRY 2
- CHEM 1305 - ANALYTICAL INSTRUMENTATION
CHEM 1451 - CAPSTONE: CHEMISTRY
Chemistry upper-level electives - 6-8 Credits

Credits: 42-43

Other required courses:

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

Credits: 22

Total credits required for the major: 64-65

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Suggested Course of Study

First Year

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- General education or elective courses - 9 Credits

Credits: 31

Second Year

- CHEM 0201 - INTRO TO ANALYTICAL CHEMISTRY
The bachelor of science degree in engineering is completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and completing the degree at the Swanson School of Engineering in Pittsburgh.

An entering freshman must meet one of the following requirements to be admitted directly to the engineering program at Pitt-Bradford.

1. SAT Math score of 500 or better, or
2. SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in engineering but do not meet either of the above requirements, an one-year pre-engineering program is required consisting of the following:

Fall
- FS 0102 - FRESHMAN SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- CHEM 0101 - GENERAL CHEMISTRY 1 (or CHEM 0090)

Total: 12-13 credits

Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1

- CHEM 0101 - GENERAL CHEMISTRY 1 or
- CHEM 0102 - GENERAL CHEMISTRY 2

- A humanities elective
- A social sciences elective

Total: 17 credits

Note:

Progression to the engineering program is dependent upon successful completion of above coursework with a minimum GPA of 3.00.

Students must complete a minimum of 34 credits at Pitt-Bradford with a cumulative grade point average of 3.00 or higher before they are permitted to apply for relocation to the baccalaureate degree program at the Swanson School of Engineering in Pittsburgh. The first year of study is common to all engineering majors. Students pursuing bioengineering must relocate to the Swanson School of Engineering after completing 34 credits with a GPA of 3.50 or better. Students pursuing industrial engineering must relocate to the Swanson School of Engineering after completing 36 credits with a GPA of 3.00 or better. Mechanical and Electrical Engineering students must complete 2 years with a GPA of 3.00 or higher.

Students who have a verbal SAT score below 500 are required to complete ENG 0101, English Composition I and may be placed in ENG 0100 if their score is lower than 440. Students who have a math SAT score below 500 are required to take the following courses:

First Year

- ENGR 0015 - INTRODUCTION ENGINEERING ANAL
- ENGR 0016 - INT TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- Humanities or social science elective course - 6 Credits

Credits: 36

The second year of study
The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

**Second Year**

- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ECE 0041 - LINEAR CIRCUITS AND SYSTEMS 2
- ECE 0132 - DIGITAL LOGIC
- ECE 0142 - COMPUTER ORGANIZATION
- ECE 0257 - ANAL & DESIGN ELECTRONIC CIRCT
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 9 Credits

Credits: 34

**Please be advised**

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Energy Science and Technology, BS**

Contact: Matt Kropf, Program Director

This program is designed to provide an introductory level education of multi-disciplinary engineering skills through the broad requirement of physics, calculus, and engineering analysis courses. In addition to these core math and science competencies, the first two years of the program introduces the students to a variety of energy related industries. With this combinations, students are then encouraged to begin specialization through approved upper-level electives. Specifically, students can focus on energy use in buildings, alternative energy production, petroleum technology, nuclear energy, or energy and the environment. This organization helps students to translate to applied skills, making them more marketable in the job market. Finally, a curricular emphasis on sensors and controls will be placed through an upper level course requirement and capstone project.

**Degree Requirements**

**Course Requirements in the Major**

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- ES 0112 - INTRO TO ENRGY SCIENCE & TECHN
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS
- GEOL 0101 - PHYSICAL GEOLOGY
- ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
Complete two of the following:

- PS 0102 - AMERICAN POLITICAL PROCESS
- PS 0209 Environmental Politics - 3 Credits
- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES

Complete one of the following:

- PS 1319 - POL PARTIES & INTEREST GROUPS
- PHIL 1445 - ENVIRONMENTAL ETHICS

Electives - 12 Credits

Students are encouraged to begin specialization in a selected area of Energy. Accordingly the degree requires at least 12 credits of approved electives, including 6 upper level credits, in a selected area of concentration, which includes, but is not limited to, petroleum technology, chemistry, biology, and environmental science.

Total Credits: 36

General Education Program Requirements and Electives-Variable

(See General Education Program and General Requirements for the Bachelor's Degree under Academic Policies and Guidelines for further details.)

Suggested Course of Study

First Year, 1st Term

- ENG 0101 - ENGLISH COMPOSITION 1
- FS 0102 - FRESHMAN SEMINAR
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- MATH 0140 - CALCULUS 1

Total Credits Per Term: 14

First Year, 2nd Term

- ENG 0102 - ENGLISH COMPOSITION 2
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- MATH 0150 - CALCULUS 2
- ES 0112 - INTRO TO ENRGY SCIENCE & TECHN
- Physical Education Elective - 1 Credit

Total Credits Per Term: 15

Second Year, 1st Term

- ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
- CHEM 0101 - GENERAL CHEMISTRY 1
- PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS
- General Education Elective - 3 Credits
- GEOL 0101 - PHYSICAL GEOLOGY

Total Credits Per Term: 17

Second Year, 2nd Term

- CHE 0036 - CHEMCL ENGRNG THERMODYNAMICS 1
- ENGR 0051 - 3 Credits

- ENGR 0135 - STATICS & MECHC OF MATERIALS 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- General Education Elective - 3 Credits
- General Education Elective - 3 Credits

Total Credits Per Term: 16

Third Year, 1st Term

- ECON 0102 - INTRODUCTION TO MICROECONOMICS

- ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES or
- PS 0102 - AMERICAN POLITICAL PROCESS or
- PS 209

- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- General Education Elective - 3 Credits

Total Credits Per Term: 15

Third Year, 2nd Term

- Concentration Elective - 3 Credits
- ECON 1307 - ECONMCS OF ENERGY & ENVIRONMNT

- PHIL 1445 - ENVIRONMENTAL ETHICS or
- PS 1319 - POL PARTIES & INTEREST GROUPS

- General Education Elective - 3 Credits
- General Education Elective - 3 Credits

Total Credits Per Term: 15

Fourth Year, 1st Term

- Concentration Elective - 3 Credits
- Upper Level Concentration Elective - 3 Credits
- EST 1301 - SENSORS AND AUTOMATION
- General Education Elective - 3 Credits
- General Education Elective - 3 Credits

Total Credits Per Term: 16

Fourth Year, 2nd Term

- Upper Level Concentration Elective - 3 Credits
- EST 1451 - CAPSTONE: ENERGY TECHNOLOGY
- General Education Elective - 3 Credits
- General Education Elective - 3 Credits
- General Education Elective - 3 Credits

Total Credits Per Term: 15

Please be advised

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Engineering Science, AS

Contact: Professor Ronald Mattis, Program Director

The Associate of Science Degree in Engineering Science supports The University of Pittsburgh at Bradford's mission to addresses regional needs, especially those involving the rural communities within its immediate region. Engineering and technology skills are among the most sought after and have consistently been demonstrated to be in high demand.

Graduates of this two-year program will be prepared to enter most four-year engineering programs at the junior level. This new major will also provide students with an opportunity to certify their completion of the core "freshman-sophomore" engineering curriculum including courses in mathematics, physics, chemistry and various engineering courses.

Degree Requirements

Course Requirements in the Major

- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- GE: Arts & Letters elective - 3 Credits
- GE: Behavioral, Economics, & Political Sciences - 3 Credits
- GE: History, Cultures, & Philosophical Inquiry - 3 Credits
- Additional GE elective - 3 Credits
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 0201 - CALCULUS 3 or
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- ENGR 0015 - INTRODUCTION ENGINEERING ANAL
- ENGR 0016 - INT TO ENGINEERING COMPUTING
- ENGR 0131 - STATICS FOR CIVIL & ENVRL ENGR or
- ENGR 0135 - STATICS & MECHC OF MATERIALS 1
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
- ENGR electives - 6 Credits

Total Credits required for the major: 65

Please be advised

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

Engineering, BS

Contact: Professor Ronald Mattis, Program Director

Degree Requirements

The bachelor of science degree in engineering is completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and completing the degree at the Swanson School of Engineering in Pittsburgh.

An entering freshman must meet one of the following requirements to be admitted directly to the engineering program at Pitt-Bradford.

1. SAT Math score of 500 or better, or
2. SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in engineering but do not meet either of the above requirements, an one-year pre-engineering program is required consisting of the following:
Progression to the engineering program is dependent upon successful completion of above coursework with a minimum GPA of 3.00.

Students must complete a minimum of 34 credits at Pitt-Bradford with a cumulative grade point average of 3.00 or higher before they are permitted to apply for relocation to the baccalaureate degree program at the Swanson School of Engineering in Pittsburgh. The first year of study is common to all engineering majors. Students pursuing bioengineering must relocate to the Swanson School of Engineering after completing 34 credits with a GPA of 3.50 or better. Students pursuing industrial engineering must relocate to the Swanson School of Engineering after completing 36 credits with a GPA of 3.00 or better. Mechanical and Electrical Engineering students must complete 2 years with a GPA of 3.00 or higher.

Students who have a verbal SAT score below 500 are required to complete ENG 0101 - ENGLISH COMPOSITION 1 and may be placed in ENG 0100 - INTRO TO COLLEGE COMPOSITION if their score is lower than 440. Students who have a math SAT score below 500 are required to take the following courses:

**First Year**

36 credits

- ENGR 0015 - INTRODUCTION ENGINEERING ANAL
- ENGR 0016 - INT TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
Humanities or social science elective course - 6 credits

Second Year

The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

Chemical and Petroleum Engineering

34 credits

- CHE 0035 - INTRODUCTRY CHEMCL ENGINEERING
- CHE 0036 - CHEMCL ENGRNG THERMODYNAMICS 1
- CHE 1008 - INTRODCTN TO STAGED SEPARTNS
- ENGR 0135 - STATIC & MECH OF MATERIALS 1
- ENGR 0085 - ENGINEERING SEMINAR
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 3 credits

Civil Engineering

31 credits

- CE 0109 - COMPUTER METH IN CIVIL ENGRG 1
- ENGR 0022 - MATERLS STRUCTURE & PROPERTIES
- ENGR 0131 - STATIC FOR CIVL & ENVRL ENGNR
- ENGR 0141 - MECH OF MATLS CVL & ENV ENGR
- ENGR 0085 - ENGINEERING SEMINAR
- ECON 0102 - INTRODUCTION TO MICROECONOMICS
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 6 credits

Electrical Engineering

34 credits

- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ECE 0041 - LINEAR CIRCUITS AND SYSTEMS 2
- ECE 0132 - DIGITAL LOGIC
- ECE 0142 - COMPUTER ORGANIZATION
- ECE 0257 - ANAL & DESIGN ELECTRONIC CIRCT
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 9 credits

Computer Engineering

33 credits

- CIST 0150 - FUNDAMENTALS OF PROGRAMMING
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ECE 0041 - LINEAR CIRCUITS AND SYSTEMS 2
- ECE 0132 - DIGITAL LOGIC
- ECE 0142 - COMPUTER ORGANIZATION
- ECE 0257 - ANAL & DESIGN ELECTRONIC CIRCT
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective courses - 9 credits

Mechanical Engineering

34 credits

- ME 0024 - INTRO TO MECHANCL ENGRG DESGN
- MEMS 0051 - INTRODUCTION TO THERMODYNAMICS
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ENGR 0022 - MATERLS STRUCTURE & PROPERTIES
- ENGR 0135 - STATICS & MECHC OF MATERIALS 1
- ENGR 0145 - STATICS & MECHC OF MATERIALS 2
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective course - 6 credits

Note

Please be advised that some programs or courses of study require that students complete rotations, fieldwork, internships/externships and/or teaching assignments at facilities external to the university, while other programs or courses of study may offer voluntary internships or externships at facilities external to the university. Depending on the program or course, such facilities will or may require a criminal background check, an act 33/34 clearance (if applicable), and perhaps a drug screen to determine participant qualification or eligibility. Additionally, in order to become licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Mechanical Engineering, BS**

Engineering

Contact: Professor Ronald Mattis, Program Director

Degree Requirements
The bachelor of science degree in engineering is completed by starting at the Bradford campus, successfully completing the prerequisites to the junior year, and completing the degree at the Swanson School of Engineering in Pittsburgh.

An entering freshman must meet one of the following requirements to be admitted directly to the engineering program at Pitt-Bradford.

1. SAT Math score of 500 or better, or
2. SAT Math score of 450 or better and high school GPA of 3.25 or better.

For those students who want to major in engineering but do not meet either of the above requirements, an one-year pre-engineering program is required consisting of the following:

Fall

- FS 0102 - FRESHMAN SEMINAR
- ENG 0101 - ENGLISH COMPOSITION 1
- MATH 0132 - PRECALCULUS
- CHEM 0101 - GENERAL CHEMISTRY 1 (or CHEM 0090)

Total: 12-13 credits

Spring

- ENG 0102 - ENGLISH COMPOSITION 2
- MATH 0140 - CALCULUS 1
- CHEM 0101 - GENERAL CHEMISTRY 1 or
- CHEM 0102 - GENERAL CHEMISTRY 2
- A humanities elective
- A social sciences elective

Total: 17 credits

Note:

Progression to the engineering program is dependent upon successful completion of above coursework with a minimum GPA of 3.00.

Students must complete a minimum of 34 credits at Pitt-Bradford with a cumulative grade point average of 3.00 or higher before they are permitted to apply for relocation to the baccalaureate degree program at the Swanson School of Engineering in Pittsburgh. The first year of study is common to all engineering majors. Students pursuing bioengineering must relocate to the Swanson School of Engineering after completing 34 credits with a GPA of 3.50 or better. Students pursuing industrial engineering must relocate to the Swanson School of Engineering after completing 36 credits with a GPA of 3.00 or better. Mechanical and Electrical Engineering students must complete 2 years with a GPA of 3.00 or higher.

Students who have a verbal SAT score below 500 are required to complete ENG 0101, English Composition I and may be placed in ENG 0100 if their score is lower than 440. Students who have a math SAT score below 500 are required to take the following courses:

First Year

- ENGR 0015 - INTRODUCTION ENGINEERING ANAL
- ENGR 0016 - INT TO ENGINEERING COMPUTING
- ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
- ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- Humanities or social science elective course - 6 Credits

Credits: 36

The second year of study

The second year of study initiates course work in a specific engineering major. Following are the outlines of courses for:

Second Year

- ME 0024 - INTRO TO MECHANICAL ENGRG DESGN
- MEMS 0051 - INTRODUCTION TO THERMODYNAMICS
- ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
- ENGR 0022 - MATERIALS STRUCTURE & PROPERTIES
- ENGR 0135 - STATICS & MECHANICS OF MATERIALS 1
- ENGR 0145 - STATICS & MECHANICS OF MATERIALS 2
- ENGR 0085 - ENGINEERING SEMINAR
- MATH 0201 - CALCULUS 3
- MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
- MATH 0206 - LINEAR ALGEBRA
- Humanities or social science elective course - 6 Credits

Credits: 34

Please be advised

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Petroleum Technology, AS

Contact: Professor Ovidiu Frantescu, Program Director

The petroleum technology program will train you as a qualified petroleum technologist in the state of Pennsylvania and beyond whether you’re already working in the industry or hope to be. Our newly modified program conforms to national standards and to the personnel needs of the local, regional, and nationwide petroleum industry.

Degree Requirements

- PET 0101 - INTRO TO PETROLEUM INDUSTRY
- PET 0102 - ENVIRONMENT AND SAFETY
- PET 0103 - PETROLEUM GEOLOGY & GEOPHYSICS
PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS
PET 0106 - DRILLING AND COMPLETION 1
PET 0110 - BASIC PRINCIPLES OF WELL CONTROL AND MUDLOGGING
PET 0201 - PETROLEUM & NATURAL GAS CHEM
PET 0203 - NATURAL GAS PROCESSING
PET 0204 - WELL LOG INTERPRETATION
PET 0206 - DRILLING AND COMPLETION 2
PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN
PET 0208 - ENHANCED HYDROCARBON RECOVERY

Other Required Courses

ENG 0101 - ENGLISH COMPOSITION 1
ENG 0102 - ENGLISH COMPOSITION 2

MATH 0110 - FUNDAMENTALS OF MATHEMATICS or
MATH 0132 - PRECALCULUS

CHEM 0101 - GENERAL CHEMISTRY 1
GEOL 0101 - PHYSICAL GEOLOGY
PHYS 0103 - CONCEPTS OF MODERN PHYSICS
PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
The Human Experience - 6 Credits

Choose two courses from the following three areas:
Arts & Letters; Behavioral, Economic and Political Sciences; History, Cultures and Philosophical Inquiry

Total Credits to Graduate: 66 Credits

Suggested Course of Study

First Year, 1st Term

ENG 0101 - ENGLISH COMPOSITION 1
PET 0101 - INTRO TO PETROLEUM INDUSTRY
PET 0102 - ENVIRONMENT AND SAFETY
MATH 0110 - FUNDAMENTALS OF MATHEMATICS
GEOL 0101 - PHYSICAL GEOLOGY

Total Credits Per Term: 16

First Year, 2nd Term

ENG 0102 - ENGLISH COMPOSITION 2
PET 0103 - PETROLEUM GEOLOGY & GEOPHYSICS
PET 0106 - DRILLING AND COMPLETION 1
PHYS 0103 - CONCEPTS OF MODERN PHYSICS
CHEM 0101 - GENERAL CHEMISTRY 1
Total Credits Per Term: 16

Second Year, 1st Term

- PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS
- PET 0206 - DRILLING AND COMPLETION 2
- PET 0201 - PETROLEUM & NATURAL GAS CHEM
- PET 0204 - WELL LOG INTERPRETATION
- PET 0203 - NATURAL GAS PROCESSING
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

Total Credits Per Term: 17

Second Year, 2nd Term

- PET 0110 - BASIC PRINCIPLES OF WELL CONTROL AND MUDLOGGING
- PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN
- PET 0208 - ENHANCED HYDROCARBON RECOVERY
- PET 0209 - INTRODUCTION TO SCADA

Human Experience Electives

Total Credits Per Term: 18

Total Credits Required for Degree: 66

Please be advised

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Physical Sciences, BS

Contact: Professor Hashim Yousif, Program Director

The BS degree in physical sciences develops an understanding of the natural world by the integrated study of biology, chemistry, and computer science/mathematics, in addition to other course requirements. Students must select a concentration option in biology, chemistry, or geology in addition to other course requirements. Students are prepared for employment in technical phases of government and industry, as well as for graduate study in the sciences.

Note: This program is currently undergoing revisions to more accurately reflect industry needs. Students should consult the program director for updated requirements.

Degree Requirements

Course Requirements in the Major
• BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
• BIOL 0102 - INTRODUCTION TO BIODIVERSITY
• CHEM 0101 - GENERAL CHEMISTRY 1
• CHEM 0102 - GENERAL CHEMISTRY 2
• GEOL 0101 - PHYSICAL GEOLGY
• MATH 0140 - CALCULUS 1
• MATH 0150 - CALCULUS 2
• MATH 0201 - CALCULUS 3
• PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
• PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
• PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
• PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
• PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
• PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB

Credits: 40-42

Students majoring in physical sciences are required to complete required courses in one of the following concentrations:

Biology Concentration

• BIOL 0203 - GENETICS
• BIOL 1302 - MICROBIOLOGY
• BIOL 1320 - CELL BIOLOGY
• Biology upper-level electives - 8 Credits
• BIOL 1451 - CAPSTONE: BIOLOGY
• CHEM 0206 - ORGANIC CHEMISTRY 1
• CHEM 0207 - ORGANIC CHEMISTRY 1 LAB

Credits: 28

Chemistry Concentration

• CHEM 0201 - INTRO TO ANALYTICAL CHEMISTRY
• CHEM 0206 - ORGANIC CHEMISTRY 1
• CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
• CHEM 0208 - ORGANIC CHEMISTRY 2
• CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
• CHEM 1301 - PHYSICAL CHEMISTRY 1
• CHEM 1302 - PHYSICAL CHEMISTRY 2
• Chemistry upper-level elective - 3-4 Credits
• CHEM 1451 - CAPSTONE: CHEMISTRY

Credits: 26-27

Total credits required for the major: 74-81
Please be advised

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Suggested Course of Study

Biology Concentration

First Year

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2

Credits: 30

Second Year

- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- BIOL 0201 - Cell Biology - 4 Credits
- GEOL 0101 - PHYSICAL GEOLOGY
- PHYS 0101 - INTRODUCTION TO PHYSICS 1 and
- PHYS 0102 - INTRODUCTION TO PHYSICS 2 or
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1 and
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2 and
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB and
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- MATH 0201 - CALCULUS 3

Credits: 32-34

Third Year
- BIOL 0203 - GENETICS
- BIOL 1302 - MICROBIOLOGY
- BIOL 1320 - CELL BIOLOGY
- Biology electives - 4 Credits
- General education or elective courses - 18 Credits

Credits: 30

Fourth Year

- Biology elective - 4 Credits
- BIOL 1451 - CAPSTONE: BIOLOGY
- General education courses - 9 Credits
- General electives - 10-13 Credits

Credits: 27-30

Chemistry Concentration

First Year

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2

Credits: 30

Second Year

- CHEM 0201 - INTRO TO ANALYTICAL CHEMISTRY
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- GEOL 0101 - PHYSICAL GEOLOGY
- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- MATH 0201 - CALCULUS 3

Credits: 34

Third Year

- Chemistry elective - 3-4 Credits
• General education or elective courses - 24 Credits

Credits: 31-32

Fourth Year

• CHEM 1301 - PHYSICAL CHEMISTRY 1
• CHEM 1302 - PHYSICAL CHEMISTRY 2
• General education courses - 9 Credits
• General electives - 14-16 Credits
• CHEM 1451 - CAPSTONE: CHEMISTRY

Credits: 34-36

Minor

Chemistry Minor

Contacts: Professor Francis Mulcahy, Program Director

Minor Requirements

A minor in chemistry may be earned by completing the following requirements:

• CHEM 0101 - GENERAL CHEMISTRY 1
• CHEM 0102 - GENERAL CHEMISTRY 2
• CHEM 0201 - INTRO TO ANALYTICAL CHEMISTRY
• CHEM 0206 - ORGANIC CHEMISTRY 1
• CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
• CHEM 0208 - ORGANIC CHEMISTRY 2
• CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
• Chemistry upper-level course - 3-4 Credits

Total Credits: 23-24

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Environmental Science Minor

Contact: Professor Assad Panah

Minor Requirements
A minor in environmental science can be earned by completing the following requirements:

- ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0107 - ENVIRONMENTAL GEOLOGY LAB
- PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS

Choose one from the following lab-based courses:

- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0106 - CHEMISTRY OF THE ENVIRONMENT and CHEM 0107 - CHEMISTRY OF THE ENVIRONMENT LAB
- BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOL and BIOL 0119 - ECOLOGY & ENVIRON BIOL LAB
- BIOL 0217 - PRINCPL OF ECOLOGY & EVOLUTION

Elective Courses

(choose one of the following two courses):

- CHEM 1308 - ENVIRONMENTAL CHEMISTRY
- CHEM 0189 - INTRODUCTION TO BIOFUELS

Total Credits: 17-18

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Geology Minor

Contact: Professor Ovidiu Frantescu

Minor Requirements

A student may earn a minor in geology by completing the following requirements:

- GEOL 0101 - PHYSICAL GEOLOGY
- PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS

Three of the following courses:
- GEOL 0250 - SPECIAL TOPICS
- GEOL 1320 - ADVANCED GIS
- PET 0103 - PETROLEUM GEOLOGY & GEOPHYSICS
- PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN
- ES 0105 - ENVIRONMENTAL GEOLOGY
- ES 0106 - INTRO TO OCEANOGRAPHY

Total Credits: 16

**Mathematics Minor**

Contact: Marius Buliga, Program Director

**Minor Requirements**

A minor in mathematics may be earned by completing the following requirements:

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- Three mathematics electives (courses must be 0200 level or above, and one must be upper-level) - 9-12 Credits

Total Credits: 17-20

Students seeking secondary teacher certification in mathematics should meet with the director of teacher education each semester to plan out their course of study. Please refer to the section on Education Programs for further details.

**Please be advised**

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**Mathematics Modeling Minor**

Contact: Marius Buliga, Program Director

**Minor Requirements**

A minor in math modeling may be earned by completing the following course requirements:

- MATH 0140 - CALCULUS 1
- MATH 0150 - CALCULUS 2
- MATH 1303 - MATHEMATICAL MODELING
- MATH 1304 - INTRODUCTION TO SIMULATION

Math electives:
• Must include two upper-level math courses - 6-8 Credits

Total Credits: 20-22

Please be advised

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**Physics Minor**

Contact: Professor Hashim Yousif, Program Director

**Minor Requirements**

A minor in physics may be earned by completing the following requirements:

- PHYS 0201 - FOUNDATIONS OF PHYSICS 1
- PHYS 0202 - FOUNDATIONS OF PHYSICS 2
- PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
- PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
- PHYS 1301 - INTRO TO EXPERIMENTAL PHYSICS

Choose two of the following:

- PHYS 1302 - MODERN PHYSICS, ATOMS & NUCLEI
- PHYS 1304 - ELECTROMAGNETIC THEORY
- PHYS 1306 - OPTICS

Total Credits: 18

Please be advised

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**Transfer Program**

**Pre-Dietetics and Nutrition**

Contact: Professor Mary Mulcahy
The University of Pittsburgh at Bradford's Pre-Dietetics and Nutrition curriculum is a two-year course of study. Upon completion of the two-year curriculum, students must apply to the University of Pittsburgh's Nutrition and Dietetics (CDN) Program in the School of Health and Rehabilitation Sciences (SHRS).

Transfer Program Requirements

The two-year program at the University of Pittsburgh at Bradford must include the following courses:

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- BIOL 1302 - MICROBIOLOGY or
- BIOL 0202 - MICROBIOL FOR ALLD HEALTH PROF
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- MATH 0098 - COLLEGE ALGEBRA 2
- MATH 0133 - STATISTICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- ECON 0101 - ECONOMICS IN THE MODERN WORLD
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY
- SOC 0101 - INTRODUCTION TO SOCIOLOGY
- COMM 0104 - PUBLIC SPEAKING
- HPRED 0108 - NUTRITION
- Introduction to Dietetics - 1 Credit **

Note:

**Provisions will be made for transfer students to take this course during the Fall term of the Junior year, after admission to the program.

Other Admission Criteria Include:

- A minimum cumulative GPA of 2.5 (based on 4.0)
- A minimum prerequisite GPA of 2.5
- A minimum grade of C- in all courses designated as prerequisites

Application Deadline: March 15
Apply online: www.shrs.pitt.edu/Apply

Freshman Guarantee: Qualified freshman applicants will be offered a guaranteed admission into the Coordinated Masters in Dietetics program. Guaranteed students must maintain an overall and prerequisite GPA of 3.3 or better and meet all admission requirements. For consideration, please check code CLNDN when applying to Pitt (at regional Pitt campuses, choose corresponding codes).

Please be advised

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licensed, many states will inquire as to whether the applicant has been convicted of a misdemeanor, a felony, or a felonious or illegal act associated with alcohol and/or substance abuse.

**Pre-Pharmacy**

Contact: Professor Francis Mulcahy

The University of Pittsburgh's School of Pharmacy offers a six-year Doctor of Pharmacy (PharmD) degree program consisting of two years of preprofessional and four years of professional courses. Upon successful completion of the two-year, 62-credit pre-pharmacy program at the University of Pittsburgh at Bradford, the student may apply for admission to the University of Pittsburgh's School of Pharmacy during the spring of the sophomore year.

**Transfer Program Requirements**

Minimum prerequisites include:

- BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
- BIOL 0102 - INTRODUCTION TO BIODIVERSITY
- CHEM 0101 - GENERAL CHEMISTRY 1
- CHEM 0102 - GENERAL CHEMISTRY 2
- CHEM 0206 - ORGANIC CHEMISTRY 1
- CHEM 0207 - ORGANIC CHEMISTRY 1 LAB
- CHEM 0208 - ORGANIC CHEMISTRY 2
- CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
- MATH 0140 - CALCULUS 1
- PSY 0201 - STATISTICS or
- ECON 0204 - STATISTICAL METHODS or
- MATH 0133 - STATISTICS
- ECON 0102 - INTRODUCTION TO MICROECONOMICS or
- ECON 0101 - ECONOMICS IN THE MODERN WORLD or
- ECON 0103 - INTRODUCTION TO MACROECONOMICS
- ENG 0101 - ENGLISH COMPOSITION 1
- ENG 0102 - ENGLISH COMPOSITION 2
- PSY 0101 - INTRODUCTION TO PSYCHOLOGY

**Electives:**

- Humanities - 6 Credits
- Social Sciences - 6 Credits
- Humanities or Social Sciences - 6 Credits

**Note:**

Students may also apply to other schools of pharmacy and should check for their specific prerequisites for pre-pharmacy.

**Pitt-Bradford Affiliation Agreement with Lake Erie College of Osteopathic Medicine (LECOM)'s School of Pharmacy:**
If you have successfully completed specific core course requirements on our campus, you may continue your education in pharmacy at LECOM after your third year of undergraduate coursework. In order to be admitted into the first phase of this program at Pitt-Bradford, you must have a minimum SAT (or ACT equivalent) score of 1170 (math and verbal sections), a minimum high school GPA of 3.5, and exhibit potential for a successful career in pharmacy. If you are interested in participating in this program, you should contact Dr. Francis Mulcahy at fishnet@pitt.edu.
Course Information

Please note, when searching courses by Catalog Number, an asterisk (*) can be used to return mass results. For instance a Catalog Number search of “1*” can be entered, returning all 1000-level courses.

Accounting

ACCT 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in accounting. Permission of the instructor required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

ACCT 0201 - FINANCIAL ACCOUNTING CONCEPTS
Minimum Credits: 4
Maximum Credits: 4
This course provides the fundamentals of accounting principles and practices. It presents information on the decision-making processes to those external to the business owners, investors, potential investors, creditors, and the public at large.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ACCT 0202 - MANAGERIAL ACCOUNTING CONCEPTS
Minimum Credits: 3
Maximum Credits: 3
Study focuses on the role of accounting principles and practices yielding information in the decision-making processes to those managers responsible for the internal aspects of the organization. Three types of management accounting information and their purposes are studied - full cost, differential and responsibility accounting - which are useful to managers. Heavy emphasis is placed on various cost accounting methods used to analyze, plan, and control the business.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ACCT 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in accounting.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ACCT 1301 - INTERMEDIATE ACCOUNTING 1
Minimum Credits: 3
Maximum Credits: 3
This course provides an intensive analysis of the valuation, measurement, and statement presentation of asset, liability, ownership equity, revenue, and expense components facing business enterprises. Preparation and use of funds statements as well as price level adjustment of financial statements.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ACCT 1302 - INTERMEDIATE ACCOUNTING 2
Minimum Credits: 3
Maximum Credits: 3
This course provides an in-depth study of accounting functions and basic theory, acquisition of assets and services, income and equity accounting, and the analysis of financial statements.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ACCT 1303 - STRATEGIC COST MANAGEMENT**

Minimum Credits: 3
Maximum Credits: 3
This course focuses on advanced topics in cost and managerial accounting. Emphasis is on standard cost systems and variance analysis; absorption and variable costing; capital budgeting techniques and income tax impact assessment; and short and long range forecasting and reporting.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ACCT 1304 - FEDERAL INCOME TAXES**

Minimum Credits: 3
Maximum Credits: 3
This course is an in-depth analysis of the federal income tax statutes and regulations relating to the taxation of individuals and sole proprietorships. Topics include: concepts of revenue and expenses, tax methods and treatment of the disposition of property (including capital gains and losses and tax research).

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ACCT 1305 - AUDITING**

Minimum Credits: 3
Maximum Credits: 3
This course presents principles and procedures of auditing, accepted auditing standards, internal control, audit objectives and reports, form preparation, use of audit work papers, and audit evidence.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ACCT 1306 - FEDERAL CORPORATE INCOME TAXES**

Minimum Credits: 3
Maximum Credits: 3
Examines federal income tax statutes and regulations emphasizing the relationship between management decisions and their tax consequences. Topics include employee compensation and other benefits; depreciation, depletion, and amortization; alternative minimum tax, inventory valuation; and changes in accounting methods.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ACCT 1312 - INTERMEDIATE ACCOUNTING 3**

Minimum Credits: 3
Maximum Credits: 3
Intermediate accounting 3 is a continuation of intermediate accounting 2. The course continues the in-depth examination of financial reporting topics, including: earnings per share, leases, long-term investments, revenue recognition, income taxes and pensions.

**Academic Career:** UGRD

**Course Component:** Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ACCT 1320 - ACCOUNTING INFORMATION SYSTEMS
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to accounting information systems and information systems theory. Topics include accounting transaction cycles, internal control concepts, database management, electronic commerce and computer crimes.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ACCT 1401 - ADVANCED ACCOUNTING
Minimum Credits: 3
Maximum Credits: 3
Course will extend study of financial accounting by examining special topics including fund accounting, business combinations, consolidated financial statements, interim and segment reporting.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ACCT 1450 - TOPICS IN ACCOUNTING
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in Accounting.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ACCT 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

ACCT 1496 - COOPERATIVE EDUC IN ACCNTNG
Minimum Credits: 3
Maximum Credits: 12
This course offers students an opportunity to integrate classroom instruction with a practical supervised work experience. 540 Documented hours required.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ACCT 1497 - DIRECTED STUDY: ACCOUNTING
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of accounting. Permission of the instructor is required.
ACCT 1498 - DIRECTED RESEARCH: ACCOUNTING
Minimum Credits: 1
Maximum Credits: 6
Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and an accounting faculty supervisor.

ACCT 1499 - INTERNSHIP: ACCOUNTING
Minimum Credits: 1
Maximum Credits: 6
An accounting internship provides practical experience in accounting in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.

Criminal Justice

ADMJ 0101 - INTRO TO CRIMINAL JUSTICE
Minimum Credits: 3
Maximum Credits: 3
This course will emphasize administration of justice in the United States. The interrelationship of the police, courts, and corrections will be examined.

ADMJ 0102 - AMERICAN CORRECTIONS
Minimum Credits: 3
Maximum Credits: 3
A study of correctional structure and operation. The course explores origins of correctional institutions and the evolution of correctional practices in contemporary society. Covered also are non-institutional forms of correctional control focusing on alternatives to incarceration in community settings. Programs reviewed include, institutional corrections, intermediate sanctions, community based corrections, community justice and balanced and restorative justice programs.

ADMJ 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Directed study

ADMJ 0203 - PROBATION AND PAROLE
Minimum Credits: 3
Maximum Credits: 3
An examination of the nature of parole, the factors influencing probation decisions, adult and juvenile probation services, and how probation and parole impact on the criminal justice system and on society.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0204 - POLICE AND SOCIETY**  
**Minimum Credits:** 3  
**Maximum Credits:** 3

The law enforcement agencies of the federal, state, and local levels that are responsible for the control of crime and protection of society via maintenance of order, law enforcement, and peacekeeping functions within our social environment will be examined. Major topics include the evolution, development, functions and effects of law enforcement of crime in society. Emphasis is on the theory and practice of social control in society by traditional and emerging forms of policing responding to social and public policy.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0205 - POLIC & SOCTY:RACE,CRIME JUSTC**  
**Minimum Credits:** 3  
**Maximum Credits:** 3

This course will examine the interconnected social domain between the police, race, crime, and justice. Major topics will include the over-representation of communities of color within the criminal justice system, racial profiling, mass incarceration, the war on drugs, the use of deadly force, and the historic dysfunctional relationship between police agencies and the black American experience.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0206 - CRIMINOLOGY**  
**Minimum Credits:** 3  
**Maximum Credits:** 3

This course examines the nature of criminal behavior, criminal law, and the American system of criminal justice. Sociological, biological, and psychological theories of criminal behavior are explored. Topics include the sociological impact of criminal behavior on contemporary society; issues of constitutional law and current issues in criminal justice. The relationship of the police, the courts, and correctional institutions to American society is also discussed.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0215 - LAW ENFORCEMENT OPERATIONS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3

This course covers all aspects of law enforcement and police operations. Students will learn about police organizational structures, patrol tactics, arrest procedures, police management, traffic operations, new law enforcement technology, and other topics relevant to modern law enforcement operations.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0225 - SUBSTANCE ABUSE IN AMER CULTUR**  
**Minimum Credits:** 3  
**Maximum Credits:** 3

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0230 - INTRO TO FORENSIC SCIENCE**
This course examines forensic techniques commonly used in criminal investigations such as: crime scene reconstruction, hair, fiber, soil, inorganic and organic analysis, spectroscopy, microscopy, toxicology, fingerprints, firearms, and DNA. The description, scientific underpinnings, and limitations of forensic techniques are discussed. The course gives students a background in scientific tools available to investigate crime.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0235 - TERRORISM IN A POST-9/11 WORLD**

Minimum Credits: 3  
Maximum Credits: 3  
This course will explore the global issue of terrorism in a post-9/11 world. It is designed to provide students, especially criminal justice professionals, with a holistic understanding of terrorism, and the major issues associated with responding to terrorist incidents. The course will also examine the challenges of investigating terrorist events, and the use of the patriot act in a democratic society.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Behavioral Sciences

**ADMJ 0240 - COMMUNITY-BASED CORRECTIONS**

Minimum Credits: 3  
Maximum Credits: 3  
This course will introduce students into the correctional procedures, practices, strategies, and personnel regarding innovative approaches to criminal justice diversion programs applied in a community setting.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0245 - ETHICS IN CRIMINAL JUSTICE**

Minimum Credits: 3  
Maximum Credits: 3  
This course will introduce students into the study of the decision-making process in criminal justice as it relates to discretion, due process, truthfulness, corruption, and discrimination.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0250 - SPECIAL TOPICS**

Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in administration of justice.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0255 - WHITE COLLAR CRIMES**

Minimum Credits: 3  
Maximum Credits: 3  
This course will introduce students into the study of contemporary forms of white collar crime, its explanations, and theories, along with its investigation, adjudication, and regulation.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 0260 - VIOLENCE AND CRIME**

Minimum Credits: 3  
Maximum Credits: 3
This course will introduce students into the dynamic relationship between violence and crime by examining various theories of human aggression and how they produce violent criminal behavior. Violent crimes such as homicides, sexual assaults, robberies, drug trafficking, hostage-taking, and kidnappings will be highlighted.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 1302 - CRIMINAL LAW AND PROCEDURE**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course examines criminal and constitutional law as it impacts law enforcement in the criminal justice process. Included are studies of arrest, search and seizure, confessions, and evidence procedures as they relate to the everyday duties of the law enforcement officer.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ADMJ 1304 - JUVENILE JUSTICE SYSTEM**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course examines the agencies and processes dealing with juvenile justice in the United States. Topics covered include a history of the juvenile justice system, police handling of juveniles, the juvenile court, detention, and treatment of offenders.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ADMJ 1305 - MEDIA, CRIME, AND THE CRIMINAL JUSTICE SYSTEM**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course examines how mass media both reflect and shape popular notions of crime and justice, including policing, the judicial system, incarceration, and victimization. The theoretical intersection between criminality, crime, and the mass media will be explored, including ways in which the media contributes to the social construction of crime and justice.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 1306 - CRIME, JUSTICE, AND THE MENTALLY DISORDERED OFFENDER**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course provides students with the theoretical and applied understanding of how crime, justice, and mental illness intersect from a systematic perspective, and the knowledge of various forms of mental disorder and disabilities that criminal justice professionals will likely confront in people during their careers. This course will enable students to identify those who need to be deferred into specialty courts such as mental health, drug and domestic violence courts, as well as management of the mentally ill once they are detained. Techniques for managing a mental health crisis in victims and offenders will also be addressed.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ADMJ 1307 - COMPARATIVE JUSTICE SYSTEMS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course examines the criminal justice systems of various nations around the world. Police, courts, corrections, and juvenile justice systems are included in the topics explored.  
**Academic Career:** UGRD  
**Course Component:** Lecture
ADMJ 1310 - DRUGS, CRIME, & SOCIAL POLICY
Minimum Credits: 3
Maximum Credits: 3
This course will explore the social phenomena of the relationship between drugs and crime. Included will be the examination of drug use and drug trafficking in America, including the 'war on drugs' and the construction and/or application of various drug policies, as well as the social debate of legalization and/or decriminalization.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1315 - MGT & SUPRVSN CRIMINAL JUSTICE
Minimum Credits: 3
Maximum Credits: 3
A study of criminal justice agency structure at the local, state, and federal levels. Emphasis is on management and supervision theory and methods of bureaucracies and complex organizations with emphasis on the concepts and practices of the organization and management of agencies in the administration of justice. Included are topics of communication, motivation, job design, leadership, power, conflict, decision making and change.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1320 - RSRCH MTHS IN CRIMINAL JUSTICE
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to the basic criminological research methods designed to prepare the student to read, understand and participate in quantitative and qualitative research. Examined are the forms of research and statistics, including different ways of research designs, testing and experiments, sampling techniques, survey research, and qualitative and quantitative analysis of data.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

ADMJ 1321 - LAW & SOCIAL CTRL IN SOCIETY
Minimum Credits: 3
Maximum Credits: 3
This course examines how laws influence criminal behavior within a society. Students will explore the relationship between local, state, and federal laws and social control, the role of the criminal justice system in behavior modification, and assess relevant criminological theories as these factors apply to society and social change. Emphasis will be placed on analyzing the applicability of the 4th, 5th, 6th, 8th, and 14th amendments as social control mechanisms.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1325 - CRIMNL EVIDENCE/INVESTIGATION
Minimum Credits: 3
Maximum Credits: 3
This course provides an introduction to criminal evidence. The topics include how evidence is collected and developed, the different types of evidence, the legal standards for admissibility of evidence, and the role of evidence in criminal investigation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
ADMJ 1330 - CRIMINAL FORENSICS 1
Minimum Credits: 3
Maximum Credits: 3
This course will allow students to demonstrate basic criminal forensic investigative skills. Students will be exposed to "hands-on" fieldwork regarding criminal investigations. This course will focus on several types of crime scene scenarios to include, but not limited to: arson; assault; burglary; drug; robbery; sexual assault; and homicide investigations. This course will also provide students with the ability to apply basic skills used in criminal investigations to include: securing and processing crime scenes; interviewing witnesses and suspects; report writing and search warrant documentation preparation; and the practical application of criminal procedure and courtroom testimony.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1331 - CRIMINAL FORENSIC 1 LAB
Minimum Credits: 1
Maximum Credits: 1
This lab is offered currently with ADMJ 1330, criminal forensics i. The lab is designed to facilitate a hands-on experience to learn about the criminal forensics process. The lab will involve demonstrating criminal forensic techniques in a variety of mock crime scenarios and investigations, and learning how to properly document criminal investigations.

Academic Career: UGRD
Course Component: Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1335 - CONFLICT AND CRISIS MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
This course will provide a comprehensive understanding and examination of the theories involving conflict and crisis management, and the intervention models and protocols used to resolve conflicts. Crisis management will be explored among and between individuals and groups, organizations, communities, and within the criminal justice system. Topics will include the management of violent conflicts, such as prison riots, hostage-barricade, terrorist acts, and the response to natural disasters.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1340 - GANGS: THRY, PRACT, & SUPPRSSN
Minimum Credits: 3
Maximum Credits: 3
This course will provide a unique and comprehensive understanding of gangs in society. The course will focus on theories of gang behavior, and examine criminal activity, gender issues, race and ethnicity, gangs in prisons and schools, gang victimization, along with gang prevention and intervention programs.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1345 - INTERNATIONAL AND GLOBAL CRIME
Minimum Credits: 3
Maximum Credits: 3
This course will provide a comprehensive understanding of international crime and the global criminal justice strategies used for fighting transnational crime. An emphasis will be placed on the rise of international crime, human trafficking, smuggling, sea and air piracy, the international drug trade, and transnational money laundering. Criminal investigative techniques involving international law, the FBI and Interpol, along with the problems of enforcement, extradition, and transnational pursuit will also be discussed.

Academic Career: UGRD
Course Component: Lecture
ADMJ 1355 - ORGANIZED CRIME IN AMERICA
Minimum Credits: 3
Maximum Credits: 3
This course will provide a comprehensive understanding of organized criminal activity in the United States. The course will focus on theories and the evolution of traditional organized crime in America as well as attempt to examine the many new and emerging organized crime groups attempting to acquire a stronghold on domestic criminal enterprises. Rico and other law enforcement strategies used to combat organized crime will also be explored.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1360 - REENTRY AND THE OFFENDER
Minimum Credits: 3
Maximum Credits: 3
This course will examine the challenges of offender reentry and reintegration back into communities upon release from prison. A variety of reentry initiatives and concepts will be examined including restorative justice, victimology, pre-release programs, faith-based initiatives, drug rehabilitation, and vocational training.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1365 - SUBS ABUSE & TRMNT IN COMNY
Minimum Credits: 3
Maximum Credits: 3
This course will examine the various models of community based programs for the substance abuse involved offender, research regarding factors of recidivism, treatment matching, case management, relapse prevention techniques, setting treatment goals, resources in the community and dui and drug court operations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1370 - VCTMLGY-CHLD ABUS/EXPLTD CHILD
Minimum Credits: 3
Maximum Credits: 3
This course will examine the field of victimology and explore its theories, concepts, and application. The course will highlight the topics of family violence which include child abuse, including neglect, physical abuse, sexual abuse, emotional and verbal abuse, and the prevention, intervention and treatment issues associated with exploited children.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1375 - JUVNL CORRCS AND TRNMT ALTNTVS
Minimum Credits: 3
Maximum Credits: 3
A study of the juvenile correctional system. This course explores correctional options and treatment alternatives for juveniles adjudicated as delinquent or criminal. Programs reviewed include residential placement, wilderness based adventure programs, secure-care custody, diversionary programs, juvenile probation, boot camps, and community service.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
**Course Requirements**: PREQ: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

ADMJ 1401 - CONTEM ISSUES LAW ENFORCEMENT
Minimum Credits: 3
Maximum Credits: 3
This course addresses current topics related to trends and controversies in law enforcement.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1402 - CONTEM ISSUES IN CORRECTIONS
Minimum Credits: 3
Maximum Credits: 3
This course addresses current topics related to trends and controversies in corrections.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1403 - CONTEM ISS CRTS, POLICY, JUST
Minimum Credits: 3
Maximum Credits: 3
This course addresses current topics related to trends and controversies in courts, policy and justice.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1404 - THE POLICING CULTURE-POLITICS, COMMUNITY, AND ACCOUNTABILITY
Minimum Credits: 3
Maximum Credits: 3
This course provides a critical examination of the policing culture. Focus will be placed on the collective intersection between inner-cultural, political, and community expectations, within the social construction of crime and justice. Special emphasis will be placed on examining strategies for policing and criminal justice reform.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ADMJ 1405 - PSYCHOLOGY AND CRIME
Minimum Credits: 3
Maximum Credits: 3
This course is designed to provide a challenging venue for students who are particularly interested in how psychology and criminology are interrelated. The course is intended to introduce the student to how psychology influences the study of crime; to provide a comfortable interactive learning environment; to encourage critical thinking and discussion, and to allow the student to study a topic of particular interest with some depth.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1415 - ISLAM AND SOCIAL JUSTICE
Minimum Credits: 3
Maximum Credits: 3
This course is designed to provide students with a holistic understanding of Islam and its universal concept of social justice. This course will provide a historical, theoretical, analytical examination of Islam, and its continued evolution in the United States. Islamic faith, practice, customs, culture, society, economics, as well as discourse involving political violence will be explored. This course will also examine the relationship and challenges faced by law enforcement agencies and the Muslim-American community since the events of 9/11.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Behavioral Sci-Global  

**ADMJ 1430 - CRIMINAL FORENSICS II**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course will allow students to demonstrate advanced criminal forensic investigative skills. Students will focus on several types of advanced indoor and outdoor crime scene scenarios, specifically concentrating on violent criminal investigations. The various scenarios will include multiple homicides, criminal profiling; sex-related homicides; homicides made to appear as accidents; homicides made to appear as suicides; handling buried body cases; murder-suicide; infant abductions and SID cases.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ADMJ 1431 - CRIMINAL FORENSICS II LAB**  
**Minimum Credits:** 1  
**Maximum Credits:** 1  
This lab is offered currently with ADMJ 1430, criminal forensics ii. The lab is designed to facilitate a hands-on experience to learn about the criminal forensics process. The lab will involve demonstrating advanced criminal forensic techniques in a variety of mock crime scenarios and investigations, and learning how to properly document criminal investigations.  
**Academic Career:** UGRD  
**Course Component:** Laboratory  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ADMJ 1435 - JUVENILES WHO MURDER**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The advanced study of juvenile violence, patterns and causes. The course explores various types of violent crime with a specific focus on murder. Legal policies for processing youth in the juvenile and criminal justice systems are also discussed.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREREQ: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

**ADMJ 1447 - SPECIAL TOPICS IN POLICING**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The advanced study of a special topic in the policing component of the criminal justice system.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: ADMJ 0101 and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ADMJ 1448 - SPECIAL TOPICS IN CORRECTIONS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The advanced study of a special topic in the corrections component of the criminal justice system.  
**Academic Career:** UGRD  
**Course Component:** Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1449 - SPECIAL TOPICS IN COURTS
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in the courts component of the criminal justice system.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1451 - CAPSTONE: CRIMINAL JUSTICE
Minimum Credits: 3
Maximum Credits: 3
This seminar examines specialized topics in administration of justice. The purpose of this seminar is to generate a senior thesis in which students synthesize and apply concepts, theories and empirical research to a particular topic in administration of justice.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

ADMJ 1455 - TOPICS IN ADMINISTRATION OF JUSTICE
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in the administration of justice.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

ADMJ 1496 - FIELD PLACEMENT
Minimum Credits: 1
Maximum Credits: 6
Field placement with an agency will allow a student the opportunity to explore career choices while gaining actual job experience in the field. Students may choose a field placement experience in an agency or organization related to the practice of potential career ambitions. Agency placements may include any agency directly related to a student's academic studies and career options. Students must fill out a field placement application and submit it to their program director.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ADMJ 1497 - DIR STUDY: ADMIN OF JUSTICE
Minimum Credits: 1
Maximum Credits: 6

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Directed study in a specific area of administration of justice.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ADMJ 1498 - DIR RESEARCH: ADMIN OF JUSTICE**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
Independent work on a project in administration of justice supervised by a member of the administration of justice faculty.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ADMJ 1499 - INTERNSHIP: ADMIN OF JUSTICE**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
Supervision by a faculty member and an on-site supervisor at a law enforcement agency or correctional institution.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

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**Africana Studies**

**AFRCNA 0101 - INTRODUCTION TO AFRICANA STUDIES**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course is an introduction to the field of Africana Studies. Students will be exposed to the basics of theory in Black Studies. The works of scholars such as W.E.B. Du Bois, G. Carter Woodson, John Hope Franklin, bell hooks, and Audre Lorde, among others, will be studied to give students an intellectual and academic foundation in the field of Black/Africana studies. A combination of written texts and audiovisual media will be used in course delivery. Topics such as the Enlightenment, white supremacist violence, social justice, civil rights, Pan-Africanism, cultural nationalism, Black feminism and the Black church will be covered. The purpose is to give students a broad but deep knowledge of the forces that animate the various Black/African-American communities in the US and beyond. GE Cultures Global Competency

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Cultures-Global

**AFRCNA 0210 - MODERN BLACK THEATRE**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
From the civil rights era onward, there has been a creative explosion of theatrical work by black artists in America. In the theatrical work of this turbulent modern period, societal myths are retold, interrogated and exploded, and the medium itself is reinvented and reimagined to make room for voices that don't often get heard in our more dominant and therefore reactionary cultural forms. Through careful study of these plays and their playing, and by examining their particular cultural context, questions of race, racism and identity in contemporary American society will be explored.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Arts

**AFRCNA 0215 - MODERN AFRICAN-AMERICAN CINEMA**

**Minimum Credits:** 3  
**Maximum Credits:** 3
Images of African Americans in our mass media - not unlike images of women - have a long history of being limited and limiting. This class will open up discussion of these limiting factors, whether in the particular narratives of "mainstream" Hollywood films, television news, or music videos. We will analyze the development of black voices and black imagery through films that deliberately disrupt and disregard prevailing norms, or that find a place in popular commercial cinema, by reframing the very notion of blackness in our culture.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Arts

## Anthropology

### ANTH 0101 - INTRO TO CULTURAL ANTHROPOLOGY

**Minimum Credits:** 3  
**Maximum Credits:** 3

This course is basic to an understanding of anthropology and covers an analysis of the concept of culture, a brief overview of the evolution of culture, of anthropological theory and methodology, the importance of human language, and a systematic survey of technology, economics, political and social organization, religion, and art in human societies.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Cultures-Global

### ANTH 0102 - PHYSICAL ANTHROPOLOGY

**Minimum Credits:** 3  
**Maximum Credits:** 3

Topics include the genetic basis for evolution and human adaptation, primatology, fossil primates and especially fossil man, population genetics, and the variability of modern man. This is an action course in which concepts such as mutation and genetic drift are dealt with indirectly. Skeletons from the osteological collection, casts of human fossils, and the students in the class are measured and compared. The behavior of apes, monkeys, and other primates are observed through films, and a trip to the buffalo zoo.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Life Science

### ANTH 0103 - ARCHAEOLOGY

**Minimum Credits:** 3  
**Maximum Credits:** 3

Archaeological methods and theoretical orientations constitute approximately the first half of the course, the second half being a brief overview of the prehistoric sequence from the lower Paleolithic through the early Bronze Age civilizations. Learning the major cultural developments and trends will be more important than learning a mass of dates.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Cultures-Global

### ANTH 0105 - NORTH AMERICAN INDIAN ART

**Minimum Credits:** 3  
**Maximum Credits:** 3

The relationship of art to the social, political, religious, and economic activities of Indians of North America. Included throughout the term are discussions of how art can be defined cross-culturally, its links to environment and technology and the modifications that occurred in Indian art as a result of contact with non-Indian groups.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Cultures-Global

### ANTH 0106 - ARCHAEOLOGICAL FIELDWORK
Working in conjunction with U.S. Forest service archeologists, field trips will include walking surveys, as well as test trenching and excavating in rock shelter overhangs in the Allegheny National Forest.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Cultures

**ANTH 0110 - THE STORY OF BUDDHISM**  
Minimum Credits: 3  
Maximum Credits: 3  
This course draws upon history, legend, myth, fables, art and architecture to present the story of Buddhism. It is an introduction into the life and mission of Gautama Buddha (560-480 B.C.) Toward understanding the emergence of Buddhism as a religion and distinct way of life.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Cultures-Global

**ANTH 0112 - TOURISM**  
Minimum Credits: 3  
Maximum Credits: 3  
This is a course designed to introduce the students to the many facets of the world's largest industry, tourism. The approach is multidisciplinary focusing on such issues as work and leisure, tradition and modernity, growth and pollution, security and terrorism, privilege and servitude.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Cultures

**ANTH 0197 - DIRECTED STUDY**  
Minimum Credits: 1  
Maximum Credits: 6  
Independent study in a topic in anthropology.  
**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**ANTH 0202 - HUMAN EVOLUTION**  
Minimum Credits: 3  
Maximum Credits: 3  
An introduction to paleoanthropology including an overview of the genetic, anatomical, geological, primatological, and archaeological information needed to examine and survey the fossil record of human evolution, beginning about four million years ago. Major questions that will be explored include: why are humans bipedal? Why do we have such large brains? When was language developed? Were there more differences between males and females in the past? Did they mature earlier? How did they survive and what was their environment like?  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: Completion of ANTH 0102 or ANTH 0103  
**General Education:** Life Science

**ANTH 0204 - SOUTH AMERICAN INDIANS**  
Minimum Credits: 3  
Maximum Credits: 3  
This course is an introduction to the traditional Indian population of South America, including a discussion of the peopling of South America, and descriptions of the technological, social, political, economic, and religious patterns of Indian groups at the time they were first encountered. It concludes with an analysis of some of the change that occurred as a result of contact with Europeans.  
**Academic Career:** UGRD
ANTH 0206 - CULTURES OF AFRICA
Minimum Credits: 3
Maximum Credits: 3
This lecture course is an introduction to the traditional societies and cultures of sub-Saharan Africa. It will include an examination of hunting and gathering societies throughout the continent, East African cattle herders and horticultural groups in West and central Africa. Special attention will be given to geography, pre-contact civilizations, and the impact of the slave trade, colonization and the emergence of independent African states.

ANTH 0207 - MESOAMERICAN ARCHAEOLOGY
Minimum Credits: 3
Maximum Credits: 3
A survey of the archaeological sequences in Mexico and central America, with a strong emphasis on the Aztecs and Mayans, including the changes wrought by Europeans.

ANTH 0215 - CULTURES AND ECONOMIES
Minimum Credits: 3
Maximum Credits: 3
This course will explore the impact economic relations have on culture. The course will also address the ways that modes of production influence a culture's behavior, organization, and understanding of the world. Particular attention will be paid to the survival of non-capitalist cultures in spite of a "global" economy.

ANTH 0220 - POLITICAL ANTHROPOLOGY
Minimum Credits: 3
Maximum Credits: 3
Political Anthropology surveys the different approaches human societies have taken to organizing collective decision making, maintaining social order, and managing social interaction in non-industrial and industrial contexts. Emphasis is given to the significance of racial, ethnic, class, and/or gender inequalities as shaping the dynamics of political power in historical and contemporary contexts. GE: Cultures

ANTH 0225 - FOOD IN SOCIETIES
Minimum Credits: 3
Maximum Credits: 3
Humans, unlike other animals, exercise far more choices when it comes to what they eat. These choices involve simple decisions like where we eat, what we eat, with whom we eat, and when. But how do we account for the diversity that we see in how we obtain, distribute and consume food? Is food simply something that we eat, or something far more important in terms of how we relate to each other morally, socio-economically, politically and religiously? This course will address these questions through the intellectual frameworks of philosophy and anthropology.
Grade Component: LG/SNC Elective Basis
General Education: Cultures

ANTH 0230 - PRACTICING ANTHROPOLOGY
Minimum Credits: 3
Maximum Credits: 3
Practicing anthropology surveys current trends in the field of anthropology. Emphasis is placed on understanding contemporary ethnographic theory and debates, emergent research approaches and research sites, and applications of anthropological knowledge within and beyond academia.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

ANTH 0235 - APPALACHIAN CULTURE
Minimum Credits: 3
Maximum Credits: 3
This course offers an introductory survey to the cultural traditions of people living in the Appalachian mountains of the United States. The broad influences of economic change, political organization, and popular culture on Appalachian culture are considered from historical and contemporary perspectives, including the experiences of ethnic minorities and women in the region.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

ANTH 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in anthropology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ANTH 1301 - PSYCHOLOGICAL ANTHROPOLOGY
Minimum Credits: 3
Maximum Credits: 3
The concepts of human nature", "national character", and "modal personality" as used by anthropologists are explored. Explains methods of research such as family studies, dream analysis, interpretations of "body language", and projective tests. Surveys cross-cultural studies of such topics as cognition, values, and attitudes, male/female stereotypes, childrearing practices, alcoholism, mental disorders, and the impact of cultural change (urbanization and industrialization).
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PSY 0101 and competencies

ANTH 1302 - MODERN SOCIETY AND CULTURE
Minimum Credits: 3
Maximum Credits: 3
This course examines the social and cultural implications of living in this modern world. Anthropological theories and methods will be applied to the study of sexism, racism, poverty, and aggression.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Cultures

ANTH 1303 - SOCIOBIOLOGY
Sociobiology is a highly controversial synthesis of genetics, psychology, sociology, ecology, and evolutionary theory. It attempts to understand the evolution of behavior and social organization for animals ranging from jellyfish to man. Topics discussed include group and kin selection, the problem of altruism, territoriality, aggression, dominance, sex roles, parental investment, and a review of the criticisms directed against sociobiology.

**Course Requirements:** Prerequisite: Completion of all competencies, ANTH 0101, and ANTH 0102 or BIOL 0103 is required

### ANTH 1304 - ECOLOGICAL ANTHROPOLOGY

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The first part of the course will be an overview of the ecological approach in analyzing different cultures. The second part covers examples of how humans have adapted, both culturally and physiologically, to different environments, specifically the arctic, high altitudes, deserts, grasslands, and the humid tropics.

**AcademicCareer:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### ANTH 1305 - RELIGION AND CULTURE

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The relationship of religion to human behavior in societies of various kinds will be examined in this course. The objective is to gain an understanding of the different theories that have been offered by anthropologists to explain the widespread existence of religion in modern and tribal societies. Special attention is given to the problem of defining religion and witchcraft, and the religious treatment of death.

**AcademicCareer:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Cultures-Global

### ANTH 1306 - WOMEN IN SOCIETY

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course utilizes sociological and anthropological perspectives to examine the roles of women in society from a cross-cultural perspective. Topics covered include theories of gender, the comparative position of women in the family and in larger kin groups, economic systems, politics, and religion.

**AcademicCareer:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Behavioral Sciences

### ANTH 1308 - MEDICAL ANTHROPOLOGY

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course is an introduction to the growing field of medical anthropology. Lectures will include a history of the field, how culture is involved in human adaptation, nutrition, fertility rates, the diagnosis and treatment of disease, the impact on health of culture change, and the reorganization of health care in society.

**AcademicCareer:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
ANTH 1311 - FORENSIC HUMAN OSTEOLOGY
Minimum Credits: 3
Maximum Credits: 3
This course will cover the entire gamut of osteological study beginning with bone histology and osteogenesis. The various physical characteristics of the contemporary human skeleton will be closely examined as will current techniques for determining identification of skeletal remains in a forensic/law enforcement setting.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1315 - THE DARWINIAN REVOLUTION
Minimum Credits: 3
Maximum Credits: 3
The impact of Darwin's idea of evolution by natural selection will be explored. Topics considered will be Darwin biographies and publications, including the origin of species, the Victorian world view, Pre-Darwinian Science, the Voyage of the Beagle, Discoveries of Wallace, Social Darwinism of Spencer and Haekel, the Unilineal cultural schema of Morgan, genetics and ethology, Neo-Darwinism and gene-centrists, fossil evidence for human evolution, the opposition from religious conservatives and evolutionary ideas in literature.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1325 - LATIN AMERICA TODAY
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to contemporary Latin America. It includes discussions of contemporary Indian populations, socio-cultural change, ethnic relations, environmental relations, gender relations, social structure, economics, politics, popular culture, and the role of religion in contemporary society.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Cultures

ANTH 1330 - ETHNIC AND TOURIST ARTS
Minimum Credits: 3
Maximum Credits: 3
Throughout the world, indigenous peoples have been creating arts and crafts both for themselves and for outsiders for a long time. This course examines the impact of this artistic production and exchange both historically and today, when billions of dollars of arts and crafts are purchased every year from all over the globe. How has this changed the objects being purchased? How have the materials in them changed? How have their makers changed? What do their makers think about who purchase what they make, and the value (both monetarily and culturally) of their evolving cultures. To begin to answer these questions, we will be looking at ethnic and tourist arts from all over the world. Ge: cultures: non-Western
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Cultures-Global

ANTH 1335 - GLOBALIZATION
Minimum Credits: 3
Maximum Credits: 3
This course provides an overview of the economic, social, technological, environmental, and ideological impacts of globalization on national communities, with an emphasis on the cultural and political dynamics of the process. Student research and oral presentation skills are emphasized.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Cultures

ANTH 1337 - UK DEVOLUTION IN CONTEXT
Minimum Credits: 3
Maximum Credits: 3
This field-based course introduces students to the social and political dynamics of British political devolution in the context of applied student learning in rural southern Wales. Students will examine the cultural politics and institutional dynamics of devolved Welsh governance from local-to-European perspectives with an emphasis on the local dimensions of administering rural development policy in Wales. Students will participate in community infrastructure-building projects in coordination with political authorities. Readings, lectures, and activities will address Welsh political party history, British devolution beginning in the twentieth century, European integration, and Welsh national identity and cultural diversity.
Academic Career: UGRD
Course Component: Lecture
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1340 - CULTURE AND ENERGY IN WALES
Minimum Credits: 3
Maximum Credits: 3
This field-based course introduces students to global issues of energy production in the cultural and political contexts of energy production in Wales, United Kingdom. Students will engage in readings, lectures, and interactive activities related to the political economy of British industrialization, the social histories of coal mining villages in southern Wales, and the contemporary dynamics of alternative energy production in Wales and Europe.
Academic Career: UGRD
Course Component: Lecture
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1405 - THE DARWINIAN REVOLUTION
Minimum Credits: 3
Maximum Credits: 3
The impact of Darwin's idea of evolution by natural selection will be explored primarily by reading many original sources and subsequent commentaries. Topics considered will be Darwin biographies and his publications especially the origin of the species", the Victorian world view, and overview of pre-Darwinian science, the importance of the voyage of the "beagle", the discoveries of Wallace, the social Darwinism of Herbert Spencer and eugenicists such as Haeckel, the unilineal cultural schema of Morgan, the rise of genetics and ethology, the neo-Darwinians, etc."
Academic Career: UGRD
Course Component: Lecture
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1451 - CAPSTONE: HUMAN RELATIONS
Minimum Credits: 3
Maximum Credits: 3
An introduction to research design, methods selection, and field research techniques. Participant observation, interviewing, data recording and analysis, and ethics are emphasized.
Academic Career: UGRD
Course Component: Seminar
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1455 - TOPICS IN ANTHROPOLOGY
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in Anthropology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1497 - DIRECTED STUDY: ANTHROPOLOGY  
Minimum Credits: 1  
Maximum Credits: 6  
Independent study in anthropology supervised by a member of the anthropology faculty.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ANTH 1498 - DIRECTED RESEARCH: ANTHROPOLOGY  
Minimum Credits: 1  
Maximum Credits: 6  
Independent research on a project in anthropology supervised by a member of the anthropology faculty.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

ANTH 1499 - INTERNSHIP: ANTHROPOLOGY  
Minimum Credits: 1  
Maximum Credits: 6  
This is an internship for human relations majors to allow them to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on a basis of student's interest and the availability of positions.  
Academic Career: UGRD  
Course Component: Internship  
Grade Component: Satisfactory/No Credit

Art

ART 0101 - DRAWING 1  
Minimum Credits: 3  
Maximum Credits: 3  
This course provides a comprehensive introduction to the art of drawing. The coursework follows a sequence of studies that introduces basic drawing techniques, media, theory, and principles of composition through visual perception and analysis.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Arts

ART 0102 - FIGURE DRAWING  
Minimum Credits: 3  
Maximum Credits: 3  
This course explores drawing techniques, media, and methods of composition. Emphasis is placed on the human form and other subjects in order to develop pictorial, perceptual and problem solving skills.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Arts

ART 0103 - DIGITAL GRAPHIC DESIGN  
Minimum Credits: 3  
Maximum Credits: 3  
This is an introductory course that will survey the concepts, methods, and issues of design as a vehicle of visual organization, thought, and expression. Through the use of digital applications, emphasis will be placed on design elements and principles. Those subjects are explored through lectures, discussions, critiques, and the process of making images.  
Academic Career: UGRD
ART 0105 - WORLD ART SURVEY 1
Minimum Credits: 3
Maximum Credits: 3
A study of the key stages in the evolution of art and architecture. Emphasis on understanding the visual language of art as an expression of relationships to the cultural, historical, and philosophical context in which the artist lives.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

ART 0106 - WORLD ART SURVEY 2
Minimum Credits: 3
Maximum Credits: 3
A study of the key stages in the evolution of art and architecture. The student will learn to analyze a work of art and to specify its cultural and historical context.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts-Global

ART 0109 - MURAL DESIGN
Minimum Credits: 3
Maximum Credits: 3
An introduction to basic mural design and painting with emphasis on idea development, collaborative painting execution, and sequential learning experience. Students will work in the studio and on the mural site and explore contemporary approaches in mural painting.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

ART 0110 - CERAMICS 1
Minimum Credits: 3
Maximum Credits: 3
Studio experience covering basic technique involved in forming, glazing, and firing primarily hand-built three dimensional functional and sculptural ceramic art works. Various approaches to glazing and decorating will also be explored, along with an introduction to throwing forms on a potter's wheel.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

ART 0111 - ART APPRECIATION
Minimum Credits: 3
Maximum Credits: 3
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

ART 0112 - PRINTMAKING 1
Minimum Credits: 3
Maximum Credits: 3
Printmaking i is a basic printmaking course covering the techniques and processes of relief and monotype prints. Student will make prints in a fine
arts medium. Stress is placed on application of individual design responses to graphic media. Equal emphasis will be given to the effective
development of art content, and the technical achievement.

**Academic Career: UGRD**
**Course Component: Lecture**
**Grade Component: LG/SNC Elective Basis**
**General Education: Arts**

**ART 0113 - DIGITAL PHOTOGRAPHY & IMAGING**
**Minimum Credits: 3**
**Maximum Credits: 3**
This course is an introduction to digital photography and imaging. Emphasis will be placed on digital applications, processes, and concepts in the production of a body of contemporary photographic inquiry. A digital camera is required.

**Academic Career: UGRD**
**Course Component: Lecture**
**Grade Component: LG/SNC Elective Basis**

**ART 0197 - DIRECTED STUDY**
**Minimum Credits: 1**
**Maximum Credits: 6**
Independent study in art supervised by a member of the art faculty.

**Academic Career: UGRD**
**Course Component: Directed Studies**
**Grade Component: LG/SNC Elective Basis**

**ART 0201 - PAINTING 1**
**Minimum Credits: 3**
**Maximum Credits: 3**
This course is an introduction to painting in which color mixing, painting techniques, composition, and critical theory are emphasized. The purpose of the course is to promote sensitivity to color interaction, advance technical, and compositional skills, and to provide a basis for creative growth and expression.

**Academic Career: UGRD**
**Course Component: Lecture**
**Grade Component: LG/SNC Elective Basis**
**General Education: Arts**

**ART 0202 - PAINTING 2**
**Minimum Credits: 3**
**Maximum Credits: 3**
An exploration of painting at a more advanced level to develop technical skills with media in order to understand the conceptual aspects of both traditional and more contemporary approaches using still life, human figure, and landscape. The goal for the student will be to produce a body of work with a consistent personal direction.

**Academic Career: UGRD**
**Course Component: Lecture**
**Grade Component: LG/SNC Elective Basis**
**General Education: Arts**

**ART 0204 - CONTEMPORARY PORTRAITURE**
**Minimum Credits: 3**
**Maximum Credits: 3**
This course is a study of the fundamentals of traditional and contemporary portraiture. Students will learn basic techniques in drawing, painting, and various media using principles of visual language and critical theory.

**Academic Career: UGRD**
**Course Component: Lecture**
**Grade Component: LG/SNC Elective Basis**
**General Education: Arts**
ART 0208 - WATERCOLOR PAINTING
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to basic painting in watercolor with emphasis on sketching, composition development and painting execution. Students will explore watercolor painting techniques and concepts with emphasis on developing individuality and self-expression related to the medium.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

ART 0211 - JAPANESE VISUAL ARTS & CRAFTS
Minimum Credits: 3
Maximum Credits: 3
An introduction to the appreciation of all aspects of Japanese art, including architecture, painting, calligraphy, printmaking, ceramics, Buddhist art, craft, ikebana, design, movies, and anime or animation, as well as hands-on art workshops. Students will explore Japanese art history as a basis for understanding Japanese aesthetics and craftsmanship. Also, students will gain valuable art experiences by studying the various media used to create traditional and contemporary works of Japanese art, including hands-on workshops in RAKU ceramics, ukiyo-e or woodblock printing, calligraphy, sumi-e or ink painting and basket weaving. This is a GE: arts-non-Western art course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts-Global

ART 1301 - ADVANCED DRAWING
Minimum Credits: 3
Maximum Credits: 3
This course explores the principles of visual language and personal expression, expanding the meanings of drawing techniques, media, methods of composition, approaches and critical theory that were introduced in ART 0101 or ART 0102.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Upper-Level Courses (ENG 0101, ENG 0102, FS 0102, MATH and ART 0101 or ART 0102
General Education: Arts

ART 1303 - ADV DIGITAL GRAPHIC DESIGN
Minimum Credits: 3
Maximum Credits: 3
Design projects examine two-dimensional space and typographic aesthetic, and further investigate the elements and principles of design. Problems will explore advanced computer graphic design and reproduction considerations and the development of a professional design through process. This is also a computer-based course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of ART 0103 is required for ART 1303
General Education: Arts

ART 1310 - ADVANCED PAINTING
Minimum Credits: 3
Maximum Credits: 3
This intermediate course is a comprehensive exploration of painting techniques and concepts designed to expand awareness of the craft of painting and to expose students to issues relevant to contemporary painting and theory.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Arts

ART 1315 - ADVANCED CERAMICS
Minimum Credits: 3
Maximum Credits: 3
This course instructs students in the use of advanced hand-building, throwing and glazing techniques to create both sculptural and functional ceramics ranging from teapots to abstract sculptures. Students will further develop previously acquired hand-building and wheel-working skills in addition to learning advanced glazing techniques such as glazing with a spray gun and the application of precious metallic lusters.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: ART 0110 is required

**ART 1450 - TOPICS IN ART**
Minimum Credits: 3  
Maximum Credits: 3  
Advanced study of a special topic in studio art, art history, or art criticism. Permission of instructor is required.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ART 1452 - DIRECTED PROJECT IN ART**
Minimum Credits: 3  
Maximum Credits: 3  
Independent work on a project in studio art, art history, or art criticism supervised by a member of the art faculty. Permission of instructor is required.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**ART 1494 - UNDERGRAD FACULTY ASSISTANT**
Minimum Credits: 1  
Maximum Credits: 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**ART 1497 - DIRECTED STUDY: ART**
Minimum Credits: 1  
Maximum Credits: 6  
Directed study in a specific area of art. Permission of the instructor is required.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ART 1498 - DIRECTED RESEARCH**
Minimum Credits: 1  
Maximum Credits: 6  
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
ART 1499 - INTERNSHIP IN ART
Minimum Credits: 1
Maximum Credits: 6
Practical experience in art in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Astronomy

ASTRON 0101 - INTRODUCTION TO ASTRONOMY
Minimum Credits: 3
Maximum Credits: 3
This introductory course in astronomy includes topics in light and the telescope, solar system, stars, nebulae, stellar evolution, quarks to quasars, galactic systems and cosmology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ASTRON 0102 - INTRO TO THE SOLAR SYSTEM
Minimum Credits: 3
Maximum Credits: 3
This course gives a brief historical view about the knowledge of the solar system. Newton's law of gravitation and Kepler's Laws are introduced and discussed which are essential in our study of this topic. The study of light and telescope are explored. The majority of the course deals with the origin, features, satellites, atmospheres, compositions, and other minor members of the solar system. Finally, this course describes the search for other planetary systems, extraterrestrial life, and discusses new developments in the field of the solar system.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ASTRON 0103 - INTRO TO ASTRONOMY LABORATORY
Minimum Credits: 1
Maximum Credits: 1
This course provides the students with a valuable experience in analyzing data and laboratory report writing. The students will perform experiments and activities in the following areas: determination of the earth's gravitational acceleration, celestial coordinate systems and locating objects in the sky, properties of lenses and mirrors, telescopes, graphical construction of planetary orbits, output power of the sun, photometry, distance measurement methods, spectroscopy, and astrophotography methods.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ASTRON 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in astronomy. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

ASTRON 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in astronomy.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

Biology

BIOL 0091 - CONCEPTS OF BIOLOGY
Minimum Credits: 3
Maximum Credits: 3
Designed for the non-major. A survey of biological concepts providing students with a good understanding of how biology relates to everyday life.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0092 - CONCEPTS OF BIOLOGY LAB
Minimum Credits: 1
Maximum Credits: 1
Designed for the non-major. May be taken concurrently or after past completion of BIOL 0103 concepts of biology lecture. Laboratory study of diverse aspects of biology.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

BIOL 0101 - INTRO TO CELL & MOLECULAR BIOL
Minimum Credits: 4
Maximum Credits: 4
Designed for the student majoring in biology. Introduces basic concepts about cell structure and function, including the wide variety of macromolecules that play key roles in living systems. The genetic mechanisms by which hereditary information is passed down from one generation to the next will be discussed. Three hours of lecture and three hours of lab per week. Ge: life sciences
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0102 - INTRODUCTION TO BIODIVERSITY
Minimum Credits: 4
Maximum Credits: 4
Designed for the student majoring in biology. An evolutionary survey of organisms, including an introduction to structure and function of various organ systems. Three hours of lecture and three hours of lab per week. Ge: life sciences
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0105 - ANIMAL BEHAVIOR
Minimum Credits: 4
Maximum Credits: 4
Designed for the non-major. An introduction to the basic principles of animal behavior including history, methodology, observable behaviors, neurological basis and interaction with humans and other animals.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0106 - HUMAN GENETICS
Minimum Credits: 3
Maximum Credits: 3
A course designed specifically for non-majors. Introduces the basic principles of genetics from the perspective of the genetics of humans. Topics include the inheritance of single-gene and multi-gene traits, genetic diseases, genetic counseling, population genetics and the social and ethical implications of recent genetic advances.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0107 - BIOTECHNOLOGY AND SOCIETY
Minimum Credits: 3
Maximum Credits: 3
Designed for the non-major. Basic concepts about the power and limitations of biotechnology will be introduced. Biotechnology will be examined from historical, ethical, economic and sociological viewpoints. Society's response to biotechnology in terms of public policy decisions will also be discussed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

BIOL 0108 - PLNTS & PEOPL: INTRO ETHNOBTNY
Minimum Credits: 3
Maximum Credits: 3
The value of plants to society is introduced along with a discussion of the plants as part of the natural world. The course will examine the uses of plants by many cultures, past and present, for food, timber, fuel, clothing, religious activities and medicine, among other uses. A basic introduction to the anatomy and ecology of plants will also be covered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Sci-Global

BIOL 0109 - INTRO ETHNOBOTANY LAB
Minimum Credits: 1
Maximum Credits: 1
Students will be involved in hands-on activities to examine the relationship between plants and people. For example, students will identify local plants with cultural, economic and/or medicinal importance. Simple experiments to test the toxicity of extracts from plants will be performed.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0112 - HUMAN BIOLOGY
Minimum Credits: 3
Maximum Credits: 3
Designed for the nonmajor. General principles of genetics, biochemistry, anatomy, and physiology are illustrated with reference to normal human body functions. Topics are structured to allow the student to better appreciate contemporary issues and controversies. Three hours of lecture per week. Ge: life sciences
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0114 - HUMAN BIOLOGY LAB
Minimum Credits: 1
Maximum Credits: 1
Designed for the non-major. May be taken concurrently or after past completion of BIOL 0112 human biology lecture. Laboratory study of diverse aspects of human biology. Topics include biochemistry, human anatomy, physiology, disease, genetics, and development. Ge life science.

Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
Course Requirements: BIOL 0112 is required (prerequisite or corequisite) General Education: Life Science

BIOL 0118 - ECOLOGY AND ENVIRONMENTAL BIOL
Minimum Credits: 3
Maximum Credits: 3
Designed for the non-major. Basic principles of ecology are introduced along with a discussion of the complexity of environmental problems and their solutions. Three hours of lecture per week.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0119 - ECOLOGY & ENVIRON BIOL LAB
Minimum Credits: 1
Maximum Credits: 1
Laboratory will include field trips to various habitats in our region and analyses of environmental parameters. Three hours of lab per week.

Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Life Science

BIOL 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in biology. Permission of the instructor is required.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

BIOL 0202 - MICROBIOL FOR ALLD HEALTH PROF
Minimum Credits: 4
Maximum Credits: 4
Principles of medical microbiology and immunology. Control of infectious disease and host-parasite relationships will be emphasized using a systemic approach to the study of infectious disease.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

BIOL 0203 - GENETICS
Minimum Credits: 4
Maximum Credits: 4
Introduces the basic principles of inheritance including classical Mendelian Genetics, Molecular Genetics and Quantitative Genetics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

BIOL 0212 - HUMAN ANATOMY AND PHYSIOLOGY 1
Minimum Credits: 3
Maximum Credits: 3
A study of the gross and microscopic anatomy, physiology, and homeostatic mechanisms of the human body, stressing the relationship of structure to
function. This semester covers cell types and tissues and the cellular processes of osmosis, diffusion, and active and passive transport; the integumentary system; the skeletal system and joints and bone metabolism; the muscular system and mechanisms of muscular contraction; the nervous system, mechanism of nerve impulse conduction, and the special and somatic senses. Three hours of lecture per week.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: A&P I Lab required (BIOL 0222)  
**General Education:** Life Science

**BIOL 0213 - HUMAN ANATOMY AND PHYSIOLOGY 2**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A continuation of the study of human anatomy and physiology. This semester covers the cardiovascular system and regulation of heart rate, blood pressure and volume, blood typing, and exchange between blood and somatic cells; the respiratory system and mechanisms of acid-base balance; the endocrine system and the regulation of hormone action and release; the digestive system and control of digestive enzymes; the urinary system and electrolyte balance; the immune system, defense mechanisms, and the inflammatory process; nutrition and anabolic and catabolic processes; the reproductive system and its hormonal regulation; and growth and development. Three hours of lecture per week.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: A&P II Lab required (BIOL 0223)  
**General Education:** Life Science

**BIOL 0216 - CONTEMPORARY ISSUES IN BIOLOGY**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Designed for the non-major, this course covers scientific process and inquiry through a study of current biological topics. Students will evaluate biological discovery and consider its impact on society. Three hours of lecture per week.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Life Science

**BIOL 0217 - PRINCIPAL OF ECOLOGY & EVOLUTION**

**Minimum Credits:** 4  
**Maximum Credits:** 4  
Introduces basic principles of ecology and evolution, in addition to basic principles of experimental design, sampling, and statistics. Topics that will be covered include organismal, population, and community ecological principles, and micro evolutionary and macro evolutionary processes.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: BIOL 0101 or BIOL 0102 or sophomore status  
**General Education:** Life Science

**BIOL 0222 - HUMAN ANAT & PHYSIOLOGY LAB 1**

**Minimum Credits:** 1  
**Maximum Credits:** 1  
A study of the gross and microscopic anatomy, physiology, and homeostatic mechanisms of the human body, stressing the relationship of structure to function. This semester covers cell types and tissues and the cellular processes of osmosis, diffusion, and active and passive transport; the integumentary system; the skeletal system and joints and bone metabolism; the muscular system and mechanisms of muscular contraction; the nervous system, mechanism of nerve impulse conduction, and the special and somatic senses. Three hours of lab per week.

**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** LG/SNC Elective Basis

**BIOL 0223 - HUMAN ANAT & PHYSIOLOGY Lab 2**

**Minimum Credits:** 1  
**Maximum Credits:** 1  
A continuation of the study of human anatomy and physiology. This semester covers the cardiovascular system and regulation of heart rate, blood
pressure and volume, blood typing, and exchange between blood and somatic cells; the respiratory system and mechanisms of acid-base balance; the endocrine system and the regulation of hormone action and release; the digestive system and control of digestive enzymes; the urinary system and electrolyte balance; the immune system, defense mechanisms, and the inflammatory process; nutrition and anabolic and catabolic processes; the reproductive system and its hormonal regulation; and growth and development. Three hours of lab per week.

Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

**BIOL 0250 - SPECIAL TOPICS**
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in biology
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

**BIOL 1302 - MICROBIOLOGY**
Minimum Credits: 4
Maximum Credits: 4
Principles of microbiology and immunology including the morphology, physiology, taxonomy, genetics and ecology of micro-organisms. Viruses, prokaryotes and eukaryotic micro organisms including algae, fungi and protozoa will be studied.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL & BIOL 0101 & BIOL 0102

**BIOL 1304 - VERTEBRATE NATURAL HISTORY**
Minimum Credits: 4
Maximum Credits: 4
The biology of vertebrates will be examined at various levels, including their development, anatomy, physiology, behavior, and ecology. Laboratories will be primarily field trips emphasizing vertebrates found in northwest Pennsylvania. Three hours of lecture and four hours of lab equivalent per week.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**BIOL 1305 - INVERTEBRATE ZOOLOGY**
Minimum Credits: 4
Maximum Credits: 4
The biology of invertebrates will be examined at various levels including their development, anatomy, physiology, behavior and ecology. Laboratories will include both bench and field work, emphasizing invertebrates found in northwest Pennsylvania.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL & BIOL 0101 & BIOL 0102

**BIOL 1306 - NEUROBIOLOGY**
Minimum Credits: 4
Maximum Credits: 4
The biology of nervous systems will be studied at various levels, including the cellular and molecular biology of neurons, sensory systems, motor control, and higher cortical functions in humans. All topics are viewed across phyla and from an evolutionary perspective. The course will emphasize scientific reading and oral communication of scientific material. Three hours of lecture and four hours of lab per week.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
BIOL 1307 - BIOSTATISTICS
Minimum Credits: 2
Maximum Credits: 2
Introduces basic experimental design, sampling procedures and statistical analysis in biological sciences.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1308 - FIELD BOTANY
Minimum Credits: 4
Maximum Credits: 4
Introduction to vascular plant taxonomy, identification and classification, with particular emphasis on learning characteristics of plant families, field identification and recognizing indicator species of various plant habitats.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1309 - PLANT DIVERSITY
Minimum Credits: 4
Maximum Credits: 4
A comparative study of the major groups of photosynthetic plants including discussions of the morphological and evolutionary relationships of algae, bryophytes, lower trichophytes, ferns, gymnosperms and flowering plants.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1310 - ANIMAL PHYSIOLOGY
Minimum Credits: 4
Maximum Credits: 4
This course provides an introduction to animal structure and function. Basic mechanisms of physiology related to major systems will be covered including neurobiology, endocrinology, movement, circulation, gas exchange, digestion and ionic and osmotic balance. The course will use a comparative approach that emphasizes how physiological differences among species have evolved based upon the need for the animal to adapt to the environment. Laboratory sessions will be devoted to reinforcement of lecture concepts using modern physiological methods.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL & BIOL 0101 & BIOL 0102

BIOL 1320 - CELL BIOLOGY
Minimum Credits: 4
Maximum Credits: 4
Cell structure and function are examined emphasizing energy flow, synthesis of biological macromolecules, molecular genetics, and signal transduction mechanisms. Laboratories explore cell biology phenomena, as well as basic cell and molecular biology skills. Scientific writing and critical thinking will be emphasized. Three hours of lecture and four hours of lab per week.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1401 - DEVELOPMENTAL BIOLOGY
Minimum Credits: 4
Maximum Credits: 4
The development of plants and animals will be studied. A particular emphasis will be made on how conserved molecular mechanisms result in the
divergency of living organisms. Model organisms will be used in both lecture and lab to explore developmental processes.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: BIOL 0101, 0102, 0203

**BIOL 1402 - MOLECULAR BIOLOGY**

**Minimum Credits:** 4  
**Maximum Credits:** 4  
The molecular mechanisms of prokaryotic and eukaryotic cell function will be studied, emphasizing molecular genetics, protein function and
genomics. The experimental methods used to research cellular and molecular phenomena will be highlighted. Skills in the reading and writing of
scientific literature will be developed. Laboratories will focus on the experimental process using standard molecular techniques.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**BIOL 1403 - PLANT-ANIMAL INTERACTION**

**Minimum Credits:** 4  
**Maximum Credits:** 4  
Focuses on the evolutionary ecology of plant-animal interactions. Topics will include herbivory, mutualism with an emphasis on seed dispersal and
pollination, and coevolution.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: UL & BIOL 0101 & BIOL 0102

**BIOL 1405 - POPULATION & CONSERVATION BIOL**

**Minimum Credits:** 4  
**Maximum Credits:** 4  
Introduces population analysis and genetics through a conservation biology approach. In addition to basic population-level topics such as
demography, mating systems and life histories, students will also consider what maintains population viability, the concept of meta populations and
the issues surrounding conserving biodiversity.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: BIOL 0217 is a prerequisite for this course

**BIOL 1410 - GENOMICS, PROTEOMICS & BIOINFO**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The explosion of information in biology over the last few decades has led to the development of a new field called bioinformatics, which is closely
aligned with the study of the genome and the proteins it codes (proteomics). This course will focus on the major bioinformatics tools used to explore
the genome and proteome. The students will gain proficiency with these programs, in a case-based manner, which will teach them essential
bioinformatics skills and reinforce knowledge of cell and molecular biology and genetics concepts.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**BIOL 1430 - ECOLOGY**

**Minimum Credits:** 4  
**Maximum Credits:** 4  
Introduction to the interactions of organisms with the living and non-living environment. Basic ecological principles of populations, communities,
and ecosystems will be covered. Topics will include physiological ecology, population growth, interspecific interactions such as mutualism and
predation, community and ecosystem structure and diversity. Laboratory will consist of field exercises combined with data analysis. Three hours of lecture and four hours of lab per week.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisite: BIOL 0217 is a prerequisite for this course

**BIOL 1435 - EVOLUTION**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course covers the evidence, theory, and mechanisms of evolutionary change in populations. Topics will include adaptation, selection, co-evolution, speciation, molecular evolution, and an introduction to phylogenetics. Three hours of lecture per week.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**BIOL 1440 - CANCER BIOLOGY**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
Discovering a cure for cancer has been one of the most difficult challenges for modern biomedical science. This class will discuss what causes cancer, what makes cancer cells different from normal cells, and what avenues for the future treatment of cancer look promising. The scientific process and a discussion of experimental techniques used in modern cancer research will be emphasized.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREREQ: BIOL 0101 and BIOL 0203

**BIOL 1450 - TOPICS IN BIOLOGY**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The advanced study of a special topic in biology.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: UL & BIOL 0101 & BIOL 0102

**BIOL 1451 - CAPSTONE: BIOLOGY**  
**Minimum Credits:** 2  
**Maximum Credits:** 2  
Involves reading primary literature from the diverse sub disciplines of biology and making connections among these and other fields of science. This course enhances scientific writing skills, oral communication and research methods. It involves student-led presentation of published, primary literature on a biological topic of the student's interest. Students will acquire a greater competence in writing in an advanced, scientific format and synthesizing material from diverse disciplines. Three hours of lecture per week.

**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**BIOL 1453 - SENIOR SEMINAR**  
**Minimum Credits:** 1  
**Maximum Credits:** 1  
Recognizing that oral communication of scientific information is important, seminar participants will prepare and deliver a formal paper in the style of the presentation of a paper at a scientific meeting to biology faculty, students and guests. Each oral presentation will be based on the topic chosen for the biology capstone. It will stress a broad understanding of biology and the interconnectedness of its sub-disciplines.

**Academic Career:** UGRD  
**Course Component:** Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1454 - DIRECTED READINGS
Minimum Credits: 1
Maximum Credits: 3
Directed readings is designed to give students the opportunity to do a literature search on the topic of special interest to them or to prepare them to do directed research on a mutually agreed upon problem.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

BIOL 1455 - SPECIAL TOPICS WITH LABORATORY
Minimum Credits: 4
Maximum Credits: 4
This is the advanced study of a special topic in biology which includes a laboratory experience.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

BIOL 1497 - DIRECTED STUDY: BIOLOGY
Minimum Credits: 1
Maximum Credits: 6
Limited to graduating seniors. Permission of the program director and biology faculty supervisor (may not be repeated for credit).
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1498 - DIRECTED RESEARCH: BIOLOGY
Minimum Credits: 1
Maximum Credits: 6
Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and biology faculty supervisor. Every semester. Maximum of 6 credits counted toward biology major.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

BIOL 1499 - INTERNSHIP: BIOLOGY
Minimum Credits: 1
Maximum Credits: 6
Students gain practical experience in biology in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor. Specific requirements are: 45 hours at the intern site per unit of credit earned; a student-kept daily time log and journal of activity; formal
oral presentation to biology faculty and students upon completion of the activity; and a confidential, written evaluation by the on-site supervisor to
the biology faculty supervisor. Every semester. Maximum of 6 credits counted toward biology major.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

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**Business Management**

**BUS 0108 - SMALL BUSINESS MANAGEMENT**

Minimum Credits: 3  
Maximum Credits: 3

Course provides an overview of the role of small business in the free enterprise system. Covers entrepreneurship, opportunities and trends, starting a new venture, franchising, business planning, legal aspects, financing, and managing an ongoing venture.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

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**Civil Engineering**

**CE 0109 - COMPUTER METH IN CIVIL ENGRG 1**

Minimum Credits: 3  
Maximum Credits: 3

An introduction to the use of computers in civil engineering. Topics covered include: personal computers; the mainframe system; word processing; spreadsheets; graphics; cad system; numerical analysis; and civil engineering software packages.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**CE 0119 - COMPUTER METH IN CIVIL ENGRG 2**

Minimum Credits: 3  
Maximum Credits: 3

A continuation of CE 0109.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

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**Chemical Engineering**

**CHE 0035 - INTRODUCTRY CHEMCL ENGINEERING**

Minimum Credits: 4  
Maximum Credits: 4

The principles of conservation of mass and energy are applied to the analysis of chemical processes. Included are material balance for multiple unit processes with recycle, p-v-t properties of gases and gas-vapor mixtures, thermochemistry, combined material and energy balances, and vapor-liquid equilibrium.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SU3 Elective Basis

**CHE 0036 - CHEMCL ENGRNG THERMODYNAMICS 1**

Minimum Credits: 3  
Maximum Credits: 3

Development of the laws of thermodynamics using a macroscopic approach. Fundamental concepts are stressed. Emphasis is placed on chemical engineering applications in problem recitation sessions. Concepts of work, heat, internal energy, potential energy, kinetic energy, enthalpy, entropy, and free energy are developed. Thermodynamic properties and equations of state are defined.

**Academic Career:** UGRD
CHE 1008 - INTRODCTN TO STAGED SEPARTNS  
Minimum Credits: 3  
Maximum Credits: 3  
Unified treatment of separation processes which are carried out in staged equipment. Computer solutions are emphasized. Binary distillation, calculations using graphical methods, multicomponent distillation of ideal and non ideal mixtures, liquid extraction, and differential distillation are studied.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SU3 Elective Basis  

Chemistry  

CHEM 0089 - CONCEPTS OF CHEMISTRY  
Minimum Credits: 3  
Maximum Credits: 3  
This course is designed for the non-major or for those students intending to take CHEM 0101 and CHEM 0102, but whose science and mathematical backgrounds are judged to be relatively weak. The course emphasizes stoichiometry (chemical calculations), chemical equations, gas laws, elementary atomic structure and periodic properties of elements.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Science  

CHEM 0100 - PREPARATION GENERAL CHEMISTRY  
Minimum Credits: 3  
Maximum Credits: 3  
This course is designed for those students who intend to take chemistry 0110 and 0120, but whose science and mathematical backgrounds are judged by their advisors to be relatively weak. The course emphasizes stoichiometry (chemical calculations), chemical equations, gas laws, elementary atomic structure and periodic properties of elements.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  

CHEM 0101 - GENERAL CHEMISTRY 1  
Minimum Credits: 4  
Maximum Credits: 4  
The basic principles of chemistry: atomic and molecular structure, stoichiometry, and the general properties of gases, liquids, and solids. The lab emphasizes the basic techniques in quantitative study of chemical processes.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Science  

CHEM 0102 - GENERAL CHEMISTRY 2  
Minimum Credits: 4  
Maximum Credits: 4  
A continuation of chemistry 0101 emphasizing thermodynamics, chemical equilibrium, and rate processes.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Science
CHEM 0103 - BIOLOGICAL CHEMISTRY
Minimum Credits: 4
Maximum Credits: 4
A survey of inorganic chemistry, and carbohydrate, lipid, and protein chemistry. The course covers atomic structure, properties of matter, nature of chemical bonds and valence, chemical reactions and equilibria, acid-base and oxidation reduction reactions, elementary radiochemistry and some chemical arithmetic.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life or Physical Sci

CHEM 0104 - CHEMISTRY AND SOCIETY
Minimum Credits: 3
Maximum Credits: 3
This course is designed to meet the needs of the non science student in introductory chemistry. A clear understanding of the effects of chemistry influences on everyday life (solutions to the energy problem, maintenance of good health, consumer issues) is presented.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

CHEM 0106 - CHEMISTRY OF THE ENVIRONMENT
Minimum Credits: 3
Maximum Credits: 3
A global view of the environment and its impact on our changing way of life is presented. How chemistry works and how chemistry is interconnected with other areas of life are studied. Environmental and resource problems and possible solutions are examined. Accurate and up-to-date material is presented using scientific analysis and mathematics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

CHEM 0107 - CHEMISTRY OF THE ENVIRONMENT - LAB
Minimum Credits: 1
Maximum Credits: 1
A laboratory course designed to augment and clarify the concepts presented in chem-0106. Real world environmental studies with a chemical basis are stressed. Includes field trips to establishments with an environmental concern and analysis of aqueous samples from natural settings.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

CHEM 0108 - CHEMISTRY AND SOCIETY LAB
Minimum Credits: 1
Maximum Credits: 1
An optional laboratory course designed to augment and clarify the concepts presented in CHEM 0104. Experiments include synthesis of aspirin, antacid analysis, and determine water in popcorn. Includes field trips to crime lab, Kinzua Dam and the water treatment plant.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

CHEM 0186 - INTRODUCTION TO FUELS
Minimum Credits: 1
Maximum Credits: 1
Academic Career: UGRD
CHEM 0187 - DRUGS AND SOCIETY
Minimum Credits: 3
Maximum Credits: 3
The course intended for non-science majors provides facts about drug sources, history, action in the body, side-effects, interactions; tolerance, abuse potential, dependency; drug delivery systems and alternatives will be covered. All major classes of drugs will be covered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

CHEM 0188 - DRUGS AND SOCIETY LAB
Minimum Credits: 1
Maximum Credits: 1
May be taken concurrently with CHEM 0187. Students will be introduced to instrumentation used by medical chemistry and forensic scientists and will be instructed in the synthesis of drugs (e.g., Aspirin). A field trip to the New York state Crime Lab (Olean, NY) will be scheduled.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

CHEM 0189 - INTRODUCTION TO BIOFUELS
Minimum Credits: 3
Maximum Credits: 3
An introduction lecture/lab course involving 'biodiesel fuels' with emphasis on practical aspects of this renewable resource which contributes to the new 'energy economy.' Lecture covers introductory aspects of the fuel, economics, global distribution, feedstock types and lab focuses on biodiesel processing and characterization.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

CHEM 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in chemistry.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

CHEM 0201 - INTRO TO ANALYTICAL CHEMISTRY
Minimum Credits: 4
Maximum Credits: 4
Evaluation of analytical data, quantitative and qualitative analysis, gravimetric analysis, volumetric analysis, precipitation titration, neutralization titration, oxidation-reduction analysis, potentiometric methods, spectroscopic methods, chromatography, and fundamental methods of analysis used by all chemists in research.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CHEM 0205 - CHEMISTRY LITERATURE SEARCH
Minimum Credits: 1
Maximum Credits: 1
This course will provide the student with an understanding of where to find information when researching a topic. The methods of researching the standard sources of information in chemistry are covered.
CHEM 0206 - ORGANIC CHEMISTRY 1
Minimum Credits: 3
Maximum Credits: 3
The chemistry of carbon compounds with emphasis on the methods of preparation and the characteristic properties and reactions of the important classes of organic compounds.

Chemistry 0207 - ORGANIC CHEMISTRY 1 LAB
Minimum Credits: 1
Maximum Credits: 1
Laboratory techniques illustrating fundamental procedures used by organic chemists will be introduced. These techniques include distillation, recrystallization, and extraction. The computer component of the lab includes structure drawing, 3-d visualization, and conformational analysis.

CHEM 0208 - ORGANIC CHEMISTRY 2
Minimum Credits: 3
Maximum Credits: 3
A continuation of CHEM 0206 emphasizing reactions, syntheses, mechanisms, and interconversions of more complicated organic molecules. Organic synthesis and analysis are emphasized in lab.

CHEM 0209 - ORGANIC CHEMISTRY 2 LAB
Minimum Credits: 1
Maximum Credits: 1
A continuation of techniques from organic chemistry 1 lab, including synthesis of target molecules. The computer component includes spectroscopy and molecular modeling, which includes energetics and mechanism.

CHEM 0251 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in chemistry.

CHEM 1301 - PHYSICAL CHEMISTRY 1
Minimum Credits: 4
Maximum Credits: 4
Fundamental concepts of physical chemistry including the structure of matter, principles and application of thermodynamics, chemical equilibria, phase rule, reaction rates, and electrochemistry.
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1302 - PHYSICAL CHEMISTRY 2  
Minimum Credits: 4  
Maximum Credits: 4  
A study of solutions, reaction rates, chemical bonds, quantum mechanics, and spectroscopy.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1303 - SYNTHETIC ORGANIC CHEMISTRY  
Minimum Credits: 3  
Maximum Credits: 3  
An introduction to the modern techniques of organic synthesis, emphasizing the synthon" approach to carbon carbon bond formation."  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1304 - ORGANIC ANALYSIS  
Minimum Credits: 3  
Maximum Credits: 3  
An introduction to spectroscopic methods and instrumentation used by organic chemists for structure determination.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1305 - ANALYTICAL INSTRUMENTATION  
Minimum Credits: 4  
Maximum Credits: 4  
Technical training in potentiometric methods, conductometric methods, electrolytic methods, absorption spectroscopy, flourescence spectroscopy, atomic absorption, and performance chromatography.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1306 - BIOCHEMISTRY  
Minimum Credits: 3  
Maximum Credits: 3  
The chemistry of living systems: proteins, enzymes, lipids, sugars, nucleic acids, biosynthesis, and energetics.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1307 - ADVANCED ORGANIC CHEMISTRY  
Minimum Credits: 3  
Maximum Credits: 3  
A continuation of CHEM 0203 introducing molecular orbital theory, lipids, carbohydrates, and heterocyclic systems.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
CHEM 1308 - ENVIRONMENTAL CHEMISTRY
Minimum Credits: 4
Maximum Credits: 4
A comprehensive overview of the chemistry of water with accent on aqueous environmental problems which include cost, increased energy consumption, national sacrifices, and the benefits of environmental quality.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1309 - INTRO TO MEDICINAL CHEMISTRY
Minimum Credits: 4
Maximum Credits: 4
Designed to provide biology and chemistry students with an exposure to the chemistry of vitamins, hormones beta-blockers, Central Nervous System (CNS) stimulants antidepression drugs, etc. Focus on synthetic methodology. Three hours of lecture and four hours of lab per week.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1312 - ADVANCED BIOCHEMISTRY
Minimum Credits: 4
Maximum Credits: 4
A continuation of biochemistry (CHEM 1306) with emphasis on peptide, nucleotide synthetic methodology. Further treatment of metabolic processes and oxidative phosphorylation. Laboratory will focus on basic research techniques such as electrophoresis, gel permeation chromatography, and enzyme kinetics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1315 - INTRODUCTION TO WOOD CHEMISTRY
Minimum Credits: 4
Maximum Credits: 4
This course is an introduction to the basic principles of wood chemistry and its potential to pulp, paper-making, wood technology, wood waste processing, pulping by-products, bio-mass conversion, cellulose, lignin, wood extracts, etc.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1320 - BIOMASS FUELS AND LUBRICANTS
Minimum Credits: 4
Maximum Credits: 4
An introductory upper-level chemistry course introducing 'biomass conversions' with emphasis on production and characterization of fuels and lubricants for transportation application. Chemical and physical properties, conversion (solids to liquids) fundamentals (i.e. Fisher-Tropsch), fundamental environmental & economic aspects as well as technology. Transfer will be included in this course which consists of 3 hrs. Lecture/4 hrs. Lab weekly.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1401 - INORGANIC CHEMISTRY
Minimum Credits: 4
Maximum Credits: 4
The effects of structure and bonding on chemical properties and the application of periodic relationships to selected families of elements. The laboratory will reinforce topics presented in lecture such as synthesis, stereochemistry, and spectroscopy of inorganic compounds. Three hours of lecture and four hours of lab per week.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1404 - COMPUTATIONAL CHEMISTRY
Minimum Credits: 3
Maximum Credits: 3
Properties accessible by computation which are of experimental accuracy include heats of formation, reaction surfaces (pathways), electron density, intermediates, isotope effects, transition states, reactivity, polarization, normal vibrations, structure, stability, ionization potential, dipole moment, moments of inertia, steric energy, and rotational barriers.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1435 - INTERPRETATION OF MASS SPECTRA
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to the determination of molecular structure using mass spectrometry. Topics include isotopes, molecular ion determination, and fragmentation via unimolecular decomposition.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: CHEM 0208

CHEM 1437 - TOPICS IN INORGANIC CHEMISTRY
Minimum Credits: 3
Maximum Credits: 3
This course examines the effects of structure and bonding on chemical properties and the application of periodic relationship to selected families of elements. Topics include synthesis, stereochemistry, and spectroscopy or inorganic compounds.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: CHEM 0208 AND CHEM 1301

CHEM 1445 - MOLECULAR INFORMATICS
Minimum Credits: 3
Maximum Credits: 3
An introduction to molecular informatics with emphasis on receptor/ligand interactions. Secondary structures, homology modeling, electrostatics, energetics, rotomer evaluation, electronic databases, etc. Will be introduced and utilized throughout the course.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1451 - CAPSTONE: CHEMISTRY
Minimum Credits: 2
Maximum Credits: 2
A yearlong project supervised by a member of the chemistry faculty. Two credits the first semester and two credits the second. The first semester will consist of class meetings to introduce students to searching the chemical literature, gathering of references relating to the student's project, and conducting any laboratory work necessary to the completion of the project. The second semester will be spent writing and editing an extensive paper
using ACS format and conducting an oral presentation of the research. Ge capstone, upper level writing.

Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1455 - TOPICS IN CHEMISTRY
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in chemistry. Permission of instructor is required.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

CHEM 1497 - DIRECTED STUDY: CHEMISTRY
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of chemistry. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1498 - DIRECTED RESEARCH: CHEMISTRY
Minimum Credits: 1
Maximum Credits: 6
Independent work on a chemistry project supervised by a member of the chemistry faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CHEM 1499 - INTERNSHIP: CHEMISTRY
Minimum Credits: 1
Maximum Credits: 6
Practical experience in chemistry in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Computer Information Systems and Technology

CIST 0150 - FUNDAMENTALS OF PROGRAMMING
The course is designed to provide the student with an adequate understanding of programming concepts and principles to enable the student to design and implement programs for his or her own use or use in the classroom.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0161 - THE TECHNOLOGY OF COMPUTING
Minimum Credits: 3
Maximum Credits: 3
It professionals will encounter a variety of platforms in their career. The role of the professional is to select, deploy, integrate, and administer platforms or components to support the organization's it infrastructure. This course covers the fundamentals of hardware and software and how they integrate to form essential components of it systems.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0162 - SURVEY OF INFO TECHNOLOGY
Minimum Credits: 3
Maximum Credits: 3
This course provides an overview of the discipline of it, describes how it relates to other computing disciplines, and begins to instill an it mindset. The goal is to help students understand the diverse contexts in which it is used and the challenges inherent in the diffusion of innovative technology. Students will study in detail fundamental technology components of information systems.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0163 - INTRO TO WEB PROGRAMMING
Minimum Credits: 3
Maximum Credits: 3
The concepts of web programming. Prominently featured are the extensible markup language (xml) and java server pages (JSP). Both client-side and server-side scripting through web database access will be introduced. Assignments will focus developing skills using xml and expandable form in web page design.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0165 - NETWORKING 1
Minimum Credits: 3
Maximum Credits: 3
Networking i builds a deeper understanding of how networks work, including the topics of lans, wans, service providers, packets, hubs, routers, switches, internet protocols routing and switching and the physical layer.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0166 - NETWORKING 2
Minimum Credits: 3
Maximum Credits: 3
Networking ii builds upon the basic networking concepts provided in networking i by adding the ideas of networking security to the discussion. Concepts covered include: cryptography, key algorithms, firewalls, wireless and mobile security and internet security.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0197 - DIRECTED STUDY IN CIST
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in computer information systems and technology.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

CIST 0205 - WEB APPLICATION DEVELOPMENT
Minimum Credits: 3
Maximum Credits: 3
The focus of this course is the development of dynamic web applications and the concepts and issues involved in their development. Students learn current software technologies such as visual studio as well as current design and development methodologies.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0209 - INTRODUCTION TO WEB DATABASES
Minimum Credits: 3
Maximum Credits: 3
The basic concepts of data models, data sub-languages, and user-oriented query-languages in a network environment. The emphasis will be on the structured query language (SQL), and the programming language/SQL (PL/SQL).

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in computer information systems and technology.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0261 - COMPUTER SECURITY
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to the concepts of data security, including policies, attacks, vulnerabilities, encryption, information states, and forensics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CIST 0262 - SYSTEMS ADMINISTRATION
Minimum Credits: 3
Maximum Credits: 3
This course focuses on those skills and concepts essential to the administration of computing systems, networks, software, file systems, web systems, database systems, and system documentation, policies and procedures. This also includes education and support of the users of these systems. Laboratory sessions will consist of demonstrations and hands-on work in this area.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQS: CIST 0161 & CIST 0165

CIST 0265 - OBJECT ORIENTED PROGRAMMING
Minimum Credits: 3
Maximum Credits: 3
This course provides students an opportunity to further develop and refine their programming skills. In particular, the emphasis of this course is on the organization of information, the implementation of common data structures such as lists, stacks, queues, trees, and graphs, and techniques of data abstraction, including encapsulation and inheritance.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: CIST 0150

CIST 1301 - ADVANCED WEB DEVELOPMENT
Minimum Credits: 3
Maximum Credits: 3
This course focuses on building interactive web sites and web applications. Emphasis is placed on database connectivity, web standards, and separation of code into presentation, persistence, and processing layers. CSS and Javascript will be used to create a proper presentation layer. To handle processing and persistence, Ruby on Rails, along with the MySQL database server will be used.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CIST 1307 - DATABASE DESIGN & MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
The structure, use, and design of database management systems (DBMS) architecture. Topics include basic concepts and discussion of database models, data sublanguages, and user-oriented query languages. Management issues such as the role of the DB administrator, data security, and recovery are also discussed.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CIST 1310 - SYSTEMS ANALYSIS AND DESIGN
Minimum Credits: 3
Maximum Credits: 3
Students are introduced to the basic concepts, methodologies, and tools used by systems analysts in the development of new information systems. Topics include problem-solving methods, system investigation, analysis, logical design, system maintenance, team dynamics, and data collection techniques and procedures.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency and CIST 0265

CIST 1311 - ELECTRONIC COMMERCE
Minimum Credits: 3
Maximum Credits: 3
Electronic commerce will be studied using cases, lectures, readings, and internet site evaluations. Student teams will give presentations analyzing individual web sites, including a detailed analysis and evaluation of the business model being used.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CIST 1320 - USER INTERFACE DESIGN
Minimum Credits: 3
Maximum Credits: 3
The primary focus of this course is the successful design and implementation of user interfaces. Technical details, strategies, and principles will be examined, as well as concepts from human cognition studies.
CIST 1325 - INTRO TO SUPPLY CHAIN MGMT
Minimum Credits: 3
Maximum Credits: 3
Supply chain management is about the management of material and information flows in multistage production-distribution networks. Driven by fierce global competition and enabled by advanced information technology, many companies have taken initiatives to reduce costs and at the same time increase responsiveness to changes in the marketplace. This course will provide students with the knowledge and the tools necessary to develop, implement, and sustain strategies for managing supply chain issues.

CIST 1326 - DIGITAL FORENSICS
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to the techniques and tools of computer forensics investigations. Students will receive step-by-step explanations on how to use the most popular forensic tools and understand where potential evidence can be uncovered. Topics will focus on Windows forensics and include coverage of the latest technology. Many hands-on activities are included, which allow students to practice skills as they are learned.

CIST 1327 - INTRUSION DETECTION AND RESPONSE
Minimum Credits: 3
Maximum Credits: 3
In this course you will learn what it takes to be prepared for that intrusion, what it takes to detect the intrusion, and eradicate it. Key topics include Introduction of Intrusion Detection & Protection, and Incident Response Concepts, Familiarity with common IPS, IDS and IR approaches and their applications, Understanding of practical aspects of implementing and managing Intrusion Protection, Detection Systems, and Familiarity with the Operations of effective Incident Response Processes and Organizations.

CIST 1328 - NETWORK SECURITY & CRYPTOGRAPHY
Minimum Credits: 3
Maximum Credits: 3
This course provides students with in-depth knowledge of network security and cryptography. Topics include network security, architectures and protocols of security services, basic cryptographic concepts, authentication mechanisms, and securing network systems and applications.

CIST 1341 - LINUX OPERATING SYSTEM
Minimum Credits: 3
Maximum Credits: 3
This course covers use of the Linux operating system running in a desktop computer environment. It provides an introduction to the installation, configuration, troubleshooting and use of this popular Open Source software. Topics include the Gnome and KDE graphical desktop, working within the bash shell and understanding Linux file system structure including directories, files, file ownership and permissions. Students will learn how to find and install additional packages and system software updates using the utilities provided by the platform. It also covers the Open Source Software
movement in general and its importance in the IT world.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: CIST 0262

CIST 1342 - HOST SCRIPTING
Minimum Credits: 3
Maximum Credits: 3
Process automation is a vital skill for system administrators freeing them from routine tasks and allowing them to focus on more important functions. This course will introduce students to the Batch, Perl, and PowerShell scripting languages. Standard programming methodologies such as variables, arrays, and functions will be learned in the context of automating routine tasks including user, share, logging, data, database, and server management. The strengths and weaknesses of each scripting language will be discussed as well as when scripting is and is not appropriate.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC

CIST 1344 - VISUALIZATION & CLOUD TECHNOLOGY
Minimum Credits: 3
Maximum Credits: 3

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC

CIST 1401 - INFORMATION ASSURANCE
Minimum Credits: 3
Maximum Credits: 3
This course examines the areas of enterprise security and privacy. Risk management and policy considerations are examined with respect to the technical nature of enterprise security as represented by government policies and regulations to support information confidentiality, integrity and availability. The course develops the student's ability to assess security risks and to formulate technical recommendations in response.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency and CIST 0166

CIST 1408 - PROJECT MGMT IN INFOR TECHN
Minimum Credits: 3
Maximum Credits: 3
This course provides a comprehensive approach to project management within the context of information technology. The course addresses the culture, principles, and basic techniques of managing technical projects. Basic tools of project management, such as work breakdown structure, scheduling, contracting, cost analysis, and risk management, are explained and demonstrated.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency and CIST 1310

CIST 1415 - DATA ANALYTICS
Minimum Credits: 3
Maximum Credits: 3
Data mining seeks to provide the tools for the extraction of timely, strategic, informative, or previously unknown gems of information. Looking for patterns, statistically sound data correlation/discovery by association and classification, for example, can unearth knowledge buried within these huge databases.

Academic Career: UGRD
Course Component: Lecture
CIST 1421 - MOBILE APPLICATION PROGRAMMING
Minimum Credits: 3
Maximum Credits: 3
This course will teach fundamental programming principles with a focus on the mobile environment and the Android Platform. Students will learn important development concepts applicable to any environment as well as Android specific APIs. Students will work to create their own Android mobile application as a final project in this course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC

CIST 1422 - GAME DESIGN AND PROGRAMMING
Minimum Credits: 3
Maximum Credits: 3
This is a project-oriented course on game design and game programming. Students will work to design, implement and test a three-dimensional game with interactivity, animation, sound, and networking capabilities utilizing the Unity game engine.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: CIST 0265

CIST 1431 - INTRO TO MULTIMEDIA APPLCS
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to current practices, technologies, methodologies, and authoring systems in the design and implementation of systems that incorporate text, audio, images, animation and full-motion video. Students will complete multimedia projects using state-of-the-art tools.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CIST 1432 - ETHICAL HACKING
Minimum Credits: 3
Maximum Credits: 3
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC

CIST 1443 - NETWORK & SYSTEM ADMINISTRATION PRACTICUM
Minimum Credits: 3
Maximum Credits: 3
This is a laboratory course which provides extensive hands-on application of networking and administration concepts. Students will work in teams to install and configure servers, networking equipment, software and services in a simulated corporate environment.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC

CIST 1450 - TOPICS IN CIS&T
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in computer information systems and technology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
CIST 1451 - CAPSTONE: CIS&T
Minimum Credits: 3
Maximum Credits: 3
A capstone, project-oriented study of the planning, analysis, design and implementation of a business system using model-based software tools and available technology platforms. Much attention is given to communication and team skills. Student teams will be given a user-request for development and expected to develop appropriate systems in response. A final written report will be required as well as an oral summary. Ge: capstone
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CIST 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

CIST 1497 - DIRECTED STUDY: CIS&T
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of computer information systems and technology. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CIST 1498 - DIRECTED RESEARCH: CIS&T
Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in computer information systems and technology, supervised by a member of the computer information systems and technology faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CIST 1499 - INTERNSHIP: CIS&T
Minimum Credits: 1
Maximum Credits: 6
This course is designed to provide the upper-level student an opportunity to assist with the planning and implementation of computing technologies and systems in an approved on-campus site or an approved off-campus site. Students may perform information systems and technology training/consulting and/or end-user support duties.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Classics

CLASS 0102 - MASTERPIECES GREEK & ROMAN LIT
Minimum Credits: 3
Maximum Credits: 3
This course is designed to (re)acquaint students with the acknowledged classics of Greek and Roman literature. A variety of genres will be considered, including epic poetry, tragedy/comedy, history, biography, oratory and satire. Equal emphasis will be accorded to Greek and Roman authors.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

CLASS 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in classics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

Comparative Literature

CLP 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in comparative literature. Permission of the instructor is required.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

CLP 0203 - FILM AND LITERATURE
Minimum Credits: 3
Maximum Credits: 3

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

CLP 0205 - POPULAR LITERATURE
Minimum Credits: 3
Maximum Credits: 3
An examination of the psychology and sociology of popular literature and its effect on readers. Examines popular genres such as Westerns, detective novels, science fiction, and best sellers.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

CLP 0206 - HISPANC LITERATURE (IN ENGLISH)
Minimum Credits: 3
Maximum Credits: 3
Readings in representative works from Spain and Spanish America, with emphasis on contemporary literature. (The denomination Hispanic" may also embrace works in Portuguese or of Spanish writers in the United States.) Taught in English.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature
CLP 0207 - SHORT FICTION IN SPANISH
Minimum Credits: 3
Maximum Credits: 3
This course offers students an introduction to the works of several well-known Spanish and Latin American authors. Students will gradually develop their reading skills in Spanish by reading and discussing short pieces of fiction, thus enhancing their vocabulary, grammar, stylistic appreciation and cultural knowledge of the Spanish language and various Hispanic cultures. Texts have been selected to provide the student with a smooth transition from language classes to an appreciation of Hispanic literature.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CLP 0208 - FRNCH LITRATUR IN TRANSLATION
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to the great body of literature that is contemporary French narrative. We will be reading a representative sample of some of the most important authors of this century, looking at their themes, narrative techniques and the interaction between the two. The two main genres are the short story and the novel. During the semester we will also be viewing films based on well-known French novels or short stories. The class will be encouraged to discuss the films in light of what they learned in the course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

General Education: Literature

CLP 0209 - 20TH CENTUR JAPNESE LITERATURE
Minimum Credits: 3
Maximum Credits: 3
Students read (in English translation) representative works of the 20th century Japanese writers. The course will pay particular attention to the struggle between traditional Japanese culture and Western influence in the post-war era, as reflected in the literature.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CLP 0216 - MODERN AFRICAN LIT: THE NOVEL
Minimum Credits: 3
Maximum Credits: 3
The course will explore selected texts of African literature written in English or translated into English. It covers major modern African fiction and its role in explaining African politics, culture, and religion. Appropriate audio-visual material is included to give students a basic but comprehensive background in postcolonial African literature and culture. Chinua Achebe's things fall apart, Agambila's postcolonial fiction, Mariama Ba's so long letter, as well as Nobel Laureate Wole Soyinka's and other representative works will be studied.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

General Education: Literature-Global

CLP 0220 - CARIBBEAN LITERATURES & CULT
Minimum Credits: 3
Maximum Credits: 3
The history, culture, and politics of the Caribbean are studied through the works of major authors. Representative cultural and audio-visual products are also covered. Diversity and hybridity, as key features of Caribbean identity, are discussed. The role of USA in the shaping of this region will also be examined. Areas covered include Cuba, Haiti, Jamaica, Puerto Rico, Trinidad and Tobago, and the West indies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

General Education: Literature-Global

CLP 0225 - INTRO TO JAPANESE LITERATURE
Using English translations, the course is designed to give an overview of Japanese literary genres through a variety of readings chosen because they reflect the best of their type and historical period. The selections begin with well-known prose works, and comprise folktales, travel journals, pillow books, and early novels that give an insight into a historical Japan. We will then consider the genre of poetry, which reflects the Japanese way of looking at the world, concentrating on kokoro, the essence of the Japanese worldview. The third genre, drama, begins with the ancient kabuki theater and continues through contemporary anime productions. The course ends with in praise of shadows, an essay by Junichiro tanoak that summarizes and reflects upon the cultural differences between eastern and Western civilization.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature-Global

CLP 0230 - MIDDLE EASTERN LITS & CULTURES
Minimum Credits: 3
Maximum Credits: 3
The Middle East has diverse cultures, religions, and geographies-- from Northern West Africa through the Mediterranean all the way to the borders of central Asia. This course is focused on the study of modern middle eastern cultures presented in texts in English translation. Nonfictional and fictional audio-visual material from the region will be used, in thematic manner, to provide students with a better sense of the diverse cultures of the region. The course is also an opportunity to foster a learning community about this region, in order to reassess stereotypes of the region, as often portrayed in popular Western media. The course material is also meant to help students have a better knowledge of the attitudes and dynamism of these societies. Some themes covered include tradition and modernity, nationalism and globalization, diversity, identity, war and revolution, dictatorship and freedom.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of ENG 0101 is required
General Education: Literature-Global

CLP 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in comparative literature.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CLP 1310 - POSTCOLONIAL LITERATURE
Minimum Credits: 3
Maximum Credits: 3
Literature from Africa, the Caribbean and the Asian subcontinent from the period of colonization to the present day. Examines the literature in the context of empire, independence and national identity, drawing on contemporary work in postcolonial theory by said, Ngugi, Chatterjee, Zizek, Achebe, Jameson and others.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Literature-Global

CLP 1315 - CRITICAL METHODS
Minimum Credits: 3
Maximum Credits: 3
An introduction to modern critical theory and literary analysis. Special attention paid to attempts made in this century to construct a general theory of literature incorporating methods from other disciplines (structural linguistics, semantic philosophy, marxism, phenomenology, existentialism, psychology).
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
CLP 1320 - AFRICAN LIT AND SPIRITUALITY
Minimum Credits: 3
Maximum Credits: 3
African belief systems as reflected in African literature, art and culture. By way of novels, videos, theoretical texts, we will examine the metaphysical landscape of Africa in order to underscore the universality of the spiritual experience across human civilizations. Students will be exposed to myths and schemata that explain the African vision(s) of the world.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Literature

CLP 1350 - LATINA WRITERS
Minimum Credits: 3
Maximum Credits: 3
Offering a wide and richly-textured view of the realities of Latina identity in the Caribbean, central and South America, and the United States, this course offers students an opportunity to study the many elements that contribute to those identities and the literary forms in which they are presented. The genres studied will be the novel, essay, poetry, and plays. Readings are in English.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Literature-Global

CLP 1355 - LATINA WRITERS OF THE U.S.
Minimum Credits: 3
Maximum Credits: 3
The growing number of Latina authors living and writing in the United States constitutes a new and varied contribution to the well-studied body of immigrant literature. This course considers Rosario Ferré's Puerto Rican family saga the house on the lagoon, bicultural (Peruvian/American) author Marie Arana's memoir American Chica, and Dominican author Julia Alvarez's book how the Garcia girls lost their accents. These works detail not only these authors' individual immigration experience in the United States but also the interplay of their disparate social, political, and historical backgrounds on a changing sense of identity in a new land. A key element of the course will be essays and poems by Chicana feminist Gloria Anzaldúa, who explores the effect on individual and community identity of individuals living in the borderlands of the United States and Mexico and the creation of a totally new frontier worldview.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CLP 1401 - LITERATURE AND PSYCHOANALYSIS
Minimum Credits: 3
Maximum Credits: 3
Sigmund Freud, the father of psychoanalysis wrote: "long may poetry and psychoanalysis continue to highlight from their different perspectives, the human face in all its nobility and sorrow." Freud clearly realized that literature and psychoanalysis share an immense common ground, language. Literature and psychoanalysis share language as a foundational ground for discovering and communicating the truth of human life as human beings themselves perceive it. Psychoanalysis has been justifiably referred to as the "talking-cure."
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CLP 1450 - TOPICS IN COMPARATIVE LIT
An advanced study of a special topic in comparative literature such as the politics of comparative literature, women in literature, psychology and literature.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**CLP 1494 - UNDERGRAD FACULTY ASSISTANT**  
**Minimum Credits:** 1  
**Maximum Credits:** 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students’ communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.  
**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**CLP 1497 - DIRECTED STUDY: COMP LIT**  
**Minimum Credits:** 1  
**Maximum Credits:** 6  
Directed study in a topic in comparative literature.  
**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**CLP 1498 - DIRECTED RES: COMPARTV LIT**  
**Minimum Credits:** 1  
**Maximum Credits:** 6  
Independent research on a project in literature supervised by a member of the English or comparative literature faculty.  
**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**Cultural Studies**

**CLST 0209 - THE AMERICAN DREAM OF SUCCESS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
An interdisciplinary study of American culture during the late 19th and early 20th centuries.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**CLST 0211 - THE AMERICAN 1960S**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
An investigation of the decline of traditional American culture and the rise in the 1960's of the activist culture as manifested in literature, journalism, music, and alternative lifestyles.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis
CLST 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in the study of culture.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

Colloquium

COLL 1400 - COLLOQUIUM
Minimum Credits: 3
Maximum Credits: 3
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1401 - EVOLUTION: THEORY & ITS LEGACY
Minimum Credits: 3
Maximum Credits: 3
An interdisciplinary investigation of the theory of evolution and its impact on ideas in the modern world. The course will focus upon the progenitors of Darwin, his voyage around the world which provided the data for the origin of species, the reception of his ideas, and the effect which the theory of evolution has had on science, social science, the law, literature, and political thought.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1402 - PARADIGM SHIFTS: SPIRIT DECADE
Minimum Credits: 3
Maximum Credits: 3
The purpose of this course is to provide students with an opportunity to examine the interplay of economic, scientific and cultural events that compose the rich mosaic of our society's progress through the last four decades of American life, and to gain a better understanding of some of the elements that form our reality today.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1403 - SCIENCE & RELIGION WESTERN CULT
Minimum Credits: 3
Maximum Credits: 3
Modern science developed in Europe in a cultural context strongly influenced by Christianity. Early scientists saw their science as an extension of their faith. By the mid eighteenth century, however, more and more thinkers saw religion not as support but an obstacle to science and progress. A century later Darwin's theory of evolution seemed to drive a further wedge between religion & science. Twentieth century theories in physics dealing with quantum mechanics and cosmology pose new challenges to religious understanding and offer new opportunities for dialogue.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1404 - LIVING DANGEROUSLY
Minimum Credits: 3
Maximum Credits: 3
The prime objective of this colloquium is to raise a controversial question and concerns regarding the dangerous contemporary environmental problems facing the human race. This colloquium will comprehensively examine the relationship between the welfare of human family, the state of the environment, and human impact on the ever changing environmental conditions. The colloquium will examine the clashing views on controversial environmental issues effecting our lives.
Academic Career: UGRD
COLL 1405 - INTERNET AND SOCIETY
Minimum Credits: 3
Maximum Credits: 3
The internet is both the topic of and the text for this senior colloquium. We'll investigate the internet's historical context, its current opportunities and its future challenges. Topics for discussion and presentation will include the internet's effect on privacy and law, ethics and medicine, sports and business, among many others. This colloquium will give students the chance to explore their relationship to this technology and begin to investigate how this interactive medium may transform their personal and professional lives.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1406 - THE NEXT AMERICAN DREAM
Minimum Credits: 3
Maximum Credits: 3
The goals of this colloquium are to explain the fundamental literature and models of a powerful array of political, religious and economic forces jockeying for greater influence over the lives of this and future generations, and to identify and explore the ways they apply to everyday lives, to make the model work for the individual, not the individual for the model.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1407 - TERRORISM
Minimum Credits: 3
Maximum Credits: 3
This course will provide a broad overall understanding of the nature and history of terrorism. Included are the history and psychology of terrorism, domestic and religion based terrorism, the development of modern terrorism through bio-chemical hazards, narco-terrorism, internal terrorism, and assassinations. Possible root causes and patterns of terrorism will be discussed. Students will focus on one particular dimension of the topic and provide an in-depth scholarly report.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1408 - CULTURAL DIFFERENCE, SAMENESS
Minimum Credits: 3
Maximum Credits: 3
This colloquium will be an ongoing conversation to understand how we come to think about difference and sameness. We will explore the varieties of difference: gender, ethnicity, class, race, and nationalism. How they are constructed and how society responds to these constructions. We will employ a multidisciplinary approach to understand the implications of difference and identity.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1409 - SOCIETY'S MIRRORS
Minimum Credits: 3
Maximum Credits: 3
The course will examine the effects of contemporaneous political and economic cultures on artistic expression in several areas, including fine arts, literature, and film. The United States from the 1930s will be emphasized, but Japan since World War II and Europe since the 1930s will also be considered. Films and literary works dealing with the second World War and the cold war will be discussed, as well as those dealing with more modern aspects of life. Students will work in groups to develop a critical understanding of themes in relevant works.
Academic Career: UGRD
Course Component: Colloquium
Grade Component: LG/SNC Elective Basis

COLL 1410 - GLOBALIZATION & GLOBAL ISSUES
We are living in an era of unprecedented economic, technological, and cultural interconnection. It is an era of global media and global audiences, planet-enveloping telecommunication networks, transnational virtual communities, worldwide 24-hour financial flows, and multinational networked organizations. The internet has revolutionized the global communications and has facilitated unparalleled interaction and interdependency of human groups and processes across the boundaries that geographically and historically separated them. The objectives of this colloquium are to examine globalization in its economic, political, technological, environmental and cultural dimensions. We will survey the dominant theories of globalization and regionalization and examine the current trends in regionalization and globalization of culture, communication, telecommunication, and information technology industries and global environmental regulatory structures and human rights related issues.

Academic Career: UGRD
Course Component: Colloquium
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Communication

COMM 0101 - INTRO TO HUMAN COMMUNICATION
Minimum Credits: 3
Maximum Credits: 3
An introduction survey course designed to familiarize students with the many contexts of human communication, such as interpersonal, small-group, organizational, public speaking and media communication.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

COMM 0102 - SURVEY OF BROADCASTING
Minimum Credits: 3
Maximum Credits: 3
Historical and contemporary survey of the use and impact of the electronic media including technological and program development, regulations, controls, economics, and audiences.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 0103 - BROADCAST JOURNALISM
Minimum Credits: 3
Maximum Credits: 3
Theories and principles of broadcast journalism with practical experience in writing news stories for radio and television. Analysis of broadcast news program procedures.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 0104 - PUBLIC SPEAKING
Minimum Credits: 3
Maximum Credits: 3
An introduction to the composition and delivery of informative and persuasive speeches, with attention to speech design, delivery, and organization. Practical applications of theoretical concepts focusing on public communication.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 0105 - ORAL INTERPRETATION
Minimum Credits: 3
Maximum Credits: 3
The basic skills of oral interpretation and performance for the presentation of literary works in public.
Academic Career: UGRD
COMM 0106 - NEWS WRITING
Minimum Credits: 3
Maximum Credits: 3
Introduction to writing for news media including the techniques and functions of reporters. The essentials and types of writing for the media will be examined, as will appropriate moral and legal issues. Emphasis will be on both real and hypothetical writing assignments and class discussion of the results.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 0107 - NEWS EDITING
Minimum Credits: 3
Maximum Credits: 3
The principles and practices of editing in modern journalism. Practical experience in editing and exploration of its function in modern journalism.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 0108 - NEWSPAPER STAFF (THE SOURCE)
Minimum Credits: 1
Maximum Credits: 3
Students write, edit, design, sell advertising, take photographs, prepare artwork, and paste up the editions of the source, the official student newspaper of the campus. May be repeated for a total of three credits. Activity credit.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC Elective Basis

COMM 0109 - INTRODUCTION TO CINEMA
Minimum Credits: 3
Maximum Credits: 3
As a popular art form, cinema plays a major role in what we see as contemporary artistic expression. Yet films are often watched passively, without actual awareness of creative technique. This course examines the creative depth of various films, with an emphasis on how the story gets told. Cinematography, editing, the montage, lighting, sound, and various other creative elements that make each film unique are explored.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

COMM 0110 - ROCK 'N' ROLL, PART 1, TO 1970
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to rock 'n' roll," arguably the most important form of mass media generated popular art from the middle of the 20th century until the present. Specifically, this course will use certain developments in mass media technology as a lens through which to examine popular songs as "texts" of cultural, social, political, and artistic significance. These technological innovations include Edison's phonograph and Berliner's gramophone, to be sure, but we will also consider developments such as the long playing (LP) album, the transistor radio, the 45 rpm record, jukeboxes, and wall boxes. The bulk of the course, however, will explore the rise of what came to be called "rock and roll" between Elvis Presley's national emergence in 1956 to the point when the Beatles stopped recording in 1969."
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

COMM 0111 - ROCK 'N' ROLL 2, 1970 - TODAY
This course is an examination of trends in American popular music culture from 1970 to today. While we will examine rock songs as social, political, and musical documents, a principal concern will be how the mass media in general and technological innovation in particular have affected—if not determined—the nature and kinds of popular music that have characterized the last quarter of the 20th century and the beginning of the 21st. We will focus on the period in which 'rock 'n' roll' evolved into 'rock,' holding the center of American popular culture, from about 1970 until the mid-90s. Topics for investigation include the effect of MTV, the rise of hip-hop culture, peer-to-peer file sharing and its impact on the recording industry.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**General Education:** Cultures

**COMM 0115 - INTERPERSONAL COMMUNICATION**

Minimum Credits: 3  
Maximum Credits: 3  

This course is an introduction to and overview of basic theories and research in inter-personal communication. The course addresses our behavior in interpersonal interactions and application of theory and research studied in various settings including the small group. Units of instruction include self-concept formation, stages of relationships and types of relationships, power, conflict and other aspects of interpersonal communication.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**General Education:** Behavioral Sciences

**COMM 0120 - INTERCULTURAL COMMUNICATION**

Minimum Credits: 3  
Maximum Credits: 3  

This course explores the dynamics of culture and communication, and the social effects generated by their interaction. This course emphasizes the establishment and maintenance of student understanding of intercultural dynamics in a manner that positively impacts life outside the classroom.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**General Education:** Cultures-Global

**COMM 0197 - DIRECTED STUDY**

Minimum Credits: 1  
Maximum Credits: 6  

Independent study in a topic in communications. Permission of the instructor is required.

**Academic Career:** UGRD

**Course Component:** Directed Studies

**Grade Component:** LG/SNC Elective Basis

**COMM 0201 - MASS MEDIA AND SOCIETY**

Minimum Credits: 3  
Maximum Credits: 3  

Survey of the role of the mass media in American society and exploration of the uses of these media in public relations. Special emphasis will be given to methods of examining the control, content, audience, and effects of the press, radio, television, and motion pictures.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**General Education:** Behavioral Sciences

**COMM 0202 - RADIO PRODUCTION**

Minimum Credits: 4  
Maximum Credits: 4  

Training in studio operations and procedures. Students will develop and produce public service announcements, commercials, interviews, radio drama, news, and music programs.

**Academic Career:** UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
COMM 0203 - INTRODUCTION TO TV PRODUCTION
Minimum Credits: 4
Maximum Credits: 4
Basic concepts and techniques used in television studio production. Students will design and produce short television programs.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 0205 - SMALL GROUP COMMUNICATION
Minimum Credits: 3
Maximum Credits: 3
Designed to help students improve leadership and membership skills within the small group environment. A major research project is required.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
General Education: Behavioral Sciences

COMM 0210 - SOCIAL MEDIA COMMUNICATION
Minimum Credits: 3
Maximum Credits: 3
New media (e.g., Facebook, Twitter, text messaging, electronic gaming devices, YouTube, etc.) Have been dramatically changing human communication and interaction in the modern society. This course uses media literacy approaches and information-processing tasks to introduce the niche perspectives of mass audience, developments of mass media industries, multiple dimensions of social realities, and potential effects of hyper-online relationships. Learners will explore a variety of communication theories and practices in examining the use of new media.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

COMM 0215 - BOLLYWOOD: POPULAR INDIAN CINE
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to the fascinating world of Bollywood- the Hindi film industry. We will discuss the many facets of Hindi movies such as: dance, music, themes, and social customs. Students will also view Bollywood films (complete with sub-titles). We will use both classic and current Bollywood cinema for this course and trace the development of stylistic and aesthetic changes throughout. Further, we will explore the notion of popular cinema. Specifically, we will inquire into the importance of the popular in a non-Western context and why we must take the popular seriously as a mode of knowledge production, which shapes both cultural practice and aspects of cultural production beyond the cinematic. Through this course, students will learn how Bollywood has emerged as a major player in global media.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

COMM 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in communications.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

COMM 1301 - ADVANCED TELEVISION PRODUCTION
Minimum Credits: 4
Maximum Credits: 4
Advanced techniques of television production emphasizing remote production, editing procedures, and writing. Students will learn advanced
television production theory and prepare several small-group videotape projects.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1302 - MEDIA ADVERTISING**

**Minimum Credits:** 3

**Maximum Credits:** 3

Survey of broadcast advertising including its history, government regulations and advertising theory. Special emphasis on issues surrounding current advertising methods.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1305 - MASS MEDIA LAW AND POLICY**

**Minimum Credits:** 3

**Maximum Credits:** 3

An examination of mass media law and policy through the use of court cases, policy documents, legislation, legal history and legal philosophy. Special emphasis placed on first amendment issues related to the mass media.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1306 - AMERICAN CINEMA**

**Minimum Credits:** 3

**Maximum Credits:** 3

Motion pictures are one of the dominant forms of art in the United States today. What makes them art? And more specifically, what influences their content? This course will explore these questions from a variety of perspectives and ask students to think critically about the art of the motion picture.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**General Education:** Arts

**COMM 1307 - VISUAL COMMUNICATIONS**

**Minimum Credits:** 3

**Maximum Credits:** 3

This course develops a visual grammar for the images that we make and receive. We examine the nature of light and the physiology of the eye and brain, the social construction of symbols, and what ethical responsibilities makers of visual messages must consider. We also explore the role of digital technology in the generation and interpretation of visual messages.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**General Education:** Cultures

**COMM 1308 - ORGANIZATIONAL COMMUNICATION**

**Minimum Credits:** 3

**Maximum Credits:** 3

This course explores and analyzes theories and principles of communication structures. It focuses on concepts and topics within organizational communication such as socialization of employees, communication and leadership, groups and individual decision-making, conflict and the development of organizational culture.

**Academic Career:** UGRD

**Course Component:** Lecture
COMM 1309 - ENVIRONMENTAL COMMUNICATIONS
Minimum Credits: 3
Maximum Credits: 3
This course examines the communications methods of environmentalism—those of both business and industry and those of the environmental movement. While the course is concerned with some of the issues that relate to the environment—land use, air resources, global warming, and pollution, among many others—it's primary concern is the communications questions that these issues illustrate or suggest. We develop and revise 25 pages of material.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

COMM 1310 - HUMAN COMMUNICATION THEORY
Minimum Credits: 3
Maximum Credits: 3
This course explores and analyzes classical and modern theories of human communication. This course will cover theories such as uncertainty reduction theory, technological determinism, agenda-setting theory, and face-negotiation theory. A research project is required.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

COMM 1330 - COMMUNICATION RESEARCH METHODS
Minimum Credits: 3
Maximum Credits: 3
This course will introduce you to quantitative and qualitative research methods in the study of communication. The focuses of this course are: (a) conceptualizing and designing research, (b) conducting research and running data analysis, and finally (c) presenting a research report. The learning process of this course will be both collaborative and independent. This class not only assists you in building the basic concepts of conducting communication research but also helps you to gain a hands-on approach to the rudimentary use of the SPSS software.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

COMM 1335 - NEWSPAPER SR STAFF- THE SOURCE
Minimum Credits: 3
Maximum Credits: 3
This upper-level course offers leadership experience for student journalists of the college newspaper's senior staff. The senior members of the source staff are the editor-in-chief, the managing editor and business manager. The senior editors oversee the writers of the newspaper: they chair the staff's three-times-a-week meetings; they assign, gather and edit final copy for the six issues of the newspaper that are published during each of the fall and spring terms, as well as oversee the design and layout of the paper. The editor-in-chief also manages the efforts of the business manager, whose job is to solicit appropriate advertising from the campus community, regional businesses and national advertisers. This course is repeatable and is open to the editor-in-chief, the managing editor and, with the instructor's permission, the business manager.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: COMM 0108 is a prerequisite for this course

COMM 1401 - BROADCAST PROGRAMMING AND MGT
Minimum Credits: 3
Maximum Credits: 3
A survey of programming techniques used in radio and television and a study of the organizational structure of broadcast stations including
responsibilities of station personnel. Analysis of management decision-making processes with emphasis on policies, sales, and program selection.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1403 - CURRENT ISSUES IN MASS MEDIA**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
Using a seminar/workshop format, students will think about, discuss and write on critical, societal, ethical, regulatory, political and economic issues as they relate to the mass media.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1410 - PERSUASION**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course will explore theories, principles, and strategies of persuasion and social influence as they apply to everyday, interpersonal, and face-to-face contexts in which influence attempts to take place.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1450 - TOPICS IN COMMUNICATIONS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The advanced study of a special topic in communication.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1451 - CAPSTONE: COMMUNICATIONS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
Comprehensive audio and video projects using both remote and studio equipment and focusing on the completion of a professional quality videotape.  
**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**COMM 1494 - UNDERGRAD FACULTY ASSISTANT**  
**Minimum Credits:** 1  
**Maximum Credits:** 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.  
**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**COMM 1496 - CO-OP IN COMMUNICATIONS**
Minimum Credits: 12
Maximum Credits: 12
This course offers students an opportunity to integrate classroom instruction with a practical supervised work experience. 540 Documented hours required.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

COMM 1497 - DIRECTED STUDY: COMMUNICATION
Minimum Credits: 1
Maximum Credits: 6
Directed study of a specific area of communications. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

COMM 1498 - DIRECTED RESEARCH: COMMUNICATION
Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in communication supervised by a member of the communication faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

COMM 1499 - INTERNSHIP: COMMUNICATION
Minimum Credits: 1
Maximum Credits: 6
Practical experience in applied communication in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

Computer Science

CS 0019 - INTRO TO MICROSOFT WINDOWS
Minimum Credits: 0.5
Maximum Credits: 0.5
The student will be introduced to the environment and use of Microsoft windows. The following topics will be covered: use of mouse; starting/closing programs; switching between programs; shutting down; anatomy and manipulation of a window; using program menus, toolbars, list boxes and scroll bars; dialog box controls; using help; formatting and discussion of disks; copying, saving, opening and printing a file; introduction to the internet using Microsoft explorer; introduction to e-mail.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0025 - MICROSOFT WORD 1
Minimum Credits: 0.5
Maximum Credits: 0.5
This course covers how to create, edit, and format a word document. Specific topics include: starting word; viewing the word screen; typing a letter; using autocomplete; entering text; saving a document; adding properties; word wrap; scrolling; error correction; saving a completed document; previewing and printing; using help; spelling and grammar checks; insertion point; select and do; deleting and moving text; undo and redo; find and replace; margins; line spacing; alignment; indenting; bullets and numbers; font and font size; bold, underline and italics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit
CS 0026 - MICROSOFT WORD 2
Minimum Credits: 0.5
Maximum Credits: 0.5
This further develops Microsoft word skills to include creating multi-page reports and desktop publishing. Among the topics covered will be: planning a document; opening a report; setting tab stops; formatting sections of the document; vertical alignment; headers; tables; sorting rows in a table; modifying and formatting a table; auto sum; elements of desktop publishing; wordart; anchoring; columns; clip art; drop capitalization; symbols and special characters; borders; thesaurus; fonts and styles.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0027 - MICROSOFT WORD 3
Minimum Credits: 0.5
Maximum Credits: 0.5
This continues skills in preparing documents. Specific topics include: hyphenating a document; footnotes and end notes; table of contents; planning a form letter; the merge process; sorting records; selecting records to merge; creating labels; integrating objects from other programs; embedding a spreadsheet; linking a chart; hyperlinks; viewing in web layout form; and improving the appearance of an online document.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0028 - MICROSOFT EXCEL 1
Minimum Credits: 0.5
Maximum Credits: 0.5
The student will be introduced to creating and using worksheets to make business decisions. Specific topics include: starting and exiting from excel; excel window; moving around a worksheet; navigating a workbook; opening and saving a workbook; text, values, formulas, and functions; what if", correcting errors; clearing parts of a workbook; printing a workbook; planning and building a worksheet; copying formulas using the fill handle; relative and absolute references; copying and pasting; testing a worksheet; printing a worksheet; headers and footers.”
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0029 - MICROSOFT EXCEL 2
Minimum Credits: 0.5
Maximum Credits: 0.5
Development of professional-looking worksheets and charts. Specific topics include: text wrapping; centering text across cells; indenting; font, font style and size; using styles; borders; color; drawing toolbar; displaying grid lines; portrait vs landscape; hiding and revealing; columns; planning, creating, modifying, moving and resizing a chart; chart types and styles.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0032 - MICROSOFT EXCEL 3
Minimum Credits: 0.5
Maximum Credits: 0.5
This course continues with the integration of excel with other Microsoft programs; developing an excel application and working with multiple worksheets and workbooks. Topics include: inserting word art; linking to a word document; updating a linked object; embedding a chart in a word document; merging documents; hyperlinks; publishing excel data on a web page; arranging a worksheet in sections; macros; planning a multiple worksheet workbook; working with work sheet groups; consolidating 3-d references; creating and using templates; lookup tables and functions.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0035 - MICROSOFT POWERPOINT 1
Minimum Credits: 0.5
Maximum Credits: 0.5
A first course in the use of PowerPoint. Specific skills include: opening, viewing, modifying, and closing a presentation; preparing a presentation using a word outline and graphics; previewing a presentation; creating a table in a slide; and creating and manipulating shapes in slides.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0036 - MICROSOFT POWERPOINT 2
Minimum Credits: 0.5
Maximum Credits: 0.5
This course provides the student with advanced PowerPoint capabilities, as well as how to integrate it with other Microsoft office products. Specific topics include: inserting slides from another presentation; creating a design template; adding graphics and sounds; creating a chart; building an organizational chart; applying special effects; hiding slides; applying a design template; importing, embedding, and linking to other Microsoft objects; adding tab stops; creating hyperlinks; adding action buttons; viewing a slide show with linked objects.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0040 - MICROSOFT ACCESS 1
Minimum Credits: 0.5
Maximum Credits: 0.5
This course is an introduction to Microsoft access for students who have not had access to a database management package before. The course stresses the use and maintenance of access databases and how to query the database. Topics include: database concepts; opening and printing a table; creating a query, form and report; compacting a database; guideline for creating a database and tables; creating a table; adding and copying records; updating and saving a database; modifying table structure; sorting data in a query and filtering data.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0041 - MICROSOFT ACCESS 2
Minimum Credits: 0.5
Maximum Credits: 0.5
This course provides more depth on database queries, as well as creating forms and reports. Specific topics include: defining selection, multiple criteria; performing calculations; creating a form using the wizard; auto format; navigating a form; finding data; printing from a form; creating main and subordinate forms; report wizards; inserting a picture; displaying related records; input masks; pattern matches; list of values; and custom forms.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0042 - MICROSOFT ACCESS 3
Minimum Credits: 0.5
Maximum Credits: 0.5
This course focuses on advanced queries, custom forms, custom reports, and integrating access with other Microsoft software as well as with the web. Specific topics include: selecting, moving and resizing controls, changing captions; adding footers and headers; creating multi-page forms and custom reports; adding fields; working with controls; adding dates, page numbers, title, and lines to a custom report; defining conditional formatting; sorting and grouping; calculating group totals; creating a custom data access page importing an html document; creating hyperlinks.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

CS 0101 - INTRO TO COMPUTER SCIENCE
Minimum Credits: 4
Maximum Credits: 4
This course is an introduction to the concepts, techniques, and tools of computer science with emphasis on problem solving using the C++
A perspective of computer science is developed through the discussion of number systems, computer organization, internal data representation, and programming languages. Three hours of lecture and three hours of laboratory per week are required.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Computational Sciences

### CS 0102 - INTRO TO INFORMATN STRUCTURES

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

A study of the basic data structures of computer science stacks, queues, trees, lists, graphs and their implementation using the pascal programming language. This course is intended to be the course in which the student masters the pascal programming language.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

### CS 0103 - INTEGRATED BUSINESS MICROCOMPUTING

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

This is an introduction to the use of microcomputer office software for information management, document processing, and presentation preparation. The specific software currently being taught is Microsoft windows NT, word, excel, and PowerPoint.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

### CS 0107 - ADVANCED BUSINESS MICROCOMPUTING

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

This course extends the material from CS 0103 to include advanced topics in word, Excel, PowerPoint, as well as a thorough introduction to the database management capabilities of Microsoft access. Particular emphasis will be paid to the construction of templates for word documents, Macros for Excel spreadsheets, and both form and scripted applications in access.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

### CS 0108 - SURVEY OF INFORMATION SYSTEMS

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

A survey of modern business computer information systems. Systems include decision support systems, management information systems, transaction processing systems, executive information systems, strategic information systems, and expert systems. Other topics covered include: end-user computing, systems analysis and design, information resource management and planning, telecommunications, privacy and emerging information technologies.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

### CS 0112 - INTRO 3D MODELING & ANIMATION

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

This course is designed to introduce students to the concepts and skills involved in the creation and manipulation of computer generated 2d and 3d structures. Students will be presented with the underlying fundamentals and limitations involved in computer graphics through the use of several hands on assignments that require them to create their own 3d models. Basic computer skills are required for the completion of the course.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Computational Sciences
CS 0161 - THE TECHNOLOGY OF COMPUTING
Minimum Credits: 3
Maximum Credits: 3
It professionals will encounter a variety of platforms in their career. The role of the IT professional is to select, deploy, integrate, and administer platforms or components to support the organization's IT infrastructure. This course covers the fundamentals of hardware and software and how they integrate to form essential components of IT systems. The recitation will be in the ASIS lab and will focus on hands-on work with such technology. Two hours of lecture and two hours of recitation per week.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0162 - SURVEY OF INFORMATION TECHNOLOGY
Minimum Credits: 3
Maximum Credits: 3
This course provides an overview of the discipline of IT, describes how it relates to other computing disciplines, and begins to install and shape the mindset. The goal is to help students understand the diverse contexts in which it is used and the challenges inherent in the diffusion of innovative technology. Due to the need for scripting skills, the recitation will focus on learning a scripting language and how it relates to IT. Two hours lecture, two hours recitation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0163 - INTRO TO WEB PROGRAMMING
Minimum Credits: 3
Maximum Credits: 3
The concepts of web programming. Prominently featured are the extensible markup language (XML) and Java server pages (JSP). Both client-side and server-side scripting through web database access will be introduced. Assignments will focus developing skills using XML and JSP in web page design.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0165 - NETWORKING 1
Minimum Credits: 3
Maximum Credits: 3
Networking 1 builds a deeper understanding of how networks work, including the topics of LANS, WANS, service providers, packets, hubs, routers, switches, internet protocols routing and switching and the physical layer.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0166 - NETWORKING 2
Minimum Credits: 3
Maximum Credits: 3
Networking 2 builds upon the basic networking concepts provided in networking 1 by adding the ideas of networking security to the discussion. Concepts covered include: cryptography, key algorithms, firewalls, wireless and mobile security and internet security.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0193 - PRACTICUM IN UNIX
Minimum Credits: 1
Maximum Credits: 1
An orientation to the Unix system operating system, including commands and programming the Bourne shell.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
CS 0194 - PRACTICUM IN JAVA  
Minimum Credits: 1  
Maximum Credits: 1  
A practical course in the java programming language. Students gain experience using java in a variety of problem solving applications.  
Academic Career: UGRD  
Course Component: Practicum  
Grade Component: LG/SNC Elective Basis

CS 0195 - PRACTICUM IN MATHEMATICA  
Minimum Credits: 1  
Maximum Credits: 1  
An introduction to scientific computing using mathematical. Topics include: iteration and recursion, structure of programs, abstract data types, algorithms for searching and sorting, operations on vectors and matrices, list processing, theory of computation.  
Academic Career: UGRD  
Course Component: Practicum  
Grade Component: LG/SNC Elective Basis

CS 0196 - PRACTICUM IN PERL  
Minimum Credits: 1  
Maximum Credits: 1  
A practical course in the PERL programming language. Students gain experience using PERL in a variety of problem-solving applications.  
Academic Career: UGRD  
Course Component: Practicum  
Grade Component: LG/SNC Elective Basis

CS 0197 - DIRECTED STUDY  
Minimum Credits: 1  
Maximum Credits: 6  
Independent study in a topic in computer science. Permission of the instructor is required.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

CS 0198 - PRACTICUM IN PYTHON  
Minimum Credits: 1  
Maximum Credits: 1  
A practical course in the python programming language. Students gain experience using python in a variety of problem-solving applications.  
Academic Career: UGRD  
Course Component: Practicum  
Grade Component: LG/SNC Elective Basis

CS 0199 - PRACTICUM IN C#  
Minimum Credits: 1  
Maximum Credits: 1  
This practicum is designed to introduce students to the .Net framework through the use of the c# programming language. Students will create several applications that will familiarize them with the c# specific syntax as well as selected topics in ado and asp creation.  
Academic Career: UGRD  
Course Component: Practicum  
Grade Component: LG/SNC Elective Basis

CS 0201 - COMPUTER SCIENCE CONCEPTS  
Minimum Credits: 3  
Maximum Credits: 3  
An introduction to the key areas in computer science. Each area - including architecture, algorithms, data base management, operating systems, programming languages, artificial intelligence, et al - is presented as an orientation to the upper division course(s) concentrating on that area. A one hour recitation accompanies this course.
CS 0203 - DATA STRUCTURES
Minimum Credits: 3
Maximum Credits: 3
A study of computer representations of structured data both in main memory and on secondary storage devices and operations on such data. Topics include: list structures, various advanced data structures, hashing, file structures and access methods, interaction between main and secondary storage, sorting, and searching.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0205 - PROGRAMMING APPLICATIONS
Minimum Credits: 3
Maximum Credits: 3
An introduction to applications implementation in the web-centered environment. In addition to a major project based on a web-oriented database, the lecture portion of the course will include topics such as user interfaces, the extensible markup language (xml), and the html-related languages. Three hours lecture; one hour recitation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0208 - BUSINESS TELECOMMUNICATIONS
Minimum Credits: 3
Maximum Credits: 3
An introduction to telecommunications and data communications. Topics include terminology and concepts, technology, local area networks (LANS), wide area networks (WANS), electronic mail (email), and electronic data interchange. Emphasis will be placed on the many aspects of telecommunications including competitive advantage, security, and privacy.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0209 - INTRODUCTION TO WEB DATABASES
Minimum Credits: 3
Maximum Credits: 3
The basic concepts of data models, data sub-languages, and user-oriented query-languages in a network environment. The emphasis will be on the structured query language (SQL), query-by-example (QBE), and the programming language SQL (pl/sql). Substantial network examples will be presented.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0230 - CRIME IN THE DIGITAL AGE
Minimum Credits: 3
Maximum Credits: 3
A general course looking at the effect of technology on crime. Items such as social deviance related to technology, how past crimes have evolved to include technology as well as new crimes that were the result of technology will be covered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 0235 - MICROCONTROLLER, ARCH/PROG
Minimum Credits: 3
Maximum Credits: 3
An introduction to the hardware architecture of a contemporary microcontroller. Programs will be written in assembly language and low level c.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

**CS 0240 - INTRO TO INFORMATICS**
Minimum Credits: 3
Maximum Credits: 3
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

**CS 0261 - COMPUTER SECURITY**
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to the concepts of data security, including policies, attacks, vulnerabilities, encryption, information states, and forensics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

**CS 0262 - SYSTEMS ADMINISTRATION**
Minimum Credits: 3
Maximum Credits: 3
Description for catalog this course focuses on those skills and concepts essential to the administration of computing systems, networks, software, file systems, web systems, database systems, and system documentation, policies and procedures. This also includes education and support of the users of these systems. The recitation will consist of demonstrations and hands-on work in this area.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

**CS 0263 - SURVIVBLTY & INFO ASSURANCE**
Minimum Credits: 3
Maximum Credits: 3
Description for catalog this course focuses on the understanding, application, and management of information assurance and survivability in computing, communication, and organizational systems. Information assurance includes operational issues, policies and procedures, risk analyses, recovery, and disaster planning. There will some emphasis on preparing and presenting information assurance to corporate audiences. Three hours lecture.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

**CS 1303 - PROGRAMMING LANGUAGES**
Minimum Credits: 3
Maximum Credits: 3
A study of contemporary programming languages to exemplify different approaches to concepts such as scope of declaration, storage allocation, data structure variety, binding times, and control organization. Languages used recently include pascal, cobol, forth, icon, prolog, and lisp.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**CS 1304 - INTRODUCTION TO SIMULATION**
Minimum Credits: 3
Maximum Credits: 3
The concepts, definitions, and techniques applicable to the modeling and simulation of systems with emphasis on discrete system simulation methods. Topics include: system characterization, classification and modeling, pertinence of concepts from probability and statistics, and
introductory description of suitable programming languages.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**CS 1307 - DATABASE MANAGEMENT**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The structure, use, and design of Database Management Systems (DBMS) architecture. Topics include: basic concepts and discussion of database models, data sublanguages, and user-oriented query languages. Management issues such as the role of DB administrator, data security and recovery will also be discussed.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**CS 1311 - SURVEY OF DATA COMMUNICATIONS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
A technical introduction to data communications. Topics include terminals, modems, data transmission, interfaces, protocols, and local area networks.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**CS 1312 - UNIX OPERATING SYSTEM**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course covers the concepts and programming environment of the Unix of a modern computer operating system. Specific concepts covered will include: shells, process spawning, pipes, redirection, semaphores, mailboxes, shared memory, sockets, remote procedure calls, and file locking. Each student will be expected to be the systems administrator of a small Unix system for a short time.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**CS 1315 - SOFTWARE MAINTEN & ENHANCEMENT**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
A survey of the philosophy and tools of software maintenance. Topics include: version and change control; regression testing; restructuring; problem isolation; application domain knowledge; reverse engineering; redocumentation; reuse; and reengineering.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**CS 1320 - USER INTERFACE DESIGN**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The primary focus of this course is the successful design and implementation of user interfaces. Technical details, strategies, and principles will be examined as well as concepts from human cognition studies. Programming will be visual basic.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
CS 1325 - SECURE COMPUTER SOFTWARE
Minimum Credits: 3
Maximum Credits: 3
Concepts and principles of writing secure software. Topics include auditing, software buffer overflow, access control, race conditions, random number generation, trust management, password authentication, data base security, and firewalls.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1330 - SOCL & ETHCL IMPCT OF COMPUTNG
Minimum Credits: 3
Maximum Credits: 3
An introduction to the social and ethical impact of the computer revolution. Topics include: computers and power; privacy and security; intellectual property; human safety; technological risk; technological reinforcement of gender and racial bias; and impact on employment and education.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1332 - DIGITAL LOGIC
Minimum Credits: 3
Maximum Credits: 3
Introduction to digital systems, Boolean algebra, minimization, combinational circuits, sequential circuits, and programmable controllers.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Behavioral Sciences

CS 1342 - COMPUTER ORGANIZATION
Minimum Credits: 3
Maximum Credits: 3
Data representation, instruction formats, control memory, input/output units, microprocessors, vector and pipeline processing, and multiprocessor systems.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1401 - PRIN OF SOFTWARE ENGINEERING
Minimum Credits: 3
Maximum Credits: 3
Critical components of software development including proper specification of system requirements, application of design techniques, use of well-conceived programming language constructs, validation of software, and evaluation of software quality.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1410 - COMPUTER VISUALIZATION
Minimum Credits: 3
Maximum Credits: 3
Understanding the basic concepts, algorithms, and design principles underlying modern 2d and 3d computer graphics and visualization. Students will learn visualization problem solving and programming skills.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

CS 1450 - TOPICS IN COMPUTER SCIENCE
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in computer science. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1452 - CAPSTONE: COMPUTER SCIENCE
Minimum Credits: 3
Maximum Credits: 3
The student is required to design, implement, and document a project in one of four areas: design & implementation; reengineering; software maintenance; or exploratory development.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1497 - DIR STUDY: COMPUTER SCIENCE
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of computer science. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1498 - DIRECTED RES: COMPUTER SCIENCE
Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in computer science, supervised by a member of the computer science faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

CS 1499 - INTERNSHIP: COMPUTER SCIENCE
Minimum Credits: 1
Maximum Credits: 6
Practical experience in computer science in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Electrical and Computer Engineering

ECE 0031 - LINEAR CIRCUITS AND SYSTEMS 1
Minimum Credits: 4
Maximum Credits: 4
The analysis of linear circuits. Electric variables and circuit elements; Kirchhoff's and Ohm's Law; Mesh and Node Equations; Thevenin and Norton equivalent circuits; first and second-order circuits; time domain analysis.
Academic Career: UGRD
ECE 0041 - LINEAR CIRCUITS AND SYSTEMS 2
Minimum Credits: 3
Maximum Credits: 3
Sinusoidal steady-state analysis, network functions, real and reactive power, three-phase circuits, laplace transform method, two-port networks, and Fourier series.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ECE 0132 - DIGITAL LOGIC
Minimum Credits: 3
Maximum Credits: 3
Introduction to digital systems, Boolean algebra, minimization of logic functions, combinational and sequential circuit design.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ECE 0142 - COMPUTER ORGANIZATION
Minimum Credits: 3
Maximum Credits: 3
Digital computer data representation, instruction formats, control, memory and input-output units, microprocessors, minicomputers.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ECE 0145 - COMPUTER APPLICATIONS 1
Minimum Credits: 4
Maximum Credits: 4
Time sharing, mathematical modeling, computer simulation, CSMP, linear simultaneous equations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ECE 0257 - ANAL & DESIGN ELECTRONIC CIRCT
Minimum Credits: 3
Maximum Credits: 3
Diode circuits, power supply design; analysis and design of bipolar junction transistor and field effect transistor amplifiers. Bias stability analysis, power amplifiers. Ideal operational amplifiers. Cmos inverters.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ECE 0501 - DIGITAL SYSTEMS LABORATORY
Minimum Credits: 3
Maximum Credits: 3
This course and laboratory introduces students to the basic concepts of digital circuits, simulation and instrumentation, systems composed of discrete devices, logic gates, combinatorial and sequential circuits are designed, simulated, built and tested.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ECE 1201 - ELECTNC MEASURMNTS & CRCTS LAB
Minimum Credits: 3
Maximum Credits: 3
Electronic measurements and circuits including experiments on use of electronic test equipment, a variety of linear circuits; non-linear device characteristics, operational amplifier basics, and transistor amplifier characteristics and design. Time and frequency domain methodologies are covered.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade

### EE 0132 - DIGITAL LOGIC

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Introduction to digital systems, Boolean algebra, minimization of logic functions, combinational and sequential circuit design.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG

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### Economics

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#### ECON 0101 - ECONOMICS IN THE MODERN WORLD

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course is designed to provide the student who has had no previous exposure to economics with an introduction to current economic issues.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Economics

#### ECON 0102 - INTRODUCTION TO MICROECONOMICS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A basic course in microeconomics studying the allocation of resources, the distribution income and the mechanism of exchange in a free enterprise system under perfect and imperfect competition. Emphasis is on the market structure of the economy in the United States.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Economics

#### ECON 0103 - INTRODUCTION TO MACROECONOMICS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
An introductory course dealing with the measures of national income, an analysis of national income fluctuations, monetary and fiscal policies and international exchange.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Economics

#### ECON 0104 - ECONOMICS OF INNER CITIES

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course is designed to increase the student's awareness of the economic problems in inner cities: ghetto life, traffic gridlocks, impact of drugs, sex, and violence in schools, experimental housing, economics and urban underclass, shrinking tax base, etc.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Economics
ECON 0111 - MONEY IN THE REAL WORLD
Minimum Credits: 3
Maximum Credits: 3
Team taught course that uses a series of current issues to introduce students to the study and understanding of finance and economics. Topics such as international trade, the behavior of financial markets and U.S. Policy are explored from differing perspectives within the disciplines of finance and economics. Information from current periodicals is extensively employed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Economics

ECON 0112 - TOURISM
Minimum Credits: 3
Maximum Credits: 3
This is a course designed to introduce the students to the many facets of the world's largest industry, tourism. The approach is multidisciplinary focusing on such issues as work and leisure, tradition and modernity, growth and pollution, security and terrorism, privilege and servitude.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Economics

ECON 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of economics.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

ECON 0201 - MONEY AND BANKING
Minimum Credits: 3
Maximum Credits: 3
A study of the nature of money and the role it plays in an economic system. The functions of institutions, such as commercial banks, other financial intermediaries and the federal reserve system will also be studied along with the monetary policies of the United States treasury.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Economics

ECON 0204 - STATISTICAL METHODS
Minimum Credits: 4
Maximum Credits: 4
This course deals with the fundamental techniques of descriptive and inferential statistics and covers measures of central tendency and dispersion, the concepts of probability and probability distribution, sampling distributions, hypothesis testing, chi-square tests and bivariate correlation and regression analysis.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Computational Sciences

ECON 0206 - INTERMEDIATE MICROECONOMICS
Minimum Credits: 3
Maximum Credits: 3
The theories and techniques of price and output are studied. Topics include the theory and measurement of demand, production functions, cost output relationships, pricing practices in competitive and oligopolistic markets, the roles of prices and profit in resource allocation and the functioning of a decentralized economic system.
Academic Career: UGRD
ECON 0207 - INTERMEDIATE MACROECONOMICS
Minimum Credits: 3  
Maximum Credits: 3  
This course begins with the rudiments of model building, and after working through the Keynesian model goes into monetary and fiscal policy issues. Coverage extends into consumption and investment theories.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

ECON 0250 - SPECIAL TOPICS
Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in economics.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

ECON 1301 - POVERTY AND SOCIETY
Minimum Credits: 3  
Maximum Credits: 3  
Poverty is a problem confronting most of the world's societies. This course examines poverty from an economic, political, social, cultural and psychological point of view. Special attention is given to poverty and programs to combat it in NorthWestern Pennsylvania.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

ECON 1303 - INDUSTRIAL ORGANIZATION
Minimum Credits: 3  
Maximum Credits: 3  
A theoretical analysis of market structures and their effects on efficiency, equity and the environment. Focus is on the industrial structure of the U.S. And the public policy response. Emphasis will be on oligopolies and their role in the American economy.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

ECON 1304 - ECONOMETRICS & BUS FORECASTING
Minimum Credits: 4  
Maximum Credits: 4  
This course deals with regression theory covering bivariate and multiple regressions with associated problems such as multicollinerity, heteroscedasticity and autocorrelation. Coverage extends into estimation techniques including simultaneous-equation models.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

ECON 1307 - ECONMCS OF ENERGY & ENVIRONMNT
Minimum Credits: 3  
Maximum Credits: 3  
The course will examine the role of energy in economic development, models of efficient energy management, OPEC behavior and world oil crisis. Coverage extends into environmental issues (air pollution, solid waste, acid rain) and government policies.  
Academic Career: UGRD
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ECON 1315 - STATE & REGIONAL ECON DEVELP**  
Minimum Credits: 3  
Maximum Credits: 3  
This course examines the questions as to why regions grow, or fail to grow, and what, if anything, can government do about it. The focus of the course is on examining the major theoretical approaches to regional economic change, including the basic principles of regional economics.  
**Academic Career:** UGRD

**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ECON 1402 - LABOR ECONOMICS**  
Minimum Credits: 3  
Maximum Credits: 3  
The study of labor economics begins with classical and neoclassical economic theory as applied to the labor factor of production including the evaluation of various labor market hypotheses, proceeds into human resource development and planning, and concludes with labor management relations, and the effects of unionism.  
**Academic Career:** UGRD

**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ECON 1451 - CAPSTONE: ECONOMIC SYSTEMS**  
Minimum Credits: 3  
Maximum Credits: 3  
Studies the operation and management of a wide spectrum of economic systems, ranging from the mixed-market systems of the United States, Europe, and Japan to the central-command systems of the former soviet bloc and the republic of china.  
**Academic Career:** UGRD

**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ECON 1494 - UNDERGRAD FACULTY ASSISTANT**  
Minimum Credits: 1  
Maximum Credits: 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.  
**Academic Career:** UGRD

**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**ECON 1497 - DIRECTED STUDY: ECONOMICS**  
Minimum Credits: 1  
Maximum Credits: 6  
Directed study in a specific area of economics. Permission of the instructor.  
**Academic Career:** UGRD

**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ECON 1498 - DIRECTED RESEARCH: ECONOMICS**
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**ECON 1499 - INTERNSHIP: ECONOMICS**

Minimum Credits: 1  
Maximum Credits: 6  
An internship is a special type of independent study in which the student works in a nonacademic setting. The internship should be directly related to economics. The student's learning is evaluated and graded by a faculty member.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**Education**

**EDUC 0110 - BASIC SKILLS TEST PREPARATION-WRITING**

Minimum Credits: 1  
Maximum Credits: 1  
This course provides remediation and test taking strategies to help prepare education students for the writing basic skills test.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0111 - BASIC SKILLS TEST PREPARATION-READING**

Minimum Credits: 1  
Maximum Credits: 1  
This course provides remediation and test taking strategies to help prepare education students for the reading basic skills test.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0112 - BASIC SKILLS TEST PREPARATION-MATH**

Minimum Credits: 1  
Maximum Credits: 1  
This course provides remediation and test taking strategies to help prepare education students for the math basic skills test.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0197 - DIRECTED STUDY**

Minimum Credits: 1  
Maximum Credits: 6  
Independent work on a project in education supervised by a member of the education faculty.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0204 - INTRODUCTION TO EDUCATION**

Minimum Credits: 3  
Maximum Credits: 3  
This course is an introduction to education for students who plan to enter the profession or for those who are considering teaching as a career. The
course is designed as an overview of the general information required for elementary and secondary preservice teachers, as well as an overview of the history of teacher training.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0210 - EDUCATION PRACTICUM 1**

**Minimum Credits:** 1  
**Maximum Credits:** 1  
Education practicum 1 is the first in a series of three practicum courses for students seeking certification in elementary and secondary education. The first course will focus on speaking and writing for teachers; on the pre professional tests of the praxis series; on lesson planning; learning styles; and classroom observations. The practicum includes two hours of class time per week and two hours of field time.

**Academic Career:** UGRD  
**Course Component:** Practicum  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Sophomore status is required

**EDUC 0215 - ENGLISH LANGUAGE LEARNERS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course provides pre-service teachers with a general overview of the challenges of supporting oral language development in English language learners (ELL). This course addresses the social, political, and cultural context in which language learning takes place and examines those issues that are relevant in language acquisition. This course includes a field component.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0220 - SPECIAL EDUCATION LAW**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A general overview of special education law. Emphases will be placed on individuals with disabilities act (IDEA), Americans with disabilities act (ADA), free and appropriate public education (FAPE), and no child left behind (NCLB). This course includes a field component.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0225 - THE DEVELOPING CHILD**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
In this class, students will examine theoretical perspectives and research findings that provide insights into the course of child development. The course will cover conception and fetal development, infancy and early childhood. Discussions will focus on several domains of human development including physical, cognitive, and socio-emotional development.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0230 - FAMILY & COMMUNITY RELTNSHPS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course prepares teachers to be promoters and practitioners of family and community involvement in education. Goals and benefits of family and community involvement will be explored along with specific strategies for developing partnerships with each entity. Components of family structure, economics, cultural diversity, second-language learners, communication skills and resources are integrated into the coursework.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**EDUC 0235 - INSTRUCTIONAL DESIGN**
Minimum Credits: 3  
Maximum Credits: 3  
This course emphasizes the use of purposeful and reflective decision making in choosing developmentally appropriate content and pedagogical techniques. These decisions will result in a classroom environment conducive to obtaining desired outcomes for student learning. The course will focus on lesson plan writing, the papa test series, multiple intelligences, and speaking and writing for teachers. The course includes twenty hours of field time.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

EDUC 0251 - SPECIAL TOPICS  
Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in education.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

EDUC 0255 - READINGS IN CHILDREN'S LITERTR  
Minimum Credits: 3  
Maximum Credits: 3  
This course is an introduction to literature for children. Students will learn guidelines for evaluating literature for children, study the history and current state of literature for children, and review various genres of literature for children. Required reading includes classics of children's literature, award winners, and other books of current value and interest. This course includes a field component.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Second Lit.

EDUC 0275 - ADOLESCENT LITERATURE  
Minimum Credits: 3  
Maximum Credits: 3  
This course prepares a student to develop a reading program for an individual or a class in a secondary school and to prepare the student to teach fiction, poetry, and drama in the classroom. The course should be of particular interest to present and future teachers. We will read classics as well as modern works written specifically for an adolescent audience. We will also read and discuss sociological and psychological studies of adolescents and books on pedagogy.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Second Lit.

EDUC 1301 - INSTRUCTIONAL TECHNOLOGY  
Minimum Credits: 3  
Maximum Credits: 3  
Students will apply theories, research, and current practices pertaining to the utilization of various forms of technology in curriculum and instruction. This will include modifying instruction to meet the needs of diverse learners, creating a positive learning environment, increasing motivation and engagement, and the role of technology in student assessment.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.

EDUC 1302 - ASSESSMENT TECHNIQUES  
Minimum Credits: 3  
Maximum Credits: 3  
The course is designed to help teacher candidates become well-versed in assessment strategies. Comprehensive assessment topics including standardized tests and informal strategies, how to prepare for and conduct assessments, and how to select tests and strategies to ensure results that are
valid and unbiased will be examined. Finally, students will learn how to interpret and use assessment data to drive curriculum.

**Academic Career: UGRD**
**Course Component:** Lecture
**Grade Component:** LG/SNC Elective Basis
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**EDUC 1306 - CLASSROOM MANAGEMENT**

- **Minimum Credits:** 3
- **Maximum Credits:** 3

The course prepares pre-service early level (prek-4) teachers to be effective classroom managers through exposure to effective discipline methods and theories currently being used in diverse classrooms.

**Academic Career:** UGRD
**Course Component:** Lecture
**Grade Component:** LG/SNC Elective Basis
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**EDUC 1307 - SECONDARY METHODS**

- **Minimum Credits:** 4
- **Maximum Credits:** 4

This course introduces students to various components of instructional design, actual instruction, and classroom climate. The course includes extensive off campus experience to acquaint the student with various educational settings, as well as the roles and responsibilities of teachers in schools.

**Academic Career:** UGRD
**Course Component:** Lecture
**Grade Component:** LG/SNC Elective Basis
**Course Requirements:** PREQ: UPB Admission to Education is required in order to register for this course.

**EDUC 1309 - DIFFN READING INSTC & INTRV**

- **Minimum Credits:** 3
- **Maximum Credits:** 3

This course provides an in-depth study of the balanced literacy approach to reading and writing focusing on methods to differentiate reading instruction. Authentic assessment tools and miscue analysis will be used to determine instructional goals for student learning.

**Academic Career:** UGRD
**Course Component:** Lecture
**Grade Component:** LG/SNC Elective Basis
**Course Requirements:** PREQ: UPB Admission to Education is required in order to register for this course.

**EDUC 1310 - EDUCATION PRACTICUM 2**

- **Minimum Credits:** 1
- **Maximum Credits:** 1

Education practicum 2 is the second in a series of three practicum courses for students seeking certification in elementary and secondary education. This course will continue the emphasis on speaking and writing for teachers through the preparation and teaching of lessons. In addition, preparing for required praxis tests will be covered as well as classroom management strategies and other pertinent educational topics. The practicum includes two hours of class time per week and two hours of field time.

**Academic Career:** UGRD
**Course Component:** Practicum
**Grade Component:** LG/SNC Elective Basis
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**EDUC 1312 - LANG DVLP & ERLY LITRCY FNDTNS**

- **Minimum Credits:** 3
- **Maximum Credits:** 3

This course will prepare teacher candidates to develop, deliver, and assess content related to language development, language comprehension and expression and language skills. In addition, the topics of phonological development and emerging literacy will be covered.

**Academic Career:** UGRD
**Course Component:** Lecture
Edu 1315 - Advanced Reading Methods
Minimum Credits: 3
Maximum Credits: 3
Advanced reading methods is the second course in reading and language arts for students seeking elementary certification. Students will continue their study of language, the balanced literacy approach to reading and writing, and instructional strategies for the development of phonemic awareness, phonics, vocabulary, fluency, and comprehension. Emphasis will be placed on phonics and assessment.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Edu 1318 - Early Math Foundations
Minimum Credits: 3
Maximum Credits: 3
This course will prepare teacher candidates to develop, deliver, and assess content-related early math skills. Students will learn how to engage young learners in hands-on experiences and math exploration as they develop a concrete understanding of classification, patterning, counting, ordering, addition, and subtraction.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Edu 1320 - Art, Music, & Movement Methods
Minimum Credits: 3
Maximum Credits: 3
This course examines the essential role of the arts in an early level (Prek-4) classroom, focusing on the importance of multiple intelligence theory and its implications for teaching and learning fine and performing arts. In addition, the course focuses on quality, meaningful physical activity and physical education experiences.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Edu 1322 - Social Studies Methods
Minimum Credits: 3
Maximum Credits: 3
This course is designed to provide an overview of the methods, materials, curriculum, and activities used to teach social studies in grades Prek-4. The course is intended to help students acquire a repertoire of planning and instructional skills necessary for teaching social studies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Edu 1325 - Development of Exceptional Children
Minimum Credits: 3
Maximum Credits: 3
This course surveys the major areas of exceptionalities and student diversity addressing the characteristics and educational needs of students. Students explore major physical and psychological characteristics, diagnostic and therapeutic services, educational programs, legal issues, and findings of recent research. This course includes a field component.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
EDUC 1327 - SCIENCE METHODS (PREK-4)
Minimum Credits: 3
Maximum Credits: 3
This course focuses on the use of process oriented inquiry methodology to develop science literacy in all children. The course will foster a working knowledge of science education standards as well as a facility in science process skills which are vital for effective teaching. The course will provide opportunities to apply cognitive development knowledge and will explore the integration of technology, children's literature and other content areas within the early level (prek-4) science classroom.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.

EDUC 1330 - EDUCATING EXCEPTIONAL CHILDREN
Minimum Credits: 3
Maximum Credits: 3
An examination of the varied special needs found in today's students, including both learning disabilities and the more profound physical and emotional handicaps. All school personnel must be familiar with these situations as well as the adaptations in learning that must occur as a direct response to these conditions.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: PSY 0101 and EDUC 1325

EDUC 1332 - LITRCY FNDTNS FOR PRIM GRADES
Minimum Credits: 3
Maximum Credits: 3
This course will prepare teacher candidates to teach early literacy content through a balanced literacy approach including word level recognition, text level comprehension, and reading-writing connections.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.

EDUC 1334 - LITRCIES ACROSS MIDL/SEC CURR
Minimum Credits: 3
Maximum Credits: 3
The course introduces and engages students in strategies that address literacies for 21st century learners in middle and secondary content areas. Focus areas include assessments, strategies for pre-reading, during reading and post-reading, writing, technologies, critical thinking, and creating literary environments in middle and secondary classrooms. The course includes a pde required field component. Prerequisite: admission to the education program
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: Completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency AND EDUC 0235

EDUC 1345 - EDUCATIONAL THEORIES PRACTICES
Minimum Credits: 3
Maximum Credits: 3
Students develop criteria and skills to examine case studies, conduct field observations, read and apply articles on best practices, discover and incorporate learning domains and theorists into the design of lessons that address the challenges, needs and interests of students within the candidates' content and grade level. Charlotte Danielson's framework for teaching is a foundation of the course so the student will create a variety of effective learning environments.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
EDUC 1350 - EDUCATIONAL PSYCH & MEASUREMENT
Minimum Credits: 3
Maximum Credits: 3
Areas of study include psychological aspects of educational objectives, learning theory and its application, individual differences, motivation, development of personality and sex differences, and basic concepts in measurement and evaluation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EDUC 1354 - HLTH & PHYSL WELL-BEING ELEM
Minimum Credits: 2
Maximum Credits: 2
This course provides the teacher with a background in the health and fitness needs of school children. Students will learn planning, content, and methods for teaching personal and community health in the elementary school.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1360 - TEACHING SOC'L STUDIES ELEM SCH
Minimum Credits: 2
Maximum Credits: 2
This course deals with objectives, content, procedures and classroom activities in the social studies. Materials available, evaluation of textbooks, community resources and how they may be used effectively in classroom instruction will be discussed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1362 - ELEMENTARY MATHEMATICS METHODS
Minimum Credits: 2
Maximum Credits: 2
Concrete and abstract methods used in teaching and evaluating pupil achievement in the fundamental concepts and operations of the basic principles of modern mathematics in the elementary school are studied.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1364 - TEACHING ELEMENTARY SCIENCE
Minimum Credits: 2
Maximum Credits: 2
Creative methods used in teaching and evaluating pupil achievement in the fundamental concepts of science in the elementary school are studied.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1366 - ART & MUSIC IN ELEM EDUC
Minimum Credits: 2
Maximum Credits: 2
Introduces art and music processes, practices, and programs in relation to their role in arts instruction. Emphasis is on developmental aspects of children's responsive and expressive skills in art and music.
Academic Career: UGRD
Course Component: Lecture
EDUC 1375 - TEACHING READING & LANG ARTS

Minimum Credits: 3
Maximum Credits: 3
This is a methods course for students seeking elementary certification. Students will study emergent literacy, guided reading, acquisition of language, multiple intelligences, kid writing, literature circles, and cultural diversity and its effect on language and learning in addition to other current topics in the field.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1378 - READING & WRTNG IN CONTNT CURR

Minimum Credits: 3
Maximum Credits: 3
The course focuses on reading and writing for effective study in secondary school subjects. Techniques for developing vocabulary, comprehension and skills in thinking, content writing and study are offered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1410 - EDUCATION PRACTICUM 3

Minimum Credits: 1
Maximum Credits: 1
Education practicum 3 is the third in a series of three practicum courses for students seeking certification in elementary and secondary education. This course will continue the emphasis on speaking and writing for teachers through the preparation and teaching of lessons. Classroom management strategies and other pertinent educational topics will be covered through the work of Harry Wong and other education writers. Topics related to student teaching will be covered. Students will teach two lessons in the field and one lesson in the college classroom, using the smart board.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1438 - ADVANCED STUDENT TEACHING

Minimum Credits: 5
Maximum Credits: 6
Assignments will be in line with certification requirements.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EDUC 1451 - CAPSTONE: EDUCATION

Minimum Credits: 3
Maximum Credits: 3
The elementary education capstone requires students to conduct a thorough review of literature in a chosen area of study as well as design an original research investigation which would make a unique contribution to the field of education. Student work may be focused on a specific education-related interest, but all aspects of the work must be original.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UPB Admission to Education is required in order to register for this course.

EDUC 1460 - STUDENT TEACHING-ELEMENTARY
Minimum Credits: 12  
Maximum Credits: 12  
Full-time practicum for teacher certification candidates. A period of supervised observation and student teaching in an elementary school.

**Academic Career:** UGRD  
**Course Component:** Practicum  
**Grade Component:** H/S/U Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**EDUC 1464 - PROFESSIONAL ISSUES IN EDUCATN**  
Minimum Credits: 3  
Maximum Credits: 3  
Examines local, national and international issues in education. Topics include curriculum censorship, professionalism, career opportunities and other current issues.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**EDUC 1479 - TEACHING PRACTICUM**  
Minimum Credits: 3  
Maximum Credits: 3  
The teaching practicum allows students seeking certification to practice designing and teaching lesson plans. Students study classroom management and teaching strategies both in the laboratory setting and in the field.  
**Academic Career:** UGRD  
**Course Component:** Practicum  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: UPB Admission to Education is required in order to register for this course.

**EDUC 1480 - STUDENT TEACHING-SECONDARY**  
Minimum Credits: 12  
Maximum Credits: 12  
Full-time practicum for teacher certification candidates. A period of supervised observations and student teaching in two secondary schools.  
**Academic Career:** UGRD  
**Course Component:** Practicum  
**Grade Component:** H/S/U Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**EDUC 1481 - STUDENT TEACHING**  
Minimum Credits: 12  
Maximum Credits: 12  
This is a full-time practicum for teacher certification candidates consisting of a period of supervised observations and student teaching at two different levels in two different school districts.  
**Academic Career:** UGRD  
**Course Component:** Practicum  
**Grade Component:** H/S/U Basis  
**Course Requirements:** PREQ: UPB Admission to Education is required in order to register for this course.

**EDUC 1494 - UNDERGRAD FACULTY ASSISTANT**  
Minimum Credits: 1  
Maximum Credits: 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.  
**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit
EDUC 1497 - DIRECTED STUDY: EDUCATION
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of education. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EDUC 1498 - DIRECTED RESEARCH: EDUCATION
Minimum Credits: 1
Maximum Credits: 6
Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and education faculty supervisor.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EDUC 1499 - INTERNSHIP: EDUCATION
Minimum Credits: 1
Maximum Credits: 6
Practical experience in education in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

English

ENG 0090 - ENGLISH FOR ACADEMIC PURPOSES
Minimum Credits: 3
Maximum Credits: 3
This course is intended for non-native speakers of English who need to improve their reading and grammar skills and enlarge their knowledge of vocabulary for success in doing University-level coursework in English. The course includes intensive reading of the selections in the textbook, extensive reading of academic and similar materials chosen by the student or the instructor, discussions and writing assignments related to the readings, vocabulary development, and practice in applying various reading strategies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ENG 0100 - INTRO TO COLLEGE COMPOSITION
Minimum Credits: 3
Maximum Credits: 3
Designed to build self-confidence in the use of standard written English, including the ability to compose clear and correct standard English prose in sentences, paragraphs, and short essays.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ENG 0101 - ENGLISH COMPOSITION 1
Minimum Credits: 3
Maximum Credits: 3
The first of two required competency courses in English composition, this course focuses on the writing process and on the kinds of writing common in the academic disciplines.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  

**ENG 0102 - ENGLISH COMPOSITION 2**  
Minimum Credits: 3  
Maximum Credits: 3  
This is an extension of the skills mastered in ENG 0101, this course focuses on the processes of researching, writing, and presenting a term paper.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  
**Course Requirements:** Prerequisite: Completion of ENG 0101 is required

**ENG 0103 - INTRODUCTION TO POETRY**  
Minimum Credits: 3  
Maximum Credits: 3  
The development of basic analytical and critical techniques that prepare students to understand and appreciate poetry.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Literature

**ENG 0104 - INTRODUCTION TO DRAMA**  
Minimum Credits: 3  
Maximum Credits: 3  
A study of plays as a literary genre. Such concepts as themes and attitudes, literary style, and structural techniques are emphasized. Readings range from the ancient Greeks to contemporary dramatists.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Literature

**ENG 0105 - MASTERPIECES OF WORLD LITERATUR**  
Minimum Credits: 3  
Maximum Credits: 3  
A study of themes, ideas, and attitudes found in the works of writers from many countries. This course will offer students the opportunity to read in translation works that are considered classics in Western culture. Selections from the bible, Greek and Latin poets and playwrights, medieval masterpieces, and works from Renaissance literature.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Literature

**ENG 0106 - INTRODUCTION TO SHORT STORY**  
Minimum Credits: 3  
Maximum Credits: 3  
Students read and discuss representative short stories. The short story is studied as a literary genre with emphasis on structure, technique, style, and theme.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Literature

**ENG 0110 - LITERATURE AND INTERPRETATION**
Minimum Credits: 3  
Maximum Credits: 3  
This course is an examination of the ways in which both literary and non-literary texts create meaning and an introduction to some of the methods of literary interpretation. Beginning with literary concepts like genre, narrative, character and figurative language, this course considers the interaction among the reader, the writer and the text itself, and between different texts.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Literature

ENG 0197 - DIRECTED STUDY  
Minimum Credits: 1  
Maximum Credits: 6  
Independent study in a topic in English. Permission of the instructor is required.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

ENG 0198 - DIRECTED RESEARCH IN ENGLISH  
Minimum Credits: 1  
Maximum Credits: 6  
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

ENG 0201 - AMERICAN LIT BEFORE CIVIL WAR  
Minimum Credits: 3  
Maximum Credits: 3  
A survey of American literature from the beginnings to the 1870's including a study of the cultural values that influenced literature. Begins with the colonial period and proceeds through other periods such as Calvinism, deism, realism, transcendentalism, and naturalism.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Literature

ENG 0202 - AMERICAN LIT SINCE THE CIVIL WAR  
Minimum Credits: 3  
Maximum Credits: 3  
A survey of the major American writers of prose and poetry from the 1870's to the present including the works of William Dean Howells, mark twain, Emily Dickinson, Henry James, T S. Eliot, F. Scott Fitzgerald, William Carlos Williams, and Norman Mailer.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Literature

ENG 0203 - BRITISH LITERATURE BEFORE 1800  
Minimum Credits: 3  
Maximum Credits: 3  
A survey of the prose and verse produced by British writers from the eighth to the 18th century. Major authors and movements of English literature from Anglo-Saxon times to the age of enlightenment will be covered.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Literature-Global

ENG 0204 - BRITISH LITERATURE SINCE 1800
Minimum Credits: 3
Maximum Credits: 3
A survey of the major English writers of the 19th and early 20th centuries. The course stresses both the variety and the continuity of our literary heritage.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

ENG 0205 - INTRODUCTION TO SHAKESPEARE
Minimum Credits: 3
Maximum Credits: 3
A study of selected plays of Shakespeare. The classroom study draws attention to elements that vitalize the action of each play as a whole, with due regard for language and thematic patterns as well as for characterization.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

ENG 0206 - HISTORY OF THE ENGLISH LANG
Minimum Credits: 3
Maximum Credits: 3
Studies of the evolution of English from Germanic dialects, its chronological changes, and differences in the English of various countries, regions, and social groups.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

ENG 0207 - AMERICAN POETRY
Minimum Credits: 3
Maximum Credits: 3
A study in chronological order of the major American poets with emphasis on Edward Taylor, poet, Emerson, Whitman, Thoreau, Melville, Longfellow, Emily Dickinson, Stephen Crane, Robinson, Frost, and Eliot.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

ENG 0210 - THE US IN VIETNAM
Minimum Credits: 3
Maximum Credits: 3
The history of American involvement in Vietnam after world ii and an examination of the effects of the Vietnam conflict on American society.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

ENG 0212 - GRAMMAR
Minimum Credits: 3
Maximum Credits: 3
A descriptive analysis of the English language.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ENG 0214 - INTRO TO LITERATURE BY WOMEN
Minimum Credits: 3
Maximum Credits: 3
The attitudes of both men and women will be honored as together we examine and discuss stories, poems, essays, and perhaps a short novel or two written by women of the nineteenth and twentieth centuries. We will consider, in light of our own experiences, the perspectives and concerns of women and the literary forms they have taken on.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

ENG 0215 - THE BIBLE AS LITERATURE
Minimum Credits: 3
Maximum Credits: 3
The English bible is a major influence, affecting literature, art, and ethics. Examines the bible not as inspiration but as a collection of stories and poetry. Considers history and doctrine, but major interest is in the literary aspect.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

ENG 0218 - INTRO TO LITERATURE & ENVIRON
Minimum Credits: 3
Maximum Credits: 3
An introduction to some of the ways nature and the environment have been represented in poetry, fiction, film, and essays. Students will read some of the major literary statements about the environment by such writers as Alto Leopold, John Muri, Henry David Thoreau, William and Dorothy words worth, and others. The course will also look at nature writing as an exploration of religious, ethical, aesthetic, and other human concerns not obviously related to the non-human world.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature

ENG 0219 - AFRICAN-AMERICAN WRITERS
Minimum Credits: 3
Maximum Credits: 3
African-American writers is designed for students seeking to deepen their knowledge and understanding of the American experience through the writings of key black writers and activists. The works of these authors stand at the confluence of creativity, ideology and activism inasmuch as they generate controversy and challenge representations, race, gender, and sexuality in the US. Both fictional and non-fictional works will be selected from the writings of such as Alice Walker, Maya Angelo, Toni Morrison, Frederick Douglass, Malcolm X, W.E.B Dubois, Ralph Ellison, James Baldwin, Martin Luther King Jr, (among others) will be studied in order to develop a deeper appreciation of African American culture-within the context of a broader Americana. Audio-visual materials will be deployed to enhance the learning experience for students.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of ENG 0101 is required
General Education: Literature

ENG 0223 - PHILOSOPHY IN LITERATURE
Minimum Credits: 3
Maximum Credits: 3
An examination of philosophical themes in literature from both East and the West. A novel, a play, folk tales, and poetry will be discussed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Literature
ENG 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in English.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ENG 1302 - ENGLISH RENAISSANCE LITERATURE
Minimum Credits: 3
Maximum Credits: 3
An examination of literary forms and ideas prevalent between 1500 and 1660 in the writings of Spenser, Shakespeare, Bacon, Donne, Jonson, and Milton. The humanistic and metaphysical sensibilities of the period are considered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1304 - 19TH-CENTURY BRITISH LIT
Minimum Credits: 3
Maximum Credits: 3
In-depth study of the literature of the British romantic and Victorian periods. This course will include representative works of fiction, poetry, non-fiction, prose, and drama from throughout the century. The topical focus of the course as well as its relative emphasis on one or another of the four genres will vary from one semester to another.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Literature

ENG 1305 - 20TH-CENTURY BRITISH LIT
Minimum Credits: 3
Maximum Credits: 3
Covers some of the major British and Irish writers of the 20th century. Examples from Hardy, Yeats, Eliot, Wolfe, and Lawrence are read and discussed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1306 - TWENTIETH-CENTURY IRISH LIT
Minimum Credits: 3
Maximum Credits: 3
A survey of Irish literature from the fall of Parnell (1890) to the present. The tragi-comic history of a troubled nation is reflected in the fiction, drama, poetry and essays of Irish writers.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Literature-Global

ENG 1307 - 19TH-CENTURY AMERICAN LIT
Minimum Credits: 3
Maximum Credits: 3
An intensive and selective study of major American writers of the 19th century including Hawthorne, Melville, Poe, Emerson, Thoreau, and Twain.
Academic Career: UGRD
ENG 1308 - 20TH-CENTURY AMERICAN LIT
Minimum Credits: 3
Maximum Credits: 3
An examination of important 20th century American literature. Including those novelists and poets of the period post-World War II. Representative novelists--such as Hemingway, Faulkner, Wright, and Mailer--and representative poets--such as Eliot, Stevens and Cummings--will be studied.
Academic Career: UGRD

ENG 1309 - MAJOR AMERICAN NOVELS
Minimum Credits: 3
Maximum Credits: 3
An intensive and selective study of major American novels.
Academic Career: UGRD

ENG 1310 - CONTEMPORARY AMERICAN POETRY
Minimum Credits: 3
Maximum Credits: 3
The works of post-World War II poets including Allen Ginsberg, Gary Snyder, Sylvia Plath, and Jon silken.
Academic Career: UGRD

ENG 1315 - BRITISH LIT OF ROMANTIC ERA
Minimum Credits: 3
Maximum Credits: 3
This course offers an in-depth study of British literature from around the time of the French revolution in 1789 to the first reform bill in 1832. Readings include the major authors of this time period as well as some lesser known authors, along with secondary material by contemporary scholars of romanticism. The topical focus of the course as well as its relative emphasis on one or another of the four genres will vary from one semester to another.
Academic Career: UGRD

ENG 1320 - THE WEB IN SOCIAL CONTEXTS
Minimum Credits: 3
Maximum Credits: 3
This course seeks a focused understanding of the web's ability to liberate some while it restrains others in terms of rhetoric, agency, and voice. By examining topics such as the digital divide; composing race, gender, and sexuality online; the web as a social practice; and e-rhetorics of resistance (i.e., Online countercultural communities), this course queries the rhetorical nature of digital spaces as well as the attendant concerns of literacy, agency, and power.
Academic Career: UGRD
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Cultures

ENG 1401 - ADV COMPOSITION AND RHETORIC
Minimum Credits: 3
Maximum Credits: 3
Theories of rhetoric and style and their applications to the teaching of writing.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1406 - AMERICAN JOURNEYS
Minimum Credits: 3
Maximum Credits: 3
An analysis of real and imaginary American journeys, the course will begin with the journals of Lewis and Clark, which chronicle the exploration of the west ordered by president Thomas Jefferson. Readings will cover such voyages as Joshua Slocum's great adventure sailing alone around the world, William least heat moon's blue highways, and Harlan Hubbard's shanty boat. searches for self" include Ralph Ellison's invisible man and Paule Marshall's praise song for the widow."
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1410 - MAJOR AUTHORS
Minimum Credits: 3
Maximum Credits: 3
Advanced study of the work and critical reception of a major author such as William Wordsworth, Jane Austin, Thomas Hardy, Edgar Allan poet, Virginia Woolf, Chinua Achebe, or Toni Morrison. The course may also consider pairs or small groups of closely related authors such as the Bronte sisters or Aime Cesaire.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1415 - LITERATURE AND EVOLUTION
Minimum Credits: 3
Maximum Credits: 3
This course examines the Darwinian revolution in a cultural and literary context with special attention to the powerful impact of Darwin and evolutionary theory on literature of the nineteenth and twentieth centuries. Readings will include literary texts as well as selected scientific works by Darwin, Huxley, and others.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1450 - TOPICS IN LITERATURE
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in literature.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1451 - CAPSTONE: ENGLISH
Minimum Credits: 3
Maximum Credits: 3
Students in this course will examine the history of literary study and its relation to the other areas of human experience. The course requires a substantial amount of writing and revision.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

ENG 1497 - DIRECTED STUDY: ENGLISH
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in literature of linguistics permission of the instructor.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENG 1498 - DIRECTED RESEARCH: ENGLISH
Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in literature or linguistics supervised by a member of the English faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

ENG 1499 - INTERNSHIP: ENGLISH
Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in literature or linguistics supervised by a member of the English faculty.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

ENG 6100 - BASIC WRITING
Minimum Credits: 3
Maximum Credits: 3
Designed to build self-confidence in the use of standard written English. To learn to develop the general from the specific in both the college-level paragraph and the multi-paragraph paper, students will practice various ways of constructing sentences and paragraphs. Strong emphasis is placed on grammar and proofreading.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
**English Literature**

**ENGLIT 0325 - THE SHORT STORY**

Minimum Credits: 3  
Maximum Credits: 3

This course studies short stories that explore a variety of themes. It seeks to define the short story as a specific literary genre and to distinguish it from earlier forms of short narrative literature. It then goes on to examine the effects of literary, cultural and historical traditions on these stories and their reception.  

**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis

**Engineering**

**ENGR 0011 - INTRO TO ENGINEERING ANALYSIS**

Minimum Credits: 3  
Maximum Credits: 3

Introduces students to basic topics in engineering, the role of the computer in engineering, ill-structured problem-solving and report writing. The course includes material on the use of Unix, HTML, spread sheets, and MATLAB. Data analysis and curve fitting is done in both MATLAB and Excel. The writing component includes four detailed reports and includes an oral presentation. The course goals are: to introduce the fundamentals of what engineering is, what engineers do, why a diverse work force is needed and what values come with working in a group environment; to introduce the required library research skills and communication skills used by all engineers; to introduce the role of the computer in engineering problem solving, including the basic analytical, programming design, graphical, and problem solving skills used by most engineers in their profession; and to provide an overview of how material in the basic sciences and mathematics is applied by engineers to solve practical problems of interest to society.  

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade

**ENGR 0012 - INTRO TO ENGINEERING COMPUTING**

Minimum Credits: 3  
Maximum Credits: 3

Introduces students to social topics in engineering, the role of the computer in engineering, ill-structured problem-solving and report writing. The course includes material on the use of MATLAB and C++. Students learn the fundamentals of computing in engineering, including program design, program development, and debugging. Applications to problems in engineering analysis with topics selected from ENGR 0011. The writing component includes four detailed reports and includes an oral presentation.  

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade

**ENGR 0015 - INTRODUCTION ENGINEERING ANAL**

Minimum Credits: 3  
Maximum Credits: 3

Introduces students to basic topics in engineering, the role of the computer in engineering, ill-structured problem-solving and report writing. The course includes material on the use of UNIX, HTML, spread sheets, and MATLAB. Data analysis and curve fitting is done in both MATLAB and Excel. The writing component includes four detailed reports and includes an oral presentation. The course goals are: to introduce the fundamentals of what engineering is, what engineers do, why a diverse work force is needed and what values come with working in a group environment; to introduce the required library research skills and communication skills used by all engineers; to introduce the role of the computer in engineering problem solving, including the basic analytical, programming design, graphical, and problem solving skills used by most engineers in their profession; and to provide an overview of how material in the basic sciences and mathematics is applied by engineers to solve practical problems of interest to society.  

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade

**ENGR 0016 - INT TO ENGINEERING COMPUTING**

Minimum Credits: 3  
Maximum Credits: 3

Introduces students to social topics in engineering, the role of the computer in engineering, ill-structured problem-solving and report writing. The
course includes material on the use of MATLAB and C++. Students learn the fundamentals of computing in engineering, including program design, program development, and debugging. Applications to problems in engineering analysis with topics selected from ENGR 0015. The writing component includes four detailed reports and may include an oral presentation.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ENGR 0020 - PROBLYT & STAT FOR ENGINEERS 1
Minimum Credits: 4
Maximum Credits: 4
An introductory course in statistics. Topics covered include: data analysis, probability, random variables, selected discrete and continuous probability distributions, one sample and two sample estimation, hypothesis testing, experiments with two factors and introduction to regression analysis.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ENGR 0022 - MATERLS STRUCTURE & PROPERTIES
Minimum Credits: 3
Maximum Credits: 3
An introduction to the basic concepts of materials science and engineering. The concepts of atomic, crystal, micro- and macro-structure, their control and effects on chemical, electrical, magnetic, optical, and mechanical properties. Modification of properties by heat treatment and control of processing. Fundamental considerations in materials selection.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
Minimum Credits: 0
Maximum Credits: 0
An in-depth orientation in the various areas of engineering and the related fields of employment. Includes small group meetings with departmental representatives and special freshman academic advisors. A formal departmental choice is made at the conclusion of these courses.

Academic Career: UGRD
Course Component: Seminar
Grade Component: H/S/U Basis

ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
Minimum Credits: 0
Maximum Credits: 0
An in-depth orientation in the various areas of engineering and the related fields of employment. Includes small group meetings with departmental representatives and special freshman academic advisors. A formal departmental choice is made at the conclusion of these courses.

Academic Career: UGRD
Course Component: Seminar
Grade Component: H/S/U Basis

ENGR 0085 - ENGINEERING SEMINAR
Minimum Credits: 0
Maximum Credits: 0
Required of all engineering students.

Academic Career: UGRD
Course Component: Seminar
Grade Component: Satisfactory/No Credit

ENGR 0131 - STATICS FOR CIVIL & ENVRL ENGNR
Minimum Credits: 3
Maximum Credits: 3
A basic course in statics. Utilizing the free-body diagram, the course covers forces and equilibria of particles, rigid bodies, surfaces, trusses, beams,
cables, and other basic structural elements. Use is made of computers for problem solving.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ENGR 0135 - STATICS & MECHC OF MATERIALS 1**
Minimum Credits: 3  
Maximum Credits: 3  
First of a two course sequence covering statics and strength of materials. Topics covered include: concurrent force systems, equilibrium, axial loading, stress, strain, deformation, moments, equivalent systems, centroids, centers of mass, and distributed loads, free-body diagrams, equilibrium of rigid and deformable bodies, plane trusses, frames and machines, equilibrium in 3D, torsion and friction. Use is made of computers for problem solving.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ENGR 0141 - MECHC OF MATLS CVL & ENV ENGR**
Minimum Credits: 3  
Maximum Credits: 3  
An introductory course in the mechanics of deformable bodies, with special application to the range of topics needed by civil engineers. The course material covers internal strains, stresses and deformations which occur when a structure is subjected to applied loads. Problems with tie-in to practical design issues will be covered.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**ENGR 0145 - STATICS & MECHC OF MATERIALS 2**
Minimum Credits: 3  
Maximum Credits: 3  
Second of a two course sequence covering statics and strength of materials. Topics include: flexure; second moment of areas, shear force and bending moment diagrams, composite beams, shearing stresses, beam deflections, energy methods, Castigliano's methods, moment area method, combined static loading and columns.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade

**ENGR 0197 - DIRECTED STUDY IN ENGINEERING**
Minimum Credits: 1  
Maximum Credits: 6  
**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**ENGR 0199 - INTERNSHIP: ENGINEERING**
Minimum Credits: 1  
Maximum Credits: 6  
This is an internship experience for engineering majors to allow them to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on a basis of student's interest and the availability of positions.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** LG/SNC Elective Basis

**ENGR 0250 - SPECIAL TOPICS**
Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in engineering.

**Academic Career:** UGRD
Entrepreneurship

ENTR 0101 - CREATIVITY, INNOVATION & ENTREP
Minimum Credits: 3
Maximum Credits: 3
This course examines invention, innovation, and creativity. It introduces students to techniques of motivation and imagination, as well as the concept of the entrepreneurial spirit. Students will be encouraged to collaborate to promote new ideas for products and services in areas of specific interest to them.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ENTR 0197 - DIRECTED STUDY IN ENTREPRN
Minimum Credits: 1
Maximum Credits: 6
This course is independent study in a topic dealing with subjects related to entrepreneurs and entrepreneurship.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

ENTR 0201 - FINANCIAL ACCT FOR SMALL BUS
Minimum Credits: 3
Maximum Credits: 3
This course is intended to provide students with an understanding of financial accounting and its role in decision making. The emphasis in this course will be on issues of importance to small business owners such as understanding and managing cash flows and working capital.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ENTR 0202 - MANAGERIAL ACCT FOR SMALL BUS
Minimum Credits: 3
Maximum Credits: 3
Managerial accounting for small business is intended to continue the study of accounting, shifting the focus from external reporting to internal reporting and control. Emphasis is placed on using financial data for managing small businesses successfully.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ENTR 0203 - EVENTURE MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
This course teaches students how to start a business on-line and how to manage the technological and managerial issues associated with e-commerce. Students will form into teams, research a market, select a product, write a marketing plan, and sell their product through the university's e-commerce inCubator. Students will utilize a genuine transaction-enabled business-to-consumer site, learn how such sites are managed, and explore how they can complement an existing business infrastructure. Students get hands-on experience implementing the technology to engage consumers, suppliers, payment gateways and other parties in electronic transactions. At the end of the project, students will produce a professional report summarizing their team's efforts and lessons learned.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ENTR 0204 - MANAGING THE NEW VENTURE
This course teaches students how to manage an entrepreneurial venture. The student will evaluate the options for acquiring or starting a business including start-ups, franchises, and purchasing an existing business and the financing options for each of these strategies. They will learn to plan and evaluate the progress of that business and to manage the growth. Marketing, human resource management, financial controls, supply chain management, logistics, channel, sales and customer service will all be integrated in this comprehensive overview of the many facets of running a growing business. The student will also learn to understand and evaluate exit strategies. Prerequisites: ENTR 0203 eventure management or permission of instructor.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

### ENTR 0250 - SPECIAL TOPICS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The study of a special topic in entrepreneurship.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

### ENTR 1301 - MGRL FINC FOR ENTREPRENEURS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The primary objective of this course is the examination of: (1) finance function within the firm - with an emphasis on small enterprises and (2) the financial environment in which the firm operates. A core focus within these areas of inquiry is the role of the financial manager in maximizing the value of the firm. Prerequisites: ACCT 0201 or ENTR 0201, MATH 0110 or MATH 0130.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### ENTR 1302 - MARKETING THE NEW VENTURE

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Examines and applies the emerging form of marketing specifically used by small ventures. Its approach to marketing is formulated around six core elements: innovation, calculated risk-taking, resource leveraging, strategic flexibility, customer "intensity," and the creation of industry change.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### ENTR 1303 - PRINCIPLES OF ENTREPRENEURSHIP

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course examines entrepreneurship as an attitude; an approach to business situations. It is a crucial risk-taking act in the creation of wealth. Entrepreneurs get things done, often in non-traditional ways. The subject is studied through case analysis. Prerequisites: ENTR 0101; ACCT 0201 or ENTR 0201.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### ENTR 1304 - ENTREPRENEURIAL LEADERSHIP

**Minimum Credits:** 1  
**Maximum Credits:** 1  
Examines the practical techniques required for successful leadership in an entrepreneurial environment. The course will distinguish between the
process of management and that of genuine leaders.

**ENTR 1305 - LGL ISSUES OF ENTREPRENEURSHIP**

Minimum Credits: 1  
Maximum Credits: 1  
Examines the legal issues most frequently encountered by the small business firm. Topics of particular emphasis include the choice of organizational form, legal dimensions of raising capital, intellectual property law, product liability, and the emerging importance of "e-law.”

**ENTR 1306 - PAYROLL AND LABOR LAW**

Minimum Credits: 1  
Maximum Credits: 1  
This course examines the accounting systems and methods used in computing and recording payroll to include payroll taxes and compliance with federal and state legislation, as well as an overview of employment law - discipline and termination, EEOC, harassment, discrimination, retaliation, overlapping laws such as ADA, FMLA, and workers' compensation.

**ENTR 1307 - RETAILING MANAGEMENT**

Minimum Credits: 1  
Maximum Credits: 1  
This course addresses the strategies covering the current environment of retailing, service retailing, store location and design, on-line retailing, and inventory management.

**ENTR 1308 - FAMILY BUSINESS MANAGEMENT**

Minimum Credits: 1  
Maximum Credits: 1  
Examines the unique challenges related to the management of family-owned firms. The course explores the approaches to the understanding and adjustment to behavioral, creative, and organizational issues peculiar to the family-owned and managed business.

**ENTR 1309 - RURAL TOURISM**

Minimum Credits: 1  
Maximum Credits: 1  
This course introduces rural tourism planning and principles. Students examine rural tourism attractions and trends, tourism planning and policy formation, quality standards, and cultural and environmental impacts of tourism.
ENTR 1311 - TECHNLGY APPLCS - NEW VENTURE
Minimum Credits: 3
Maximum Credits: 3
Electronic commerce will be studied using cases, lectures, readings, and world wide web site evaluations. Student teams will give presentations analyzing individual web sites, including a detailed analysis and evaluation of the business model being used. Prerequisite: MIS 0208.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENTR 1450 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in entrepreneurship.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENTR 1451 - CAPSTONE: LAUNCHING NEW VENT
Minimum Credits: 3
Maximum Credits: 3
This course is the capstone course for the entrepreneurship program; it links theory and practice in the development of a formal business plan for the launch of a new business venture. Each student will become immersed in a real business project from the complete evaluation phases to the formal preparation of a business plan. Prerequisite: ENTR 1302.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENTR 1497 - DIR STUDY: ENTREPRENEURSHIP
Minimum Credits: 1
Maximum Credits: 6
Directed study in a topic in entrepreneurship.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ENTR 1499 - INTERNSHIP IN ENTREPRENEURSHIP
Minimum Credits: 1
Maximum Credits: 6
The course is designed to provide interdisciplinary, experientially based education in the area of entrepreneurship and small business. The objective is to place student interns in an entrepreneurial environment for an in-depth learning experience on issues of organizational design.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

Environmental Studies

ENVSTD 0101 - INTRO TO ENVIRONMENTAL STUDIES
Minimum Credits: 3
Maximum Credits: 3
This interdisciplinary course presents comprehensive information from many different interconnected disciplines (natural sciences, social sciences, and humanities). It is an introduction to the intricacy and implications of human interactions with the environment. The approach of this course is problem oriented and multi-disciplinary. The course analyzes controversial environmental problems and emphasizes the need for successful solutions.
ENVSTD 0102 - INTRO TO ENVIRONMENTAL STUDIES
Minimum Credits: 3
Maximum Credits: 3
The study of the environment occurs across many disciplines including biology, chemistry, economics, political science, history, philosophy and literature. As such, this course will provide an introduction to the ecological and social contexts of environmental issues. Particular attention is given to the frameworks of biodiversity, ecosystems and communities, and sustainability.

ENVSTD 0197 - DIR STUDY IN ENVIRON STUDIES
Minimum Credits: 1
Maximum Credits: 6
This course is independent study in a topic in environmental studies.

ENVSTD 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in environmental studies.

ENVSTD 1450 - TOPICS IN ENVIRNMNTL STUDIES
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in environmental studies.

ENVSTD 1451 - CAPSTONE: ENVIRNMNTL STUDIES
Minimum Credits: 3
Maximum Credits: 3
The culminating experience of the environmental studies degree is the capstone seminar course. At this point you should understand why environmental studies is an interdisciplinary endeavor: the relationships between humans and nature are complex, and to understand them, one must understand their ecological, socio-cultural, economic, and moral dimensions. Through readings, discussions, guest speakers, field trips, independent research, writing, and oral presentations, you will extend your understanding of the underlying causes and long-term implications of some of the environmental problems facing the world today. In addition, you will apply your knowledge in these areas as you conceive of, conduct, and compose your own, original research. You shall illuminate the specific issue pertaining to this course by employing insights from the various disciplines that comprise environmental studies (e.g., ecology, political science, ethics, etc.). The goal of your research paper will be to arrive at conclusions about what can and should be done in response to the problem of this seminar.

ENVSTD 1494 - UNDERGRAD FACULTY ASSISTANT
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students’ communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD
**Course Component:** Internship
**Grade Component:** Satisfactory/No Credit

### ENVSTD 1497 - DIRECTED STUDY

- **Minimum Credits:** 1
- **Maximum Credits:** 3

Independent study in a topic in environmental studies. Permission of the instructor is required.

**Academic Career:** UGRD
**Course Component:** Directed Studies
**Grade Component:** LG/SNC Elective Basis

### ENVSTD 1498 - DIR RES: ENVIRONMENTAL STUDIES

- **Minimum Credits:** 1
- **Maximum Credits:** 6

Students gain research experience by helping to design and carry out a research project mutually agreed upon by the student and education faculty supervisor.

**Academic Career:** UGRD
**Course Component:** Directed Studies
**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### ENVSTD 1499 - INTERNSHIP: ENVIRONMENTAL STUDIES

- **Minimum Credits:** 1
- **Maximum Credits:** 6

Practical experience in environmental studies in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.

**Academic Career:** UGRD
**Course Component:** Internship
**Grade Component:** Satisfactory/No Credit

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### Environmental Science

#### ES 0105 - ENVIRONMENTAL GEOLOGY

- **Minimum Credits:** 3
- **Maximum Credits:** 3

A study of cultural basis for environmental awareness; geologic hazards; environmental modification due to human impact; waste disposal; mineral resources and environment, energy and environment; landscape evaluation; air and water pollution.

**Academic Career:** UGRD
**Course Component:** Lecture
**Grade Component:** LG/SNC Elective Basis
**General Education:** Physical Science

#### ES 0106 - INTRO TO OCEANOGRAPHY

- **Minimum Credits:** 3
- **Maximum Credits:** 3

An introductory course to familiarize students with the scientific study of ocean waters. Covers the four classic subdivisions: geological, chemical, physical and biological. Stresses the interdependency of these subject areas toward a global view of this vast, yet fragile realm. Course also conveys the societal significance of the oceans and details the human element of the great commitment toward scientific exploration of this often foreign and
The course goal is to learn problem solving techniques involving geological processes which affect natural and human-caused environmental hazards.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ES 0107 - ENVIRONMENTAL GEOLOGY LAB
Minimum Credits: 1
Maximum Credits: 1

This course is an interdisciplinary study which presents a general overview of how nature works and how earth and life systems, including society, are interconnected. It examines how the environment is used and abused by humans, and what individuals can do to protect and improve it for future generations, and for other living things.

Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ES 0110 - INTRO TO ENVIRONMENTAL SCIENCE
Minimum Credits: 3
Maximum Credits: 3

The use of energy is an inseparable component of human life. This course will serve as an introduction to the complex energy landscape by highlighting the key technical, environmental, and economic issues associated with the development and use of modern energy sources. Students will become familiar with the methods for determining, comparing, and improving the energy efficiency of vehicles, buildings, and industrial processes. Finally, the most advanced efficiency and alternative energy technologies will be discussed.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ES 0112 - INTRO TO ENERGY SCIENCE & TECHNOLOGY
Minimum Credits: 3
Maximum Credits: 3

This course is an interdisciplinary study of renewable energy, which presents a general overview various types of sustainable energy present in the marketplace and discusses the economic and environmental costs and benefits and their availability. It analyzes renewable energy resources such as wind energy, solar energy, hydraulic energy, geothermal energy and bioenergy that could be used to solve our energy problems and emphasizes the search for successful alternative energy resources.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ES 0115 - INTRO TO RENEWABLE ENERGY
Minimum Credits: 3
Maximum Credits: 3

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

ES 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
ES 0206 - ENVIRONMENTAL POLITICS
Minimum Credits: 3
Maximum Credits: 3
Course provides students with comprehensive knowledge of the organizations, interest, and processes that shape environmental policy. Course explores local, regional and global dimensions of the most critical environmental problems and issues facing policy makers today, including land-use management, energy conservation, acid rain, lead poisoning, indoor air pollution, ozone depletion, waste management, waste dumping in oceans, deforestation worldwide habitat destruction, and global warming.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ES 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in environmental science.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

ES 1303 - GEOMORPHOLOGY & ENVIRONMENTAL SYSTEMS
Minimum Credits: 4
Maximum Credits: 4
This is the study of erosional and depositional landforms that make up the earth's surface, considering their nature and extent along with the processes that produce them. Discussions will include: humid, desert, glacial, volcanic, mountain and coastal features. The labs focus on the geomorphic interpretation of maps and air photographs.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ES 1305 - SOIL SCIENCE
Minimum Credits: 4
Maximum Credits: 4
An examination of the nature and properties of soils emphasizing physical and chemical processes that influence plant growth and the movement of water and pollutants are covered in this course. The importance of soil properties in determining urban, industrial and agricultural uses are discussed. There will be field trips to examine soil properties.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ES 1306 - REGIONAL PLANNING AND GIS
Minimum Credits: 3
Maximum Credits: 3
An introduction to regional planning emphasizing the coordination of rural land use with environmental sustainability and biodiversity preservation and restoration. An introduction to relevant scientific principles of climatology, geomorphology and ecology is interwoven with land use-planning principles and a primer to computer mapping technology (GIS). Permission of the instructor is required.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

ES 1308 - ADVANCED ENVIRONMENTAL GEOLOGY
Minimum Credits: 4
Maximum Credits: 4
An interdisciplinary approach to environmental decision making, environmental management, and environmental law. The course will be conducted as a seminar; participants are required to prepare and deliver a paper(s) on environmental topic(s) and to lead the class in discussion.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**ES 1311 - ENVIRONMENTAL ENGINEERING**

**Minimum Credits:** 4

**Maximum Credits:** 4

Environmental engineering is an interdisciplinary field. Environmental disharmonies generally occur as a result of interaction between humans and the natural world. Environmental engineering deals with problems involved in engineering works. The environmental-related topics covered in this course include population growth (present and future); rock and soil mechanics; mass wasting; groundwater; natural hazards and mitigation; environmental abuses; environmental impact statement; land-use; industrial waste treatment and environmental planning.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**ES 1450 - TOPICS IN ENVIRON SCIENCE**

**Minimum Credits:** 3

**Maximum Credits:** 3

An advanced study of a special topic in environmental studies.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**ES 1494 - UNDERGRAD FACULTY ASSISTANT**

**Minimum Credits:** 1

**Maximum Credits:** 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD

**Course Component:** Internship

**Grade Component:** Satisfactory/No Credit

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**ES 1498 - DIRECTED RESEARCH**

**Minimum Credits:** 1

**Maximum Credits:** 6

Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.

**Academic Career:** UGRD

**Course Component:** Directed Studies

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**Energy Science and Technology**

**EST 1301 - SENSORS AND AUTOMATION**

**Minimum Credits:** 4

**Maximum Credits:** 4

This course covers the foundations of sensing materials and phenomena, measurement hardware and applications, and process automation strategies. With hands-on laboratory experience, students will learn how to establish communication between computers and sensors towards the implementation of automated processes.

**Academic Career:** UGRD

**Course Component:** Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EST 1311 - WIND POWER SYSTEMS
Minimum Credits: 3
Maximum Credits: 3
This course covers the foundations of wind power systems, from citing to design and monitoring to maintenance routines. The course will focus on simulated and real hands-on skills related to the key aspects of wind power. Wind resource evaluation, regulatory citing requirements, and environmental impact studies will comprise the citing unit of the course. Turbine mechanics, aerodynamics, electrical grid interface considerations, and sensor monitoring strategies will be covered in the design and monitoring unit. Finally, the structural health monitoring, maintenance, and decommissioning of wind turbine will comprise the maintenance routines.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EST 1450 - TOPICS IN ENERGY & SCIENCE TEC
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in energy science and technology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EST 1451 - CAPSTONE: ENERGY TECHNOLOGY
Minimum Credits: 3
Maximum Credits: 3
The culminating experience of the energy science and technology degree is the capstone seminar course. At this point, students will have a working knowledge of the energy industry, technological aspects of energy technology, and the analytical tools to address complicated, multi-disciplinary energy challenges. Students will apply this knowledge base through research, experiments, analysis, and ultimately communication to a chosen and approved topic that is pertinent to the current energy fields. This original research will culminate in a final written report to be presented orally to faculty for assessment of the comprehension and skills in the energy technology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EST 1497 - DIRECTED STUDY: ENERGY SCIENCE
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of energy science and technology.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

EST 1498 - DIRECTED RESEARCH: ENERGY SCI
Minimum Credits: 1
Maximum Credits: 6
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
EST 1499 - INTERNSHIP: ENERGY SCIENCE
Minimum Credits: 1
Maximum Credits: 6
An internship is a special type of independent study in which the student works in a nonacademic setting; the project is designed in consultation with the academic supervisor and conducted under the guidance of an on-site supervisor. At the conclusion of the internship the student is required to submit a paper describing the overall experience.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Finance

FIN 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in finance.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

FIN 1301 - CORPORATE FINANCE
Minimum Credits: 3
Maximum Credits: 3
The focus of the course is on the role of the financial manager in maximizing value of the firm. It will include financial decision making within a business firm: financial planning, working capital management, capital budgeting, cost of capital determination, and characteristics and valuation of securities.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

FIN 1302 - INVESTMENTS
Minimum Credits: 3
Maximum Credits: 3
The investments course will acquaint the student who already has some background in business financial matters with the real, ever-changing world of investment decision making. Students will apply previously acquired concepts learned in economics, corporate finance, accounting, and other related courses to the field of investments. Each student will prepare a written investment portfolio recommendation and will make an oral presentation to the class based on the report. Prerequisites: ACCT 0201 & FIN 1301
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: ACCT 0201 and FIN 1301

FIN 1303 - ANALYSIS OF FINANCIAL STATEMENTS
Minimum Credits: 3
Maximum Credits: 3
Financial statement analysis involves the evaluation of operations for a business firm with the primary objective of forecasting future conditions and performance. This course focuses on the evaluations of accounting information from both the perspective of internal corporate analysis and external credit or securities analysis.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
FIN 1304 - FINANCL MARKETS & INSTITUTIONS
Minimum Credits: 3
Maximum Credits: 3
The mechanics and structure of U.S. Financial institutions will be examined. Financial markets and instruments are also analyzed. The course also covers the management of financial institutions, with particular emphasis on commercial banking.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
FIN 1401 - INTERNATIONAL FINANCE
Minimum Credits: 3
Maximum Credits: 3
This course examines the financial function from the stand point of a multinational corporation. The course focuses on the balance of payments process, the mechanics of foreign exchange markets, corporate management of foreign exchange exposure, and capital budgeting at the international level. International financial markets are also examined.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
FIN 1402 - ADVANCED CORPORATE FINANCE
Minimum Credits: 3
Maximum Credits: 3
The course provides study of more advance topics in corporate finance such as payout policy, capital budgeting and capital structure with the use of leverage, long-term financing - including derivative/options, raising of equity and debt capital, and merger and acquisition analysis.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: ACCT 0202, ECON 0204, MATH 0136, and FIN 1301
FIN 1450 - TOPICS IN FINANCE
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in finance.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
FIN 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
FIN 1497 - DIRECTED STUDY: FINANCE
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of finance. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

**FIN 1498 - DIRECTED RESEARCH: FINANCE**  
Minimum Credits: 1  
Maximum Credits: 6  
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

**FIN 1499 - INTERNSHIP: FINANCE**  
Minimum Credits: 1  
Maximum Credits: 6  
Practical experience in finance in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.  
Academic Career: UGRD  
Course Component: Internship  
Grade Component: Satisfactory/No Credit  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**French**

**FR 0101 - ELEMENTARY FRENCH 1**  
Minimum Credits: 3  
Maximum Credits: 3  
A study of the grammar and vocabulary of elementary spoken and written French. Stresses grammatical structure and its correct application.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Language/Global

**FR 0102 - ELEMENTARY FRENCH 2**  
Minimum Credits: 3  
Maximum Credits: 3  
A continuation of elementary French 1. A study of the grammar and vocabulary of elementary spoken and written French. Stresses grammatical structure and its correct application.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Language/Global

**FR 0197 - DIRECTED STUDY**  
Minimum Credits: 1  
Maximum Credits: 6  
Independent study in a topic in French. Permission of the instructor is required.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

**FR 0201 - INTERMEDIATE FRENCH 1**  
Minimum Credits: 3  
Maximum Credits: 3  
A more advanced study of spoken and written French. Students continue to improve their proficiencies in oral aural and reading-writing skills. The textbooks consist of several works, plays or novels. Students use basic patterns of speech and review functional grammar.  
Academic Career: UGRD  
Course Component: Lecture
FR 0202 - INTERMEDIATE FRENCH 2
Minimum Credits: 3
Maximum Credits: 3
A continuation of intermediate French I. A more advanced study of spoken and written French. Students continue to improve their proficiencies in oral-aural and reading-writing skills. The textbooks consist of extracts of several works, plays, or novels. Students use basic patterns of speech and review functional grammar. Reading comprehension activities and essay are included to enhance students’ written communication skills. Slightly more advanced translation is included to enhance students' written French skills.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Language/Global

FR 0203 - INTERMEDIATE FRENCH
Minimum Credits: 3
Maximum Credits: 3
A more advanced study of spoken and written French, this course will enable students to continue to improve their oral-aural and reading-writing skills. Students will adapt the vocabulary and grammatical structures learned from the textbook and audio-visual material to their individualized situations in various assignments, including essays, skits, and translations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Language/Global

FR 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in French.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

FR 1308 - ADVANCED FRENCH
Minimum Credits: 3
Maximum Credits: 3
Advanced French will allow students the opportunity to employ and improve upon the French that they have already learned at the intermediate level. The course offers instruction and practice in areas of the language that reach beyond grammar and vocabulary to idioms, colloquial expressions and linguistic style. Although grammatical structures will be reviewed, the focus of the course will be to expand and enrich the possibilities of expression in the French language. This will be achieved through exercises on readings, including short stories, essays, interviews, opinion pieces, short plays, and comic strips, and through discussions of films in conversational French. Students also will improve their writing skills by producing short essays based on the readings, films, and class discussions.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Language/Global

FR 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students’ communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review...
sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

FR 1497 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in French. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

FR 1498 - DIRECTED RESEARCH: FRENCH
Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in French. Supervised by a member of the French faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Freshmen Seminar

FS 0101 - FRESHMAN FORUM
Minimum Credits: 2
Maximum Credits: 2
An examination of issues facing first-semester college students such as time management, study skills, career choices, and the Pitt-Bradford system. Campus activities and general discussions will guide the student in making a successful transition to college life.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

FS 0102 - FRESHMAN SEMINAR
Minimum Credits: 3
Maximum Credits: 3
Freshman seminar is designed to transition students to the university academic setting, to introduce students to the general education program, and to educate students as to the array of campus activities and professional services available. Assignments, classroom exercises, and outside activities assist students in transitioning to university-level work and campus culture, and provides a dynamic atmosphere to build a freshman class community. Even though there are many different seminars dealing with very different subjects, "the overall goal of freshman seminar is to provide the student with a solid and rewarding foundation for academic and personal success."
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

FS 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/Audit
Geography

GEOG 0101 - WORLD REGIONAL GEOGRAPHY
Minimum Credits: 3
Maximum Credits: 3
A systematic treatment of the physical, historical, cultural and economic processes that have shaped global landscapes. Contemporary regional problems and prospects will be emphasized.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

GEOG 0102 - GEOGRAPHY OF NORTH AMERICA
Minimum Credits: 3
Maximum Credits: 3
An analysis of the human and physical landscapes of the United States and Canada. Attention is focused on the resource base, sequence of human settlement, and current regional problems resulting from the complex interplay between people and the environment.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

GEOG 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

GEOG 0210 - PHYSICAL GEOGRAPHY
Minimum Credits: 3
Maximum Credits: 3
Introduction to the study of the geographical characteristics and relationships of all phenomena within the earth's physical environment. Emphasis placed on air, land and water distributions and the interactions between people and the physical environment.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SU3 Elective Basis
General Education: Physical Science

GEOG 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in geography.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

GEOG 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
GEOG 1497 - DIRECTED STUDY: GEOGRAPHY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in geography. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Geology

GEOL 0101 - PHYSICAL GEOLOGY
Minimum Credits: 4
Maximum Credits: 4
This course serves as an introduction to the earth sciences. The lectures and laboratory exercises will cover a broad range of topics related to the physical geology, but also minor aspects of the historical geology. The topics covered include, but not limited to, Maps, Minerals, Rocks, Tectonic activity, Volcanoes, Sediments, Geologic time, Natural resources, Landscapes, Hazards, Life through time, and Evolution, etc. The course has a three (3) hour lab component during which you will be conducting a variety of laboratory exercises which will allow you to review and understand important geologic concepts and processes. Physical Geology is a laboratory science course and satisfies the Physical Science (PH) and science lab requirement for the General Education (GE). The lecture and the laboratory elements are integrated.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

GEOL 0102 - HISTORICAL GEOLOGY
Minimum Credits: 4
Maximum Credits: 4
The history of the earth from its beginnings, almost 4.7 Billion years ago, to the present. Covers both the physical history of the earth itself and the history of life on earth. Labs will involve an examination of the fossils and rocks that help to unravel this long and complex story.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

GEOL 0103 - OUR RESTLESS EARTH
Minimum Credits: 3
Maximum Credits: 3
This course is designed to acquaint the student with the natural forces that are at work both within and on the earth. It covers the study of global tectonics including the formation of mountains, the growth of continents, plate collisions, sea floor spreading, volcanic eruptions, earthquakes, and focuses on the modern interpretations of these phenomena.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

GEOL 0108 - PALEOBIOLGY
Minimum Credits: 3
Maximum Credits: 3
Paleobiology is about the history of the nature. Topics include: the basic principles of Paleobiology, origin of life on earth, classification, morphology, interrelationship between ancient organisms and their vanished environments, past geographic distribution, and evolutionary history of major groups of organisms through geologic time.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Life Science
GEOL 0195 - GENERAL GEOLOGY LAB
Minimum Credits: 1
Maximum Credits: 1
This laboratory section is used only to allow transfer students to complete lab requirements to satisfy natural science distribution. The student is not required to take the lecture in conjunction with this lab.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

GEOL 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in geology. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

GEOL 0201 - MINERALOGY
Minimum Credits: 4
Maximum Credits: 4
Introduction to crystallography, x-ray crystallography, crystal chemistry, the geological occurrence and formation processes of the major rock-forming minerals, and mineral identification techniques.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

GEOL 0203 - PETROLOGY
Minimum Credits: 4
Maximum Credits: 4
The classification, description, and identification of igneous, sedimentary, and metamorphic rocks; interpretation of their paragenesis and diagenesis are covered in this course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: GEOL 0201 required

GEOL 0205 - ENGINEERING GEOLOGY
Minimum Credits: 3
Maximum Credits: 3
Engineering geology is the application of geologic data, techniques and principles to the study of naturally occurring rock and soil materials or subsurface groundwater, and petroleum fluids. The purpose is to assure that geologic factors affecting planning, design, construction, operation, and maintenance of engineering structures applied in civil engineering and petroleum engineering structures and development of groundwater resources used in fracking industry.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

GEOL 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in geology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
GEOL 1301 - SEDIMENTATION AND STRATIGRAPHY
Minimum Credits: 4
Maximum Credits: 4
This is an examination of environments of sedimentary deposition including the settings and processes of marine, nonmarine, and transitional sedimentation; stratigraphic relationships; and the interpretation of the depositional environments of specific rock types.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and GEOL 0101

GEOL 1302 - PALEOBIOLOGY & HISTORY OF LIFE
Minimum Credits: 4
Maximum Credits: 4
The history of life is documented by fossils through the past 3.5 billion years. This class intends to present this history of life form a different perspective. How did we got to the current tree of life, are there any missing branches in this tree, and what kind of organisms were our ancestors are just some of the key subjects to be approached.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and GEOL 0101

GEOL 1304 - AIR PHOTO INTERPRETATION
Minimum Credits: 4
Maximum Credits: 4
This course covers the examination and interpretation of aerial photographs including stereoscopic analysis with emphasis on the coordination of image data with topographic and geologic maps and multispectral satellite imagery. Also explored is multispectral imagery and its evolving uses. Labs include exercises on a remote-sensing workstation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

GEOL 1305 - SOIL SCIENCE
Minimum Credits: 4
Maximum Credits: 4
The scope of this course is to familiarize the student with the complex interactions between natural systems that led to the formation of soils. Among other aspects, origin, water interactions, fertility, nutrition, management practices, conservation and uses will be discussed. Environmental issues of interaction between modern human lifestyle and soils are to be presented.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and GEOL 0101

GEOL 1307 - HYDROGEOLOGY
Minimum Credits: 4
Maximum Credits: 4
Water is a precious natural resource, without which there would be no life on Earth. The course is about the study of hydrogeology and the significance of groundwater in the context of increased human pressure onto the natural systems of the planet. Can sustainable development of water resources avoid over-exploitation?
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and GEOL 0101

GEOL 1310 - STRUCTURAL GEOLOGY
Minimum Credits: 4
Maximum Credits: 4
Mechanical principles of folding and fracturing, kinematic and dynamic analysis of naturally deformed rocks, basic analysis of tectonics, and strain measurement as used in the interpretation of geologic structures.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and GEOL 0101

GEOL 1320 - ADVANCED GIS
Minimum Credits: 3
Maximum Credits: 3
This class builds up on the knowledge and skills acquired in the Intro to GIS (PET 105) class. The students will learn the advanced techniques of working with, and manipulating GIS data, not only by building maps but also participating in simulated and real-life projects. As part of the class students will participate in the 'GIS Day' activities.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PET 0105 General Education: Computational Sciences

GEOL 1402 - ENVIRONMENTAL GEOPHYSICS
Minimum Credits: 4
Maximum Credits: 4
A survey of environmental-related geophysical methods and field technologies used to investigate soil and groundwater contamination. Identification of non-profit pollution resources such as toxic chemicals and hydro carbon contamination. Labs and field work include instruction of the use of seismic, electromagnetic, electrical resistivity, magnetic and gravity instruments.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

GEOL 1403 - ADVANCED PETROLEUM GEOLOGY
Minimum Credits: 4
Maximum Credits: 4
The application of stratigraphy, structural geology/tectonics, and sedimentation to exploration for hydrocarbons including interpretation of well data, subsurface mapping, remote sensing and geophysical prospecting, sedimentary basin analysis, and prospect evaluation.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: UL and PET 0103

GEOL 1404 - COAL GEOLOGY
Minimum Credits: 4
Maximum Credits: 4
This course is intended to provide those associated with the energy, environment, and resources industries with the background to the origins and characteristics of coal together with exploration techniques, including geophysics and hydrogeology. Details of coal mining techniques, resource calculation, alternative uses of coal, and environmental issues will be discussed.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: UL and GEOL 0101

GEOL 1450 - TOPICS IN GEOLOGY
Minimum Credits: 3
Maximum Credits: 3
This is the advanced study of a special topic in geology.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

GEOL 1451 - CAPSTONE: FIELD GEOLOGY
Minimum Credits: 6
Maximum Credits: 6
The basic concepts and techniques of geological field work. The topics include: standard methods of geologic mapping; collection of structural data; introduction to seismic, gravity, and resistivity methods of geophysical exploration; and geologic report writing. Field work is concentrated in the Allegheny plateau, the valley and ridge provinces of Pennsylvania, and the finger lakes region of New York.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

GEOL 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students’ communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

GEOL 1497 - DIRECTED STUDY: GEOLOGY
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of geology. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

GEOL 1498 - DIRECTED RESEARCH: GEOLOGY
Minimum Credits: 1
Maximum Credits: 6
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

GEOL 1499 - INTERNSHIP: GEOLOGY
Minimum Credits: 1
Maximum Credits: 6
The student gains practical experience in applied geology in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

German

GER 0100 - ELEMENTARY GERMAN 1
Minimum Credits: 3
Maximum Credits: 3
A study of elementary spoken and written German.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Language/Global

**GER 0102 - BEGINNING GERMAN 2**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course continues the introduction of the basic structures of German begun in German 0101. It emphasizes all four language skills--speaking, listening, reading, and writing and deals with culture as an integral part of each skill. The language acquisition exercises are supplemented by an integrated and systematic presentation of grammar.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Language/Global

**GER 0197 - DIRECTED STUDY IN GERMAN**

**Minimum Credits:** 1  
**Maximum Credits:** 3  
Independent study in a topic in or about German. Permission of the instructor is required.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Language/Global

**History**

**HIST 0103 - EUROPE IN THE 18TH CENTURY**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
It was the best of times, it was the worst of times; it was the age of wisdom, it was the age of foolishness; it was the epoch of belief, it was the epoch of incredulity; it was the season of light, it was the season of darkness. There was a king with a large jaw and a queen with a plain face on the throne of England; there was a king with a large jaw and a queen with a fair face on the throne of France. In both countries it was clearer than crystal to the lords of state, preservers of loaves, and fishes that things in general were settled forever. This course surveys the political, economic, social, and cultural history of Europe in the eighteenth century. Focusing on the major transformations of European society from the Age of Absolutism through the Age of Enlightenment to the Age of Revolution, the course explores local and interconnected histories of Britain, France, Spain, Denmark, Sweden, Russia, Austria, and the Dutch Republic. The course engages five major themes: 'Power, Politics, and Warfare', 'Social, Demographic, and Economic Change', 'Culture, Religion, and the Public Sphere', 'European Expansion Overseas', and 'Revolutionary Europe.' Readings include primary and secondary sources. The course is open to students of all levels.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** History

**HIST 0104 - EUROPE IN THE 19TH CENTURY**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Nineteenth Century Europe was produced by Napoleon, Charles Darwin, Karl Marx, Nietzsche, Otto von Bismarck and Sigmund Freud - small man, monkey man, bearded man, weird man, blood and iron man and shrink man. These are discussed in the appropriate setting.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** History

**HIST 0105 - EUROPE IN THE 20TH CENTURY**
Minimum Credits: 3
Maximum Credits: 3
In this course Europe on the eve of WWI is presented to show how Europe was drawn into the conflict; the war is discussed and the Treaty of Versailles is closely examined to discover if later European developments were directly traceable to that treaty. England and France are studied to see why appeasement (1938) was their only solution to international pressure. The rise of fascism in Italy, Germany, and Spain, and the establishment of communism in Russia are also discussed. The course ends with the outbreak of WWII.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

HIST 0106 - US HISTORY 1
Minimum Credits: 3
Maximum Credits: 3
A survey of U.S. history from the age of discovery to the end of the Civil War. Emphasis will be on the causes of the American Revolution, the political and geographic development of the nation, and the nature of the sectional and economic differences which led to the Civil War.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

HIST 0107 - US HISTORY 2
Minimum Credits: 3
Maximum Credits: 3
America from reconstruction to the present will be examined. Major topics include the development of the West, urban and industrial development, the rise of America to world power, and the development of major political and socio-economic institutions.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

HIST 0108 - MEDIEVAL EUROPE
Minimum Credits: 3
Maximum Credits: 3
The Middle Ages was more than knights and castles - swains and serfs - it was a period of power grabbing on a titanic scale, popes, emperors, kings, princes, cardinals, archbishops, mistresses, poisons, intrigues-galore. In the end, Modern Europe as we know it, was emerging.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

HIST 0109 - RENAISSANCE/REFORMATION EUROPE
Minimum Credits: 3
Maximum Credits: 3
Machiavelli, da Vinci, Erasmus, Duerer, Palestrina, Copernicus, Titian, Michelangelo, Luther, Calvin, Zwingli, Henry VIII, Ignatius Loyola, Charles V, Elizabeth I (good queen Bess), Henry IV (old chicken pot") of France, Columbus, Cabot, Diaz, .... Charles I (and his head), Savonarola (and his stake), Charles II (and his brood of 365+) are discussed."

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: History

HIST 0197 - DIRECTED STUDY
HIST 0202 - WORLD WAR I
Minimum Credits: 3
Maximum Credits: 3
The 1918 armistice which ended World War I failed to give concrete victory to either side. The treaty of Versailles not only failed to resolve the issues, but proceeded to compound the problem by adding new injustices to old ones. The "twenty-year truce" between the wars is usually studied in an attempt to understand the rise of Hitler, Hitler's redress of the Versailles treaty, and all that followed. It is imperative to understand the causes which enveloped the world in the first World War, the course of the war and all developments which led to that infamous treaty. This course will endeavor to expose all these issues for a better understanding of the first World War and all that followed.

HIST 0203 - RADICALISM IN THE US
Minimum Credits: 3
Maximum Credits: 3
This course probes the origins of radical discontent in America from colonial times to the new left and student movements of the 1960's. Particular emphasis will be placed upon pre-Marxian utopian socialism, the Marxian socialist movement around 1900, socialist developments within the labor movement, and the history of the communist party of the U.S. Revolutionary tactics, major historical events, and ideologies will receive approximately equal coverage. Assignments will illustrate particular radical viewpoints.

HIST 0204 - THE GREAT WAR
Minimum Credits: 3
Maximum Credits: 3
This course examines the origins, the cause of, and the results of the First World War (1900-1920). It presents the European view of the entire affair and the American view. It is hoped this approach facilitates a more balanced appreciation of this phase of history.

HIST 0205 - THE U.S. IN THE 1930'S
Minimum Credits: 3
Maximum Credits: 3
A detailed study of social thought in the 1930s particularly relating to the influence of economic and social trends on mass culture. Approximately 12 American commercial films of various genres will be shown, along with selected readings from the period. These are used as an illustration of political, moral, and social thought during the period of America's Great Depression.
WWI and WWII are increasingly being viewed as one conflict interrupted by a twenty year truce. The view by many is that the issues of 1914 were never fully resolved by the war and further complicated by the 1919 settlement. The shortcomings of 1919 grew increasingly obvious as the 1920s and 1930s progressed. Events seemed to draw the world inextricably toward Sept 1, 1939. WWII is discussed in the global context in which it was fought but concentrates on the European theater. The course ends with Potsdam 1945.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** History

**HIST 0207 - THE US IN VIETNAM**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
Traces the history of American involvement in Vietnam from the end of World War II through the French debacle at Dienbienphu, the partitioning of the country in the 1950's, American troop build-up under Kennedy and Johnson in the 1960's, and the decision to withdraw in the 1970's. American consciousness of the war and some of its effects on American society are examined in a series of books and films by Americans that have the war and its implications as their theme.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** History

**HIST 0208 - AFRICAN-AMERICAN HISTORY**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
Traces the African-American experience from colonial times through the modern civil rights era. Although the primary emphasis is on history, consideration is also given to various facets of African-American culture, particularly literature.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** History

**HIST 0215 - ENVIRONMENTAL HIST OF THE U.S.**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The course will examine environmentalism in a broad historical sense, from colonial notions about the environment to the present. Topics will include American conceptions of nature, changes in the use of land and other resources, urban and rural environments, and the conservation movements designed to preserve parts of the American landscape and resources therein.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** History

**HIST 0250 - SPECIAL TOPICS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The study of a special topic in history.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**HIST 1301 - TUDOR ENGLAND**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
On Bosworth field medieval England died and modern England was born. The dynasty ushered in was that of the tudors, and the tudor years for England were Renaissance and reformation years. By the end of the dynasty, these forces were spent, but by then, they had shaped the fundamental political, social, economic and religious ideas associated with modern Britain. This course will investigate these developments.  
**Academic Career:** UGRD  
**Course Component:** Lecture
HIST 1302 - STUART ENGLAND
Minimum Credits: 3
Maximum Credits: 3
The constitutional, religious, cultural and social crisis of Stuart times paved the way for British expansion and major power status in the 18th, 19th, and 20th centuries. These crises are the major concentration of this course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1303 - BRITAIN UNDER THE HANOVERIANS
Minimum Credits: 3
Maximum Credits: 3
This course will present the evolution of constitutional monarchy/oligarchy in 18th century Britain to the constitutional monarchy/democracy in the 19th. The development of responsible ministry under the Georges will be discussed. The international complications of the 18th century diplomatic wars and the effects of the French Revolution upon Britain shall also be discussed. The Industrial Revolution and the rise of new economic imperialism will conclude with the coming of WW I.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1304 - VICTORIAN ENGLAND
Minimum Credits: 3
Maximum Credits: 3
Great Expectations was the title Charles Dickens chose to open the Victorian Era. H.G. Wells ended the era with "War of the Worlds". Between the two lies a period worth investigating; they were times which broadened horizons beyond Victorian recognition.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1306 - GERMANY FROM 1640
Minimum Credits: 3
Maximum Credits: 3
In this course, the emergence of a united Germany will be traced from the confusion of medieval particularism and the disaster wrought by the religious wars of the 16th and 17th centuries. The rise of Russia under Frederick Wilhelm the great elector, French chauvinistic imperialism, the advent of Otto von Bismarck, the Bismarckian Empire's weaknesses, World War I and the rise of Adolph Hitler will be studied. The course will end with the disappearance of Germany in 1945.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1307 - FRANCE SINCE 1789
Minimum Credits: 3
Maximum Credits: 3
This course concentrates on France since 1789. The revolution, the empire, the restoration, the July monarchy, the second republic, second empire, third republic, WWI France between the wars, WWII, Vichy France, the fourth and finally the fifth republic are dealt with in this study.
Academic Career: UGRD
Course Component: Lecture
HIST 1308 - ITALY SINCE 1495
Minimum Credits: 3
Maximum Credits: 3
Just because Columbus left in 1492, Italy did not fall apart. It wasn't, however, able to put itself together for a long time. When it finally did, it went too far; Mussolini. Is contemporary Italy the right reaction to Mussolini? In this course, explanations are explored.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: History

HIST 1309 - MOD RUSSA: TSARS, BOMBS CMMNST
Minimum Credits: 3
Maximum Credits: 3
History 1309 covers the period of Romanov rule from 1613 1917, and deals with the establishment of autocracy in Russia and Russia's movement towards westernization and industrialization. The reform of Peter the Great, the enlightenment of Catherine the Great, the reaction of Nicholas I, the liberalism of Alexander II, and the demise of Nicholas II will be discussed. Russian foreign policy will also be developed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: History

HIST 1310 - EAST ASIA: CHINA, KOREA, JAPAN
Minimum Credits: 3
Maximum Credits: 3
The aim of this course is to survey the historical development of China, Japan, and Korea in their classic" times. The first half of the course surveys these areas from the prehistoric era to the intrusion of the West in modern times. The second half is devoted to the impact of Western intrusion upon these cultures, and their metamorphosis either real or imagined - caused by it. The course concludes in the period between the World Wars."
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: History-Global

HIST 1311 - AMERICAN COLONIES TO 1763
Minimum Credits: 3
Maximum Credits: 3
A survey of colonial America emphasizing the role of the colonies in the British Empire and the social, economic, intellectual, and political factors that influenced later American history.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1312 - AMERICAN REVOLUTION
Minimum Credits: 3
Maximum Credits: 3
The American Revolution" is usually seen as an island entire unto itself - the outpouring of a spirit of liberty against an oppressive monarchy. It is, however, an integral part of the workings of larger 18th century intellectual, commercial, and diplomatic activities. The events of Europe and America do interlock (whatever George Washington may have said to the contrary). This course will discuss the war for American independence in the European context and the American Revolution from a North American context."
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1316 - AMERC BETWN THE WARS, 1917-1941
Minimum Credits: 3
Maximum Credits: 3
An in-depth study of the United States in World War I and the inter-war period. Major topics include the diplomatic events preceding the World Wars, ballyhoo and reality in the 1920s, causes and effects of the great depression, Franklin D. Roosevelt and the new deal.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: History

HIST 1317 - CONTEM US HISTORY 1941-PRESENT
Minimum Credits: 3
Maximum Credits: 3
Major events and trends of the post-World War II era including the war and its aftermath, the onset of the Cold War, and the domestic and foreign policies of presidential administrations from Truman will be discussed. Some major problems, such as urban decay and civil rights for minorities will be considered in the context of the period.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: History

HIST 1318 - ANCIENT GREECE
Minimum Credits: 3
Maximum Credits: 3
The first half of this course traces man from the caves to the pyramids, to the hanging gardens of Babylon and the Minotaur of Crete. The second half of the course moves from Troy to Periclean Athens and Sparta of Leonidas - marathon, Thermopylae are precursors to Alexander the Great with whom this course ends.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: History

HIST 1319 - ANCIENT ROME
Minimum Credits: 3
Maximum Credits: 3
The first half of Roman history traces Rome from Romulus and Remus (and the she-wolf) through the forty stabs of Caesar the republic shall succumb from a surfeit of Gracci, Mariuses, Sullas, Pompeys, and the like. The second half (the imperial one) succumbs to one too many orgies, poisonings, lions and Christians and Germanic invasions from the North.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: History

HIST 1320 - EARLY AMERICAN 1789-1840
Minimum Credits: 3
Maximum Credits: 3
A study of the rise of American political and constitutional institutions. Special emphasis will be given to the emergence of political parties, economic policies, the democratic implications of the age of Jackson, and the origin of issues leading to the Civil War.
HIST 1321 - THE CIVIL WAR & RECONSTRUCTION

Minimum Credits: 3
Maximum Credits: 3
America in the years leading to the Civil War, the war, and the period of reconstruction will be discussed. The full gamut of the social, economic, psychological, constitutional and political factors will be considered.

HIST 1322 - RISE OF URBAN AMERICA 1877-1917

Minimum Credits: 3
Maximum Credits: 3
An in-depth study which will include the Industrial Revolution in the United States, the impact of mining, cattle and agriculture frontiers on American business, the politics of the gilded age, immigration, the Spanish American War and the emergence of the U.S. As a world power, the populist movement, and the progressive era.

HIST 1324 - ANCIENT EGYPT

Minimum Credits: 3
Maximum Credits: 3
Egypt was one of the earliest cradles of civilization. The country's political, social, philosophical and religious contributions profoundly shaped and influenced the emerging Mediterranean World which we have become accustomed to refer to as the Ancient World. Through the millennia that transpired, Egypt passed through its pre-dynastic, old kingdom, feudal age, middle kingdom, Hyksos intrusion, new kingdom, late pharaonic period, Assyrian conquest, Persian period, Alexandrian liberation, Ptolemaic, Roman and Byzantine periods before the curtain was closed on the Ancient World.

HIST 1449 - CAPSTONE 1: RESEARCH METHODS

Minimum Credits: 3
Maximum Credits: 3
Research methods is the first course in a two-semester capstone sequence. Students are expected to enroll in capstone 1 as juniors and to take Capstone 2 in the subsequent semester. Capstone 1 introduces students to research methods used by political scientists and historians, focusing on a seminar theme. Students will gain a working knowledge of the theory and practice underlying diverse methods of inquiry. Students will be introduced to computer software used in conducting research. The course will help students to formulate a research question, develop a literature review, and craft a research design for their capstone research papers. Additionally, students will consider career and graduate study opportunities, developing individualized professional development plans.
HIST 1450 - TOPICS IN HISTORY
Minimum Credits: 3
Maximum Credits: 3
An advanced study of a special topic in history.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1451 - CAPSTONE 2: HISTORY
Minimum Credits: 3
Maximum Credits: 3
This course is designed both to supplement and to implement research and writing skills acquired by the senior-level student. Discussions of historical research methods, the importance of historical context and the fallacies of historical writing will comprise the subjects of the first weeks. After that, the class will focus on an historical topic chosen by the instructor.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: HIST or PS 1449

HIST 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis

HIST 1497 - DIRECTED STUDY: HISTORY
Minimum Credits: 1
Maximum Credits: 6
Directed study in history.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HIST 1498 - DIRECTED RESEARCH: HISTORY
Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in history.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

HIST 1499 - INTERNSHIP: HISTORY
Minimum Credits: 1
Maximum Credits: 6
Practical experience in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Hospitality Management

HMGT 0101 - INTRO HOSPITALITY MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
The course serves as an introduction for the student to the tremendous diversity of the hospitality and tourism industry. The industry will be disaggregated into its component parts with subsequent discussions of the role that each plays. Emphasis will be placed upon the hotel, restaurant and foodservice industries. Tourism will be explored as to its role in shaping these tangible industries.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HMGT 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in hospitality management.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

HMGT 0201 - SERVC INDUSTRY STRUCT & LDRSHP
Minimum Credits: 3
Maximum Credits: 3
Successful leadership as channeled through an organizational structure is a very critical concept in the service industries where the customer is usually present at the point of production of the product. This course will review both the content of structure and leadership as well as the process of utilizing them to successfully direct an organization to its objectives.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HMGT 0210 - LGL ISS HOSPTLY/TOURISM INDUST
Minimum Credits: 3
Maximum Credits: 3
An investigation of the legal issues and responsibilities in the selling of hospitality and travel services to the general public. The various seller/purchaser legal relationships and resultant liabilities will be reviewed. Extensive use of case studies and actual case histories will be presented and their subsequent impact on the industry will be discussed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HMGT 0220 - FOODSERVICE MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
Foodservice systems will be explored through examining the component parts of a typical foodservice operation. This component parts include: management and organization, procurement, production, distribution, service, maintenance, and sanitation. The course will also explore modern trends in foodservice/restaurant management. All students will be required to sit for the National Restaurant Association serve safe food protection manager certification exam and preparation for upper level food courses. This course is a prerequisite to take HMGT 1330 Principles of Food Prep. Additionally, you will have to pass the National Restaurant Association serve safe food protection manager certification exam.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HMGT 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
This is a course that focuses on a special topic in hospitality management.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HMGT 1310 - HOTEL OPERATIONS
Minimum Credits: 3
Maximum Credits: 3
Focuses upon the areas of housekeeping, front office, hotel security and engineering. The course explores the interrelationships that exist between these functional areas and how these relationships ultimately support the customer service and profit expectations of the hotel. An emphasis will be placed upon the manner in which these areas must cooperate to attain these broad organizational goals.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1320 - HOSPITALITY INFORMATION SYSTEM
Minimum Credits: 3
Maximum Credits: 3
This course will introduce students to hospitality information systems, including property management systems, restaurant management systems, meeting management, club management, and communication networks.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1330 - PRINCIPLES OF FOOD PREPARATION
Minimum Credits: 4
Maximum Credits: 4
A study of the various foods, production principles, cooking methods, food storage and equipment utilized in food preparation. Includes both lab and classroom learning opportunities. The classroom component provides the theoretical basis of food types and production processes that will then be demonstrated and experimented with in the lab environment. Requires the purchase of professional uniform and some supplies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: UPB CL: HMGT 0220

HMGT 1340 - FOOD & BEVERAGE COST CONTROL
Minimum Credits: 3
Maximum Credits: 3
This course emphasizes the theories and techniques that are commonly used in the restaurant industry for controlling food and beverage costs. It emphasizes how controllers, and managers can use these approaches to successfully measure and control food and beverage output. The course will present theories and techniques which will then be applied to a real world context.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1350 - FOODSERVICE PURCHASING
Minimum Credits: 3
Maximum Credits: 3
We will explore the flow of operations as it applies to the purchasing of foodservice commodities. Issues covered will include: standards, specifications, policies and procedures for the purchasing of both foodstuffs and nonfood supplies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1360 - CONTEMPORARY LEISURE AND REC
Minimum Credits: 3
Maximum Credits: 3
Leisure and recreation has become an important activity in the American cultural landscape. This course will explore the concept of "leisure" from both a psychological a philosophical and a sociological perspective. The forces that shape recreational behavior, along with the historical development of leisure/recreation will be covered. Students will be exposed to the planning and organizing activities associated with these activities.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1370 - HOSPITALITY & TOURISM MARKETING
Minimum Credits: 3
Maximum Credits: 3
This course will help students appreciate, develop, and manage marketing in the hospitality and travel industry sectors. The course will introduce basic concepts and skills in tourism marketing, and will address differences between tourism and other industries. Students will learn how marketing managers can position their products or destinations to capture customers.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1380 - SPECIAL EVENTS PLANNING
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to special event planning processes and techniques. Emphasis is on creating, organizing, identifying sponsors, marketing and implementing large scale community events.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1410 - ANLC METHS HOSPITALITY PLANNING
Minimum Credits: 3
Maximum Credits: 3
Historically, many hotel and restaurant managers make critical decisions by utilizing purely qualitative means, when in fact more powerful quantitative tools exist. The course will apply advanced decision-making methodologies drawn from a wide range of disciplines to common operational situations faced by the hospitality operator. Topics such as budgeting, pricing the product, evaluating the success of various advertising media, causal relationships between room sales and food sales are some of many topics explored. A computer simulation game will be used to allow students to apply theory to a real world situation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1420 - STRATEGIC MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
The course is a capstone course designed to allow the student to apply all knowledge gained throughout this course and previous courses and through actual work experience to a series of hotel and restaurant related case studies. Through the use of case studies, the student will learn to identify existing business and/or corporate strategy, evaluate its suitability given the competitive environment and effectively modify or change it. Emphasis will be placed on strategic considerations as a guide to management actions at all levels of the organization.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1430 - COMMFR FOOD PREP/MENU PLANNING
Minimum Credits: 3
Maximum Credits: 3
The complex processes of successfully planning, producing and serving meals to customers in a commercial restaurant setting will be identified. The course will focus upon the multi-faceted issues involved in planning and executing a menu. The relationships between menu planning and all other commercial restaurant functions will be explored. The course will culminate in student groups planning and executing a series of meals for guests.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1440 - TOURISM DESTINATION-PLN DVLP
Minimum Credits: 3
Maximum Credits: 3
This course will explore how we perform the planning role in the development of facilities and destinations for the traveling public. The course will look at traditional planning and development methodologies and apply them to the unique environmental, social and economic issues impacted upon by tourism development. We will look closely at the need to balance consumer's needs with the needs of the impacted environment.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1445 - PROFESSIONALISM IN HOSPITALITY
Minimum Credits: 3
Maximum Credits: 3
Course teaches the 'soft skills' necessary for success in the culturally diverse hospitality management environment with an emphasis on dress, proper etiquette, body language, the art of non-verbal communication, and business conversation; networking and job search techniques are examined. Course also explores the dynamics, meaning, and value of becoming a well-rounded person.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1450 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
This is a course that focuses on a special topic in hospitality management.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1451 - CAPSTONE: HOSPITALITY MGMNT
Minimum Credits: 3
Maximum Credits: 3
Through drawing upon both the theoretical knowledge gained through your previous course work as well as the practical exposure of the 800-hour practicum this course will create an environment where you will explore the linkages, which exist, between the theoretical and the practical. In addition, the course will serve to help prepare you to enter the real world from both a professional and a personal perspective. As a result you should gain a clearer understanding of the attitudes and behaviors that successful individuals in these related industries possess.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
HMGT 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

HMGT 1497 - DIR STUDY: HOSPITALITY MGMNT
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of hospitality management.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1498 - DIR RSRCH: HOSPITALITY MGMNT
Minimum Credits: 1
Maximum Credits: 6
This course is independent research in a topic in hospitality management.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HMGT 1499 - INTERNSHIP: HOSPITALITY MGMT
Minimum Credits: 1
Maximum Credits: 6
Practical experience in business in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Health Physical & Recreation Education

HPRED 0101 - INTRO TO ATHLETIC TRAINING
Minimum Credits: 3
Maximum Credits: 3
Athletic training is a division of sports medicine that focuses on the care and prevention of athletic injuries. This course provides the student with an introduction to the field of athletic training. Topics include career opportunities, medical terminology, and risk management, mechanisms of injury, injury management skills, and recognition and treatment of common athletic injuries.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HPRED 0102 - INTRO TO EXERCISE SCIENCE
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to the field of exercise science and the evolution of the profession. Opportunities are provided to identify characteristics of exercise science professionals, diverse perspectives, and current trends in the field. Emphasis is placed on career planning and employment opportunities.
HPRED 0108 - NUTRITION
Minimum Credits: 3
Maximum Credits: 3
An introduction to the processes involved in nourishing the body. Emphasis will include a study of nutrients and their physiological impact and inter-relationships within the body, and the quality of diet.

HPRED 0110 - PRACTICUM IN ATHLETIC TRAINING
Minimum Credits: 3
Maximum Credits: 3
A comprehensive course in the stabilization, taping, and bracing techniques used in athletic training. The course will cover techniques for all areas of the body including the foot, ankle, knee, hip, shoulder, elbow and hand.

HPRED 0180 - SPORT SAFETY TRAINING
Minimum Credits: 2
Maximum Credits: 2
Basic first aid and CPR certification for sports professionals and other individuals interested in certification. Basic safety principles to avoid and prevent injuries.

HPRED 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Directed study in health, physical, and recreation education.

HPRED 0202 - PSYCHOLOGY OF SPORT
Minimum Credits: 3
Maximum Credits: 3
An examination of psychological factors influencing individual behavior and the effects of people on other people in sport experiences. Topics include personality, anxiety, cognition, motivation, aggression, and cohesion.

HPRED 0203 - WATER SAFETY INSTRUCTOR (WSI)
Minimum Credits: 1
Maximum Credits: 1
The mastery of swimming and teaching skills. American Red Cross WSI certification can be earned through this course. American Red Cross advanced lifesaving certification can be earned through this course.
HPRED 0204 - FIRST AID/CPR
Minimum Credits: 2
Maximum Credits: 2
A laboratory-lecture course in which American Red Cross techniques of cardiopulmonary resuscitation (CPR) and standard first aid are presented. All students who meet the American Red Cross standards will receive American Red Cross certification.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

HPRED 0206 - EVAL AND REHAB OF ATHL INJRY 1
Minimum Credits: 4
Maximum Credits: 4
An in-depth look at the evaluation and treatment of athletic injuries with a strong focus on the anatomy of the lower extremities.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HPRED 0207 - EVAL AND REHAB OF ATHL INJRY 2
Minimum Credits: 4
Maximum Credits: 4
An in-depth look at the evaluation and treatment of upper extremity and head and neck injuries.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HPRED 0209 - PERSONAL HEALTH AND WELLNESS
Minimum Credits: 3
Maximum Credits: 3
The focus of this course is the identification of behavioral and environmental factors that influence health and the effective management of lifestyle choices to promote and maintain optimal personal health and wellness.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HPRED 0210 - THE GOVERNANCE & MGMT OF SPORT
Minimum Credits: 3
Maximum Credits: 3
An investigation of the scope of the sport and recreation industries, a growing major business enterprise in the world. Attention focuses on how the managerial process relates to sport and recreation organizations, their products, and their services.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HPRED 0213 - INTRODUCTION TO HEALING ARTS
Minimum Credits: 3
Maximum Credits: 3
Discover the philosophy, theory, and techniques behind the healing arts of therapeutic massage, shiatsu, cranial-sacral therapy, reflexology, and reiki. A comprehensive understanding of each topic will provide insight into the world of non-conventional approaches to healing.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HPRED 0214 - PHARMACOLOGICAL ISSS IN ATH TR
A comprehensive exploration of the pharmacological issues encountered in the athletic training profession including: over-the-counter medications, prescription medications, banned substances, and performance enhancing agents. The indications, contraindications and precautions will be covered in depth.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**HPRED 0220 - MEDICAL ASPECTS IN ATHL TRNG**

Minimum Credits: 3  
Maximum Credits: 3  
This course is designed to provide current information about the recognition and treatment practices of general medical conditions of athletes and the physically active. This course also includes the application of pharmacological principles in the treatment of illnesses, injury, and disease of the physically active. Students can expect to develop a more advanced knowledge of medical terminology throughout the course.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREREQ: HPRED 0110

**HPRED 0225 - FUNCTIONAL HUMAN ANATOMY**

Minimum Credits: 3  
Maximum Credits: 3  
The study of the structure and functional significance of the human body- with emphasis on neural, musculoskeletal and cardiopulmonary systems. The introduction to clinical application of relevant anatomy, with respect to some common conditions seen in the health/medical profession and how it relates to physical activity and exercise will be examined.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  
**Course Requirements:** PREREQ: A&P II Lab required (BIOL 0223)

**HPRED 0250 - SPECIAL TOPICS**

Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in health, physical, and recreation education.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**HPRED 0280 - CLINICAL IN ATHLETIC TRAINING 1**

Minimum Credits: 2  
Maximum Credits: 2  
This clinical field experience will allow each student the opportunity to practice and apply skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but not limited to wound care, ankle taping and wrapping, flexibility techniques, and athletic training room maintenance. The course is restricted to those students seeking certification by the national athletic training association.

**Academic Career:** UGRD  
**Course Component:** Clinical  
**Grade Component:** LG/SNC Elective Basis

**HPRED 0281 - CLINICAL IN ATHLETIC TRAINING 2**

Minimum Credits: 2  
Maximum Credits: 2  
This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department affiliated clinical site. Specific skills emphasized include, but are not limited to record keeping, vital signs, data entry, proprioceptive exercises, and various taping techniques. This course is restricted to students seeking certification by national athletic training association.

**Academic Career:** UGRD
HPRED 1301 - SPORTS MARKETING
Minimum Credits: 3
Maximum Credits: 3
A survey of the principles and techniques used by professionals in the areas of sports information, marketing, and promotions. Course content will include the development of media relations and marketing plans, and the utilization of sport specific statistical information unique to athletic programs.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: PR 0101 & MRKT 1301

HPRED 1302 - THERAPEUTIC MODALITIES
Minimum Credits: 4
Maximum Credits: 4
A comprehensive course covering the modalities used in the rehabilitation of injuries, with a lab for practical application.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1305 - BIOMECHANICS
Minimum Credits: 3
Maximum Credits: 3
This course is a study of the science of human movement with emphasis upon the structure and functioning of the movement mechanism, mechanical principles underlying human motion, and an analysis of basic motor skills.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is sophomore status

HPRED 1306 - EXERCISE PHYSIOLOGY 1
Minimum Credits: 4
Maximum Credits: 4
This course examines physiological changes during exercise, after exercise, and during a training period. It also considers efficiency, needs, and limitation of body systems and their interrelationships.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is sophomore status

HPRED 1307 - PRIN ETHICS & PRACT IN COACHNG
Minimum Credits: 3
Maximum Credits: 3
This course highlights the role of the coach and the coach's application of selected concepts and principles from psychology, sociology and physiology toward the development of the individual and team for athletic competition in schools and colleges. Special attention is given to an awareness and understanding of the problems associated with motivation and emotion in sport; the learning and improving motor skills; daily, weekly, and seasonal planning; training and conditioning methods; preparation for contests.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
HPRED 1308 - COACHING PRACTICUM
Minimum Credits: 1
Maximum Credits: 3
Prospective coaches receive instruction in planning, teaching, administrative responsibilities, safety and public relations issues essential to effective coaching. Enroll during term in which selected sport is in season.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1309 - THERAPEUTIC EXERCISE
Minimum Credits: 4
Maximum Credits: 4
A comprehensive course covering the exercises used in the rehabilitation of injuries with a lab for practical applications.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1310 - ETHICS AND LEADERSHIP IN SPORT
Minimum Credits: 3
Maximum Credits: 3
An in-depth analysis of ethics and leadership as they pertain to professionals and managers within the realm of sport and recreation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1315 - EXERCISE PHYSIOLOGY 2
Minimum Credits: 3
Maximum Credits: 3
Advanced concepts in cardiorespiratory exercise physiology will be emphasized. Aerobic energy system metabolism and exercise homeostasis through the endocrine system will also be explored. NME and CME will together cover the entire spectrum of exercise metabolism from low intensity aerobic exertion to high intensity resistance exercise.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1320 - PRIN STRENGTH TRAINING/CONDITNG
Minimum Credits: 3
Maximum Credits: 3
This course is designed to enhance the student's current level of knowledge and expertise to an advanced level in neuromuscular exercise physiology. The course will examine anaerobic energy systems and emphasis will be placed on high intensity exertion. The course will focus on the assessment and implementation of training programs with strong emphasis being placed on the areas of resistance training, plyometric training, flexibility, speed and agility training.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is junior status

HPRED 1380 - CLINICAL IN ATHLETIC TRAINING 3
Minimum Credits: 2
Maximum Credits: 2
This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but are
not limited to ankle, knee, hip evaluation/injuries, protective equipment fabrication, crutch fitting and gaits, and taping techniques. This course is restricted to those seeking certification by the national athletic training association.

Academic Career: UGRD
Course Component: Clinical
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1381 - CLINICAL IN ATHLETIC TRAINING 4
Minimum Credits: 2
Maximum Credits: 2
This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but are not limited to shoulder, elbow, wrist and hand evaluation/injuries, rehabilitation and principle, head injuries and girth measurement. This course is restricted to those seeking certification by the national athletic training association.

Academic Career: UGRD
Course Component: Clinical
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1401 - LEGAL LIABILITY IN SPORTS
Minimum Credits: 3
Maximum Credits: 3
Issues in legal liability in sport, recreation, and exercise science. Negligence liability; control of amateur, professional, school and recreational sport, violence/crowd control; product liability; risk management; and other selected current issues will be investigated.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: MGMT 1304

HPRED 1405 - RES METH IN SPRTS & EXERCS SCI
Minimum Credits: 3
Maximum Credits: 3
An introduction to research methods used in the design, analysis and interpretation of research in sport and exercise science.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is senior status

HPRED 1407 - FACILITY AND EVENT MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
Examines the practical techniques required for successful management of sport facilities and events held in these facilities. Topics of particular interest include facility planning, security, sponsorships and concessions, etc.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1410 - EXERCISE PRESCRIPTION
Minimum Credits: 3
Maximum Credits: 3
This course focuses on development of exercise prescription for health-related fitness with specific respect for the following: cardio respiratory endurance, muscular strength and endurance, flexibility and optimal body composition, client screening, and fitness assessment following the American college of sports medicine guidelines included.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is junior status

HPRED 1416 - CLINICAL EXERCISE PHYSIOLOGY
Minimum Credits: 3
Maximum Credits: 3
This course examines those special cases in which one must consider adjusting either the exercise testing or prescription of unusual circumstances. Clinical descriptions of 'special populations' will be presented as well as the impact on exercise. Special cases/issues considered will include diabetes, heart disease, hypertension, obesity, respiratory disorders, arthritis, cancer, HIV, asthma and children.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency, also required is junior status

HPRED 1420 - REHABILITATION MGMT & ADMIN
Minimum Credits: 3
Maximum Credits: 3
This is a course that focuses on the administrative, organizational, and management of a rehabilitation facility with an emphasis on the state and federal regulations and guidelines, human resource policy, patient rights, medical insurance policy and procedure, medical record-keeping strategies, budgeting process, facility architectural considerations, and applied legal concepts related to healthcare.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1425 - SPORT ECONOMICS AND FINANCE
Minimum Credits: 3
Maximum Credits: 3
Provides students with an improved understanding of issues relating to sport economics and finance. Students will expand their skills in financial analysis and planning while simultaneously developing an appreciation for the financial decision-making process in the complex world of sport. The course will include the following topics: organization, accountability, financial planning, purchasing, revenue streams, sponsorship, licensing, franchises, box office operations, retail operations, customer retention, fund-raising, financial risk management and payroll procedures.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1430 - WORKSITE HEALTH PROMOTION
Minimum Credits: 3
Maximum Credits: 3
This course is designed to provide current information in the area of wellness and health promotion, specifically in the workplace. Course content will be structured around the need for health promotion, models of health promotion and planning health promotion programs in the workplace.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: HPRED 1306 and HPRED 1416 are required prerequisites for this course.

HPRED 1435 - EXERCISE ASSESSMENT
Minimum Credits: 3
Maximum Credits: 3
This course will study exercise testing for cardiorespiratory fitness and disease diagnosis.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisite: HPRED 1410

HPRED 1440 - EXRCS PRESCRIP SPECIAL POPLTN
Minimum Credits: 3
Maximum Credits: 3
This course evaluates the impact of physical activity and exercise on youth, older adults, and individuals with various health conditions and controlled diseases. Changes that occur during growth, development, maturation and the aging process in relation to physical activity/exercise are examined. Pathophysiology, disease management, medications, exercise testing, and acute responses and chronic adaptations of physical activity/exercise programs for individuals with various health conditions and controlled diseases are identified.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisite: HPRED 1410

HPRED 1448 - TOPICS IN ATHLETIC TRAINING
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in athletic training.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1449 - TOPICS IN SPORTS MEDICINE
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in sports medicine.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1450 - TOPCS IN SPRT & REC MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in sports and recreation management.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1451 - CAPSTONE: ATHLETIC TRAINING
Minimum Credits: 3
Maximum Credits: 3
A comprehensive look at the issues concerning the field of athletic training. Including current trends, new technology and equipment, professional development, legal and ethical issues, and BOC exam preparation.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPRED 1452 - CAPSTONE: SPRT & RECREATN MGMT
Minimum Credits: 3
Maximum Credits: 3
Through class discussions and the process of writing a formal research paper, the students learn to integrate and critically evaluate their academic and
practical experiences in sports and recreation management.

**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**HPRED 1453 - CAPSTONE: EXERCISE SCIENCE**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
The capstone experience is a culmination of coursework in exercise science. It provides the opportunity to critically analyze and conduct contemporary research, practice in a clinical setting, evaluate the current and future trends in the discipline and discuss personal and professional challenges that will exist following commencement.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**HPRED 1480 - CLINICAL IN ATHLETIC TRAINING 5**  
**Minimum Credits:** 2  
**Maximum Credits:** 2  
This clinical field experience will allow each student the opportunity to demonstrate and develop proficient psycho motor skills within the domains of athletic training organization/administration and education/guidance. This clinical field experience will allow each student to practice and apply the skills associated with this course. Skills emphasized but not limited to inventory, budgeting, pharmacology, supervision and scheduling. This course is restricted to those seeking certification by the national athletic training association.

**Academic Career:** UGRD  
**Course Component:** Clinical  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**HPRED 1481 - CLINICAL IN ATHLETIC TRAINING 6**  
**Minimum Credits:** 2  
**Maximum Credits:** 2  
This clinical field experience will allow each student the opportunity to practice and apply the skills associated with this course under the direct supervision of a clinical instructor within the Pitt-Bradford athletic training department or an affiliated clinical site. Specific skills emphasized but are not limited to design and implementation of strength and conditioning programs, and lumbar and cervical spine evaluations/injuries. This course is restricted to those seeking certification by the national athletic training association.

**Academic Career:** UGRD  
**Course Component:** Clinical  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**HPRED 1494 - UNDERGRAD FACULTY ASSISTANT**  
**Minimum Credits:** 1  
**Maximum Credits:** 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**HPRED 1496 - FIELDWORK IN SPORT & REC MGMT**  
**Minimum Credits:** 1  
**Maximum Credits:** 3  
The course and experience is designed to provide students the opportunity to put into practice the concepts and principles that frame the sport and recreation management major. Students will perform a total of 135 hours of study, which may be broken down into multiple areas of study (3-1 credit increments or 1-3 credit placement), working in areas of interest which relate to sport and recreation management in a field placement setting.
Agency placements may include any agency directly related to a student's academic studies and career options. Students must fill out a field placement application (copy included with this proposal) and submit it to their program director.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**HPRED 1497 - DIR STUDY: HLTH, PHYSCL & REC**
- **Minimum Credits:** 1  
- **Maximum Credits:** 6  
- Independent study in the area of health, physical education, and recreation.  
- **Academic Career:** UGRD  
- **Course Component:** Directed Studies  
- **Grade Component:** LG/SNC Elective Basis  
- **Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**HPRED 1498 - DIR RES: HLTH, PHYSCL & REC**
- **Minimum Credits:** 1  
- **Maximum Credits:** 6  
- Independent research on a project in physical education.  
- **Academic Career:** UGRD  
- **Course Component:** Directed Studies  
- **Grade Component:** LG/SNC Elective Basis

**HPRED 1499 - INTERNSHIP: HLTH, PHYSCL & REC**
- **Minimum Credits:** 1  
- **Maximum Credits:** 6  
- Practical experience in health, physical and recreation education in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.  
- **Academic Career:** UGRD  
- **Course Component:** Internship  
- **Grade Component:** Satisfactory/No Credit

**Health and Physical Education (K-12)**

**HPEDU 0101 - CURRENT ISSUES COMMUNITY HLTH**
- **Minimum Credits:** 1  
- **Maximum Credits:** 1  
- This course will provide an introduction to current perspectives and research findings about health problems that face individuals and communities. The focus will be primarily on population-based and prevention-oriented issues. The role of government and non-governmental agencies in terms of community health will also be explored. Current issues and future challenges facing community health in our country and world will be emphasized.  
- **Academic Career:** UGRD  
- **Course Component:** Lecture  
- **Grade Component:** LG/SNC Elective Basis

**HPEDU 0105 - FOUNDATIONS OF H & PE**
- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
- This course includes an orientation to the discipline of health and physical education. Basic facts concerning the nature and scope of the field; aims and objectives; historical, philosophical, sociological, and biological foundations; the selection and preparation of a career in health and physical education; issues, trends and future of the field will be presented. This course is intended for students preparing to teach, serve and/or lead in careers related to health and physical education.  
- **Academic Career:** UGRD  
- **Course Component:** Lecture  
- **Grade Component:** LG/SNC Elective Basis

**HPEDU 1300 - ADAPTIVE PHYSICAL EDUCATION**
Minimum Credits: 3
Maximum Credits: 3
This course will provide an understanding of the nature, behavioral characteristics and motor limitations of various exceptionalities. It will also provide the student with the skills needed to prepare meaningful individualized movement experiences for individuals with special needs.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.

HPEDU 1305 - TEACHING LEISURE SPORTS
Minimum Credits: 1
Maximum Credits: 1
This course will provide students with the rules, safety measures, etiquette, strategies, and techniques of various leisure activities. The students will learn how to develop lesson plans and teaching techniques focused on physical activities that can be pursued throughout the lifespan.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPEDU 1310 - TEACHING TEAM SPORTS
Minimum Credits: 3
Maximum Credits: 3
This course will cover the theory and practice of teaching and coaching team sports. The skills and content of a wide variety of team sports will be covered. Students will be expected to participate in related physical activity and in simulated/clinical teaching requirements.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPEDU 1315 - TEACHING INDIVIDUAL SPORTS
Minimum Credits: 1
Maximum Credits: 1
This course will cover the theory and practice of teaching and coaching individual sports, including golf, tennis, track and field.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPEDU 1320 - TEACHING HEALTH
Minimum Credits: 2
Maximum Credits: 2
This course will cover the foundations of health promotion. A survey of health promotion concepts is covered, as well as issues related to the theory and practice of health promotion. Models of health behavior are utilized. Controversial issues in the field of health promotion are also discussed.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.

HPEDU 1325 - TEACHING DANCE
Minimum Credits: 1
Maximum Credits: 1
This course will cover the principles and techniques of teaching various types of dance. Both theory and practical experience will be combined to provide the appropriate pedagogical knowledge and skills. Students will create and carry out learning experiences in dance that are appropriate for students of various ages.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPEDU 1330 - MOTOR BEHAVIOR
Minimum Credits: 3
Maximum Credits: 3
This course investigates the sequence of development of fundamental motor patterns and perceptual motor skills, factors influencing this development, assessment and evaluation, and methods and activities for developing these skills.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPEDU 1335 - EDUCATIONAL MOVEMENT CONCEPTS
Minimum Credits: 2
Maximum Credits: 2
This course helps students achieve individual competency in the fundamental areas of educational gymnastics, educational games, and educational/creative dance through the constructivist use of cooperative learning, problem solving, and guided discovery. Students in this course will apply educational movement concepts to developmentally appropriate interdisciplinary educational games using peer collaboration in problem solving, application of class information in class lab projects, and post-lessen reflections. Students will also apply movement concepts to academic learning using brain-based learning research, action-based learning and inclusion movement experiences for the Pre-K & elementary-level child.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPEDU 1340 - INDIVIDUAL AND LEISURE SPORTS
Minimum Credits: 2
Maximum Credits: 2
This course is designed to introduce the student to the games and skills associated with a variety of target activities including, but not limited to golf, pool, ping-pong, pickle ball, bowling and archery. Emphasis will be placed on planning and applying developmentally appropriate activities for diverse learners. This is a theory and technique course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

HPEDU 1400 - METHS TECHNG HLTH & PHYSCL ED
Minimum Credits: 3
Maximum Credits: 3
This course will cover curriculum planning and the methods of instruction for teaching personal and community health and physical education in elementary and secondary schools. The needs of special populations will also be addressed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.

HPEDU 1405 - ASSMNT IN HEALTH & PHYSICAL ED
Minimum Credits: 2
Maximum Credits: 2
This course is an introduction to evaluation in health and physical education. Emphasis will be placed on sports skills tests and measurement of physical fitness and motor abilities. Some emphasis will be placed on program evaluation and written tests appropriate to health and physical education, as well as statistical methods of evaluation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.
HPEDU 1451 - CAPSTONE: HEALTH & PHYSICAL ED
Minimum Credits: 3
Maximum Credits: 3
This course provides a critical perspective of how theoretical concepts and integrated knowledge can be applied to the teaching of physical education. Emphasis is on a coherent understanding of the interrelationships that exist in the sub-disciplines of physical education and other subject areas.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: UPB Admission to Education is required in order to register for this course.

HPEDU 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

HPEDU 1497 - DIRECTED STUDY: H & P EDUC
Minimum Credits: 1
Maximum Credits: 6
Directed study in a topic in health and physical education.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Human Resources Management

HRM 0101 - SUPERVISION
Minimum Credits: 3
Maximum Credits: 3
The environmental influences of organizational settings on supervisors and the technical, psychological, social, and political issues found at the supervisory level.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HRM 1303 - COLLECTIVE BARGAINING
Minimum Credits: 3
Maximum Credits: 3
This course is intended to serve as an in-depth and comprehensive introduction to the field of collective bargaining in the private sector. Topics to be discussed include: representational rights, scope of bargaining, negotiations, impasse resolution, strikes, unfair practices and the grievance procedures. Attention will also be given to the regulatory boards and judicial decisions.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

HRM 1450 - TOPICS IN HUMAN RESORC MGMNT
Minimum Credits: 3
Maximum Credits: 3
Negotiations and contract administration, examining negotiating strategies from various fields. Formulation of management and labor goals, preparing for negotiations and bargaining power. Governmental resolving bargaining impasses, including mediation fact finding, and the types of
interest arbitration. An analysis of the practices and responsibilities of management and labor in terms and conditions of collective bargaining agreement. Address resolution of disputes and grievances arising out of implementation of a contract.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**HRM 1497 - DIRECTED STUDY**  
**Minimum Credits:** 1  
**Maximum Credits:** 3  
Independent study in a topic in human resources management.  
**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**HRM 1499 - HUMAN RESORC MGMNT INTERNSHIP**  
**Minimum Credits:** 1  
**Maximum Credits:** 3  
Practical experience in human resource management in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.  
**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**Interdisciplinary Arts**

**IA 0101 - ARTS AWARENESS**  
**Minimum Credits:** 3  
**Maximum Credits:** 3  
This arts seminar course encourages an integrated exploration and analysis of the arts. The course is taught in the hybrid format in which students attend a weekly seminar, engage in online course activities, and attend arts events. An important focus of the course is on various interdisciplinary approaches to the arts. Several events are made available for the students each term through the college's spectrum series.  
**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Arts

**IA 0197 - DIRECTED STUDY**  
**Minimum Credits:** 1  
**Maximum Credits:** 6  
Directed or independent study of a topic in interdisciplinary arts. Permission of the instructor required.  
**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**IA 0201 - ARTS AWARENESS**  
**Minimum Credits:** 1  
**Maximum Credits:** 1  
Seminar course encourages an integrated exploration and analysis of arts events, utilizing specific examples of interdisciplinary approaches in the arts combined with direct experience of multiple arts events available to students throughout the term.  
**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis

**IA 1301 - ARTS AWARENESS**  
**Minimum Credits:** 1  
**Maximum Credits:** 1
Seminar course encourages an integrated exploration and analysis of arts events, utilizing specific examples of interdisciplinary approaches in the arts combined with direct experience of multiple arts events available to students throughout the term.

**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**IA 1310 - PRINCIPLES OF ARTS MANAGEMENT**  
Minimum Credits: 3  
Maximum Credits: 3  
This course is a survey of the arts-presentation business in the United States with a focus on the nonprofit section of the industry, that is, the companies that present theater, dance, classical and popular music, the visual arts, the spoken arts, and emerging digital arts, among others. In short, the course focuses on the business side of show business.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  
**Course Requirements:** PREQ: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**IA 1401 - ARTS AWARENESS**  
Minimum Credits: 1  
Maximum Credits: 1  
Seminar course encourages an integrated exploration and analysis of arts events, utilizing specific examples of interdisciplinary approaches in the arts combined with direct experience of multiple arts events available to students throughout the term.  
**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**IA 1451 - CAPSTONE: INTERDIS ARTS**  
Minimum Credits: 3  
Maximum Credits: 3  
Students will explore the relationships between the fine and performing arts in the form of seminars to be offered at the start of the course. These seminars will provide the stimulus for the students' final projects that will emphasize and express their major area of study. The directed project will also focus on creative and critical thinking.  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**IA 1494 - UNDERGRAD FACULTY ASSISTANT**  
Minimum Credits: 1  
Maximum Credits: 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.  
**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**IA 1497 - DIRECTED STUDY: INTERDIS ARTS**  
Minimum Credits: 1  
Maximum Credits: 6  
Directed study in a topic in art, music, theatre, writing or combination thereof.  
**Academic Career:** UGRD  
**Course Component:** Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

IA 1499 - INTSHP INTERDISCIPLINARY ARTS
Minimum Credits: 1
Maximum Credits: 6
The course is designed to provide interdisciplinary, experientially based education in the area of interdisciplinary arts. The objective is to place student interns in an arts-related environment for an in-depth learning experience.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Industrial Engineering

IE 1021 - MODELING WITH COMPUTR APPLCTNS
Minimum Credits: 3
Maximum Credits: 3
Review of personal computer fundamentals, including descriptions of hardware, operating system, and operating procedures. Use of the university's mainframe computers. Review of spreadsheets. Intermediate-level Fortran, including interactive programming applications. Select numerical methods of interest to industrial engineers. Introduction to database concepts.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

International Studies

INTS 0101 - GLOBAL ISSUES
Minimum Credits: 3
Maximum Credits: 3
This introductory course is designed to introduce students to a number of the most critical global issues - rapid population growth, hunger, third-world development, international trade and foreign competition, and the arms race, and to examine the interrelationships between these issues. The emphasis will be on developing a global perspective.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

INTS 0112 - JAPANESE LANGUAGE AND CULTURE
Minimum Credits: 3
Maximum Credits: 3
This course provides an introduction to modern Japanese culture. Beginning with a brief overview of Japanese political-religious history, it will explore ethnic groups and social stratification, geography, economics, and social conventions: manners, food, holidays, home life, work expectations, sports and leisure. Basic conversational Japanese language instruction will be utilized throughout the course. Recommended for anyone who will be visiting or working in Japan, or who is interested in cross-cultural communication and comparisons.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures-Global

INTS 0115 - INTRO CHINESE CULTURE & LANG
Minimum Credits: 3
Maximum Credits: 3
This course surveys Chinese culture and language in both verbal and nonverbal communication forms. Beginning with a brief overview of political and historical differences between the people's republic of china and the republic of china (Taiwan), it explores elements of Chinese family structures, food, traditional holidays, social art, and leisure activities. Basic conversational Chinese language and rudiments of traditional Chinese writing will be utilized throughout the course. This course is recommended for anyone who is interested in China/Taiwan, as well those interested in
cross-cultural communication.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**General Education:** Cultures-Global

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**INTS 0120 - INDIA AND ITS CULTURES**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This is a basic course on India. Students will be introduced to many aspects of Indian culture, and will study and discuss the social customs, rituals, religions, and diversity in the country students will also touch upon gender issues and politics. Students will come to understand why India has become a dominant global presence in recent years.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**General Education:** Cultures-Global

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**INTS 0197 - DIRECTED STUDY INT'L STUDIES**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
Independent study in a topic in international studies.

**Academic Career:** UGRD

**Course Component:** Directed Studies

**Grade Component:** LG/SNC Elective Basis

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**INTS 0250 - SPECIAL TOPICS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course is the study of a special topic in international studies.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**General Education:** Cultures-Global

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**INTS 1494 - UNDERGRAD FACULTY ASSISTANT**

**Minimum Credits:** 1  
**Maximum Credits:** 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD

**Course Component:** Internship

**Grade Component:** Satisfactory/No Credit

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**INTS 1496 - INTERNATIONAL STUDIES ABROAD**

**Minimum Credits:** 1  
**Maximum Credits:** 12  
This course provides opportunities for topics and experiences in international studies abroad.

**Academic Career:** UGRD

**Course Component:** Internship

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**INTS 1497 - DIRECTED STUDY INT'L STUDIES**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
This course is an independent study in a topic in international studies.
INTS 1498 - DIRECTED RESEARCH: INT STUDIES
Minimum Credits: 1
Maximum Credits: 6
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

INTS 1499 - INTERNSHIP: INTERNATIONAL STD S
Minimum Credits: 1
Maximum Credits: 6
An internship is a special type of independent study in which the student works in a professional setting. The project is designed in consultation with the academic supervisor and conducted under the guidance of an on-site supervisor. An internship allows students to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on the basis of student's interest and the availability of positions.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Japanese

JPNSE 0101 - ELEMENTARY JAPANESE 1
Minimum Credits: 3
Maximum Credits: 3
An introduction to the everyday spoken language of Japan with an emphasis on oral practice. Students will also learn a Japanese writing system.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

JPNSE 0102 - ELEMENTARY JAPANESE 2
Minimum Credits: 3
Maximum Credits: 3
A continuation of elementary Japanese 1.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

JPNSE 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
JPNSE 1497 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 3
Independent study in Japanese.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

Leadership Development

LDEV 0007 - LEADERSHIP DEVELOPMENT
Minimum Credits: 1
Maximum Credits: 1
This course will permit students to examine various aspects of personal responsibility, leadership and professionalism. Designed to develop skills which will help them in future leadership positions both in college and beyond. Included will be discussions on human development, leadership theories, communication skills, small group dynamics, leadership strategies and styles, the nature of power and influence, values and ethics, and critical thinking skills.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis

Learning Skills

LNSK 0001 - GANNON CONSORTIUM AGREEMENT
Minimum Credits: 0
Maximum Credits: 0
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

LNSK 0002 - CONSORTIUM: BRMC
Minimum Credits: 0
Maximum Credits: 0
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

LNSK 0003 - JCC CONSORTIUM
Minimum Credits: 0
Maximum Credits: 0
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

LNSK 0101 - COLLEGE SUCCESS
Minimum Credits: 1
Maximum Credits: 1
This course lays a strong foundation for a successful transition to college by increasing critical thinking, curiosity, goal orientation, and motivation. It provides a basic orientation to the University of Pittsburgh at Bradford. Students will be introduced to a strengths approach to learning, and opportunities to develop practical skills and strategies for addressing the challenges of college.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

LNSK 0180 - LEADERSHIP DEVELOPMENT
Minimum Credits: 1
Maximum Credits: 1
This course will permit students to examine various aspects of personal responsibility, leadership and professionalism. Designed to develop skills which will help them in future leadership positions both in college and beyond. Included will be discussions on human development, leadership theories, communication skills, small group dynamics, leadership strategies and styles, the nature of power and influence, values and ethics, and critical thinking skills.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PRE-REQ: TRiO SSS enrollment required

Mathematics

MATH 0097 - COLLEGE ALGEBRA 1
Minimum Credits: 3
Maximum Credits: 3
This course covers the real number system, operations on real numbers, basic algebraic concepts and operations-simplifying and factoring-, solving linear and quadratic equations and linear inequalities, solving systems of linear equations in two variables, and graphing linear functions.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

MATH 0098 - COLLEGE ALGEBRA 2
Minimum Credits: 3
Maximum Credits: 3
The topics covered in college algebra 2 are functions-linear, radical, quadratic, exponential, and logarithmic- and their graphs, rational expressions, linear and compound inequalities, rational exponents, solving systems of linear equations, and solving quadratic equations. This course does not meet the mathematics competency at the Pittsburgh campus.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
General Education: Math Competency

MATH 0110 - FUNDAMENTALS OF MATHEMATICS
Minimum Credits: 3
Maximum Credits: 3
Introduction to calculators, statistics, probability, matrices, consumer mathematics, and elementary difference equations exhibiting chaos, and decision making are among the topics covered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
General Education: Math Competency

MATH 0132 - PRECALCULUS
Minimum Credits: 4
Maximum Credits: 4
The topics include intermediate algebra, functions and graphs, polynomial functions, rational functions, inverse functions, logarithmic and exponential functions and trigonometry.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
General Education: Comp Sci or Math Compt

MATH 0133 - STATISTICS
Minimum Credits: 4
Maximum Credits: 4
This is an introductory statistics course and covers methods of summarizing data, descriptive statistics, probability and probability distributions,
sampling distributions, the central limit theorem, hypothesis testing, analysis of variance, and regression analysis. Mathematical derivations and formulas are stressed.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Computational Sciences

MATH 0135 - DISCRETE MATHEMATICS
Minimum Credits: 3
Maximum Credits: 3
The study of computer-oriented mathematical concepts and structures including sets, relations and maps, counting, Boolean algebra (propositional calculus and circuits), trees and graphs, and recursion. Other mathematical concepts studied are the binary number systems, computer codes, ETS computer arithmetic, logic, truth tables, algorithms, sets and relations.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Computational Sciences

MATH 0136 - APPLIED CALCULUS
Minimum Credits: 4
Maximum Credits: 4
An introduction to differential and integral calculus with emphasis on applications. The topics include differentiation of polynomials, logarithms and exponentials, graphing, integration, Taylor series, multivariable calculus, special optimization techniques, and modeling.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
General Education: Comp Sci or Math Compt

MATH 0139 - ADVANCED MATHEMATICAL CONCEPTS
Minimum Credits: 3
Maximum Credits: 3
This course focuses on properties of the real number system, operations on subsets of the real numbers, estimation, probability, statistics, measurement, and geometry. Problem-solving techniques and reasoning are used throughout the course.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Computational Sciences

MATH 0140 - CALCULUS 1
Minimum Credits: 4
Maximum Credits: 4
This course is the first term of a three-term sequence required of all engineering, mathematics, and chemistry majors, and is the basic course leading to all advanced courses in mathematics and the natural and physical sciences. A study of the derivative, trigonometric functions, the integral, and applications of the derivative and the integral.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
General Education: Comp Sci or Math Compt

MATH 0150 - CALCULUS 2
Minimum Credits: 4
Maximum Credits: 4
Continuation of MATH 0140. The subject matter in this course includes differentiation of logarithms, exponential inverse trigonometric and hyperbolic function, techniques of integration, infinite series, power series, plane curves, and the polar coordinates.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
MATH 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in mathematics. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

MATH 0201 - CALCULUS 3
Minimum Credits: 4
Maximum Credits: 4
This course is a continuation of math 0105. The topics included are as follows: space geometry and vectors, vector analysis of curves, differential and integral calculus of several variables, applications of partial derivatives, divergence, green's and stokes' theorems, and differential equations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MATH 0202 - ORDINARY DIFFERENTIAL EQUATION
Minimum Credits: 3
Maximum Credits: 3
Topics include: basic concepts, autonomous equations, first order linear, second order with forcing functions, quantitative and qualitative aspects, power series solutions, models and applications.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Completion of MATH 0150 Calculus II is required

MATH 0203 - INTRO TO ABSTRACT MATHEMATICS
Minimum Credits: 3
Maximum Credits: 3
An introduction to classical abstract mathematics: set theory, functions, relations, measure theory, Cartesian products, cardinality, development of axiom systems such as natural numbers, integers, etc., And general topological concepts.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MATH 0206 - LINEAR ALGEBRA
Minimum Credits: 3
Maximum Credits: 3
This is a study of systems of linear equations using the concepts of vector spaces, linear transformations, matrices, eigenvalues, and eigenvectors.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MATH 0207 - GEOMETRY
Minimum Credits: 3
Maximum Credits: 3
A review of the axiomatic system of Euclidean geometry is covered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: MATH 0140 Calculus I
General Education: Computational Sciences

MATH 0251 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in Mathematics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MATH 1303 - MATHEMATICAL MODELING
Minimum Credits: 3
Maximum Credits: 3
An application of mathematical concepts and computer software to the formulation of models and solutions related to criteria ranking, decision making, biological modeling, environmental modeling, and optimization.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1304 - INTRODUCTION TO SIMULATION
Minimum Credits: 3
Maximum Credits: 3
The concepts, definitions, and techniques applicable to the modeling and simulation of systems with emphasis on discrete system simulation methods. Topics include system characterization, classification and modeling, pertinence of concepts from probability and statistics, and introductory description of suitable programming languages.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1305 - PARTL DFFRNCL EQN & FOUR SERI
Minimum Credits: 3
Maximum Credits: 3
A study of partial differential equations including parabolic, hyperbolic, and elliptic equations using Fourier series, Fourier transforms, and Laplace transforms.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1306 - ADVANCED MATHEMATICAL MODELING
Minimum Credits: 3
Maximum Credits: 3
Models based on different equations including growth, decay, cycles, and oscillations using a continuous system simulation language will be studied.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1307 - CPLX VARBLS FOR SCI AND ENGRG
Minimum Credits: 3
Maximum Credits: 3
Topics included in this course are complex functions, basic transcendental functions, integration in the complex plane, Laurent series, residues and their use in integration, conformal mapping, and applications.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
MATH 1308 - NUMERICAL ANALYSIS
Minimum Credits: 3
Maximum Credits: 3
Numerical techniques related to location of roots, polynomial interpretation, numerical integration, ordinary differential equations, Monte Carlo methods, smoothing of data will be covered.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1309 - APPLIED PROBABILITY AND STATISTICS
Minimum Credits: 4
Maximum Credits: 4
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1312 - ABSTRACT ALGEBRA & NUMBER THEORY
Minimum Credits: 4
Maximum Credits: 4
This course introduces some basic concepts in abstract algebra and number theory, and will cover groups, rings, fields, polynomials and properties of integers.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1314 - TOPICS IN MODERN GEOMETRY
Minimum Credits: 3
Maximum Credits: 3
This course exposes students to some aspects of modern geometry. In addition to the major emphasis on geometric transformations, one or more topics will be selected from a wide variety of branches at the discretion of the instructor. Projective geometry, topology, differential geometry, non-Euclidean geometry, graph theory, fractal geometry, computational geometry, and computer graphics are among these topics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1315 - ADVANCED DIFFERENTIAL EQUATIONS
Minimum Credits: 3
Maximum Credits: 3
Systems of ordinary equations will be the main focus of this course. Topics include stability analysis, limit cycles, oscillations, excitable systems and bifurcations. Software aids will also be used.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisite: Upper-Level Courses (ENG 0101, ENG 0102, FS 0102, MATH) and MATH 0202

MATH 1316 - COMPUTATIONAL LINEAR ALGEBRA
Minimum Credits: 3
Maximum Credits: 3
This course consists of two parts, the computational linear algebra part and an applications part. The first part is primarily devoted to using software aids and lab sessions and is two-thirds of the course. The last third will be devoted to small group projects. All the basic topics of linear algebra will
be studied.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1318 - INTRODUCTION TO ANALYSIS
Minimum Credits: 4
Maximum Credits: 4
This is a follow-up to the three term calculus sequence of courses and designed to bridge the gap between the intuitive calculus and the advanced mathematics. Through a rigorous treatment of the basic concepts already encountered in calculus, students will learn how to express themselves mathematically and in particular, to write mathematical proofs.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1320 - OPERATIONS RESEARCH
Minimum Credits: 3
Maximum Credits: 3
An introduction to operations research with emphasis on economic applications. The topics include formulation and solving of linear programming problems, integer programming, simplex method, transportation problems, and network models.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1325 - COMPUTR APPLCTNS MATHMTCL PHYS
Minimum Credits: 4
Maximum Credits: 4
Various mathematical approaches such as finite difference and Monte Carlo methods are employed to solve problems from classical and modern physics. These numerical problems are included but not limited to the scattering of light by small particles, celestial mechanics, and applications of the Schrödinger equation. A suitable symbolic platform such as Mathematica will be utilized for this task.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1401 - METHODS OF APPLIED MATHEMATICS
Minimum Credits: 3
Maximum Credits: 3
Mathematical techniques including calculus of variations, the gamma and beta functions, asymptotic series, elliptic integrals, complex functions, Laurent series, residue theorem, methods involving integral transforms, the Dirac delta function, green functions, and perturbation techniques.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1450 - TOPICS IN APPLIED MATHEMATICS
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in applied mathematics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
MATH 1452 - CAPSTONE: MATHEMATICS
Minimum Credits: 1
Maximum Credits: 3
A year-long project in mathematics supervised by a member of the mathematics faculty.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1455 - WRITINGS IN HIST OF MATHEMATICS
Minimum Credits: 3
Maximum Credits: 3
In this course, students will be responsible for writing a 20 page manuscript. The objectives of this manuscript can be varied and include: demonstrating the growth and development of a mathematical concept (or concepts) as an evolutionary process; revealing the human involvement with mathematics, noting specific persons (male and female), peoples, and culture; and clarifying the place of mathematics in society.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

MATH 1497 - DIRECTED STUDY: MATH
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of math. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MATH 1498 - DIRECTED RESEARCH: MATH
Minimum Credits: 1
Maximum Credits: 6
Independent research in mathematics supervised by a member of the mathematics faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

MATH 1499 - INTERNSHIP: MATHEMATICS
Minimum Credits: 1
Maximum Credits: 6
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Mechanical Engineering

ME 0022 - KINEMATICS OF MACHINERY
Minimum Credits: 3
Maximum Credits: 3
Fundamental theory of motion as applied to basic mechanisms. Analytical, computer, and graphical methods for determining displacements, velocities, and accelerations. Gears and gear trains are studied, and cams and linkages are synthesized.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ME 0024 - INTRO TO MECHANICAL ENGINEERING DESIGN
Minimum Credits: 3
Maximum Credits: 3
Provides knowledge of design graphics and manufacturing processes by conventional and computer-aided methods.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ME 0051 - INTRODUCTION TO THERMO-FIUIDS ENGINEERING
Minimum Credits: 3
Maximum Credits: 3
Synthesis of the basic concepts from thermodynamics and fluids, including: properties of pure substances, first law analysis, and introduction to the second law; fluid statics, kinematics, stress, and viscosity; and control volume analysis of the conservation equations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

ME 1051 - APPLIED THERMODYNAMICS
Minimum Credits: 3
Maximum Credits: 3
Thermodynamic processes, energy and entropy changes in real and ideal gases, vapors, and liquids, and mixtures of those fluids. Basic thermodynamic cycles (vapor and gas power, refrigeration, and compressors). Introduction to chemical thermodynamics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

Mechanical Engineering and Materials Science Engineering

MEMS 0051 - INTRODUCTION TO THERMODYNAMICS
Minimum Credits: 3
Maximum Credits: 3
Basic concepts and interlinking relationships of thermodynamics, fluid mechanics and heat transfer; fluid statics; system and control volumes; thermodynamic properties; work and heat; first law of thermodynamics for control mass and control volume; integral forms of conservation of mass and momentum.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

Management

MGMT 0101 - INTRODUCTION TO BUSINESS
Minimum Credits: 3  
Maximum Credits: 3  
This course is designed for students interested in completing a minor in business management or would like a broad overview of business functions. As a survey course, it provides an introduction to the international business environment, business and human resource management, marketing, management information systems, accounting, and finance. This course cannot be used toward the nine credits of required business management electives in the business management major.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

MGMT 0110 - PRINCIPLES OF MANAGEMENT  
Minimum Credits: 3  
Maximum Credits: 3  
This introductory course focuses on the basic management functions in business. The emphasis is on developing leadership, team work, and communication skills. Topics covered include management theory, planning, organizing, leading, motivating, controlling, as well as management ethics, change, and global perspectives.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

MGMT 0115 - COMNY DVLP THROUGH FREE ENTPR  
Minimum Credits: 1  
Maximum Credits: 1  
The objective of this course is for students from any discipline to participate in, and reflect upon, a service-learning experience. Service-learning is an educational experience in which students participate in an organized service activity that meets identified community and/or university needs. Students will brainstorm, design and implement programs and projects to teach others how market economies and businesses operate. In this course students will go out into the community to make a difference and to develop leadership, teamwork and communication skills through learning, practicing and teaching the principles of free enterprise. Students are required to document the impact of their efforts, whether it is in dollars, educational achievement, or business health.  
Academic Career: UGRD  
Course Component: Practicum  
Grade Component: LG/SNC Elective Basis

MGMT 0197 - DIRECTED STUDY  
Minimum Credits: 1  
Maximum Credits: 6  
Independent study in a topic in management. Permission of the instructor is required.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

MGMT 0210 - BUSINSS & CULTURE LATIN AMERC  
Minimum Credits: 3  
Maximum Credits: 3  
This course is an interdisciplinary introduction to the cultural, historical, environmental, economic, and political constraints under which international business ventures have to operate in Latin America. It emphasizes the need for greater cultural sensitivity, ethical behavior, and pluralistic thinking and behavior.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

MGMT 0250 - SPECIAL TOPICS  
Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in management.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis
MGMT 1301 - ORGANIZATIONAL BEHAVIOR
Minimum Credits: 3
Maximum Credits: 3
(Cross-listed with SOC 1305) explains fundamental tasks, processes, and dynamics common to all organizations, with emphasis on behavioral
science applications. Focus is on individual, interpersonal, and group behavior within organizations, and the interplay of human, technological, and
structural factors.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1302 - OPERATIONS MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
This course examines the major models of management science and applies them to various decision making problems with the use of the computer.
Topics include decision theory, linear programming, inventory management, and various simulation models.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1303 - BUSINESS ETHICS
Minimum Credits: 3
Maximum Credits: 3
This course is an examination of business ethics from both an organizational and individual perspective. Students will examine the role of the
socially responsible organization, as well as individual conduct in business settings.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: MGMT 0110

MGMT 1304 - BUSINESS LAW
Minimum Credits: 3
Maximum Credits: 3
A survey of the legal process and a study of the principles and precepts of business law, contracts, property, sales, negotiable instruments,
partnerships, and corporations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1305 - INTERNATIONAL MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
Examines the theory of international trade; the social, cultural, and political dimensions of the international environment; the history of the U.S. In
international business; and trends in international competition. An understanding of international operations is developed through case studies and
discussion of marketing, financial, and strategic issues.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Global

MGMT 1307 - TOTAL QUALITY MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
The course will examine the theory, principles and practices of total quality management, perhaps the most important management philosophy and
approach of the last half century. Case studies and practical application of the principles will be emphasized.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**MGMT 1308 - BUSINESS INFORMATION SYSTEMS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
An overview of modern business computer information systems. The course is an introduction to the components and role of information systems in business and society.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**MGMT 1309 - MANAGING WORKPLACE DIVERSITY**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
In-depth exploration of how gender, ethnicity, sexual orientation, age, physical ability and size impact employee experiences and management's challenges and opportunities for developing the talents of diverse workers.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** PREREQ: MGMT 0110

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**MGMT 1315 - MGT & SUPRVSN CRIMINAL JUSTICE**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A study of criminal justice agency structure at the local, state, and federal levels. Emphasis is on management and supervision theory and methods of bureaucracies and complex organizations with emphasis on the concepts and practices of the organization and management of agencies in the administration of justice. Included are topics of communication, motivation, job design, and leadership. Power, conflict, decision making and change.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**MGMT 1320 - HUMAN RESOURCES MANAGEMENT**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course provides an introduction to the field of personnel/human resources management and investigates the role of the personnel manager in the public, non-profit, and private sectors. A variety of personal functions and procedures are examined, including: HR planning, job analysis, performance appraisal, personnel selection, orientation, training and development, compensation and benefits, labor-management relations, civil service systems, EEO/AA, and the impact of legislation of the personnel function.

**Academic Career:** UGRD

**Course Component:** Lecture

**Grade Component:** LG/SNC Elective Basis

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

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**MGMT 1345 - LDRS/GOV/MGMT NONPROFIT ORG**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course will analyze the management of nonprofit organizations (third sector) in a changing environment. The concepts and principles taught, while geared toward NPOS, are also applicable to the public and private sectors of our economy.

**Academic Career:** UGRD

**Course Component:** Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1401 - BUSINESS SOCIETY & INT'L ENVRN
Minimum Credits: 3
Maximum Credits: 3
Business is no longer defined simply as an economic entity, and successful managers must concern themselves with more than economic issues. Using a wide variety of cases, this course examines the political, social, environmental, ethical, and international dimensions of the business environment.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1403 - BUSINESS ANALYTICS
Minimum Credits: 3
Maximum Credits: 3
This course teaches students how to use data analytics tools to efficiently and effectively organize, process, model, and visualize data in business environments. Applied statistical methods will be used to generate models for exploratory or confirmatory analyses. Students are expected to formulate a data-driven way of thinking in business analysis and problem solving.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: MATH 0136 and ECON 0204

MGMT 1449 - ECONOMIC SYSTEMS
Minimum Credits: 3
Maximum Credits: 3
Studies the operation and management of a wide spectrum of economic systems, ranging from the mixed-market systems of the United States, Europe, and Japan to the central-command systems of the former Soviet bloc and the emerging markets in southeast Asia.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1450 - TOPICS IN MANAGEMENT
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in business management.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1451 - CAPSTONE: STRATEGIC MGMNT
Minimum Credits: 3
Maximum Credits: 3
An integrating course coordinating concepts from the functional business fields into overall organizational plans and strategies. A focus on real world business applications is an integral part of the course. Numerous cases are analyzed.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: ACCT 0201, FIN 1301, MRKT 1301

MGMT 1494 - UNDERGRAD FACULTY ASSISTANT
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

MGMT 1496 - COOPERATIVE EDUCATION IN MGMT
Minimum Credits: 3
Maximum Credits: 12
This course offers students an opportunity to integrate classroom instruction with a practical supervised work experience.

Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1497 - DIRECTED STUDY: MANAGEMENT
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of management.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1498 - DIRECTED RESEARCH: MANAGEMENT
Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in business management, supervised by a member of the business faculty.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MGMT 1499 - INTERNSHIP: MANAGEMENT
Minimum Credits: 1
Maximum Credits: 6
Practical experience in business in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.

Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

Military Science & Tactical

MILS 0101 - FOUNDATIONS OF OFFICERSHIP
Minimum Credits: 1
Maximum Credits: 1
The course introduces the United States army, army reserve, and army national guard and provides a general examination of the roles and contributions these organizations offer to society. Fundamental leadership, management, problem solving, and decision-making techniques are presented and practiced.

Academic Career: UGRD
Course Component: Lecture
MILS 0102 - BASIC LEADERSHIP
Minimum Credits: 1
Maximum Credits: 1
This course builds upon the fundamentals introduced in MILS 0101, focusing on leadership theory and decision making. "Life skills" lessons include: problem solving, critical thinking, leadership theory, followership, group interaction, goal setting, and feedback mechanisms. Upon completion of this course, cadets should be prepared to advance to more complex leadership instruction concerning the dynamics of organizations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MILS 0103 - FOUNDATIONS OF OFFICERSHIP LAB
Minimum Credits: 1
Maximum Credits: 1
The basic course students actively participate in dynamic small team building leadership exercises. Students are led through a variety of mentally and physically challenging adventure situations (mountaineering, survival, fitness, etc.) Where "learn by doing" is the rule. Normally two overnight field exercises are offered.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

MILS 0104 - BASIC LEADERSHIP LAB
Minimum Credits: 1
Maximum Credits: 1
Practice for and participation in a variety of training including rappelling, snowshoeing, cross country skiing culminating in a waterborne (rafting) and airmobile (helicopter) exercise along the Allegheny river and reservoir late in the semester.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

MILS 0197 - DIRECTED STUDY: MILITARY SCI
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of military science.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

MILS 0201 - INDIVIDUAL LEADERSHIP STUDIES
Minimum Credits: 1
Maximum Credits: 1
Building upon the fundamentals introduced in the MILS I year, this instruction delves into several aspects of communication and leadership theory. The use of practical exercise is significantly increased and cadets are increasingly required to apply communications and leadership concepts. Virtually the entire semester teaches critical "life skills." The relevance of these life skills to future success in the Army is emphasized throughout the course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: MILS 0101

MILS 0202 - LEADERSHIP AND TEAMWORK
Minimum Credits: 1
Maximum Credits: 1
This course focuses on officership, providing an extensive examination of the unique purpose, roles, and obligations of commissioned officers. It includes a detailed look at the origin of our institutional values and their practical application in decision-making and leadership. Upon completion of
this course, cadets should possess a fundamental understanding of both leadership and officership and be able to apply this understanding to real world situations.

**Academic Career**: UGRD  
**Course Component**: Lecture  
**Grade Component**: LG/SNC Elective Basis

**MILS 0203 - INDIV LEADERSHIP STUDIES LAB**

Minimum Credits: 1  
Maximum Credits: 1  
This course is a continuation of MILS 0104. The students are placed in a number of different leadership positions designed to further develop their confidence and leadership abilities.

**Academic Career**: UGRD  
**Course Component**: Credit Laboratory  
**Grade Component**: LG/SNC Elective Basis

**MILS 0204 - LEADERSHIP & TEAMWORK LAB**

Minimum Credits: 1  
Maximum Credits: 1  
A continuation of MILS 0104 Leadership Lab 1B.

**Academic Career**: UGRD  
**Course Component**: Credit Laboratory  
**Grade Component**: LG/SNC Elective Basis

**MILS 0303 - ADVANCED LEADERSHIP LAB 3A**

Minimum Credits: 1  
Maximum Credits: 1  
Cumulative application and evaluation of leadership/officership skills. Extensive fitness training required.

**Academic Career**: UGRD  
**Course Component**: Credit Laboratory  
**Grade Component**: LG/SNC Elective Basis

**MILS 0304 - ADVANCED LEADERSHIP LAB 3B**

Minimum Credits: 1  
Maximum Credits: 1  
Cumulative application, practice and evaluation of leadership/officership skills. Extensive fitness training required.

**Academic Career**: UGRD  
**Course Component**: Lecture  
**Grade Component**: LG/SNC Elective Basis

**MILS 0403 - ADVANCED LEADERSHIP LAB 4A**

Minimum Credits: 1  
Maximum Credits: 1  
The students maintain the senior cadet leadership positions and continually apply the cumulative skills of officer leadership with particular emphasis on training concepts for the basic course labs.

**Academic Career**: UGRD  
**Course Component**: Credit Laboratory  
**Grade Component**: LG/SNC Elective Basis

**MILS 0404 - ADVANCED LEADERSHIP LAB 4B**

Minimum Credits: 1  
Maximum Credits: 1  
The students maintain the senior cadet leadership positions and continually apply the cumulative skills of officer leadership with particular emphasis on evaluating the military science individual performance.

**Academic Career**: UGRD  
**Course Component**: Credit Laboratory  
**Grade Component**: LG/SNC Elective Basis

**MILS 1301 - LEADERSHIP AND PROBLEM SOLVING**
This advanced course focuses on leadership competencies. Instruction includes principles of war and purposes, fundamentals and characteristics of the defense, decision making, planning and execution processes of the troop leading procedures. This course also addresses motivational theory and techniques, the role and actions of leaders, and risk assessment.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### MILS 1302 - LEADERSHIP AND ETHICS

**Minimum Credits:** 2  
**Maximum Credits:** 2  
This course includes opportunities to plan and conduct individual and collective skill training for offensive operations to gain leadership and tactical experience. It synthesizes the various components of training, leadership and team building. Upon completion of this course, cadets will possess the fundamental confidence and competence of leadership in a small unit setting.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### MILS 1401 - OFFICERSHIP

**Minimum Credits:** 2  
**Maximum Credits:** 2  
This course, along with MILS 0402, completes the general military science curriculum and qualifies the student for commissioning as an officer in the U.S. Army. Classroom instruction and leadership requirements are a prelude to initial officer training at one of the various army service schools after commissioning. Classroom/seminar topics include military justice, command and staff functions, problem resolution, decision making, ethical conduct, and a continued examination of the duties and responsibilities of an army officer. Prerequisites: MILS 0301, 0302.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### MILS 1402 - OFFICERSHIP

**Minimum Credits:** 2  
**Maximum Credits:** 2  
This advanced course focuses on completing the transition from cadet to lieutenant. It involves legal aspects of decision-making and leadership, organization of operations from the tactical to the strategic level, administrative and logistical management, and the process of changing duty stations and reporting to a new unit. Upon completion of this course, cadets will be prepared to be a commissioned officer in the United States army.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### MILS 1494 - UNDERGRAD FACULTY ASSISTANT

**Minimum Credits:** 1  
**Maximum Credits:** 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

### MILS 1497 - DIRECTED STUDY: MILITARY SCI

391
Minimum Credits: 1  
Maximum Credits: 6  
Military science directed study in a topic in military science.  

Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Management Information Systems

MIS 0103 - COMPUTER APPLICATIONS FOR MANAGEMENT  
Minimum Credits: 3  
Maximum Credits: 3  
Basic computer literacy skills are taught in this course. Students are introduced to business office suite software using Microsoft's products. Word, Excel, PowerPoint, and Access are covered. In addition, students are taught basic library research methods.  

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

MIS 0150 - FUNDAMENTALS OF PROGRAMMING  
Minimum Credits: 3  
Maximum Credits: 3  
The course is designed to provide the student with an adequate understanding of programming concepts and principles to enable her or him to design and implement programs for his or her own use or use in the classroom. At the completion of the course, the student will be able to develop programs using alice and the python programming language. The student will be equipped with the ability to learn to develop programs using other programming languages.  

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

MIS 0197 - DIRECTED STUDY  
Minimum Credits: 1  
Maximum Credits: 7  
Independent study in a topic in management information systems. Permission of the instructor is required.  

Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis

MIS 0208 - BUSINESS INFORMATION SYSTEMS  
Minimum Credits: 3  
Maximum Credits: 3  
Emphasizes the strategic use of computers, information systems and the internet to increase business competitiveness. Topics include: development and use of management information systems, decision support systems, business processing re-engineering, enterprise resource planning, data warehousing and data mining as well as electronic commerce.  

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

MIS 0250 - SPECIAL TOPICS  
Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in management information systems.  

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

MIS 1309 - INTRO WEB DSGN & APPLCS DEVELP
This introductory level course will explore the current techniques in web authoring, design, creation, and implementation of web pages using various web development tools. Students will be exposed to creating interactive database web applications. Programming tools employed include Perl, Java, and JavaScript. Advanced features of HTML are also examined.

**MIS 1310 - SYSTEMS ANALYSIS AND DESIGN**

Minimum Credits: 3  
Maximum Credits: 3  
A practical study of computer based information system analysis and design techniques and methodologies. Topics include problem solving methods, system investigation tactics, analysis, logical design, system maintenance, system team dynamics, and data collection techniques and procedures.

**MIS 1311 - ELECTRONIC COMMERCE**

Minimum Credits: 3  
Maximum Credits: 3  
Electronic commerce will be studied using cases, lectures, readings and world wide web site evaluations. Student teams will give presentations analyzing individual companies or organizations, including a detailed analysis and evaluation of the business model being used.

**MIS 1325 - INTRO TO SUPPLY CHAIN MGMT**

Minimum Credits: 3  
Maximum Credits: 3  
Supply chain management is about the management of material and information flows in multi-stage production-distribution networks. Driven by fierce global competition and enabled by advanced information technology, many companies have taken initiatives to reduce costs and at the same time increase responsiveness to changes in the marketplace. This course will provide students with the knowledge and the tools necessary to develop, implement, and sustain strategies for managing supply chain issues.

**MIS 1407 - COMPETITIVE INTELLIGENCE & IT**

Minimum Credits: 3  
Maximum Credits: 3  
Competitive intelligence is a process of selecting, collecting, interpreting, and distributing publicly-held information to make strategic business decisions. This course focuses on the how to design and execute such a process, primarily by employing informational technology (and the internet in particular) to transform competitor information into relevant, accurate and usable knowledge. The course moves through the core phases of the process.

**MIS 1408 - PROJCT MGMT IN INFO TECHNOLOGY**

Minimum Credits: 3  
Maximum Credits: 3  
This course provides a comprehensive approach to project management within the context of information technology. The course addresses the
culture, principles, and basic techniques of managing technical projects. The course reviews the general stages of a project in rough chronological order and describes how the stages interrelate. Basic tools of project management, such as work breakdown structure, scheduling, contracting, cost analysis, and risk management, are explained and demonstrated.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MIS 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

MIS 1497 - DIRECTED STUDY: MGMT INFO SYS
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in management information systems. Permission of the instructor is required.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MIS 1498 - DIR RESEARCH: MGMT INFO SYS
Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in the management information systems supervised by a member of the business faculty.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MIS 1499 - INTERNSHIP: MGMT INFO SYSTEMS
Minimum Credits: 1
Maximum Credits: 6
Practical experience in the management of information systems in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.

Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

Marketing

MRKT 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in marketing.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MRKT 1301 - PRINCIPLES OF MARKETING
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to marketing as an integral component of an effective business strategy to build valuable business partnerships and profitable customer relationships. Topics covered include the marketing environment, managing market information, consumer behavior, market segmentation, branding strategy, product development, pricing, distribution, integrated marketing communication, and marketing ethics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**MRKT 1302 - ADVERTISING AND PROMOTION**
Minimum Credits: 3
Maximum Credits: 3
This course applies the principles of marketing to the field of integrated marketing communications. Advertising is examined in terms of management, design, and media selection. Promotional tools including trade and consumer promotions, personal selling, and public relations are also emphasized. The focus is on integrating various strategies to develop a comprehensive advertising and promotion campaign.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**MRKT 1303 - SELLING AND SALES MANAGEMENT**
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to the skills necessary to initiate, build, and maintain customer relationships through personal sales. Legal and ethical issues associated with professional selling are examined. Management principles are also applied to hiring, training, motivating, and compensating a sales team.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**MRKT 1304 - DIRECT MARKETING**
Minimum Credits: 3
Maximum Credits: 3
This course introduces students to the theoretical, practical, and ethical aspects of direct marketing. Topics covered in the course include mail order, telemarketing, internet-based strategies, direct response advertising, measurability and accountability, lists, and database marketing. Theoretical approaches will be applied to the direct marketing process, including strategic promotion, traffic building, fund-raising, lead generation, and subscriptions.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**MRKT 1405 - MARKETING MANAGEMENT**
Minimum Credits: 3
Maximum Credits: 3
In this course, students apply key concepts, analytic tools, and strategic approaches developed in previous marketing courses to successful marketing decision making. Specific problems associated with customer relationship management, advancement in technology, global marketing, and brand building are examined. Case study analysis is used extensively.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
MRKT 1410 - MARKETING RESEARCH
Minimum Credits: 3
Maximum Credits: 3
This course presents an overview of marketing methodology, techniques, and issues. Survey design, data collection and analysis, interpretation of findings, and presentation of results are emphasized. Students make extensive use of Microsoft Excel for data analysis in this course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: a course in statistics and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MRKT 1415 - CONSUMER BEHAVIOR
Minimum Credits: 3
Maximum Credits: 3
This course examines the fundamental areas of consumer decision-making processes within the context of an overall marketing strategy. Macro socio-cultural factors are examined along with a broad range of micro psychological influences on consumer behavior outcomes and choices. Consumer welfare, consumer research methodology, and marketing regulations are also discussed.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MRKT 1420 - INTERNATIONAL MARKETING
Minimum Credits: 3
Maximum Credits: 3
This course examines the international application of fundamental marketing principles. This includes social and cultural dimensions, economic environments, as well as political and legal considerations. Other topics include approaching global markets, utilizing a global marketing mix, and executing global strategic leadership.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: MRKT 1301 Introduction to Marketing and completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Global

MRKT 1450 - TOPICS IN MARKETING
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in marketing.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MRKT 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
MRKT 1496 - COOPERATIVE EDUCATION IN MRKT
Minimum Credits: 3
Maximum Credits: 12
This course offers students an opportunity to integrate classroom instruction with a practical supervised work experience.
Academic Career: UGRD
Course Component: Internship
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MRKT 1497 - DIRECTED STUDY: MARKETING
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of management. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

MRKT 1498 - DIRECTED RESEARCH: MARKETING
Minimum Credits: 1
Maximum Credits: 6
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

MRKT 1499 - INTERNSHIP: MARKETING
Minimum Credits: 1
Maximum Credits: 6
Practical experience in marketing in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

Music

MUSIC 0101 - ELEMENTS OF MUSIC
Minimum Credits: 3
Maximum Credits: 3
Musical notation, scales, intervals, harmonic structures, and their application in performance, with emphasis on vocal and keyboard sight reading.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0102 - INTRODUCTION TO MUSIC
Minimum Credits: 3
Maximum Credits: 3
Teaches the student how to listen to music. The fundamentals of music with applications to the formal designs of instrumental compositions and dramatic effects of vocal music are examined. Prepares students for study in the history of music and enables them to listen perceptively and creatively.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0103 - HISTORY OF MUSIC 1
Minimum Credits: 3
Maximum Credits: 3
A survey of music in Western civilization from the ancient Greeks to 1750. Includes an introduction to representative musical works and styles. Emphasis is placed on the understanding of musical concepts in light of their historical context.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0104 - HISTORY OF MUSIC 2
Minimum Credits: 3
Maximum Credits: 3
A survey of music in Western civilization from 1750 to the present. Includes an introduction to representative works and styles. Emphasis is placed on the understanding of musical concepts in light of their historical context.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0109 - GLOBAL MUSIC SURVEY
Minimum Credits: 3
Maximum Credits: 3
An introduction to world music traditions lying outside the classical music cannon. Through hands-on demonstration, listening, reading, and concert attendance, students will gain familiarity with diverse traditions such as Indonesian, Indian, Chinese, Japanese, Latin American, African, and Arab musics. Also studied will be the social function music fulfills in different cultures and how styles have evolved as traditions mingle and influence one another. No prior musical knowledge required. GE: Arts & Global.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts-Global

MUSIC 0195 - APPLIED MUSIC
Minimum Credits: 1
Maximum Credits: 1
Private applied music lessons are available in piano, voice, guitar, and all instruments of the orchestra. Students may arrange to study privately without academic credit, or may audition for acceptance into this credit-bearing course. A student may opt to study a different instrument in succeeding semesters. This course may be repeated for credit but not more than three credits may count toward the major.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

MUSIC 0201 - 20TH-CENTURY MUSIC
Minimum Credits: 3
Maximum Credits: 3
A survey of musical styles and major composers from the late 19th century to the present. Students will develop an understanding, appreciation, and critical attitude toward music of the present century. Characteristic works of music are discussed and listened to in class.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0202 - THE SYMPHONY
Minimum Credits: 3
Maximum Credits: 3
The evolution of symphonic form from pre-classical origins to its present state with examples chosen from the works of European and American composers. Compositions are analyzed during class, using orchestral scores and recordings.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0203 - OPERA
Minimum Credits: 3
Maximum Credits: 3
The development of operatic styles and forms from the 18th century to the present. Works are studied in class with the aid of study scores and recordings.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0204 - BACH AND HANDEL
Minimum Credits: 3
Maximum Credits: 3
The life and works of the two most important composers of the baroque era.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0205 - COLLEGE/COMMUNITY CHOIR
Minimum Credits: 1
Maximum Credits: 1
A choral group that performs classical music. May be taken for credit three times only. Activity credit.
Academic Career: UGRD
Course Component: Workshop
Grade Component: LG/SNC Elective Basis

MUSIC 0207 - JAZZ BAND
Minimum Credits: 1
Maximum Credits: 1
An instrumental group that includes performers on the saxophone, trombone, trumpet, bass guitar, drums, and keyboard. May be taken for credit three times only. Activity credit.
Academic Career: UGRD
Course Component: Workshop
Grade Component: LG/SNC Elective Basis

MUSIC 0208 - HAYDN AND MOZART
Minimum Credits: 3
Maximum Credits: 3
The life and works of two of the most important composers of the classical period.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0209 - BEETHOVEN
Minimum Credits: 3
Maximum Credits: 3
Readings are in standard biographies and in documentary histories of Beethoven's life. Lectures will focus upon hearing the influences Beethoven inherited and the ways he altered musical form and structures. This is a "listening course"-which means the students will have extensive assignments in listening to music. A set of cassette tapes will provide listen-at-home examples.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0210 - MUSICIANSHIP 2
Minimum Credits: 3
Maximum Credits: 3
This course continues the process of investigation of compositional techniques begun in MUSIC 0101. Greater attention is paid to harmonic structures and their application in performance, to form and the means of controlling longer periods of musical time.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MUSIC 0213 - PERFORMANCE PRACTICUM
Minimum Credits: 1
Maximum Credits: 1
An outlet for public music performance on campus. The course is open to vocalists and instrumentalists, and may be elected concurrently with MUSIC 0195. Via regular coaching and rehearsal, students work toward two to three short performances per term, which might range from informal in-class recitals to public campus events. Repertoire decisions are made in consultation with the instructor. Duos, trios, and small ensembles are welcome; piano accompaniment is available.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

MUSIC 0214 - VOCAL ARTS ENSEMBLE
Minimum Credits: 1
Maximum Credits: 1
A small, student-only vocal ensemble. Via weekly rehearsals and coaching, students work toward two to three short performances per semester. These range from informal recitals to public fundraisers and campus events. Some students will have the opportunity to perform as soloists or in duos or trios.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

MUSIC 0215 - DIGITAL MUSIC CREATION
Minimum Credits: 3
Maximum Credits: 3
Dance music, hip-hop, R&B, pop, indie, all of these (and more) make use of the techniques of digital music creation. Students interested in creating their own digital music can enroll in this hands-on course to begin their own exploration of music software and hardware. Using programs like Audacity, Ableton Live, and Reason, students will complete a series of creative projects as they learn to record and manipulate their own sounds and songs. This class satisfies a GE: Arts requirement.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

MUSIC 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in music.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

MUSIC 0260 - MUSIC IN FILM
Minimum Credits: 3
Maximum Credits: 3
An introduction to the history, functions, techniques, and significance of film music. Students will explore more than two dozen representative
scores, ranging from masterpieces of Hollywood's "Golden Era" (King Kong, Gone With the Wind) to today's blockbusters (Star Wars, The Lord of the Rings). The primary focus of the course is the traditional symphonic score, but song and compilation scores will also be discussed.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Arts

### MUSIC 1315 - MUSICAL STYLES: BACH & HANDEL

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The music of Bach and Handel established the high-water mark of baroque style. This course examines the musical world of 1700'60, its sources and manifestations, and its influences on the future of Western music.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### MUSIC 1330 - MUSICAL STYLES: HAYDN & MOZART

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The two giants of the classic era in music formulated the musical structures that continue to govern the standard repertory. This course examines the musical world of 1750'1810, its sources and manifestations, and its influences on the future of Western music. Analysis of works, preparation of academically sound interpretative and descriptive notes accessible to the non-specialist reader.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### MUSIC 1335 - MUSICAL STYLES: BEETHOVEN

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Beethoven towers over Western music like a god. This course examines the place of this composer in the musical world of 1785'1830, focusing on his sources of inspiration and his influences on the future of Western music. Students analyze the formal design of Beethoven's major works, to discover how he turns audience expectations to his advantage.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**General Education:** Arts

### MUSIC 1338 - MUSICAL STYLES: 20TH CENTURY

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The revolutions in musical style beginning about 1890 have continued to the present. This course assays the changes, decade by decade, developing a critical understanding of the ways that musical meaning has been transformed in recent history. Students each present one project detailing a specific work.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### MUSIC 1339 - MUSICAL STYLES

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A more detailed exploration of art music repertoire, with emphasis on societal context, compositional technique, and present-day relevance. The subject matter of the course varies from semester to semester, and may focus on particular composers (e.g., Haydn, Mozart, and Beethoven), stylistic epochs (e.g., Romanticism), or locations (e.g. American music).
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
General Education: Arts

**MUSIC 1494 - UNDERGRAD FACULTY ASSISTANT**  
Minimum Credits: 1  
Maximum Credits: 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.  
Academic Career: UGRD  
Course Component: Internship  
Grade Component: Satisfactory/No Credit

**MUSIC 1497 - DIRECTED STUDY**  
Minimum Credits: 1  
Maximum Credits: 6  
Independent study in a topic in music. Permission of the instructor is required.  
Academic Career: UGRD  
Course Component: Directed Studies  
Grade Component: LG/SNC Elective Basis  
General Education: Arts

**Nursing**

**NUR 0100 - TRANSITION NURSING FOR LPN’S**  
Minimum Credits: 2  
Maximum Credits: 2  
Facilitates transition of the LPN to associate degree nursing student. Major focus is on the roles of the associate degree nurse, the nursing process with emphasis on history taking, physical assessment and individualized nursing care plans; and, stressors related to fluid/electrolyte-acid/base balance.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

**NUR 0106 - SUCCEDING IN NURSING EDUCATION**  
Minimum Credits: 1  
Maximum Credits: 1  
This course will provide opportunity for the nursing student to acquire skills necessary to successfully negotiate the educational journey to associate degree completion and state board examination. Strategies to cope with roadblocks to success will be presented in a relaxed seminar environment. Some topics to be presented included test-taking strategies, relaxation and stress management, time management and coping skills utilized to deal with family pressures.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

**NUR 0109 - CLINICAL CALCULATIONS**  
Minimum Credits: 1  
Maximum Credits: 1  
This course uses metric, apothecary, and household systems of measurement with a ratio/proportion method to calculate and plan preparation and administration of medications for all ages. Included are critical thinking skills to ensure safety and accuracy in dosage calculations for medication administration.  
Academic Career: UGRD
NUR 0111 - FUNDAMENTALS OF NURSING
Minimum Credits: 7
Maximum Credits: 7
Fundamentals of nursing introduces students to various aspects of the nursing curriculum; Ieorem's theory, Roy's adaptation model, Erickson's developmental theory, Maslow's basic human needs; concepts of stress and adaptation, health illness continuum, nursing process, teaching and learning theories, nursing history, nursing roles and psychosocial and cultural influences on man, health and nursing. Legal and ethical principles, communication skills, documentation format, drug calculation, fluid balance and beginning clinical theories and skills are also taught.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

NUR 0112 - COMPREHENSIVE NURSING 1
Minimum Credits: 8
Maximum Credits: 8
Comprehensive nursing practice 1 applies the concepts of stress-adaptation, the nursing process and human needs to the care of med-surg adult, the pregnant female, the newborn and the family during the childbearing cycle. Health assessment and fluid and electrolyte concepts are introduced. The student learns to utilize specific concepts related to body defenses, carbohydrate metabolism, musculoskeletal, reproductive functions and psychosocial aspects of care.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: NUR 0111

NUR 0113 - PHARMACOLOGY IN NURSING
Minimum Credits: 3
Maximum Credits: 3
This course examines the complex world of pharmacology and therapeutics. It will address drug classes and the drugs represented by them. Each drug class will be discussed with regard to: absorption, distribution, metabolism and excretion; major pharmacologic side effects; clinical indications and administration; adverse reactions and contradictions; interactions with other drugs; overdoses and toxicities and nursing implications and intercentions.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

NUR 0197 - DIRECTED STUDY IN NURSING
Minimum Credits: 1
Maximum Credits: 6
This course is independent study in a topic in nursing.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

NUR 0211 - COMPREHENSIVE NURSING 2
Minimum Credits: 9
Maximum Credits: 9
Enables students to apply the nursing process to multiple clients with complex med-surg problems in an acute care setting. Knowledge of specific stressors and adaptations that affect the body systems; respiratory, cardiovascular, sensory, integumentary, endocrine, neurologic, hematologic, gastrointestinal, "accessory organs", urinary, alterations in cellular growth, and multiple systems diseases is gained. Students have the opportunity to apply psychosocial aspects into their delivery of care in the hospital and in the home. Students provide formal teaching to clients and families.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of NUR 0112 and NUR 0113 is required.
NUR 0212 - COMPREHENSIVE NURSING 3
Minimum Credits: 9
Maximum Credits: 9
Course provides the students opportunities to synthesize theories, concepts and skills while delivering care across the life span. Emphasis is placed on communication, growth and development, pharmacology and nutrition as it relates to care of the family. The content focuses on the family as the essential resource in the treatment of illness and the promotion of wellness. Emphasis is on role identification, management of client care, health care delivery system, interpersonal relationships, and personal and professional development.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of NUR 0211 is required

NUR 1077 - SCHOOL NURSE SEMINAR
Minimum Credits: 3
Maximum Credits: 3
This course is designed to prepare the professional nurse for certification as a school nurse in Pennsylvania; both the theory component (NUR 1077) and the practicum (NUR 1078) are required for eligibility. The role of the school nurse is explored through the historical, legal, ethical, research and practice perspectives. The biological, physical, developmental, behavioral, cultural and psychosocial needs of children of all ages in the school setting are examined. Throughout the course, current evidence related to school nursing and Pennsylvania educational requirements is applied to the health needs of school age children, including those with special health and learning needs, the culturally diverse and English language learners (ELL's). The independent and collaborative aspects of the school nurse role are explored.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade

NUR 1078 - SCHOOL NURSE PRACTICUM
Minimum Credits: 3
Maximum Credits: 3
This course is designed to prepare the professional nurse for certification as a school nurse in Pennsylvania; both the theory component (NUR 1077) and this practicum (NUR 1078) are required for eligibility. This course provides the required 100 hours of clinical practicum experience in elementary, middle and high school settings. The nursing care of children requiring acute, chronic and episodic care is performed under the guidance of an experienced school nurse. Throughout the course, the application of the nursing process and evidence-based approaches are employed when providing nursing services to school age children. Interdisciplinary care and management for school age children with special health and learning needs, including the culturally diverse and English language learners (ELL's) is emphasized. The independent and collaborative aspects of the school nurse role are explored within the school setting.

Academic Career: UGRD
Course Component: Practicum
Grade Component: Letter Grade

NUR 1301 - CRITICAL CARE NURSING
Minimum Credits: 3
Maximum Credits: 3
Core concepts of course include stress and adaptation as they relate to the care of the critically ill or injured client, psychosocial and sleep alterations, legal and ethical issues patient education, and issues related to recognition and management of stressors in critical care nursing. Student learning will be augmented by an emphasis on critical thinking, and using system-appropriate case studies. Emphasis on management of adult clients with critical illness based on standards of practice as presented in "core curriculum for critical care nursing" by J. Grif-Alspach.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1302 - PROFESSIONAL NURSING CONCEPTS
Minimum Credits: 3
Maximum Credits: 3
This course is designed to introduce the adult student to the educational environment at the university of Pittsburgh and the school of nursing. The organizing framework and nursing theories which serve as the structure for the curriculum and nursing practice are presented. The nursing process is
discussed as the foundation for nursing practice. Critical thinking and decision making are introduced.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**NUR 1303 - WOMEN'S HEALTH ISSUES**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
This course explores traditional reproductive issues concerning women, as well as selected common medical and psychosocial, developmental, and political problems and issues, accompanied by guidelines for disease prevention and health promotion. The content focuses on the adult, non-pregnant female, although health issues throughout a woman's lifespan are discussed.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**NUR 1310 - ETHICAL DIMENSIONS OF NURSING**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
This course examines ethical issues from the perspective of nursing with a focus on principled behavior in personal and professional situations. Course content is focused on ethical theories and principles, values clarification, development, and decision-making, and the nurse's obligations related to ethical issues and dilemmas in professional practice.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**NUR 1401 - INTRODCTN TO NURSING RESEARCH**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
The student is introduced to the research process with focus on the role of the professional nurse as a consumer of research. Basic concepts and terminology of research methodology and analysis are presented. Students are given the opportunity to interpret and evaluate nursing research.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** Letter Grade  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**NUR 1402 - HLTH PROMOTION/HLTH ASSESSMNT**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
This course presents the knowledge base and the skills for health promotion and health assessment of individuals across the lifespan. The role of the nurse in promoting patterns of positive health behaviors is emphasized. The student is provided with an opportunity to practice physical assessment skills. In addition, the course facilitates the RN learners adjustment to the stresses of the multiple role learner.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Physical Education

**NUR 1403 - ADVANCED CLINICAL PRACTICUM**

- **Minimum Credits:** 4  
- **Maximum Credits:** 4  
This course focuses on enabling the student to synthesize knowledge and increase competence in implementing the professional nursing role as caregiver, educator, researcher and administrator in complex health care systems. Students will be assigned to individually planned clinical experiences which will provide the opportunity for in-depth study and clinical practice in a selected area.

**Academic Career:** UGRD
Course Component: Practicum
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1404 - COMMUNITY HEALTH NURSING
Minimum Credits: 4
Maximum Credits: 4
This course will provide learning experiences which focus on the role of the community health nurse in working with individuals, families, and groups in a variety of community settings. Students will explore community issues such as community assessment, screening, epidemiologic concepts and factors which influence the delivery of community health services. Health care needs of selected groups in the community will also be studied.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1405 - TRENDS, ISS, POLIT IN NURSNG
Minimum Credits: 3
Maximum Credits: 3
This course presents trends, issues and politics within nursing that registered nurses will need to be familiar within their clinical practice. It will be presented in a seminar format with active participation by the students. Emphasis is placed on the future of nursing and the nursing organizations, changes in nursing education, nursing service and the health care delivery system. The influence of advanced technology and nursing research upon your practice will be addressed. Nursing politics and women's issues will be explored.
Academic Career: UGRD
Course Component: Seminar
Grade Component: Letter Grade
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1406 - PATHOPHYSIOLOGY FOR NURSES
Minimum Credits: 3
Maximum Credits: 3
This course focuses on the biologic basis for disease in adults and children. Specifically, an in-depth and current understanding of disease processes across the lifespan is targeted. Attention will focus on health promotion/disease prevention by emphasizing risk factors, nutrition and disease, and other relevant therapeutic approaches. Discussion with regard to age-specific and gender-specific pathophysiological processes is highlighted.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1407 - COMPARATIVE HEALTH CARE
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to the study of health care systems from a global comparative perspective. By examining comparisons of the health care systems of the U.S. And Canada along a number of established dimensions, the instructor will facilitate student investigation of global dimensions of health care. This course will examine health systems' structures, health care priorities, resource availability, governments as stewards of health resources and who pays and who should pay.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1410 - ISSUES IN GERONTOLOGICAL NUR
Minimum Credits: 3
Maximum Credits: 3
This course explores the global aspects of aging, as well as selected common medical, psychological, developmental, and political issues of older-adults clients within a nursing frame work. Guidelines for health promotion and disease prevention are discussed as well as age and gender-specific pathophysiological processes and their treatment.

General Education: Global
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1415 - FIELD RESEARCH METHODS  
Minimum Credits: 3  
Maximum Credits: 3  
This course is an introduction to qualitative field methods in nursing. Emphasis is on developing an understanding and appreciation of field methods including entering the field, gathering, analyzing and interpreting, and communicating data. Recognizing that fieldwork immerses the researcher in the area of study in order to capture the meaning and experience of participants, the student will have opportunities to gain practical experiences in the tasks of fieldwork through engagement in a field project of choice.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1450 - TOPICS IN NURSING  
Minimum Credits: 3  
Maximum Credits: 3  
The advanced study of a special topic in nursing.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1451 - CAPSTONE: PROFESSIONAL NURSING  
Minimum Credits: 3  
Maximum Credits: 3  
This course focuses on enabling the student to synthesize knowledge about the professional nursing role within the health care delivery system. Theory related to leadership and management in nursing will be presented. Health care policy and nursing practice issues will also be presented.  
Academic Career: UGRD  
Course Component: Seminar  
Grade Component: Letter Grade  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1455 - NURSING LEADERSHIP  
Minimum Credits: 3  
Maximum Credits: 3  
This course is designed to provide an overview of contemporary thought on leadership, the leaders' role and application of that role. The framework of the course focuses on developing a knowledge of the theoretical perspectives of leadership within the context of one's professional and personal life.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1456 - LEADERSHIP IN NUR & HLTH CARE  
Minimum Credits: 3  
Maximum Credits: 3  
This course explores theories germane to leadership in relation to organizational structures and behaviors. These structures and behaviors will be related to the development of leadership styles and policy making within organizations. The political and economic forces that influence the development of health policy and professional nursing practice will be emphasized. The basis for the legal dimensions of the nursing practice will also be explored.  
Academic Career: UGRD  
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

NUR 1497 - DIRECTED STUDY: NURSING
Minimum Credits: 1
Maximum Credits: 6
Directed study in a topic in nursing.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1498 - DIRECTED RESEARCH: NURSING
Minimum Credits: 1
Maximum Credits: 6
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

NUR 1499 - INTERNSHIP: NURSING
Minimum Credits: 1
Maximum Credits: 6
Practical experience in nursing in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

Public Administration

PA 0101 - INTRODUCTION TO PUBLIC HEALTH
Minimum Credits: 3
Maximum Credits: 3
This course provides an introduction to concepts, structures, and activities in public health services in the United States; details how select components of the public health system operate to address public health needs; applies public health reasoning to public policy questions; and evaluates public health intervention strategies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science
PA 0220 - EPIDEMIOLOGY AND BIOSTATISTICS
Minimum Credits: 4
Maximum Credits: 4
Epidemiology is the basic science of public health and the scientific methodology used to study the nature, cause, control, and determinants of the frequency and distribution of disease in human populations. This course provides an introduction to the principles and methods of epidemiology and how these methods are applied in public health. A lab focuses on developing basic skills in biostatistics and integrates statistical methods with epidemiologic concepts. Topics covered include data collection; population dynamics and health; hypothesis testing; epidemiologic research designs, data interpretation issues; descriptive and inferential statistics; probability; sampling; and the epidemiologic aspects of infectious and chronic diseases.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

PA 1302 - INTRO TO PUBLIC ADMINISTRATION
Minimum Credits: 3
Maximum Credits: 3
A survey of public administration processes: how government decisions are made and carried out. Topics include bureaucracy, intergovernmental relations, leadership, organizational and political settings, public personnel and collective bargaining, public budgeting and financial management.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Co-Ed Physical Education

PEDC 0101 - BEGINNING SWIMMING
Minimum Credits: 1
Maximum Credits: 1
Basic strokes and elements of personal water safety.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0102 - AEROBIC SWIMMING
Minimum Credits: 1
Maximum Credits: 1
The cardiovascular benefits of aerobic activity using the therapeutic resistance of water. Topics will include: pulse rate work-out, safety information, aerobic conditioning and flexibility exercises.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0103 - AEROBIC EXERCISE 1
Minimum Credits: 1
Maximum Credits: 1
Aerobic conditioning to music. This overall circuit workout class includes walking, jogging, and stretching, plus stomach, lower body and upper body exercises.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0104 - SOFTBALL
Minimum Credits: 1  
Maximum Credits: 1  
A course in the theory and practice of the fundamental skills of softball including offensive and defensive strategy, rules, technology and application in game play.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education  

PEDC 0105 - CROSS-COUNTRY SKIING  
Minimum Credits: 1  
Maximum Credits: 1  
Cross-country skiing techniques for beginning and intermediate skiers.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education  

PEDC 0106 - BOWLING  
Minimum Credits: 1  
Maximum Credits: 1  
The fundamentals of bowling including approaches, deliveries, rules, scoring, and etiquette.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education  

PEDC 0108 - PHYSCL CONDG/WEIGHT TRAINING 1  
Minimum Credits: 1  
Maximum Credits: 1  
Weight training, aerobic, and flexibility techniques.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education  

PEDC 0109 - PHYSCL CONDG/WEIGHT TRAINING 2  
Minimum Credits: 1  
Maximum Credits: 1  
A continuation of PEDC 0108.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education  

PEDC 0110 - FITNESS SWIMMING  
Minimum Credits: 1  
Maximum Credits: 1  
This course will include information on stroke refinement and the introduction of new strokes combined with cardiovascular workouts and evaluations. Learn to swim more efficiently and effectively while improving your general cardiovascular fitness. Target heart-rate monitoring will be used and students will be evaluated on individual improvements.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education  

PEDC 0111 - HORSEMANSHIP
Minimum Credits: 1
Maximum Credits: 1
Care of horses, riding instruction, and stable management.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

PEDC 0114 - TENNIS
Minimum Credits: 1
Maximum Credits: 1
The fundamentals of tennis including basic strokes, rules, strategy, etiquette, and angles and doubles court play.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0115 - BEGINNING RACQUETBALL
Minimum Credits: 1
Maximum Credits: 1
The theory and practice of racquetball skills including service returns, passes, strategies, angles and doubles court play.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0116 - DOWNHILL SKIING & SNOWBOARDING
Minimum Credits: 1
Maximum Credits: 1
This course provides students with no skiing or snowboarding experience or at any level of ability with the opportunity to develop downhill skiing and snowboarding skills at holiday valley resorts.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: Satisfactory/No Credit
General Education: Physical Education

PEDC 0117 - GOLF
Minimum Credits: 1
Maximum Credits: 1
The fundamentals of golf including the stance, grip, swing, use of iron and wood clubs, rules and etiquette, and tee, fairway, and green play.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0118 - DOWNHILL SKIING 1
Minimum Credits: 1
Maximum Credits: 1
The fundamental techniques of downhill skiing.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0119 - KARATE 1
Minimum Credits: 1
Maximum Credits: 1
Basic theory and techniques of self-defense and the beginning foundations of Tae Kwon Do (Korean karate).

**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Physical Education

**PEDC 0120 - KARATE 2**  
Minimum Credits: 1  
Maximum Credits: 1  
A continuation of PEDC 0119.  
**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Physical Education

**PEDC 0121 - OUTDOOR RECREATION**  
Minimum Credits: 1  
Maximum Credits: 1  
Canoeing, backpacking, horseback riding, and camping.  
**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** LG/SNC Elective Basis  

**PEDC 0124 - BASKETBALL**  
Minimum Credits: 1  
Maximum Credits: 1  
A course in theory and practice of the fundamental skills of basketball including team strategy, offensive and defensive play, rules, terminology, and application in game play.  
**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Physical Education

**PEDC 0126 - VOLLEYBALL**  
Minimum Credits: 1  
Maximum Credits: 1  
A course in theory and practice of the fundamental skills of volleyball including team strategy, offensive and defensive play, rules, terminology, and application in game play.  
**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Physical Education

**PEDC 0151 - FLY FISHING**  
Minimum Credits: 1  
Maximum Credits: 1  
Through this course students will be introduced to fly fishing concepts including rod, reel, and line selections; balance and assemble casting techniques; fly selection; and fly tying.  
**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Physical Education

**PEDC 0152 - LIVING WELL**  
Minimum Credits: 1  
Maximum Credits: 1  
**Academic Career:** UGRD
PEDC 0169 - BASICS OF SOCCER
Minimum Credits: 1  
Maximum Credits: 1  
A course in the theory and practice of the fundamental skills of soccer, including team strategies, passing, shooting, defending, basic rules, terminology, and the application of game play.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education

PEDC 0174 - FUNDAMENTALS OF ICE SKATING
Minimum Credits: 1  
Maximum Credits: 1  
To teach students basic skills or improve the skills that they currently possess. Students will develop an understanding of the preparation for ice skating, ice skating equipment, and ice skating etiquette. Fundamental principles and skills introduced include: posture; pushing and gliding; stopping; forward/backward stroking, and crosscuts; and, turning and rolling. Depending upon the skill and progress of the student, basic dance skills, and preliminary dances (Dutch waltz & canasta tango) may be introduced.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education

PEDC 0176 - CANOEING
Minimum Credits: 1  
Maximum Credits: 1  
Students will be expected to learn rudimentary canoeing skills, including entry and exit, shoving off, turning, steering, paddling strokes, stabilizing, and righting of inverted canoes. Aspects of canoe and paddle design and construction will also be considered. The course will be taught in conjunction with the Allegheny River Scholars' canoe trip.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education

PEDC 0178 - SKATING SKILLS FOR HOCKEY
Minimum Credits: 1  
Maximum Credits: 1  
This course is designed to assist skaters with basic skills to improve their technique. Emphasis will be placed on correct technique (principles of skating) and the development of balance, power, and speed required for hockey skating. Fundamental skills introduced include balance, starts and stops, forward/backward stroking, crossovers/crossunders, and turns. Instruction and practice will be done without a puck. As skill develops, a puck will be used to develop stickhandling with skating.  
Academic Career: UGRD  
Course Component: Credit Laboratory  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Education

PEDC 0179 - SELF DEFENSE
Minimum Credits: 1  
Maximum Credits: 1  
The physical skills and environmental awareness required for realistic self-defense are taught. Suggested methods for dealing with common types of assaults including escapes from positions on the ground are practiced. Emphasis is on simple motor skills not requiring extensive practice for learning and/or retention. Strategies for recognizing and avoiding trouble and the legal aspects of self-defense are also covered.  
Academic Career: UGRD
PEDC 0181 - INTRODUCTION TO MARTIAL ARTS
Minimum Credits: 1
Maximum Credits: 1
An introductory martial arts course. This course provides basic history, philosophy, language and customs of the world of Asian martial arts. The class introduces basic martial arts techniques including kicking, striking, blocking, locks, throws and grabs. Emphasis is on Korean Tae Kwon Do, hapkido, Indonesian/Chinese kunta and taichi.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0182 - HAPKIDO
Minimum Credits: 1
Maximum Credits: 1
Hapkido provides knowledge to defend oneself in numerous situations. Class expands to knife defense, short stick defense and defense against more complex holds and grabs.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0183 - OUTDOOR RECREATION
Minimum Credits: 1
Maximum Credits: 1
Canoeing, backpacking, horseback riding, and camping.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

PEDC 0186 - YOGA
Minimum Credits: 1
Maximum Credits: 1
This course will present the basic hatha yoga techniques for physical fitness, mental and spiritual discipline, relaxation, and taking care of the health and well-being of the whole person.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis

PEDC 0190 - VARSITY SPORTS
Minimum Credits: 1
Maximum Credits: 1
Students may earn up to four credits in physical education by participating in a varsity sport.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: Satisfactory/No Credit
General Education: Physical Education

PEDC 0195 - SCUBA DIVING
Minimum Credits: 1
Maximum Credits: 1
This course is designed to teach the mechanics of scuba diving. Students will be introduced to the scuba diving community, the diving environment, and the science of scuba diving. Emphasis will be on the proper use and maintenance of scuba equipment, the human physiology of diving and safety
skills.

Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0198 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
This is a directed study in physical education.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0202 - LIFEGUARDING
Minimum Credits: 1
Maximum Credits: 1
Through this course the skills of aquatic rescue, pool chemical care, and general aquatic emergency procedures are covered. Successful completion of the American Red Cross lifeguard training certification is required to pass this course.
Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

PEDC 0250 - SPECIAL TOPICS
Minimum Credits: 1
Maximum Credits: 1
The study of a special topic in physical education.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

Personal Enrichment Program

PEP 0010 - BUSINESS COMMUNICATIONS
Minimum Credits: 1
Maximum Credits: 1
A practical guide to the art of communicating in the business world that is geared for the busy secretary, administrative aide or executive.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

PEP 0013 - DOMESTIC VIOLENCE COUNSELING
Minimum Credits: 1
Maximum Credits: 1
This course prepares students to be volunteer domestic violence counselors in the state of Pennsylvania. It includes discussions of the history and causes of domestic violence, and ways to combat it.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Satisfactory/No Credit

PEP 0040 - LANDSCAPE GARDENING
Minimum Credits: 1
Maximum Credits: 1
A look at gardening in the Bradford area with a focus on how our climate, soil, exposure, plant adaptability and hardiness should influence what you plant and where.
PEP 0041 - LANDSCAPE GARDENING 2
Minimum Credits: 1
Maximum Credits: 1
A continuation of the principles of landscaping in northwest Pennsylvania introduced in PEP 0040.

PEP 0051 - LITERACY: TUTORING TECHNIQUES
Minimum Credits: 1
Maximum Credits: 1
This course will teach literacy volunteers of America tutoring techniques and will consist of six hours of classroom training and eighteen hours of field experience. Students will keep a weekly journal describing their tutoring experience and will be evaluated by a quiz, text outline, and critique.

PEP 0080 - WORD PROCESSING
Minimum Credits: 1
Maximum Credits: 1
An introduction to using a microcomputer to create, edit, store and print text on a word processor.

PEP 0081 - INTRODUCTION TO COMPUTERS
Minimum Credits: 1
Maximum Credits: 1
A hands-on approach to understanding computers.

PEP 0082 - LOTUS 1-2-3
Minimum Credits: 1
Maximum Credits: 1
This course includes formatting, formulas, printing and macros using this popular spreadsheet package for IBM compatible computers.

PEP 0083 - MACINTOSH & DESKTOP PUBLISHING
Minimum Credits: 1
Maximum Credits: 1
Fundamentals of operating the Macintosh computer along with word processing with Microsoft Word, and desktop publishing with PageMaker.

PEP 0087 - DOS
Minimum Credits: 1
Maximum Credits: 1
This course will cover the parts of the computer, its interaction with dos, dos commands, file management, disk management, backup and recovery.
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

Petroleum Technology

PET 0101 - INTRO TO PETROLEUM INDUSTRY  
Minimum Credits: 3  
Maximum Credits: 3  
This course provides an overview of the oil and natural gas industry. Topics covered include history of petroleum, basic geology, drilling, production, transportation, refining, gas processing, storage, environmental health and safety concerns, the economic decision planning, and energy impact of petroleum products.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Physical Science

PET 0102 - ENVIRONMENT AND SAFETY  
Minimum Credits: 3  
Maximum Credits: 3  
This petroleum technology-related environment and safety course is designed to provide specialized training and technology transfer for the oil and gas industry. This introductory course covers environmentally safe drilling techniques used to discover and produce oil and gas. Topics include: environmental technology, environmental control technology for oilfield processes, environmental control of drilling fluids and produced water, oilfield waste disposal control, drilling and production discharges in the marine environment, decommissioning of offshore oil and gas installations, tanker design: recent developments from an environmental perspective, pipeline technology, environmental management and technology in oil refineries, distribution, marketing and use of petroleum fuels, lubricants, and climate change scenarios and their potential impact on world agriculture.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

PET 0103 - PETROLEUM GEOLOGY & GEOPHYSICS  
Minimum Credits: 3  
Maximum Credits: 3  
This course delves into the intricate world of petroleum geology and petroleum exploration (geophysics). Throughout the class students will learn about reservoir and source rocks, what caprock is and what role it plays within a sedimentary basin. Aspects of sequence stratigraphy and basin analysis will be broadly discussed. In order to find hydrocarbons underground, and to describe the rocks in which it occurs this class will tackle the wonderful world of geophysics. Using physical properties of the rocks recorded by electronic devices the history of hydrocarbons, and under which conditions it formed, can be understood.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: GEOG 0101 & PET 0101

PET 0104 - WORKSHOP PRACTICES  
Minimum Credits: 3  
Maximum Credits: 3  
Practical on topographic maps, aerial photographs, satellite images and geologic maps and cross-sections. The course contains surveying using total station and GPS. Practical spatial data analysis for the identification of leads and prospects are discussed in this course. Particular emphasis is given to data mining techniques applied to local and commercial data bases, capturing and quantifying geologic data derived from cores and logs, using information from outcrop analogs, making digital isopach and contour maps.

Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis

PET 0105 - INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS  
Minimum Credits: 3  
Maximum Credits: 3
GIS or Geographic Information Systems is more than geography, and is certainly more than just making maps. Maps are important and useful tools for many areas of study, from the Sciences, to Humanities, to Political Science, to Medical applications and numerous other fields. In this class students will be introduced to the art of making maps using modern technology along with some old and basic principles. As part of the class students will participate in the "Day" activities.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Computational Sciences

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**PET 0106 - DRILLING AND COMPLETION 1**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Drilling and completion covers components and processes related to oil and gas drilling, and the fundamental principles of geology, chemistry, and physics that provide the scientific basis for drilling technology. Basics of drilling hoisting, circulating, and rotating systems will be introduced. Material will then cover the properties of drilling fluids and additives as well as cement composition, additives, and placement technologies. The course also defines technical terms necessary to the understanding of instructions and information provided by the mud engineers. The course discusses the introduction to drilling fluids, the development of drilling technology equipment and procedures for evaluating drilling fluids performance, clay mineralogy and colloid chemistry, rheology, filtration properties, hole stability, drilling problems, and completion fluids. Drilling technology covers directional and horizontal drilling cementing, casing and casing design, drilling fluids and well control.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREREQ: PET 0106

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**PET 0107 - GEOLOGY OF MARCELLUS SHALE**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Unconventional natural gas deposits are beginning to make up an increasingly larger percent of the natural gas resources found in shale plays. Several TCF of natural gas can be extracted from shale plays using modern horizontal drilling and hydraulic fracturing. Unconventional natural gas wells drilled into the shale plays such as the Marcellus Shale occur in 32 counties in Pennsylvania within the Appalachian basin, Barnett Shale of Texas, Fayetteville Shale of North Central Arkansas, Haynesville shale of North Western Louisiana, and Woodford shale of Oklahoma. These unconventional gas reservoirs show a promising new horizon in energy resources in the United States.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Physical Science

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**PET 0110 - BASIC PRINCIPLES OF WELL CONTROL AND MUDLOGGING**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course is designed for students who require a basic understanding of the well control and mud logging to perform their oil and gas well site jobs. Students will learn system 21 web-based well control electronic learning developed and offered by the well control school, Houston, Texas. Upon completion of the will control practical's students will receive a professional certificate from WCS, AAPG and API. Next, students will learn how geospect mud logging instrument is used to display depth, gas, estimated TVD depth, current ROP, ROP 5’ average, lag depth (depth from which current sample came from), bottoms up strokes, simulated drill and lag strokes, drill rate curve, and gas curve in virtual environment.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREREQ: PET 0106

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**PET 0197 - DIRECTED STUDY IN PETROLEUM**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
This course is an independent study in a topic in petroleum technology.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis
PET 0201 - PETROLEUM & NATURAL GAS CHEM  
Minimum Credits: 3  
Maximum Credits: 3  
An introduction to the basic principles of organic chemistry with major emphasis on the hydrocarbons: purification, identification, structure determination and energetic. Corrosion, field water (brine) chemistry, gas laws review, stoichiometry (mass balance) review, phase diagrams, viscosity, octane number, cetane number, flash points, natural gas chemical composition and applications and natural gas hydrates are discussed. Laboratory demonstrations will be conducted throughout the course.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: PREQ: Completion of CHEM 0101 required

PET 0202 - STRATIGRAPHY & STRUCTURAL GEOL  
Minimum Credits: 3  
Maximum Credits: 3  
This course covers principles of stratigraphy: concepts of geological time and its scale. Correlation techniques, isostasy and continental drift are discussed. Stratigraphy of NorthWestern Pennsylvania with special emphasize of Devonian and Mississippian stratigraphy. The course also covers introduction to structural geology and its role in oil exploration. The course discusses the primary and secondary structures of sedimentary rocks and determination of dip and strike and thickness of the beds. Mapping and completion of outcrops and construction of cross sections using GIS technology is included in this course. Modes of deformation of rocks are included in this course, which includes: varieties and classification of folds, faults, joints, and unconformities. Expression of the above features on geological field maps and construction of cross sections. Geological mapping using photogrammetry.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PET 0203 - NATURAL GAS PROCESSING  
Minimum Credits: 3  
Maximum Credits: 3  
This course covers an introduction to natural gas processing from the standpoint of natural gas and natural gas liquids production. Topics include: phase behavior of fluids, multi-phase flow, phase separation, dehydration, pipeline flow, pumps and compressors, corrosion, measurement, and fluid specifications.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: PREREQ: PET 0101

PET 0204 - WELL LOG INTERPRETATION  
Minimum Credits: 3  
Maximum Credits: 3  
This course is aimed to familiarize students to the open hole electric wireline well logs and their application in reservoir evaluation. The class includes topics such as Induction, Temperature, Resistivity, Radioactivity, Density logs. Part of the class is dedicated to map making projects using synthetic logs.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
Course Requirements: PREREQ: PET 0103

PET 0205 - INTRO GEOPHYSCL PROSPECTING  
Minimum Credits: 3  
Maximum Credits: 3  
The course covers place of geophysics in oil, natural gas and mineral exploration. The course contains technological challenge of geophysics in oil exploration. Review of geophysical prospecting methods. The course covers the geophysical techniques in oil and gas exploration. It includes types of seismic waves such as attenuation, reflection, refraction, and diffraction of elastic waves. Seismic wave generation techniques for oil and gas prospecting are included in this course. Absorption of seismic waves in earth materials is discussed. The course includes principles involved in
measuring seismic waves and measurement of the velocities of seismic waves in rocks. The course contains seismic recording instrumentation, practical work with e.g. g geometric 12 channel seismograph in the field, and geophones ' analog recording ' digital recording and other field instrumentation techniques. Structural and geological interpretation of seismic reflection data, and seismic refraction prospecting is included in this course.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

PET 0206 - DRILLING AND COMPLETION 2
Minimum Credits: 3
Maximum Credits: 3
This course continues where PET 0106 DRILLING AND COMPLETION I ended. Topics that will be covered include the following: production and stimulation casings and liners, down hole instrumentation (valves, packers, joints, shoes), perforation and stimulation basics, completion fluids (formulation and hydraulics), formation fracture mechanics, advanced well head design, and production and transportation considerations (on site processes).

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: PET 0106

PET 0207 - BLACK SHALE OF THE APPALACHIAN BASIN
Minimum Credits: 3
Maximum Credits: 3
This course will delve in to the intricate mechanisms of black shale deposition. During class we will cover such topics as tectonic regimes of the Appalachian Basin (AB); sediment characteristics of the main black shale units of the AB; geochemical evolution of source rocks within AB; hydrocarbon history and potential of the black shale source beds. Detailed concepts of shale sedimentology will be discussed with respect to the black shales of AB.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: PET 0103

PET 0208 - ENHANCED HYDROCARBON RECOVERY
Minimum Credits: 3
Maximum Credits: 3
This course provides an understanding of the enhanced hydrocarbon recovery methods used to produce fluids from old, low pressure, nearly depleted oil and gas wells. In class the latest procedures, practices, and equipment used in hydraulic fracturing and artificial lift operations will be discussed. Both surface and downhole mechanical components, and operational issues associated with enhanced recovery methods will be analyzed using traditional calculations and computer simulations. Perforation technology, rock fracturing mechanisms and fracture fluids are the backbone components of enhanced recovery so they will be treated in detail. Rod pumping, gas lift, plunger lift and other related methods of artificial lift will be covered using both theory and practical aspects.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQ: PET 0206

PET 0209 - INTRODUCTION TO SCADA
Minimum Credits: 3
Maximum Credits: 3
This course provides a basic understanding of the computer applications generally used to manage the operation of modern well sites and processing facilities. The course is designed to provide an introduction for SCADA-based data collection and automation systems, control of gathering lines, and supervision of processing facilities such as gas and crude oil refineries. Students will utilize software and hardware similar to the one used in by industry in an effort to deliver state-of-the-art background in these systems. The course will provide the knowledge to identify the various system components, redundant backup systems and recognize the benefits and limitations of a SCADA system. Students will be asked to sketch a SCADA system for an industry scenario.

Academic Career: UGRD
Course Component: Lecture

420
Grade Component: LG/SNC Elective Basis
Course Requirements: PREREQS: PET 0201 & PET 0203

PET 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

PET 1497 - DIRECTED STUDY IN PETROLEUM
Minimum Credits: 1
Maximum Credits: 6
This directed study is in a specific area concerning petroleum technology.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PET 1498 - DIR RES: PETROLEUM TECHNOLOGY
Minimum Credits: 1
Maximum Credits: 6
This course is independent research in a topic in petroleum technology.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Philosophy

PHIL 0101 - INTRODUCTION TO PHILOSOPHY
Minimum Credits: 3
Maximum Credits: 3
An exploration of traditional philosophical problems such as the nature of time, the possibility of free will, the foundation of morality, the character of knowledge, the nature of human beings, and the proper aim of life.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

PHIL 0102 - HISTORY OF GREEK PHILOSOPHY
Minimum Credits: 3
Maximum Credits: 3
A survey of Western philosophy and science from Thales to Aristotle. Major figures studied are Thales, Heraclitus, Parmenides, Socrates, Plato, and Aristotle.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Philosophical Inquiry

PHIL 0103 - PHILOSOPHY OF RELIGION
Minimum Credits: 3
Maximum Credits: 3
This is an introductory course in the philosophy of religion. We will explore some of the major philosophical issues faced by religion. Some of the
topics to be covered in this class include: arguments for the existence of god, the problem of evil, the possibility of miracles, death and immortality, the relationship between religion and science, and the relationship between religion and morality.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Philosophical Inquiry

**PHIL 0104 - INTRODUCTION TO LOGIC**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A study of the habits of correct reasoning including recognizing arguments, spotting conclusions, identifying types of arguments, deciding whether or not premises provide enough support for conclusions, avoiding faulty assumptions, and drawing conclusions from statistics.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Philosophical Inquiry

**PHIL 0110 - ETHICS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
In deciding how to act, we frequently guide ourselves by general principles, which forbid or require various kinds of action. Moral philosophy is the attempt to systematically explore a number of questions which arise in connection with such principles. We may ask, for example: what is it for a principle to be a moral principle? Is there one uniquely correct moral code, or is morality a matter of personal preference? What candidates for moral principles can be defended? Why should i be moral? This course will examine several of these questions and the answers suggested by classic moral philosophers such as Kant and Mill.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Philosophical Inquiry

**PHIL 0197 - DIRECTED STUDY IN PHILOSOPHY**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
This course is independent study in a topic dealing with subjects related to philosophy and philosophical issues.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**PHIL 0203 - PHILOSOPHY IN LITERATURE**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
An examination of philosophical themes in literature from both East and West. A novel, a play, folk tales, and poetry will be discussed.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Philosophical Inquiry

**PHIL 0204 - PHILOSOPHY AND PUBLIC ISSUES**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
The moral issues raised by contemporary events including abortion, euthanasia (mercy killing), capital punishment, reverse discrimination, and civil disobedience. We do not claim to be able to resolve these issues definitively, but in this course we will work to clarify them and enable students to think about them in a clear-headed way.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Philosophical Inquiry
PHIL 0207 - EXISTENTIALISM  
Minimum Credits: 3  
Maximum Credits: 3  
A study of the philosophical questions found in the writings of Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and contemporary thinkers.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Philosophical Inquiry  

PHIL 0214 - BIOETHICS  
Minimum Credits: 3  
Maximum Credits: 3  
Bioethics is the study of the ethics of life and death. Some of the topics to be covered in this class include: abortion, stem cell research, cloning, euthanasia, capital punishment, distribution of health care resources, and human and animal experimentation.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Philosophical Inquiry  

PHIL 0215 - GREAT POLITICAL THINKERS  
Minimum Credits: 3  
Maximum Credits: 3  
Suggests how thinkers such as Plato, Aristotle, St. Augustine, Machiavelli, Hobbes, Locke, Rousseau, Marx, Freud understood human nature, viewed the conditions or requirements for happiness, and defined the social and political forms that contribute to or detract from human fulfillment. The course seeks to define the basic alternatives that guide our lives.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Philosophical Inquiry  

PHIL 0225 - FOOD IN SOCIETIES  
Minimum Credits: 3  
Maximum Credits: 3  
Humans, unlike other animals, exercise far more choices when it comes to what they eat. These choices involve simple decisions like where we eat, what we eat, with whom we eat, and when. But how do we account for the diversity that we see in how we obtain, distribute and consume food? Is food simply something that we eat, or something far more important in terms of how we relate to each other morally, socio-economically, politically and religiously? This course will address these questions through the intellectual frameworks of philosophy and anthropology.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  
General Education: Cultures  

PHIL 0250 - SPECIAL TOPICS  
Minimum Credits: 3  
Maximum Credits: 3  
The study of a special topic in philosophy.  
Academic Career: UGRD  
Course Component: Lecture  
Grade Component: LG/SNC Elective Basis  

PHIL 1301 - RELIGION IN THE MODERN WORLD  
Minimum Credits: 3  
Maximum Credits: 3  
A study of secular pseudo religions and substitutes (e.g. Sports, consumerism, sex and drugs) for traditional religions which have become abundant in modern times, and whether their arrival represents progress or degeneration, and how their nature reflects the modern turn or mind.  
Academic Career: UGRD  
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Cultures

PHIL 1303 - EASTERN PHILOSOPHY
Minimum Credits: 3
Maximum Credits: 3
The theory and practice of Hinduism, Buddhism, Taoism, Zen Buddhism, and Sufism, and comparisons with Western philosophies and religions.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHIL 1304 - POLITICS AND PHILOSOPHY
Minimum Credits: 3
Maximum Credits: 3
Political philosophy is a branch of philosophy devoted to assessing the authority, legitimacy, and justification of various kinds of political arrangements. Key concepts will be investigated in this course, including justice, rights, laws, and personal/public property. We will focus on the work of such thinkers as Plato, Machiavelli, Rawls, and Nozick.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHIL 1401 - MAJOR PHILOSOPHER
Minimum Credits: 3
Maximum Credits: 3
This course serves as an in-depth examination of the works of a major philosopher, such as David Hume, Rene Descartes, or Ludwig Wittgenstein. Major influences will be discussed, as will the impact of the philosopher's thought on the contemporary philosophical thought.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHIL 1442 - METAPHYSICS AND EPISTEMOLOGY
Minimum Credits: 3
Maximum Credits: 3
Metaphysics is the study of the nature of reality and epistemology is the study of knowledge. This course serves as a survey of various issues within these two sub-fields of philosophy. We will examine how philosophers have responded to the following sorts of questions. What is free will and do we have it? What is it to be a person? Is it possible to travel back in time? What is it for something to be possible? What is justification and when are we justified in believing something? Do we have any knowledge at all?
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prereq: Upper-Level and PHIL ( ENG 0101, ENG 0102, FS 0102, MATH and any PHIL course) General Education: Philosophical Inquiry

PHIL 1445 - ENVIRONMENTAL ETHICS
Minimum Credits: 3
Maximum Credits: 3
Basic concepts in environmental ethics such as environmental aesthetics, anthropocentrism, holism, and the role of economic systems will be considered and then applied to contemporary issues such as pollution, wilderness preservation, environmental justice, human predation and domestication of animals, and biomedical research. Questions concerning both theory and practice will be addressed, while at the same time recognizing the importance of understanding the historical and cultural contexts of each. Fundamental ethical theory will be covered - no knowledge of ethics or philosophy is presupposed. While the course does not seek to advocate any particular environmental policy its intention is to develop in students the ability to reach informed and reasoned conclusions concerning environmental policy, and to effectively defend such positions.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Philosophical Inquiry

PHIL 1450 - TOPICS IN PHILOSOPHY
Minimum Credits: 3
Maximum Credits: 3
An advanced study of a special topic in philosophy.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHIL 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

PHIL 1497 - DIRECTED STUDY: PHILOSOPHY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in philosophy. Permission of the instructor is required.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHIL 1498 - DIRECTED RESEARCH: PHILOSOPHY
Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in philosophy supervised by a member of the philosophy faculty.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Physics

PHYS 0101 - INTRODUCTION TO PHYSICS 1
Minimum Credits: 4
Maximum Credits: 4
An introduction to kinematics, statics, dynamics, momentum, energy, simple harmonic motion, rotational motion, wave motion, gravitation, fluids, heat, and thermodynamics. A laboratory is required.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

**PHYS 0102 - INTRODUCTION TO PHYSICS 2**
Minimum Credits: 4
Maximum Credits: 4
A continuation of PHYS 0101 including electricity, magnetism, circuits, electromagnetic waves, optics, relativity, atomic and nuclear physics. A laboratory is required.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PHYS 0101 General Education: Physical Science

**PHYS 0103 - CONCEPTS OF MODERN PHYSICS**
Minimum Credits: 3
Maximum Credits: 3
A basic examination of essential topics including mechanics, properties of matter, heat, sound, electricity and magnetism, light, atomic and nuclear physics, relativity and astrophysics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

**PHYS 0197 - DIRECTED STUDY**
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in physics. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

**PHYS 0198 - DIRECTED RESEARCH**
Minimum Credits: 1
Maximum Credits: 6
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

**PHYS 0201 - FOUNDATIONS OF PHYSICS 1**
Minimum Credits: 4
Maximum Credits: 4
A calculus-based introduction to kinematics, dynamics, energy, momentum, rotational motion, rigid bodies, simple harmonic motion, gravitation, and the mechanics of fluids.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

**PHYS 0202 - FOUNDATIONS OF PHYSICS 2**
Minimum Credits: 4
Maximum Credits: 4
A continuation of PHYS 0201. Topics include heat and thermodynamics with an introduction to temperature, internal energy and entropy; kinetic theory of gases and the statistical interpretation of thermodynamics; electrostatics; electric currents and magnetism; and electrodynamics including an introduction to Maxwell's equations.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PHYS 0201 General Education: Physical Science

PHYS 0203 - FOUNDATIONS OF PHYSICS 1 LAB
Minimum Credits: 1
Maximum Credits: 1
A laboratory course for PHYS 0201 required for all non-engineering majors and recommended for those engineering majors who plan to transfer outside the Pitt system.

Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

PHYS 0204 - FOUNDATIONS OF PHYSICS 2 LAB
Minimum Credits: 1
Maximum Credits: 1
A laboratory course for PHYS 0202 required of all non-engineering majors and recommended for those engineering majors who plan to transfer outside the Pitt system.

Academic Career: UGRD
Course Component: Credit Laboratory
Grade Component: LG/SNC Elective Basis
General Education: Physical Science

PHYS 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in physics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

PHYS 1301 - INTRO TO EXPERIMENTAL PHYSICS
Minimum Credits: 2
Maximum Credits: 2
A laboratory course emphasizing the collection, analysis, and interpretation of experimental data and experiments in mechanics, electricity and magnetism, heat, optics, wave motion, electronics, atomic and nuclear physics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHYS 1302 - MODERN PHYSICS, ATOMS & NUCLEI
Minimum Credits: 3
Maximum Credits: 3
The basics of relativity and quantum theory, with emphasis on the physics of atoms and nuclei.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
PHYS 1304 - ELECTROMAGNETIC THEORY
Minimum Credits: 3
Maximum Credits: 3
Includes the study of electromagnetic theory, electrostatics, magnetic and electrostatic fields, time varying fields, boundary value problems, Maxwell's equations and applications.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHYS 1306 - OPTICS
Minimum Credits: 3
Maximum Credits: 3
Includes the study of geometrical optics--lenses, mirrors, Snell's law; physical optics--diffraction, polarization, interference; quantum optics--lasers, holography, and modern concepts of light.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHYS 1450 - TOPICS IN PHYSICS
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in physics.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHYS 1451 - CAPSTONE: PHYSICS
Minimum Credits: 3
Maximum Credits: 3
In this course, students are expected to research, write and present technical papers to the natural sciences faculty. Papers should examine topics of student interest from the perspectives of physics concepts.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PHYS 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

PHYS 1497 - DIRECTED STUDY: PHYSICS
Minimum Credits: 1
Maximum Credits: 6
Independent study on a project in physics supervised by a member of the physics faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
PHYS 1498 - DIRECTED RESEARCH: PHYSICS
Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in physics. Supervised by a member of the physics faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

Public Relations

PR 0101 - INTRODCTN TO PUBLIC RELATIONS
Minimum Credits: 3
Maximum Credits: 3
Principles, history, and practice of public relations in business, educational institutions, social welfare organizations, government, and the military services.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

PR 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in public relations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

PR 1302 - PUBLIC RELATIONS CASE PROBLEMS
Minimum Credits: 3
Maximum Credits: 3
Case studies and typical public relations problems in industry, labor, education, government, social welfare, and trade associations. Planning and preparation of communications materials for various media; application of public relations techniques.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PR 1304 - PROMOTIONAL WRITING
Minimum Credits: 3
Maximum Credits: 3
Students learn to write press releases, publicity articles, radio, TV, and print advertisements, promotional flyers and brochures. The class examines materials used in the publicity campaigns of marketing firms and corporations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PR 1310 - PRIN FUND RAISING: NONPROF ORG
Minimum Credits: 3
Maximum Credits: 3
This course is an introduction to fund raising for non-profit organizations and will develop an understanding of the broad strategies necessary for organizations to maximize the obtainment of financial resources (‘institution raising’). The course will also cover the techniques used by nonprofit organizations (charitable) to maintain relationships with their various constituencies, especially donors. In a major hands-on assignment, students will 'adopt' a local organization for study during the term and complete a three-year financial development plan.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PR 1450 - TOPICS IN PUBLIC RELATIONS
Minimum Credits: 3
Maximum Credits: 3
An advanced study of a special topic in public relations.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PR 1451 - CAPSTONE: PUBLIC RELATIONS
Minimum Credits: 3
Maximum Credits: 3
In this course, we will draw on a number of disciplines- literature, classics, and political science, among others- to discuss the role public relations plays on culture. We will look at how certain texts have advocated a point of view and have achieved their slated agenda.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PR 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

PR 1497 - DIR STUDY: PUBLIC RELATIONS
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of public relations. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PR 1498 - DIRCTED RESEARCH: PUBLIC RLTNS
Minimum Credits: 1
Maximum Credits: 6
Independent research on a project in public relations.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

PR 1499 - INTERNSHIP: PUBLIC RELATIONS
Minimum Credits: 1
Maximum Credits: 6
Working with an advisor, public relations majors are placed in professional settings throughout the area-in colleges and businesses, in hospitals and nonprofit agencies-to give them hands-on experience as entry-level public relations practitioners. (Many students elect to develop a summer
Politics can help to make our lives freer, richer, and happier or it can make them more dependent, poorer, and more miserable. This course examines the role that politics has played or can play in shaping human existence and also seeks the causes of both positive and negative consequences.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

PS 0102 - AMERICAN POLITICAL PROCESS
Minimum Credits: 3
Maximum Credits: 3
An introductory course focusing on American politics and government. Emphasis is on political processes and institutions on the national level including congress, the presidency, the supreme court, political parties, pressure groups and elections.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

PS 0103 - COMPARATIVE POLITICS
Minimum Credits: 3
Maximum Credits: 3
The object of this course is to provide an understanding - through comparative methods of political science--of how several nations of the world are governed and to provide insights into why they are governed as they are. Countries studied may include Great Britain, the Soviet Union, West Germany, France and South Africa.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science-Global

PS 0110 - INTRODUCTION TO INT'L AFFAIRS
Minimum Credits: 3
Maximum Credits: 3
Introduction to international affairs constitutes an introductory look at important issues facing the international community. The primary focus of the course will be to examine how nations, cultures, and communities politically address various issues. Such issues include: international security and terrorism; the political impact of race, ethnicity and gender; religion and politics; natural resources and the environment; global poverty and hunger; and human rights and social justice. These issues will be approached in a comparative manner in order to illustrate the inherent complexity and diversity among actors in the international community and how they politically deal with these issues.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science-Global

PS 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Directed study is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

**PS 0201 - WORLD POLITICS**
Minimum Credits: 3
Maximum Credits: 3
An introduction to relations between countries ranging from war and conflict to peace and cooperation. Topics surveyed include: differences between domestic and international politics, society and American world views, strategies of nuclear deterrence; conditions for successful negotiations; the problems of developing states; and other current issues.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

**PS 0202 - GREAT POLITICAL THINKERS**
Minimum Credits: 3
Maximum Credits: 3
Suggests how great thinkers such as Plato, Aristotle, St. Augustine, Machiavelli, Hobbes, Locke, Rousseau, Marx and Freud understood human nature, viewed the conditions or requirements for happiness, and defined the social and political forms that contribute to or detract from human fulfillment. The course seeks to define the basic alternatives that guide our lives.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

**PS 0203 - COMMUNIST POLITICS**
Minimum Credits: 3
Maximum Credits: 3
This course focuses on daily life in the Soviet Union, China, and an Eastern European country (like Czechoslovakia) to show how communist regimes function and what influence they have on their people. It examines reasons for patterns found in communist states and for the contrast to liberal democracies such as the United States.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

**PS 0204 - PUBLIC POLICY PROCESS**
Minimum Credits: 3
Maximum Credits: 3
The objective of this course is to provide the students with general knowledge about public policy making and administration in the U.S. It surveys the policy process with emphasis on conceptual theoretical frameworks for the initiation, development, administration, and evaluation of public policy. Also, the impacts of institutional arrangements and administrative/bureaucratic decision making on public policy formulation and implementation. A discussion covers policy processes in comparative perspective.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

**PS 0205 - LAW AND THE COURTS**
Minimum Credits: 3
Maximum Credits: 3
This course examines the major components of the American legal system, including the police, the law profession, prosecutors and public defenders, state and federal courts, plus the impact of the Supreme Court on the American political system. Emphasis is on the realities of the legal process in operation - how it affects the "who gets what" question.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

**PS 0207 - CONGRESS AND THE PRESIDENCY**
Minimum Credits: 3
Maximum Credits: 3
This course examines the two major policymaking institutions in the American political system. First, it provides an overview of the development, structure, and process of the U.S. Congress. The emphasis is on the effects of the sometimes contradictory functions of representation and the lawmaking faced by members of congress. Then the focus turns to the institution of the presidency and its role in the policy making process. Particular attention is paid to understanding presidential power and leadership, as it relates to Congress.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science

**PS 0215 - EUROPEAN POLIT & EU**
Minimum Credits: 3
Maximum Credits: 3
This course will look at European politics on both the supranational and domestic level. The history, structure and continued development of the European union and its key institutions will be studied. The domestic political systems and cultural context of European countries will be explored comparatively. Additionally, issues of foreign, economic, environmental, and social policy-making that intersect both the domestic and the supranational levels will be investigated.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of ENG 0101 is required
General Education: Political Science-Global

**PS 0220 - MEDIA AND INTERNET IN POLITICS**
Minimum Credits: 3
Maximum Credits: 3
This course explores the ways in which the media, internet and technologies which are available via the internet are transforming politics, as well as how domestic and international politics are shaping media coverage and the internet's availability and usage. Topics covered include (but are not limited to) regulatory laws and international treaties, intellectual property, the global digital divide, norms of transparency and accountability, democratic internet technology, censorship, e-government, ethical and privacy concerns, internet voting, e-campaigning, the internet, political culture, and political behavior in democratic and authoritarian regimes, cyberactivism, cyberhate, social media and social movements, and the internet and political conflict.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of ENG 0101 is required
General Education: Political Science-Global

**PS 0225 - WOMEN IN POLITICS**
Minimum Credits: 3
Maximum Credits: 3
This course explores the diverse roles of women in politics, both nationally and internationally, comparing across a range of political systems. Women's movements, political participation, involvement in political parties, electoral campaigns, representation in elected office, and policy-making impact will be examined.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Political Science-Global

**PS 0250 - SPECIAL TOPICS**
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in political science.

Academic Career: UGRD

Course Component: Lecture

Grade Component: LG/SNC Elective Basis

**PS 1304 - AMERICAN FOREIGN RELATIONS**

Minimum Credits: 3

Maximum Credits: 3

This course examines American foreign policy since World War II, with the objective of describing its major features, and explaining its evolution, and its problems. It reviews contending interpretations of past successes and failures and considers the current debate about what American foreign policy should be.

Academic Career: UGRD

Course Component: Lecture

Grade Component: LG/SNC Elective Basis

Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

General Education: Political Science-Global

**PS 1305 - POL THRY: PLATO TO MACHIAVELLI**

Minimum Credits: 3

Maximum Credits: 3

Western thought, culture, and politics have been shaped decisively by the ideas of thinkers such as Plato, Aristotle, Augustine, and Aquinas. Their ideas are still very practical because they offer important insights, too often neglected, concerning human motives and behavior. Their ideas also offer a powerful means for putting into perspective and evaluating modern views of human nature as well as modern solutions to social and political problems.

Academic Career: UGRD

Course Component: Lecture

Grade Component: LG/SNC Elective Basis

Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**PS 1306 - POL THRY:MACHIVELI TO ROUSSEAU**

Minimum Credits: 3

Maximum Credits: 3

Many current social and political views are deeply rooted in the thought of the Renaissance and the enlightenment. An examination of the ideas of such thinkers as Machiavelli, Hobbes, Locke, and Rousseau concerning freedom, reason, fear, nature, alienation etc. Can thus do much to clarify the reasoning underlying contemporary social analysis and discussion. The course concentrates on questions such as what are the most basic human motives. How easily are people manipulated? Why are political associations formed?

Academic Career: UGRD

Course Component: Lecture

Grade Component: LG/SNC Elective Basis

Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**PS 1307 - LIBRLSM, CONSERVATISM & SOCLSM**

Minimum Credits: 3

Maximum Credits: 3

Liberalism and conservatism are the two dominant positions in the United States today on political, social and moral issues, while socialism has gained influence in recent decades. The course will clarify how these positions differ in defining what constitutes problems and in selecting preferred solutions. This will help us (1) to recognize basic alternatives which recur in debates and policy-making and (2) to suggest how these patterns guide and give meaning to personal and national choices.

Academic Career: UGRD

Course Component: Lecture

Grade Component: LG/SNC Elective Basis

Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

General Education: Political Science

**PS 1308 - AMERICAN POLITICAL THOUGHT**
This course has two major objectives. The first is to examine the defining event of American politics - the creation of the Constitution of 1787. The goal is a proper understanding of the thought and intentions embodied in the constitution and, concurrently, a clarification of the reasoning of those who questioned and opposed it. The second objective is to study how the thought and the intentions underlying the constitution have been realized or transformed since the American founding.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Political Science

### PS 1310 - CONSTITUTIONAL LAW

Minimum Credits: 3  
Maximum Credits: 3  
This course will consider the U.S. Supreme Court as a policy-making branch of the federal government. Major topics include: judicial review; constitutional sources of and limitations on the legislative power; presidential power; the Supreme Court and criminal justice system, including the doctrine of incorporation, the right to counsel, the privilege against self-incrimination and the exclusionary rule; equal protection.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Political Science

### PS 1316 - ASIAN POLITICS

Minimum Credits: 3  
Maximum Credits: 3  
This course introduces students to the politics of Asia by examining and comparing the political systems, economic performance, civil society, and the effect of globalization among countries of East and southeast Asia.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Political Science

### PS 1319 - POL PARTIES & INTEREST GROUPS

Minimum Credits: 3  
Maximum Credits: 3  
Examines the development, structure, and importance of political parties and interest groups in the U.S. It considers the role that parties and interests play in elections, organizing the government, and influencing public policy. Particular focus is on the decline of parties in the American political system and the increased importance of narrower, special interests.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Political Science

### PS 1325 - STATE AND LOCAL GOVERNMENT

Minimum Credits: 3  
Maximum Credits: 3  
The course is designed to provide an appreciation of state and local institutions, politics, and processes. Attention is given to the legislative, executive and judicial branches of state government using Pennsylvania as a particular example. Particular focus is on local government and politics including urban governments, smaller cities, rural governments, and school districts.

**Academic Career:** UGRD  
**Course Component:** Lecture
**PS 1337 - IDENTITY POLITICS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course on identity politics focuses on the interaction of categories such as race, ethnicity, class, gender, and sexuality and the role that identity plays in politics on a national and global level. The course will examine identity-based rights movements and evaluate policy-making changes in light of these movements.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**General Education:** Political Science-Global

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**PS 1340 - DEMOCRATIZATION**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course focuses on the process of democratization, when nations shift from authoritarian regimes to more democratic forms of organization. Students will explore theoretical debates regarding democracy, democratization, and democratic consolidation. The lectures, readings, and assignments will explore country case studies from several different world regions. These comparative case studies will be used to examine the effect of causal factors such as political culture, political institutions, civil-military relations, civil society, the resource curse, and the international environment on democratization.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency AND PS 0103 or PS 0110

**General Education:** Political Science-Global

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**PS 1354 - LGBTQ POLITICS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course explores the theory and practice of lesbian, gay, bisexual, transgender, and queer (LGBTQ) politics globally, examining the policy impact of legislation, litigation, and direct democracy; shifts in public opinion and media coverage; and the diffusion of international human rights norms via international law. Further, the historic development of LGBTQ rights movements, interest groups, and advocacy coalitions; the involvement of the LGBTQ community and allies in activism; and the role of out politicians will be explored. Policy-making concerning a range of LGBTQ rights issues will be examined cross-nationally: criminalization and decriminalization of homosexuality; discrimination and non-discrimination protections; hate crimes; same-sex union recognition and marriage; LGBTQ adoption and parenting; transgender, bisexual, intersex, and asexual rights; gender recognition; citizenship, immigration, and asylum; public health and aging; and youth, homelessness, education, and criminal justice. GE: Political Science & Global.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Political Science-Global

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**PS 1355 - POLITICS OF DEVELOPING WORLD**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course will consist of a broad survey of the political and economic issues facing the developing world. This will include an in-depth look at the impact of colonialism, imperialism, and neo/economic imperialism that will include critical examinations of how various theoretical perspectives critically address the effects these issues have had on the developing world. Such theoretical perspectives will include modernization/stage theory, dependency theory, world systems theory, underdevelopment, and dependent development. Following examinations of colonialism and theory, specific issues will be examined. Such issues include; disease, poverty, hunger, environmental degradation, ethnic conflict, human rights, security, and gender. The focus will be on how both developed and developing nations politically and economically deal with such issues. Much of the discussion of these issues will be conducted within the framework of understanding the impact of the political and economic policies of Western
Europe, the United States, and international organizations such as the U.N., LMF, WTO, and the world bank on developing nations.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Political Science-Global

### PS 1365 - SOCIAL MOVEMENTS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course introduces students to social movements and international political activism, as well as to competing theoretical arguments regarding social movements. Issue areas we will examine include (but are not limited to) human rights, civil rights, labor rights, children's rights, women's rights, lgbt rights, indigenous rights, immigrant and refugee rights, HIV/AIDS, the environment, climate change, peace, and global justice. Students will explore different causal factors that influence social movements, and compare and contrast how these factors affect movements cross-nationally.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency AND PS 0103 or PS 0110  
**General Education:** Political Science-Global

### PS 1366 - PUBLIC POLICY ANALYSIS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course provides instruction in the professional practice of policy analysis. Throughout the course we will consider a number of fundamental questions: What are the rationales for collective interference in private affairs? What are the limitations to collective action? What are the generic instruments of public policy? What are the appropriate roles for policy analysts in democratic societies? Through an examination of these questions we will build the conceptual foundations for conducting sound policy analysis.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC

### PS 1367 - ENVIRONMENTAL POLITICS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A multidisciplinary general education course designed at an introductory level. This course provides students with comprehensive knowledge of the organizations, interests, and processes that shape environmental policy. It explores the local, regional, and global dimensions of the most critical environmental problems and issues facing policy makers today, including land-use management, energy conservation, acid rain, lead poisoning, indoor air pollution (radon pollution), ozone depletion, waste management, waste dumping in the ocean, deforestation worldwide, habitat destruction, and global warming.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Political Science

### PS 1385 - GLOBAL ENVIRONMENTAL POLITICS

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course focuses on global environmental politics and comparative environmental policy. The impact of the international system, international governmental organizations, summits, and international treaties on global environmental politics will be examined. Domestically, the effects of interest groups, political parties, and governmental structures on environmental policy-making will be explored. Additionally, the course will examine environmental movements and evaluate policy-making changes in light of these movements.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Political Science-Global
PS 1449 - CAPSTONE 1: RESEARCH METHODS
Minimum Credits: 3
Maximum Credits: 3
Research methods is the first course in a two-semester capstone sequence. Students are expected to enroll in capstone 1 as juniors and to take
Capstone 2 in the subsequent semester. Capstone 1 introduces students to research methods used by political scientists and historians, focusing on a
seminar theme. Students will gain a working knowledge of the theory and practice underlying diverse methods of inquiry. Students will be
introduced to computer software used in conducting research. The course will help students to formulate a research question, develop a literature
review, and craft a research design for their capstone research papers. Additionally, students will consider career and graduate study opportunities,
developing individualized professional development plans.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, MATH competency and Junior Level Status

PS 1450 - TOPICS IN POLITICAL SCIENCE
Minimum Credits: 3
Maximum Credits: 3
An advanced study of a special topic in political science.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PS 1451 - CAPSTONE 2: POLITICAL SCIENCE
Minimum Credits: 3
Maximum Credits: 3
Seminar participants are responsible for preparing and delivering a formal paper on a seminar theme in political science.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PS 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience
develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by
the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review
sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

PS 1497 - DIRECTED STUDY: POL SCIENCE
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of political science. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PS 1498 - DIRECTED RESEARCH: POL SCIENCE
Minimum Credits: 1
Maximum Credits: 6
Independent research on a topic in political science.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**PS 1499 - INTERNSHIP: POLITICAL SCIENCE**

Minimum Credits: 1
Maximum Credits: 6
Practical experience in political science in a setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.

Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**Psychology**

**PSY 0101 - INTRODUCTION TO PSYCHOLOGY**

Minimum Credits: 3
Maximum Credits: 3
An introduction to psychology and the major subfields of psychology. Topics include: experimental psychology; research methodology and statistics; learning; memory; brain and behavior; perception; human development; assessment techniques; personality theories; social psychology; psychological disorders and treatment.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

**PSY 0197 - DIRECTED STUDY**

Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in psychology. Permission of the instructor is required.

Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

**PSY 0201 - STATISTICS**

Minimum Credits: 4
Maximum Credits: 4
A survey of the statistical procedures used in psychology and other behavioral sciences including: frequency distributions, percentile ranks, graphing, measures of central tendency, measures of variability, standard scores and the normal distribution, sampling techniques, and sampling distribution theory, hypothesis testing, the z-test, the t-tests, a-nova, correlations and prediction, and chi-square.

Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
Course Requirements: PREQ: PSY 0101 and MATH 0098 or higher
General Education: Computational Sciences

**PSY 0202 - CHILD DEVELOPMENT**

Minimum Credits: 3
Maximum Credits: 3
The study of the physiological, behavioral, cognitive, social, and personality changes and differences that occur from conception until adolescence. Topics include: genetics and prenatal development; genetic disorders; cognitive development; language development; intelligence testing; personality and social development; memory development.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 required for all higher level psychology courses
General Education: Behavioral Sciences

PSY 0203 - SOCIAL PSYCHOLOGY
Minimum Credits: 3
Maximum Credits: 3
An examination of the effects of people on other people, social factors in attitude formation and change, person perception, social influence, and interpersonal relations (e.g. affiliation, aggression, and altruism).
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 required for all higher level psychology courses
General Education: Behavioral Sciences

PSY 0204 - PERSONALITY THEORIES
Minimum Credits: 3
Maximum Credits: 3
An examination of the major theories, models, and conceptions of personality. Topics include psychoanalytic and neo-analytic theories, behavior and learning theories, trait theories, humanistic theories, and cognitive theories.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 required for all higher level psychology courses
General Education: Behavioral Sciences

PSY 0206 - ABNORMAL PSYCHOLOGY
Minimum Credits: 3
Maximum Credits: 3
The study of abnormal behavior, its causes, methods of classification, and therapeutic modification approaches.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 required for all higher level psychology courses
General Education: Behavioral Sciences

PSY 0207 - PROFESSIONAL SEMINAR IN PSY
Minimum Credits: 3
Maximum Credits: 3
This course will provide an introduction of professional opportunities in psychology and related fields at the Undergraduate and graduate level. Additionally, this course will introduce information, skills, and resources that will assist in planning for applying to psychology related careers at the Undergraduate level and planning for applying to psychology related graduate schools.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 required for all higher level psychology courses

PSY 0208 - COGNITIVE PSYCHOLOGY
Minimum Credits: 3
Maximum Credits: 3
Cognitive psychology is the science of human information processing. Its topics deal with the kinds of information we have in our memories and the processes involved in acquiring, retaining, and using that information. Thus, those activities familiar to you, such as seeing, attending, remembering, talking and problem-solving are the topics to be discussed in this course.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

**PSY 0250 - SPECIAL TOPICS**
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in psychology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 required for all higher level psychology courses

**PSY 0265 - DATA ANALYSIS & RESEARCH WRIT**
Minimum Credits: 3
Maximum Credits: 3
This course covers SPSS data analyses and the introduction to the writing style required by the American psychological association. (APA style)
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: completion of a statistics course, declaration of the psychology major or minor, ENG 0102, and two courses from this list: (PSY 0202, PSY 0203, PSY 0204, PSY 0206).

**PSY 1301 - EXPERIMENTAL PSYCHOLOGY**
Minimum Credits: 3
Maximum Credits: 3
An introduction to the basic principles of research and experimentation in psychology. Topics will include how one performs research, what one does after data have been collected, and the writing of research report.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PSY 0101, statistics, PSY 0265 and completion of competencies ( ENG 0101, ENG 0102, FS 0102, and MATH)

**PSY 1302 - COGNITIVE DEVELOPMENT**
Minimum Credits: 3
Maximum Credits: 3
Current theories about children's knowledge and the issues surrounding the development of that knowledge. Topics include memory development, perceptual development, language development, development of problem-solving abilities, and the development of intelligence.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**PSY 1303 - PSYCHOLOGICAL ASSESSMENT**
Minimum Credits: 3
Maximum Credits: 3
The uses, applications, and underlying concepts of psychological testing. Topics include how tests are standardized, the reliability and validity of tests, and types of tests psychologists use (e.g. intelligence tests, personality tests).
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

**PSY 1304 - HUMAN MEMORY**
Minimum Credits: 3
Maximum Credits: 3
This course deals with the current theoretical and applied issues in human memory. A study of the human ability to acquire and retain information, to recall it when needed, and to recognize its familiarity when it is seen or heard again.
PSY 1307 - PSYCHOLOGY OF MUSIC
Minimum Credits: 3
Maximum Credits: 3
This course draws from the fields of personality and social psychology and relates them to several aspects of music. Topics include individual differences in musical behavior, the role of music in small social and group situations, large-scale social and cultural influences, the development of musical preferences, and applications.

PSY 1308 - THEORIES OF MOTIVATION
Minimum Credits: 3
Maximum Credits: 3
The major historical and contemporary theories of motivation. The course examines instincts and behavior; hunger motivation; and clinical, cognitive, and experimental approaches to motivation.

PSY 1317 - CHILD & ADOLSC PSYCHOPATHOLOGY
Minimum Credits: 3
Maximum Credits: 3
This class focuses on the assessment, diagnosis, and treatment of psychological disorders commonly associated with children and adolescents. Some of the disorders addressed will include adjustment disorders, attention deficit hyperactivity disorder, autism spectrum disorders, disruptive behavior disorders, anxiety disorders, and mood disorders. Various treatment modalities and techniques associated with specific disorders will be presented.

PSY 1324 - DEVELP OF EXCEPTIONAL CHILDREN
Minimum Credits: 3
Maximum Credits: 3
Development of exceptional children is a course designed for those who would like a working knowledge of the characteristics of children with disabilities, their challenges, and how to best meet their needs.

PSY 1335 - PSYCH OF PREJUDICE & DSCRMNTN
Minimum Credits: 3
Maximum Credits: 3
In this course, prejudice will be defined, and its origins and effects on individuals and society will be discussed. Psychological theories will be used to describe the process and results of prejudice.
PSY 1337 - HEALTH PSYCHOLOGY
Minimum Credits: 3
Maximum Credits: 3
Psychological research can be used to understand how the interaction between perception and cognition with the body's immune system affects the development of illness service delivery to individuals who have psychological problems as the result of illness and plan health care programs to reduce the incidence and/or duration of physical health problems. This course will provide an overview of the role that psychology is playing in the health care system and will focus on scientific psychological research linking our thoughts, feelings, and behavior to physical health.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

PSY 1340 - PSY AND ENVIRONMENTAL PROBLEMS
Minimum Credits: 3
Maximum Credits: 3
This course focuses on the interplay between psychology and issues associated with environmental problems (ecology/sustainability). Issues that may be addressed include: the development of environmental attitudes, psychological theories that influence environmental attitudes, and applying psychological principles to address environmental concerns (e.g. environmental sustainability).
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PSY 0101 or ENVSTD 0101 and Junior Stan

PSY 1345 - THE PSYCHOLOGY CLOSE RELTNSHP
Minimum Credits: 3
Maximum Credits: 3
This course surveys the process of relationship formation. Topics to be covered include relationship initiation, maintenance, and dissolution.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: PSY 0101 or ENVSTD 0101 and Junior Stan

PSY 1405 - INTELLIGENCE AND TESTING
Minimum Credits: 3
Maximum Credits: 3
This class will focus on the nature and assessment of intelligence. The major assessments of intelligence that will be covered include: the Wechsler tests (WAIS-III, WISC-IV, WPPSI-III), nonverbal assessments of intelligence (TONI-3, CTONI), as well as other specialized assessments of intelligence.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

PSY 1406 - LEARNING AND BEHAVIOR
Minimum Credits: 3
Maximum Credits: 3
This course will deal with the major behavioral and cognitive approaches of human learning. Topics include: classical conditioning, operant conditioning, effects of reinforcement and punishment, memory, problem-solving techniques and motivation.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

PSY 1407 - COUNSELING PSYCHOLOGY
Minimum Credits: 3
Maximum Credits: 3
Various theories and practices of counseling and psychotherapy, including psychoanalytic therapy, person-centered therapy, gestalt therapy, behavior
therapy, and rational emotive therapy. Communication skills and ethical issues are addressed.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: PSY 0206 and COREQ of PSY 1408

**PSY 1408 - COUNSELING PSYCHOLOGY LAB**

- **Minimum Credits:** 1  
- **Maximum Credits:** 1  

This lab is offered concurrently with PSY 1404, Counseling Psychology. The lab is designed to facilitate a hands-on experience to learn about the counseling process. The lab may involve observing and conducting mock counseling sessions, engaging in mock counseling supervision sessions, and learning about documenting counseling sessions.

**Academic Career:** UGRD  
**Course Component:** Credit Laboratory  
**Grade Component:** Satisfactory/No Credit  
**Course Requirements:** COREQ: PSY 1407

**PSY 1410 - PSYCHOLOGY AND LAW**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

This class is designed to explore the relationship between psychology and the legal system. The class will focus on current trends and research associated with four main topics: 1) the role of psychology in the trial process, 2) the role of psychology in forensic assessments and treatment, 3) the role of psychology in the civil law, and 4) professional issues in the law-psychology field. Issues discussed will include expert testimony, eye-witness memory and testimony, child-witness testimony, death penalty, jury decision making, risk assessment, competence, insanity, employment and discrimination, child custody, training, and ethics.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: PSY 0101, PSY 0206, 3 Credits of PSY electives, and junior standing

**PSY 1447 - TOPICS IN COGV-DEVLP PSY**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

The advanced study of a special topic in cognitive-developmental psychology. Prerequisite: permission of instructor.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

**PSY 1448 - TOPICS IN APPLIED-SOCIAL PSY**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

The advanced study of a special topic in applied-social psychology. Prerequisite: permission of instructor.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

**PSY 1449 - TOPICS IN COUNSELING PSY**

- **Minimum Credits:** 3  
- **Maximum Credits:** 3  

The advanced study of a special topic in counseling psychology. Prerequisite: permission of instructor.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

**PSY 1451 - TOPICS IN PSYCHOLOGY**
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in psychology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 0101 and all competencies is required before taking upper-level PSY courses

PSY 1452 - CAPSTONE: PSYCHOLOGY
Minimum Credits: 3
Maximum Credits: 3
This course involves a year-long project requiring either an empirical study or a theoretical review. A paper will be written in APA style. The project is supervised by a member of the psychology faculty.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of PSY 1301

PSY 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

PSY 1496 - INTERNSHIP IN COUNSELING PSYCH
Minimum Credits: 1
Maximum Credits: 6
The internship is intended to provide students with the opportunity to explore professional, ethical, and counseling issues in a real world setting. Each internship experience will be unique depending upon the parameters of the internship site. As a result of the experience, it is expected that students will gain insight and critical thinking skills associated with counseling in a community setting.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

PSY 1497 - DIRECTED STUDY: PSYCHOLOGY
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of psychology. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

PSY 1498 - DIRECTED RESEARCH: PSYCHOLOGY
Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in psychology supervised by a member of the psychology faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
PSY 1499 - INTERNSHIP: PSYCHOLOGY
Minimum Credits: 1
Maximum Credits: 6
Students enrolled in this course have an opportunity to gain firsthand professional experience in psychology in a professional setting. Work is directed by the employer and evaluated jointly with the faculty supervisor.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

Educational Psychology

PSYED 0005 - LIFE SPAN DEVELOPMENT
Minimum Credits: 3
Maximum Credits: 3
This course follows the developing person from conception until the end of life. The course combines theory, research and practical applications from developmental psychology. Lecture topics include genetic influences on development; prenatal and birth factors; physical, cognitive, social, personality, and cultural variables which influence development in infancy, childhood, adolescence, early-, middle-, and late adulthood.
Academic Career: UGRD
Course Component: Lecture
Grade Component: Letter Grade
General Education: Behavioral Sciences

Radiological Science

RADSC 0111 - BASIC HUMAN NEEDS
Minimum Credits: 6
Maximum Credits: 6
In this course, the student is introduced to various aspects of the nursing curriculum: e.g. Orem's theory, Roy's adaptation model, Erikson's developmental theory, Maslow's basic human needs, concepts of stress and adaptation, health-illness continuum, nursing process, teaching and learning theories, nursing history, nursing roles and psychosocial and cultural influences on man, health, and nursing. Legal and ethical principles, communication skills, documentation, and clinical theories and skills are also taught. Nutrition is incorporated into this course with application in the clinical setting.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

RADSC 1301 - RADSCI CONTRACTUAL TERM
Minimum Credits: 7
Maximum Credits: 9
This course is offered in conjunction with BRMC as part of the sophomore year requirements.
Academic Career: UGRD
Course Component: Clinical
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

RADSC 1401 - RADSCI CONTRACTUAL TERM
Minimum Credits: 7
Maximum Credits: 9
This course is offered in conjunction with BRMC as part of the junior year requirements.
Academic Career: UGRD
Course Component: Clinical
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

RADSC 1451 - CAPSTONE: RADTN SCI
Minimum Credits: 3
Maximum Credits: 3
This course focuses on enabling the student to synthesize knowledge about the professional role within the health care delivery system. Theory related to leadership and management in radiology will be presented. Health care policy practice issues will also be presented.

**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### RADSC 1494 - UNDERGRAD FACULTY ASSISTANT

- **Minimum Credits:** 1  
- **Maximum Credits:** 3

The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** LG/SNC Elective Basis

### RADSC 1497 - DIRECTED STUDY: RADTN SCI

- **Minimum Credits:** 1  
- **Maximum Credits:** 6

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

### Sociology

#### SOC 0101 - INTRODUCTION TO SOCIOLOGY

- **Minimum Credits:** 3  
- **Maximum Credits:** 3

This course is an introduction to sociology's way of observing and explaining human group behavior. The course will include an exploration of theoretical orientations and methodological approaches used to study human group behavior. Society, culture, social institutions and social stratification will be analyzed. The issues involved in the process of change will complete the analysis of group behavior.  

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Behavioral Sciences

#### SOC 0197 - DIRECTED STUDY

- **Minimum Credits:** 1  
- **Maximum Credits:** 6

Independent study in a topic in sociology. Permission of the instructor is required.  

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

#### SOC 0201 - SOCIOLOGY OF GENDER

- **Minimum Credits:** 3  
- **Maximum Credits:** 3

Exploration of the cultural patterns and institutional arrangements that produce gendered identities and underlie sex based inequalities in contemporary society, focusing on change in these patterns and institutions.  

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Completion of SOC 0101 is required for all higher level sociology courses
General Education: Behavioral Sciences

SOC 0202 - SOCIOLOGY OF SPORT
Minimum Credits: 3
Maximum Credits: 3
For the athlete or spectator, sport is a social behavior that can be investigated using the theories and tools of sociology. Topics include the relationships between sport and culture, racism, sexism, education, religion, and politics.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of SOC 0101 is required for all higher level sociology courses

General Education: Behavioral Sciences

SOC 0203 - SOCIOLOGY OF AGING
Minimum Credits: 3
Maximum Credits: 3
This is a foundation/overview course. It integrates basic sociological concepts and theories in a gerontological context and focuses on social factors affecting the American older population. Topics include historical perspectives on age relations in the US; major theories explaining social adjustments to old age; and the religious, political, economic, housing, and safety concerns of the elderly.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

SOC 0204 - SOCIOLOGY OF DEVIANCE
Minimum Credits: 3
Maximum Credits: 3
This course deals with a description and analysis of a wide range of "deviant" behavior. Emphasis is on social psychological and sociocultural explanations of deviant behavior including prostitution, crime, drug addiction, homosexuality, elite crimes, and mental illness.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of SOC 0101 is required for all higher level sociology courses

General Education: Behavioral Sciences

SOC 0205 - DEATH AND DYING
Minimum Credits: 3
Maximum Credits: 3
A survey course in thanatology - the study of death and dying. The differences in perceptions of death and dying in different cultures and in America throughout its history are discussed. The course sensitizes students to their own feelings and thus generates a sensitivity to others' feelings. Readings cover such topics as suicide, near-death experiences, euthanasia, the funeral industry, the experience of dying, hospice, children and death, and the grieving process.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of SOC 0101 is required for all higher level sociology courses

General Education: Behavioral Sciences

SOC 0206 - CRIMINOLOGY
Minimum Credits: 3
Maximum Credits: 3
This course will examine the nature of criminal behavior, criminal law and the American system of criminal justice. Sociological, biological and psychological theories of criminal behavior will be explored. Topics will include the sociological impact of criminal behavior on contemporary society; issues of constitutional law and current issues in criminal justice. The relationship of the police, the courts and correctional institutions to American society will also be discussed.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
SOC 0207 - SOCIOLOGY OF RACE & ETHNICITY
Minimum Credits: 3
Maximum Credits: 3
The purpose of this course is to engage students in a scholarly exploration of the experience, performance, and implications of race-ethnicity in the U.S. Incorporating a sociological lens, this course begins with the assumption that race and ethnicity are constructed phenomena. Shifting across time and place consequent of social, political, economic, and cultural forces. We will also apply an intersectional lens to explore systemic inequalities created by the co-constructions of race, class, gender, sexuality, ability, age, and place.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of SOC 0101 is required for all higher level sociology courses
General Education: Behavioral Sciences

SOC 0209 - SOCIAL PROBLEMS
Minimum Credits: 3
Maximum Credits: 3
An examination of the nature, extent, causes, and possible solutions to a selected number of social problems including the contributions that sociology, psychology and related behavioral sciences have made in terms of both theory and empirical research.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of SOC 0101 is required for all higher level sociology courses
General Education: Behavioral Sciences

SOC 0235 - ENVIRONMENTAL SOCIOLOGY
Minimum Credits: 3
Maximum Credits: 3
Environmental sociology examines large-scale narrative on environmental issues. This narrative conveys the natural connections between people, animals, minerals, land, water and plants. It also introduces social constructs: pollution, over-consumption, resource depletion, habitat loss, risky technology and rapid population growth. This course examines the social significance of these and other environmental conceptualizations from the standpoint of culture, ideology, moral values and social inequality.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Behavioral Sciences

SOC 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in sociology.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

SOC 1301 - THE FAMILY
Minimum Credits: 3
Maximum Credits: 3
This course will examine the structures, functions, and conflicts of the contemporary family. Beginning with a historical review of the origins of the modern family, and a cross-cultural examination of family forms, the course proceeds to an in-depth look at current family issues: courtship, marriage, socialization and aging. Social class, race, and sex are examined as factors contributing to family structure.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Behavioral Sciences
SOC 1302 - SOCIALIZATION
Minimum Credits: 3
Maximum Credits: 3
This course will examine the nature and dynamics of human socialization. Topics will include the socialization process from the perspectives of the individual, from birth to death, and the society.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: SOC 0101 and competencies (ENG 0101, ENG 0102, MATH, and FS 0102)
General Education: Behavioral Sciences

SOC 1303 - SOCIETY AND THE INDIVIDUAL
Minimum Credits: 3
Maximum Credits: 3
This course analyzes the relationship between aspects of societies and individuals. Common-place experiences, situations and events are studied through the sociological perspective. Concrete, everyday kinds of interactional episodes are examined for the purpose of understanding them in new ways.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

SOC 1304 - SMALL GROUPS
Minimum Credits: 3
Maximum Credits: 3
A study of a wide range of groups (family, gangs, work groups, religious groups, therapy groups, etc.) to illustrate basic principles and processes that operate within "small groups".
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

SOC 1305 - ORGANIZATIONAL BEHAVIOR
Minimum Credits: 3
Maximum Credits: 3
This course stresses the sociological approach to the study of organizations. Among topics covered are organizations' nature, internal dynamics, environments, strain and change, case study analysis is used extensively.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: SOC 0101 and competencies (ENG 0101, ENG 0102, MATH, and FS 0102)

SOC 1306 - WORK AND SOCIETY
Minimum Credits: 3
Maximum Credits: 3
A sociological overview of work. The course examines the historical development of the American workplace and its present organization. It will also include cross-cultural comparisons. Topics include occupational stratification, the organization of the workplace, the modern factory, the white collar world, women in the work force, automation, alienation, and labor organizing.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: SOC 0101 and competencies (ENG 0101, ENG 0102, MATH, and FS 0102)
General Education: Behavioral Sciences

SOC 1307 - SOCIOLOGY OF HEALTH
Minimum Credits: 3
Maximum Credits: 3
Analyzes social factors in relation to health and disease. Consideration given to definitions of health, illness behavior, the formal and informal
organization of health professions and institutions, and the expanding role of government in the health field. Use will be made of both theory and current research. Ethics in health care will also be examined.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

SOC 1308 - INEQUALITY IN SOCIETY
Minimum Credits: 3
Maximum Credits: 3
This course will focus on the analysis of stratification within our society. We will look at how inequalities of wealth and power, combined with such factors as work, education, race, gender, and age, create a highly stratified social class system.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: SOC 0101 and competencies (ENG 0101, ENG 0102, MATH, and FS 0102)

General Education: Behavioral Sciences

SOC 1310 - SOCIOLOGICAL THEORY
Minimum Credits: 3
Maximum Credits: 3
This course will examine the development of sociology from its historical beginnings to sociology in the 20th century. Special attention will be given to the development of different perspectives, theories, and concepts.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: SOC 0101 and competencies (ENG 0101, ENG 0102, MATH, and FS 0102)

General Education: Behavioral Sciences

SOC 1311 - SOCIAL WORK
Minimum Credits: 3
Maximum Credits: 3
An examination of the profession of social work and the field of social welfare, including a comprehensive overview of the way social workers respond to a wide variety of societal problems.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: SOC 0101 and competencies (ENG 0101, ENG 0102, MATH, and FS 0102)

General Education: Behavioral Sciences

SOC 1313 - SOCIOLOGY OF AGING
Minimum Credits: 3
Maximum Credits: 3
Social factors affecting the older American population including historical perspectives on age relations in the U.S.; major themes explaining social adjustments to old age; and the religious, political, economic, housing, and safety concerns of the elderly.

Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

General Education: Behavioral Sciences

SOC 1314 - IMAGES OF WOMEN AND MEN
Minimum Credits: 3
Maximum Credits: 3
Course will utilize the sociological perspective to explore the ways American popular culture has portrayed women and men over the past century. We will explore women and men as objects, sweethearts, victims, husbands, wives, mothers fathers, and workers. Course will focus on the change in the portrayal of women and men in popular culture and explore alternatives for the future.
SOC 1315 - SOCIOLOGY OF LEISURE AND AGING
Minimum Credits: 3
Maximum Credits: 3
A course designed to give comprehensive coverage to directing group leisure activities for the elderly. Topics include planning recreational programs, assessment of the elderly needs and abilities, developing social participation and volunteer recruitment, as well as program financing.

SOC 1316 - SOCIAL AND CULTURAL CHANGE
Minimum Credits: 3
Maximum Credits: 3
This course presents sociology from a global perspective in three ways: it focuses on social change as a critical factor in understanding society today, it uses a cross international approach to compare nations and regions of the world, it examines the ties between societies and the manner in which these relationships create a global society.

SOC 1318 - SOCIOLOGY OF SEXUALITY
Minimum Credits: 3
Maximum Credits: 3
This course will provide an introductory inquiry into the sociological study of sexuality. Using a social constructionist lens, we will explore the shifting acceptance and sanction of sexual expression, behaviors, and identities. Sexuality will be further explored relative to gender, class, race/ethnicity, age, ability, politics, and the economy, making visible positions of privilege and oppression. A range of theories, concepts, and research from the social sciences will be considered as students develop a critical understanding of sexuality in the social world.

SOC 1337 - IDENTITY POLITICS
Minimum Credits: 3
Maximum Credits: 3
This course on identity politics focuses on the interaction of categories such as race, ethnicity, class, gender, and sexuality and the role that identity plays in politics on a national and global level. The course will examine identity-based rights movements and evaluate policy-making changes in light of these movements.

SOC 1401 - SOCIAL RESEARCH
Minimum Credits: 3
Maximum Credits: 3
An introduction to the methods of research in the social sciences including the relationship between research and theory, how research projects are
designed, how variables are developed and measured, and how samples are gathered.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: Completion of SOC 0101, a course in statistics, and all competencies.

**SOC 1410 - SOCIOLOGICAL ANALYSIS**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
A survey of quantitative and qualitative techniques used by sociologists to analyze data. Course is based upon the theory of triangulation which emphasizes the use of multiple analytic techniques (included SPSS with computer application and ethno-methodology) to insure valid findings as social phenomena are examined.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**SOC 1451 - CAPSTONE: SOCIOLOGY**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
Seminar participants are responsible for preparing and delivering a formal paper on a seminar theme in sociology.

**Academic Career:** UGRD  
**Course Component:** Seminar  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** PREQ: SOC 0101 and competencies (ENG 0101, ENG 0102, MATH, and FS 0102)

**SOC 1455 - TOPICS IN SOCIOLOGY**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**SOC 1494 - UNDERGRAD FACULTY ASSISTANT**

**Minimum Credits:** 1  
**Maximum Credits:** 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**SOC 1497 - DIRECTED STUDY: SOCIOLOGY**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
Independent study in a topic in sociology.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**SOC 1498 - DIRECTED RESEARCH: SOCIOLOGY**
Minimum Credits: 1
Maximum Credits: 6
An in-depth investigation of an issue in the student's area of interest. Topic, research procedure, and progress are discussed in meetings with the supervising professor.
**Academic Career:** UGRD
**Course Component:** Directed Studies
**Grade Component:** LG/SNC Elective Basis

**SOC 1499 - INTERNSHIP: SOCIOLOGY**
Minimum Credits: 1
Maximum Credits: 6
An internship for sociology majors to allow them to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on the basis of student's interest and the availability of positions. Work is directed by the employer and evaluated jointly with the faculty supervisor.
**Academic Career:** UGRD
**Course Component:** Internship
**Grade Component:** Satisfactory/No Credit
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**Social Sciences**

**SOCSCI 1451 - CAPSTONE: SOCIAL SCIENCES**
Minimum Credits: 3
Maximum Credits: 3
This is an intensive, interactive multidisciplinary senior seminar. Topics will vary annually, and by instructor, but may include analyses from the perspectives of anthropology, economics, criminal justice, history, political science, psychology, and sociology. The format can also vary annually. The format may include extensive readings, significant writing, in-class discussions, a term paper, and a formal class presentation. For the term paper/presentations/discussions, it is expected that students will demonstrate an integration of at least three academic disciplines and will demonstrate a command of research methods commonly used in the social sciences. Attendance and participation, important to the overall vitality of any seminar, are essential. Ge: capstone, upper-level writing.
**Academic Career:** UGRD
**Course Component:** Seminar
**Grade Component:** LG/SNC Elective Basis
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**Spanish**

**SPAN 0101 - ELEMENTARY SPANISH 1**
Minimum Credits: 3
Maximum Credits: 3
A study of elementary spoken and written Spanish. Emphasis on communicative proficiency.
**Academic Career:** UGRD
**Course Component:** Lecture
**Grade Component:** LG/SNC Elective Basis
**General Education:** Language/Global

**SPAN 0102 - ELEMENTARY SPANISH 2**
Minimum Credits: 3
Maximum Credits: 3
A continuation of Elementary Spanish 1, training in spoken and written Spanish.
**Academic Career:** UGRD
**Course Component:** Lecture
**Grade Component:** LG/SNC Elective Basis
**General Education:** Language/Global

**SPAN 0197 - DIRECTED STUDY**
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in Spanish. Permission of the instructor is required.

**Academic Career:** UGRD  
**Course Component:** Directed Studies  
**Grade Component:** LG/SNC Elective Basis

**SPAN 0201 - INTERMEDIATE SPANISH 1**
- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
A more advanced study of spoken and written Spanish. A thorough grammar review together with selected readings and a concentration on developing conversational ability, using a broad range of topics from everyday life.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Language/Global

**SPAN 0202 - INTERMEDIATE SPANISH 2**
- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
A continuation of SPAN 0201; grammar, reading, and conversation.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Language/Global

**SPAN 0203 - INTERMEDIATE SPANISH**
- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
Intermediate Spanish is an abbreviated course that combines the traditional material of intermediate Spanish i and intermediate Spanish ii. The grammar component includes gustar and similar verbs; the uses of para and por; the two Spanish past tenses (the preterite and the imperfect); the use of se with indefinite subjects; reflexive verbs; and formal and informal commands. Also included are comparatives and superlatives; the present subjunctive; the conditional, and the present and past perfect tenses. The oral, reading comprehension, and cultural components of the course are enhanced by a series of short films and readings of interest to students.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Language/Global

**SPAN 0205 - CONVERSATIONAL SPANISH**
- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
A three week trip from Mexico city to Merida visiting cultural sites and practicing conversational Spanish. Improving conversational skills and enlarging on understanding of Hispanic culture are the two major goals of the field trip.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**General Education:** Language/Global

**SPAN 0206 - SPANISH CONVERSATION & REVIEW**
- **Minimum Credits:** 3  
- **Maximum Credits:** 3  
This course is designed to develop Spanish communication skills (listening and speaking) through a variety of activities in contexts likely to be encountered in the Spanish-speaking world.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**SPAN 0250 - SPECIAL TOPICS**
- **Minimum Credits:** 3  
- **Maximum Credits:** 3
The study of a special topic in Spanish.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis

**SPAN 1308 - ADVANCED SPANISH**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This is a course in advanced Spanish that allows students to acquire a broader and deeper knowledge of Spanish structure, vocabulary, and idiomatic usage. In addition, students will be able to progress in their reading and aural comprehension skills as well as in their command of the spoken language and their familiarity with aspects of the various cultures of the hispanophone world.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency  
**General Education:** Language/Global

**SPAN 1315 - BUSINESS SPANISH**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course offers students a linguistic and cultural background enabling them to conduct basic commercial transactions in the Spanish-speaking world.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**SPAN 1316 - TRANSLATION SEMINAR**

**Minimum Credits:** 3  
**Maximum Credits:** 3  
This course offers students a first-hand understanding of the general principles of translation, and of the particular issues involved in translating from Spanish to English. The class will gain practice, through a variety of texts, in rendering accurate, stylistically-acceptable translations into English, and will discuss the influence of culture upon language as this applies to translation.

**Academic Career:** UGRD  
**Course Component:** Lecture  
**Grade Component:** LG/SNC Elective Basis  
**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

**SPAN 1494 - UNDERGRAD FACULTY ASSISTANT**

**Minimum Credits:** 1  
**Maximum Credits:** 3  
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.

**Academic Career:** UGRD  
**Course Component:** Internship  
**Grade Component:** Satisfactory/No Credit

**SPAN 1497 - DIRECTED STUDY: SPANISH**

**Minimum Credits:** 1  
**Maximum Credits:** 6  
Directed study in a specific area of Spanish. Permission of the instructor is required.

**Academic Career:** UGRD  
**Course Component:** Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

SPAN 1498 - DIRECTED RESEARCH: SPANISH
Minimum Credits: 1
Maximum Credits: 6
Directed research is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and a supervising faculty member.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

Theatre

THEA 0101 - INTRODUCTION TO THEATRE
Minimum Credits: 3
Maximum Credits: 3
An introduction to the procedures, standards, and materials that make theatre an art form. Focuses on aesthetic assumptions, acting, directing, stagecraft, and production organization and management from an occupational viewpoint.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

THEA 0102 - THEATR PRACTCM: BASC STAGECRAF
Minimum Credits: 1
Maximum Credits: 3
The technical work on a play. Students learn backstage jobs such as the following: assistant director, stage manager, lighting, sound, props, publicity, costumes, makeup, and set construction. A student needs no theatrical experience in order to take this course.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
General Education: Arts

THEA 0103 - THEATRE PRACTICUM: PERFORMANCE
Minimum Credits: 1
Maximum Credits: 3
Students learn how to perform in a theatrical production by developing a system for character development, line memorization, rehearsals, and all the other production systems. A student needs no theatrical experience in order to try out for a role.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC Elective Basis
General Education: Arts

THEA 0104 - BASIC ACTING
Minimum Credits: 3
Maximum Credits: 3
The first part of this course is devoted to theatrical games and improvisation with the second part structured around scene work. Students are introduced to beginning exercises, role analysis, and scene work.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts
THEA 0106 - SURVEY OF WORLD THEATRE
Minimum Credits: 3
Maximum Credits: 3
The course introduces students to plays and their productions in a variety of countries. It gives students structures by which to understand the construction of most plays and grounds the plays in their cultural and political era and area. The aspects held in common by theatrical forms are discussed as well as the cultural differences among particular plays.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

THEA 0197 - DIRECTED STUDY IN THEATRE
Minimum Credits: 1
Maximum Credits: 6
This course is independent study in a topic in theatre.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

THEA 0201 - THEATRE HISTORY: CLASSICAL
Minimum Credits: 3
Maximum Credits: 3
A chronological history of theatre as an institution from classical times to the early 19th century.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

THEA 0203 - PLAY ANALYSIS
Minimum Credits: 3
Maximum Credits: 3
A study of the forms of drama including realism and nonrealism, presentational and no presentational with special attention to production, design, and the special dramatic choices that plays present to directors, actors, and technicians.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Arts

THEA 0210 - MOVEMENT AND STAGE COMBAT
Minimum Credits: 3
Maximum Credits: 3
This course utilizes a mixture of Pilates, yoga, and physical acting exercises in preparation for the intense physical work of stage combat. Students will then learn the basics of at least three of the standard disciplines: unarmed, single sword, rapier and dagger, quarterstaff, knife, broadsword, etc. Please note: this course will be physically demanding.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Physical Education

THEA 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in theatre arts.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
THEA 1302 - DIRECTING
Minimum Credits: 3
Maximum Credits: 3
The diverse elements of tangible and intangible theatrical jobs must be brought together into a unified experience. This is the job of a theatrical director. An application of the techniques of directors such as Brooks, Kazan, Stanislavski, and others in the art and practice of play directing. Students analyze scripts and direct scenes and a one-act play.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Arts

THEA 1303 - PLAYWRITING: STRUCTURE OF ACTN
Minimum Credits: 3
Maximum Credits: 3
The principles and procedures used to write plays. Students write scenarios, scenes, and short plays.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

THEA 1304 - ADVANCED ACTING
Minimum Credits: 3
Maximum Credits: 3
A study of modern acting techniques used for classical and nonrealistic modern plays. The class includes styles studied in period pieces but focuses on linear, realistic character creation. Students study modern and classical plays and perform scenes from them.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

THEA 1310 - SHAKESPEAREAN PERFORMANCES
Minimum Credits: 3
Maximum Credits: 3
Shakespeare's plays are a series of performances-literary/ textual, theatrical, and cultural. We will engage in close reading of play scripts, with special attention to staging imperatives and permissiveness, and in close readings of particular theatrical and film performances of the past, giving special attention to the visual creation of meaning through scenographic choices and to the social and historical contexts and receptions of those performances.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency
General Education: Arts

THEA 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

THEA 1497 - DIRECTED STUDY: THEATRE ARTS
THEA 1498 - DIR RESEARCH: THEATRE ARTS
Minimum Credits: 1
Maximum Credits: 6
Directed study in a specific area of theatre. Permission of the instructor is required.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

THEA 1499 - INTERNSHIP: THEATRE ARTS
Minimum Credits: 1
Maximum Credits: 6
Independent work on a project in theatre, supervised by a member of the theatre faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

Women's Studies

GSWS 0101 - INTRODUCTION TO GENDER, SEXUALITY, AND WOMEN'S STUDIES
Minimum Credits: 3
Maximum Credits: 3
The purpose of this course is to provide an interdisciplinary overview of Gender, Sexuality, and Women's Studies. Course content will incorporate a range of conceptual tools and methods to critically analyze the ways in which social and cultural forces shape identity. GE: Culture
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
General Education: Cultures

WOMNST 0197 - DIR STUDY: WOMEN'S STUDIES
Minimum Credits: 1
Maximum Credits: 4
Directed study in a topic in women's studies.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis

WOMNST 0201 - INTRODUCTION TO WOMENS STUDIES
Minimum Credits: 3
Maximum Credits: 3
This course will introduce us to the rich interdisciplinary field of women's studies as it has emerged over the last few decades. This course is a foundational course that provides an introduction to debates, methods, and issues in women's studies. We will explore numerous issues, themes, and debates that have animated feminist scholarship across the globe, making it a rich and vibrant area of intellectual inquiry.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: PREQ: Completion of ENG 0102 English Composition II required
General Education: Cultures

WOMNST 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in women's studies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis

WOMNST 1450 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The advanced study of a special topic in women's studies.
Academic Career: UGRD
Course Component: Lecture
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WOMNST 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit

WOMNST 1497 - DIR STUDY: WOMEN'S STUDIES
Minimum Credits: 1
Maximum Credits: 4
Directed study in a topic in women's studies.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WOMNST 1499 - INTERNSHIP: WOMEN'S STUDIES
Minimum Credits: 1
Maximum Credits: 6
An internship is a special type of independent study in which the student works in a professional setting. The project is designed in consultation with the academic supervisor and conducted under the guidance of an on-site supervisor. An internship allows students to apply the knowledge and skills learned in the classroom to practical situations in a professional setting. Internships are assigned on the basis of student's interest and the availability of positions.
Academic Career: UGRD
Course Component: Internship
Grade Component: Satisfactory/No Credit
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

Writing

WRITNG 0103 - NEWSPAPER STAFF (THE SOURCE)
Minimum Credits: 1
Maximum Credits: 3
Students write, edit, design, sell advertising, take photographs, prepare camera-ready art and distribute this bimonthly newspaper of record for Pitt-Bradford, The Source.
Academic Career: UGRD
Course Component: Practicum
Grade Component: Satisfactory/No Credit
WRITNG 0105 - LITERARY MAGAZINE
Minimum Credits: 3
Maximum Credits: 3
Production of the student literary magazine includes editing and proofreading, layout and design, desktop, preparation of text, publicity and promotion. The activity may be repeated (pass/fail only) for one credit per semester up to three credits per semester, earning a cumulative total of no more than 6 credits. Activity credit.
Academic Career: UGRD
Course Component: Practicum
Grade Component: LG/SNC Elective Basis

WRITNG 0106 - INTRODUCTION TO FICTN WRITING
Minimum Credits: 3
Maximum Credits: 3
The basic techniques in fiction writing: description, dialogue, characterization, plot. Students complete a number of short sketches and a final short story. Lecture, discussion, and writing exercises. Suitable for writing or literature majors.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis

WRITNG 0107 - BEGINNING POETRY WRITING
Minimum Credits: 3
Maximum Credits: 3
An examination of formal and philosophical trends in contemporary verse and their historical precedents in order to help students develop a personal approach to creating poetry. Reading assignments and in-class writing exercises present students with introductory approaches to writing poetry.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis

WRITNG 0108 - INTRO TO CREATIVE NONFICTION
Minimum Credits: 3
Maximum Credits: 3
An introduction to the use of personal experience and history, as well as thoughtful observation, in the writing of creative essays, autobiography, and/or memoir.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis

WRITNG 0111 - LITRY EDITING/MAGAZINE PROD 1
Minimum Credits: 3
Maximum Credits: 3
An introductory seminar in the philosophical and practical issues of magazine production. Students will work in practical situations to become acquainted with the field of literary editing and magazine production including production values, editing practices, proofreading, layout and design, preparation of text, publicity, and promotion. Coursework will include researching and studying the history and traditions of literary magazines and examining ethical issues related to print media.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis

WRITNG 0197 - DIRECTED STUDY
Minimum Credits: 1
Maximum Credits: 6
Independent study in a topic in writing. Permission of the instructor is required.
WRITNG 0211 - LITRY EDITING/MAGAZINE PROD 2
Minimum Credits: 3
Maximum Credits: 3
An intermediate seminar in the philosophical and practical issues of magazine production. Students will continue work begun in literary editing and magazine production 1, further developing skills and knowledge of production values, editing practices, proofreading, layout and design, preparation of text, publicity, and promotion. Coursework will include researching and studying the history and traditions of literary magazines and examining ethical issues related to print media.

WRITNG 0220 - FEATURE WRITING
Minimum Credits: 3
Maximum Credits: 3
This course will explore feature writing for newspapers and magazines including the research and development of articles through revision and editing and reading of models for inspiration.

WRITNG 0230 - POETRY ACROSS CULTURES
Minimum Credits: 3
Maximum Credits: 3
Students will read and write formal poetry from a variety of cultures - European, American, Asian, African, and Indian under the premise that you can best understand a culture by studying its poetry.

WRITNG 0250 - SPECIAL TOPICS
Minimum Credits: 3
Maximum Credits: 3
The study of a special topic in writing.

WRITNG 1302 - ADVANCED FICTION WRITING
Minimum Credits: 3
Maximum Credits: 3
A study of techniques of narration through examination of short fiction written by established authors and critique of student stories.

WRITNG 1304 - ADVANCED POETRY WRITING
Minimum Credits: 3
Maximum Credits: 3
A workshop in which craft and creative technique will be examined in the works of established contemporary and modern poets and explored through the writing and critique of poems.
WRITNG 1305 - TECHNICAL WRITING
Minimum Credits: 3
Maximum Credits: 3
This course is designed to teach students on-the-job writing skills. Much industrial writing is informative and involves explaining something to varied audiences. If you always hated awkward assembly instructions or confusing manuals, here's your chance to change the world. The course will teach techniques of audience analysis, user-testing and fog indexing to predict the success of a document. Organization of data will be stressed along with revision, team writing and document design.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1306 - BUSINESS WRITNG FOR 21 CENTUR
Minimum Credits: 3
Maximum Credits: 3
This course teaches effective written communication for the world of business management in the form of such documents as case studies, grant proposals, collaborative reports, PowerPoint and Prezi, email composition and etiquette, blog and website content, and social networking in the business world.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1310 - ADVANCED FEATURE WRITING
Minimum Credits: 3
Maximum Credits: 3
Three non-fiction articles are research, written, and revised. Students also read published examples of the form in magazines such as the New Yorker and the New York times Sunday magazine. Book-length examples of new non-fiction such as Tom Wolfe's "The Right Stuff" are also appropriate reading. Class periods consist of discussion of the reading and critiques of student articles.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1311 - LITRY EDITING/MAGAZINE PROD 3
Minimum Credits: 3
Maximum Credits: 3
An advanced seminar in the philosophical and practical issues of magazine production. Students will continue work begun in literary editing and magazine production 1, further developing skills and knowledge of production values, editing practices, proofreading, layout and design, preparation of text, publicity, and promotion. Coursework will include advanced work in layout and design.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1402 - WRITING FROM THE SELF
Minimum Credits: 3
Maximum Credits: 3
Through the writing of personal essays, autobiography, and/or memoirs, the student is encouraged to use personal experience and history as a way of laying claim to the world. The goal is to help beginning writers find their own subject and voice.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1450 - TOPICS IN WRITING
Minimum Credits: 3
Maximum Credits: 3
Advanced study of a special topic in journalism, fiction, poetry, or technical writing.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1451 - CAPSTONE: WRITING
Minimum Credits: 3
Maximum Credits: 3
A seminar which requires students to complete one or more major writing projects on and/or in a particular genre or topic and to give at least one seminar presentation.
Academic Career: UGRD
Course Component: Seminar
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1494 - UNDERGRAD FACULTY ASSISTANT
Minimum Credits: 1
Maximum Credits: 3
The undergraduate faculty assistant (UFA) serves as an assistant for a course or lab under the supervision of a faculty member. The experience develops students' communication and leadership skills, and their understanding of the learning process. The responsibilities of the UFA will vary by the faculty supervisor. Responsibilities might include (but not limited to): assisting students outside of class (e.g., conducting weekly review sessions), assisting with classroom demonstrations, or assisting faculty with delivery of labs.
Academic Career: UGRD
Course Component: Independent Study
Grade Component: Satisfactory/No Credit

WRITNG 1497 - DIRECTED STUDY: WRITING
Minimum Credits: 1
Maximum Credits: 6
Directed study is designed to give students the opportunity to design and carry out a research project to be agreed upon by the student and the supervising faculty member.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1498 - DIRECTED RESEARCH: WRITING
Minimum Credits: 1
Maximum Credits: 6
Independent work on a writing project in poetry, fiction, or nonfiction supervised by a member of the writing faculty.
Academic Career: UGRD
Course Component: Directed Studies
Grade Component: LG/SNC Elective Basis
Course Requirements: Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency

WRITNG 1499 - INTERNSHIP: WRITING
Minimum Credits: 1
Maximum Credits: 6
Practical experience in writing in a professional setting. Students work at campus or community offices and businesses, including newspapers and radio stations. Work is directed by the employer and evaluated jointly with the faculty supervisor.
**Academic Career:** UGRD

**Course Component:** Internship

**Grade Component:** Satisfactory/No Credit

**Course Requirements:** Prerequisites: Upper-Level Courses require completion of ENG 0101, ENG 0102, FS 0102, and the MATH competency