# Table of Contents

- Calendar ................................................................................. 3
- General Information ................................................................. 8
- Student Affairs ........................................................................ 13
- Admissions Policies .................................................................... 17
- Academic Policies ....................................................................... 20
- Tuition and Fees ......................................................................... 37
- Student Financial Aid ................................................................. 40
- Academic Curricula, Degrees, Certificates and Advisement .... 47
- College of Arts and Sciences ..................................................... 54
- Richard J. Wehle School of Business ...................................... 55
- School of Education and Human Services ............................ 56
- Programs of Study .................................................................... 59
- Accounting/Accounting Information Systems .......................... 59
- Adolescence Education .............................................................. 70
- Animal Behavior, Ecology and Conservation ....................... 87
- Bioinformatics ........................................................................... 92
- Biology ....................................................................................... 95
- Chemistry and Biochemistry .................................................... 103
- Classics ..................................................................................... 114
- Communication Studies ......................................................... 118
- Computer Science ..................................................................... 123
- Creative Writing ........................................................................ 128
- Digital Media Arts ..................................................................... 132
- Dual Degree Program (B.A./B.S.-M.B.A.) .............................. 133
- Economics and Finance ......................................................... 134
- Education (Early Childhood, Childhood and Special) ............ 142
- English .................................................................................... 156
- English as a Second Language ................................................ 162
- Entrepreneurship .................................................................. 164
- Environmental Science ............................................................ 169
- Environmental Studies .......................................................... 172
- European Studies .................................................................... 177
- Fine Arts ................................................................................ 179
- Health and Wellness ............................................................... 197
- History................................................................................... 200
- Humanities .............................................................................. 208
- Information Systems ............................................................... 210
- International Business ............................................................. 213
- International Relations ............................................................ 215
- Journalism ............................................................................... 219
- Latin American Studies .......................................................... 223
- Management .......................................................................... 225
- Marketing .............................................................................. 233
- Mathematics and Statistics ..................................................... 237
- Medical Laboratory Science ................................................. 242
- Military Science ...................................................................... 243
- Modern Languages .................................................................. 245
- Philosophy ............................................................................... 252
- Physical Education, Health Education and Sport Studies ........ 258
- Physics ...................................................................................... 267
- Political Science ...................................................................... 270
- Pre-Engineering (2+2) ............................................................. 275
- Pre-Engineering (3+2) ............................................................. 277
- Professional Technical Studies ............................................. 280
- Psychology ............................................................................. 281
- Religious Studies and Theology ............................................. 285
- Social Sciences Program ....................................................... 289
- Sociology, Anthropology and Criminal Justice ................. 291
- Specialty Studies ................................................................... 300
- Sports Management and Athletic Training .......................... 301
- Urban Studies .......................................................................... 308
- Certificate Programs ............................................................... 310
- Computer Science ................................................................. 310
- Women’s Studies .................................................................... 313
- Pre-Professional Programs ..................................................... 314
- Pre-Law (Raichle Pre-Law Center) .................................... 314
- Pre-Med (and Health Related Sciences) ............................ 315
- Pre-Pharmacy ....................................................................... 316
- Special Programs ................................................................... 317
- Interdisciplinary Minor in Catholic Studies ....................... 317
- All-College Honors Program ............................................... 319
- The Urban Leadership Learning Community ..................... 324
- External Business Programs .................................................. 325
- Center for Professional Development ................................ 325
- Women’s Business Center ..................................................... 326
- Directories ............................................................................. 327
- Administration ...................................................................... 327
- Faculty ................................................................................... 330
- Campus Map .......................................................................... 341
## Calendar 2011-2013

### Fall 2011

#### August
- **22** Monday  
  New Faculty Orientation.
- **23** Tuesday  
  New Faculty Orientation.
- **24** Wednesday  
  New Faculty Orientation.
- **29** Monday  
  Classes begin in all divisions.
  First day to apply for a course pass/fail.

#### September
- **2** Friday  
  Last day to apply for a course pass/fail.
- **3** Saturday  
  Last day to drop/add a class.
  Graduate Education classes in session.
- **5** Monday  
  Labor Day – No classes.
- **6** Tuesday  
  Withdrawal from classes begins.
  90% withdrawal refund.
- **13** Tuesday  
  50% withdrawal refund.
- **16** Friday  
  Spring 2012 schedule and advisement guide information to department chairs.
- **20** Tuesday  
  50% withdrawal refund.
- **23** Friday  
  Faculty Student Progress Report submission begins.
- **27** Tuesday  
  25% withdrawal refund.
- **30** Friday  
  Spring 2012 schedule due to associate deans.

#### October
- **4** Tuesday  
  25% withdrawal refund.
  Faculty Student Progress Report submission ends.
- **5** Wednesday  
  Spring 2012 advisement guide information due.
- **8** Saturday  
  Graduate Education classes in session.
- **10** Monday  
  Fall Holiday – No classes.
  Graduate Business classes in session.
- **11** Tuesday  
  Fall Holiday – No classes.
  25% withdrawal refund.
- **12** Wednesday  
  Student Progress report meetings with advisors begin.
- **14** Friday  
  Spring 2012 schedule and advisement guide online.
  End of first quarter.
- **18** Tuesday  
  25% withdrawal refund.

#### November
- **21** Friday  
  Student Progress report meetings with advisors ends.
- **25** Tuesday  
  No withdrawal refund.
- **28** Friday  
  Deficiency reporting begins.
- **29** Saturday  
  Spring 2012 undergraduate registration begins.
  Students with 84.0 or more credit hours earned begin to register.
- **31** Monday  
  Spring 2012 graduate registrations begins.

#### December
- **4** Friday  
  Deficiency reporting ends.
- **5** Saturday  
  Spring 2012 undergraduate registration.
  Students with 54.0 – 83.0 credit hours earned begin to register.
- **7** Monday  
  Deficiency notices mailed to students.
- **11** Friday  
  Veteran’s Day – Classes in session.
- **12** Saturday  
  Spring 2012 undergraduate registration.
  Students with 24.0 – 53.0 credit hours earned begin to register.
- **19** Saturday  
  Spring 2012 undergraduate registration.
  Students with 0.0 – 23.0 credit hours earned begin to register.

#### January
- **4** Tuesday  
  25% withdrawal refund.
- **23** Friday  
  Faculty Student Progress Report submission ends.
- **27** Tuesday  
  25% withdrawal refund.
- **30** Friday  
  Spring 2012 schedule due to associate deans.
  End of first quarter.

#### February
- **21** Monday  
  Summer session 2012 information to department chairs.
  Thanksgiving recess begins – No classes.
- **23** Wednesday  
  Thanksgiving.
- **25** Friday  
  No classes.
- **28** Monday  
  Classes resume.
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>December</td>
<td>5 Monday</td>
<td>First day to withdraw from a course pass/fail.</td>
</tr>
<tr>
<td></td>
<td>9 Friday</td>
<td>Undergraduate Classes end.</td>
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<tr>
<td></td>
<td>10 Saturday</td>
<td>Graduate classes end.</td>
</tr>
<tr>
<td></td>
<td>12 Monday</td>
<td>Final exams begin.</td>
</tr>
<tr>
<td></td>
<td>16 Friday</td>
<td>Undergraduate final exams end.</td>
</tr>
<tr>
<td></td>
<td>21 Wednesday</td>
<td>Final grades due 9 a.m.</td>
</tr>
<tr>
<td></td>
<td>22 Thursday</td>
<td>Final grades available on the web.</td>
</tr>
<tr>
<td></td>
<td>24 Saturday</td>
<td>Holiday shutdown begins.</td>
</tr>
<tr>
<td>10</td>
<td>Saturday</td>
<td>Graduate Education classes in session.</td>
</tr>
<tr>
<td>12</td>
<td>Monday</td>
<td>Spring break begins – No classes.</td>
</tr>
<tr>
<td>13</td>
<td>Tuesday</td>
<td>No withdrawal refund.</td>
</tr>
<tr>
<td></td>
<td>19 Monday</td>
<td>Fall 2012 schedule and advisement guide available on the web.</td>
</tr>
<tr>
<td>23</td>
<td>Friday</td>
<td>Deficiency reporting begins.</td>
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<tr>
<td></td>
<td></td>
<td>Student Progress Report meetings with advisors end.</td>
</tr>
<tr>
<td>31</td>
<td>Saturday</td>
<td>Fall 2012 undergraduate registration begins.</td>
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<tr>
<td></td>
<td></td>
<td>Students with 72.0 or more credit hours earned begin to register.</td>
</tr>
<tr>
<td>April</td>
<td>2 Monday</td>
<td>Deficiency notices mailed to students.</td>
</tr>
<tr>
<td></td>
<td>4 Wednesday</td>
<td>Fall 2012 graduate registration begins.</td>
</tr>
<tr>
<td></td>
<td>5 Thursday</td>
<td>Easter recess begins – No classes.</td>
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<tr>
<td></td>
<td>9 Monday</td>
<td>Easter recess - No classes.</td>
</tr>
<tr>
<td></td>
<td>10 Tuesday</td>
<td>Graduate Business classes in session.</td>
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<td></td>
<td>14 Saturday</td>
<td>Fall 2012 undergraduate registration.</td>
</tr>
<tr>
<td></td>
<td>20 Friday</td>
<td>Students with 42.0 – 71.0 credit hours earned begin to register.</td>
</tr>
<tr>
<td></td>
<td>21 Saturday</td>
<td>Fall 2012 undergraduate registration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students with 0.0 – 41.0 credit hours earned begin to register.</td>
</tr>
<tr>
<td>February</td>
<td>1 Wednesday</td>
<td>Summer 2012 schedules due.</td>
</tr>
<tr>
<td></td>
<td>7 Tuesday</td>
<td>50% withdrawal refund.</td>
</tr>
<tr>
<td></td>
<td>10 Friday</td>
<td>Fall 2012 schedule and advisement guide information to department chairs.</td>
</tr>
<tr>
<td></td>
<td>14 Tuesday</td>
<td>25% withdrawal refund.</td>
</tr>
<tr>
<td></td>
<td>17 Friday</td>
<td>Student Progress Report submission begins.</td>
</tr>
<tr>
<td></td>
<td>18 Saturday</td>
<td>Graduate Education classes in session.</td>
</tr>
<tr>
<td></td>
<td>20 Monday</td>
<td>President’s Day holiday – No classes.</td>
</tr>
<tr>
<td></td>
<td>21 Tuesday</td>
<td>Graduate Business classes in session.</td>
</tr>
<tr>
<td></td>
<td>27 Monday</td>
<td>Fall 2012 schedules due to associate deans.</td>
</tr>
<tr>
<td></td>
<td>28 Tuesday</td>
<td>25% withdrawal refund.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student Progress Reports due.</td>
</tr>
<tr>
<td>March</td>
<td>2 Friday</td>
<td>Advisement guide information due.</td>
</tr>
<tr>
<td></td>
<td>5 Monday</td>
<td>Summer 2012 schedule available on the web.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student Progress Report meetings with advisors begin.</td>
</tr>
<tr>
<td></td>
<td>6 Tuesday</td>
<td>25% withdrawal refund.</td>
</tr>
<tr>
<td></td>
<td>9 Friday</td>
<td>End of third quarter.</td>
</tr>
<tr>
<td>4</td>
<td>Friday</td>
<td>Undergraduate classes end.</td>
</tr>
<tr>
<td>5</td>
<td>Saturday</td>
<td>Last day to withdraw from a course pass/fail program.</td>
</tr>
<tr>
<td>7</td>
<td>Monday</td>
<td>Last day to withdraw from pass/fail program.</td>
</tr>
<tr>
<td>11</td>
<td>Friday</td>
<td>Undergraduate final exams end.</td>
</tr>
<tr>
<td>12</td>
<td>Saturday</td>
<td>Graduate final exams end.</td>
</tr>
<tr>
<td>16</td>
<td>Wednesday</td>
<td>Final grades due 9:00 a.m.</td>
</tr>
<tr>
<td>17</td>
<td>Thursday</td>
<td>Final grade web grade entry off.</td>
</tr>
<tr>
<td>18</td>
<td>Friday</td>
<td>Graduate Commencement Ceremony</td>
</tr>
<tr>
<td>19</td>
<td>Saturday</td>
<td>Final grades available on the web.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Graduate Commencement Ceremony</td>
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<tr>
<td></td>
<td></td>
<td>Spring Honors Convocation.</td>
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<tr>
<td></td>
<td></td>
<td>Baccalaureate Mass.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Undergraduate Commencement Ceremony</td>
</tr>
</tbody>
</table>
Summer 2012

May
21 Monday First Undergraduate 5 week summer session begins.
   First Graduate Business 6 week summer session begins.
   First Graduate Education 5 week summer session begins.
28 Monday Memorial Day – No classes.

June
1 Friday Graduate Business make-up classes for Memorial Day.
21 Thursday First Undergraduate 5 week summer session ends.
   First Graduate Education 5 week summer session begins.
25 Monday Second Undergraduate 5 week summer session begins.
28 Thursday First Graduate Business 6 week summer session ends.

July
2 Monday Second Graduate Education 5 week summer session begins.
   Second Graduate Business 6 week summer session begins.
4 Wednesday Fourth of July – No classes.
6 Tuesday Graduate Business make-up classes for Fourth of July.
26 Thursday Second Undergraduate 5 week summer session ends.

August
2 Thursday Second Graduate Education 5 week summer session ends.
9 Thursday Second Graduate Business 6 week summer session ends.

Fall 2012 Semester

August
20 Monday New faculty orientation.
21 Tuesday New faculty orientation.
23 Wednesday New faculty orientation.
27 Monday Classes begin in all divisions.
   First day to apply for a course pass/fail.
31 Friday Last day to apply for a course pass/fail.

September
1 Saturday Last day to drop/add a class.
   Graduate Education classes in session.
   Labor Day – No classes.
3 Monday Withdrawal from classes begins.
   90% withdrawal refund.
4 Tuesday 50% withdrawal refund.
11 Tuesday Spring 2013 schedule and advisement guide information to department chairs.
14 Friday Spring 2013 schedule and advisement guide information to department chairs.

October
2 Tuesday 25% withdrawal refund.
5 Friday Advisement guide information due.
8 Monday Graduate Business classes in session.
9 Tuesday Fall Holiday – No classes.
10 Wednesday Student Progress Reports due.
12 Friday End of first quarter.
15 Monday Spring 2013 schedule and advisement guide available on the web.
16 Tuesday 25% withdrawal refund.
23 Tuesday No withdrawal refund.
26 Friday Deficiency reporting begins.

November
2 Friday Spring 2013 undergraduate registration begins.
3 Saturday Students with 84.0 or more credit hours earned begin to register.
27 Saturday Spring 2013 graduate registration begins.

December
3 Monday First day to withdraw from pass/fail option.
7 Friday Undergraduate classes end.
   Last day to withdraw from a course.
   Last day to withdraw from pass/fail option.
8 Saturday Graduate classes end.
<table>
<thead>
<tr>
<th>Date</th>
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<th>Event</th>
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<tbody>
<tr>
<td>10</td>
<td>Monday</td>
<td>Final exams begin.</td>
</tr>
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<td>14</td>
<td>Friday</td>
<td>Undergraduate final exams end.</td>
</tr>
<tr>
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<td>Wednesday</td>
<td>Final grades due 9:00 a.m.</td>
</tr>
<tr>
<td>20</td>
<td>Thursday</td>
<td>Final grades available on the web.</td>
</tr>
<tr>
<td>22</td>
<td>Saturday</td>
<td>College shutdown begins.</td>
</tr>
</tbody>
</table>

**Spring 2013 Semester**

**January**
- 2nd Wednesday: College reopens after holiday shutdown.
- 14th Monday: Classes begin in all divisions. First day to apply for course pass/fail.
- 18th Friday: Last day to apply for course pass/fail.
- 19th Saturday: Last day to drop/add a class. Graduate Education classes in session.
- 21st Monday: Martin Luther King Day – No classes.
- 22nd Tuesday: Withdrawal from classes begins. 90% withdrawal refund.
- 29th Tuesday: 50% withdrawal refund.

**February**
- 5th Tuesday: 50% withdrawal refund.
- 12th Tuesday: 25% withdrawal refund.
- 15th Friday: Fall 2013 schedule and advisement guide information to department chairs. Student Progress Report submissions begin.
- 18th Monday: President’s Day holiday – No classes. Graduate Business classes in session.
- 19th Tuesday: President’s day holiday. No classes. 25% withdrawal refund.
- 26th Tuesday: 25% withdrawal refund. Student Progress Reports due.

**March**
- 1st Friday: Fall 2013 schedules due to associate deans.
- 5th Tuesday: 25% withdrawal refund.
- 8th Friday: Advisement guide information due. End of third quarter.
- 12th Tuesday: No withdrawal refund.
- 15th Friday: Deficiency reporting begins. Student Progress Report meetings with advisors end.
- 22nd Friday: Deficiency reporting ends.
- 25th Monday: Deficiency notices mailed to students. Fall 2013 schedule and advisement guide available on the web.

**April**
- 13th Saturday: Fall 2013 undergraduate registration begins. Students with 72.0 or more credit hours earned begin to register.
- 15th Monday: Fall 2013 graduate registration begins.
- 19th Friday: Ignatian Scholarship Day.
- 20th Saturday: Fall 2013 undergraduate registration. Students with 42.0 – 71.0 credit hours earned begin to register.
- 27th Saturday: Fall 2013 undergraduate registration. Students with 0.0 – 41.0 credit hours earned begin to register.
- 29th Monday: First day to withdraw from pass/fail option.

**May**
- 3rd Friday: Undergraduate classes end. Last day to withdraw from a course. Last day to withdraw from pass/fail option.
- 4th Saturday: Graduate classes end. Final exams begin. Final grade web entry on.
- 6th Monday: Final exams begin. Final grade web entry off.
- 10th Friday: Undergraduate final exams end.
- 11th Saturday: Graduate final exams end.
- 15th Wednesday: Final grades due 9:00 a.m. Final grade web entry off.
- 16th Thursday: Undergraduate Commencement Ceremony.
- 18th Saturday: Graduate Commencement Ceremony.

**June**
- 20th Monday: First Undergraduate 5 week summer session begins.
- 27th Monday: Memorial Day – No classes. Graduate Business make-up session for Memorial Day.
| June       | 20 Thursday | First Undergraduate 5 week summer session ends. First Graduate Education 5 week summer session ends. | 12 Saturday | End of first quarter. Graduate Education classes in session. |
|           |            | Second Undergraduate 5 week summer session begins. | 14 Monday   | Fall Holiday – No classes. Graduate Business classes in session. |
|           | 24 Monday  | First Graduate Business 6 week summer session ends. | 15 Tuesday  | Fall Holiday – No classes. 25% withdrawal refund. |
|           | 27 Thursday| Graduate Education classes in session. | 16 Wednesday | Student Progress Report meetings with advisors begin. |
| July      | 1 Monday   | Second Graduate Education 5 week summer session begins. Second Graduate Business 6 week summer session begins. | 21 Monday   | Spring 2014 schedule and advisement guide available on the web. |
|           | 4 Thursday | Fourth of July holiday – No classes. | 22 Tuesday  | No withdrawal refund. |
|           | 5 Friday   | Graduate Business make-up session for Fourth of July. | 25 Friday   | Student Progress Report meetings with advisors end. |
|           | 25 Thursday| Second Undergraduate 5 week summer session ends. |               | |
| August    | 1 Thursday | Second Graduate Education 5 week summer session begins. |               | |
|           | 8 Thursday | Second Graduate Business 6 week summer session ends. |               | |
|           |            |               |               | |
| November  | 1 Friday   |               |               | |
|           | 2 Saturday |               |               | |
|           | 24 Monday  |               |               | |
|           | November   |               |               | |
|           | 1 Monday   |               |               | |
|           | 2 Saturday |               |               | |
| November  | 11 Monday  |               |               | |
|           | 16 Saturday|               |               | |
|           | 25 Thursday|               |               | |
| Fall 2013 Semester                        |               |               |               | |
| August    | 19 Monday  | New faculty orientation. | 18 Monday   | Summer 2014 schedule information to department chairs. |
|           | 20 Tuesday | New faculty orientation. | 23 Saturday | Spring 2014 undergraduate registration begins. |
|           | 21 Wednesday| New faculty orientation. | 27 Wednesday| Spring 2014 undergraduate registration begins. |
|           | 26 Monday  | Classes begin in all divisions. | 28 Thursday | Students with 54.0 – 83.0 credit hours earned begin to register. |
|           | 30 Friday  | First day to apply for a course pass/fail. | 29 Friday   | Thanksgiving Recess begins. No classes. |
|           | 31 Saturday| Last day to apply for a course pass/fail. | 30 Saturday | No classes. |
| September | 2 Monday   | Labor Day – No classes. | 2 Monday    | Classes resume. |
|           | 3 Tuesday  | Withdrawal from classes begins. 90% withdrawal refund. | 6 Friday    | First day to withdraw from pass/fail. Undergraduate classes end. |
|           | 10 Tuesday | 50% withdrawal refund. | 13 Friday   | Last day to withdraw from a course. Last day to withdraw from pass/fail. |
|           | 17 Tuesday | 50% withdrawal refund. | 14 Saturday | Graduate classes end. Final Exams begin. |
|           | 18 Wednesday| Spring 2014 schedule and advisement guide information to department Chairs. | 15 Monday   | Final grade web entry on. |
|           | 24 Tuesday | 25% withdrawal refund. | 16 Wednesday| Undergraduate final exams end. |
|           | 27 Friday  | Student Progress Report submission begins. | 18 Wednesday| Graduate final exams end. Final grades due 9:00 a.m. |
| October   | 1 Tuesday  | 25% withdrawal refund. | 19 Thursday | Final grade web entry off. |
|           | 4 Friday   | Spring 2014 schedules due to associate deans. | 24 Tuesday  | Final grades available on the web. |
|           | 8 Tuesday  | 25% withdrawal refund. Student Progress Reports due. |               | College holiday shutdown begins. |
|           | 11 Friday  | Spring 2014 advisement guide information due. |               | |
The college and its mission
Founded by the Jesuits in 1870, Canisius College is an independent, co-educational, medium sized institution of higher education conducted in the Catholic and Jesuit tradition. It offers undergraduate programs built upon a liberal arts core curriculum, leading to associate and baccalaureate degrees, plus graduate programs in business, education and other professional fields leading to the master's degree.

Canisius espouses the ideal of academic excellence along with a sense of responsibility to use one's gifts for the service of others and the benefit of society. It seeks to promote the intellectual and ethical life of its students, helping to prepare them for productive careers as well as for meaningful personal lives and positive contributions to human progress. Its curricular and co-curricular programs are designed to educate the whole person through the development of intellectual, moral, spiritual and social qualities. It aims to promote the contemporary Jesuit mission of the service of faith and the promotion of justice.

As a Catholic institution which welcomes all who share in its quest, Canisius will:

• Foster an atmosphere of understanding and respect in dialog with other intellectual and spiritual traditions.
• Teach the responsible use of human freedom in a value-oriented curriculum and co-curriculum which incorporate concern for spiritual and human factors as well as more pragmatic ones.
• Continue the Jesuit principle of care for individual persons.
• Emphasize excellence in teaching, marked by intellectual vigor, close student-faculty relations, and an expectation of active rather than passive learning.
• Prepare students to assume positions of leadership in church and society.
• Foster a sense of community among its students and staff through personal interaction marked by friendliness, respect, openness and integrity.

As an urban college, Canisius enjoys a special relationship with the city of Buffalo. The concept of community service on which the college prides itself is best evidenced by the large number of Canisius graduates who have occupied important positions in the professional, educational, commercial and political life of the city and its surrounding communities.

Buffalo's largest private college is named after Saint Peter Canisius, a 16th-century Dutch scholar. The college's founders were guided by the same educational ideals which inspired several European universities and initiated a tradition of service to student and community.

Starting out as a single building in the center of downtown Buffalo, Canisius College has since expanded to cover the more than 72 acres and 36 academic buildings on its campus on Main Street. It is easily accessible by expressway, subway and bus routes.

In addition to the College of Arts and Sciences, Canisius includes the Richard J. Wehle School of Business, the School of Education and Human Services, a Graduate Division and a Summer Session, with a total enrollment for 2011-2012 of nearly 5,100 students.

Canisius College is a private, independent Roman Catholic college. It is governed by an independent self-perpetuating Board of Trustees under a charter granted by the Board of Regents of the University of the State of New York.

Institutional learning goals
These broad learning goals express the college's expectations and hopes for all students who study within its walls, no matter what path the student takes through the college experience. All of the college's efforts will be in support of one or more of the goals, but not every student will achieve each goal in the same way.

The goal statements are declarative sentences in the present tense. In practice, students move at different paces toward these goals, and assessment of goals occurs at appropriate times and places throughout the educational experience.

Goal 1. Academic Excellence — Canisius students:
   a. in the Jesuit tradition, are intentional learners who can adapt to new environments, integrate knowledge, and continue learning throughout their lives.
   b. demonstrate a breadth of knowledge across many humanistic, scientific, and social scientific fields.
   c. demonstrate a depth of knowledge in one or more fields of learning; they demonstrate the skills and habits of mind that derive from that knowledge and sustain its further growth.

Goal 2. Communication Skills — Canisius students:
   a. demonstrate that they can write and speak with clarity and precision in both their academic disciplines and in more general situations.
   b. demonstrate that they can listen and read with both literal comprehension and critical awareness in both their academic disciplines and more general situations.
   c. integrate current technologies into research and communication.

Goal 3. Integrity and Civility — Canisius students:
   a. demonstrate knowledge of general ethical and moral issues as well as ones specific to their fields of study.
   b. act with civility and integrity in pursuit of the responsible use of human freedom.
Goal 4. Critical Thinking and Problem Solving — Canisius students:
   a. synthesize new knowledge and apply it to present and future problems.
   b. identify, analyze, and comprehend the assumptions and underlying premises in a variety of academic and real-world arguments, conflicts and debates.
   c. demonstrate that they can find, evaluate and effectively use information while understanding the ethical and legal issues governing academic and professional work.

Goal 5. Community Involvement and Leadership — Canisius students:
   a. demonstrate leadership in the service of others, in intellectual and spiritual inquiry and in assuming positions of responsibility in the community and marketplace.
   b. use their gifts for the service of others and the benefit of society.

Goal 6. Catholic Jesuit Intellectual Tradition — Canisius students:
   a. demonstrate a familiarity with dimensions of the Catholic and Jesuit intellectual traditions as they occur in literature, art, science and social teaching.

Accreditation
Canisius College received its authority to confer bachelor’s degrees in 1883 when it was incorporated by the Regents of the University of the State of New York. In 1894, the college offered its first course in the graduate program leading to the degree of master of arts.

Canisius College is an accredited member of the Middle States Association of Colleges and Schools, Commission on Higher Education. All of the college’s programs are registered by the Regents of the University of the State of New York through the State Education Department. The undergraduate programs in Business Administration and the M.B.A. program are accredited by the Association to Advance Collegiate Schools of Business International. The chemistry major is accredited by the American Chemical Society, and the athletic training major by the Commission on Accreditation of Allied Health Education Programs. The programs of the School of Education and Human Services designed to prepare students for school-based careers are accredited by the National Council for Accreditation of Teacher Education. The Graduate Program for Teachers of the Deaf is accredited by the Council on the Education of the Deaf. The Graduate Programs in Counseling are accredited by the Council for the Accreditation of Counseling and Related Educational Programs.

Campus Ministry
Campus Ministry supports the spiritual and religious life of the campus with activities open to students and staff of all faiths. Campus Ministry seeks to empower students, faculty, administrators, staff and alumni as persons of faith “for and with others” in the Catholic, Jesuit tradition.

In addition to providing for a vital Roman Catholic liturgical and sacramental life, the campus ministry team:
   • offers opportunities for spiritual retreats.
   • organizes opportunities for prayer and small faith communities.
   • promotes opportunities for service to those in need, both locally and through domestic and international service-immersion trips.
   • promotes ethical values and educates and organizes around issues of social justice and peace.
   • provides pastoral counseling and spiritual direction.

Mission statement
“Campus Ministry at Canisius College is missioned to empower our students, faculty, administrators, staff and alumni to grow as leaders and persons for others within Church and community. We do this in the spirit of Jesus and the Jesuit tradition. We are guided by the cornerstones of spirituality, community, simplicity of life and service and are committed to work toward justice with people of all faiths.”

The Faculty
The college seeks faculty members known to be creative and energetic teachers who also seek to engage their students in their research and scholarship. Modest class size is the norm, and interaction among students and faculty is easy and natural.

Canisius’ full time faculty members have degrees from over 100 different universities, including 27 degrees from Europe, ten from Asia/Pacific, 16 from Canada and two from South America. Each of the 230 full-time faculty members has been chosen for his or her academic competence, ability to teach, interest in research and moral integrity. The college’s present faculty is a group of highly trained, dedicated individuals who take a personal interest in the students under their charge. Over 96 percent have earned doctoral or terminal degrees in their fields.

Over 280 individuals from the fields of law, health care, education, business, government, science, technology and the arts contribute as part time faculty members to the mission of Canisius College.

The Library
The quality of any educational institution is determined largely by the proficiency of its faculty and the excellence of the information resources available to support the curriculum.

The Andrew L. Bouwhuis Library is evolving into a learning commons to better accommodate collaborative learning styles and to provide additional support for student learning. The building now has ample study facilities, computers, a curriculum materials center for K-12 teacher training, group work rooms, audio-visual areas, and a Tim Horton’s coffee shop. Canisius students have at their disposal an excellent library collection of over 400,000 volumes of books, periodicals, microforms and other materials. The Library subscribes to approximately 30,000 full text electronic periodicals as well as to hundreds of paper journal subscriptions. Electronic resources can
also be accessed from computer labs and residence halls through the campus network and from off-campus via the web. The Library has a substantial complement of computer equipment to access these resources, including over 50 laptop computers with wireless network access that may be used by students within the building.

Canisius students have convenient and rapid access to over eight million volumes in the ConnectNY consortium and to the extensive research collections of the Center for Research Libraries. Additional library materials are available via Interlibrary Loan.

When school is in session, the Library is open every day of the week for study and research and is open nights until 2:00 a.m. from Sunday through Thursday. Assistance and guidance in the use of the Library and its facilities are provided by a highly competent staff of professional librarians and technical assistants.

The Rev. J. Clayton Murray, S.J. Archives, located in Bouwhuis Library, houses information related to the history of Canisius College. Visitors and researchers are welcome.

Computer Facilities

Wireless networking is available throughout the campus. Instructional computing facilities include over 300 personal computers, as well as scanners and printers. Computers in student labs have access to word processing, spreadsheet, database, presentation, web development, and statistical analysis software. There are several Internet Plazas located around campus where students may check their electronic mail or access the web. All computers are connected to the Internet and have access to extensive online research databases provided by the Andrew L. Bouwhuis Library. Laptops for loan and wireless networking are available for use in the Bouwhuis Library.

Canisius College has an extensive web site at www.canisius.edu that includes web-based electronic mail, course materials, course discussion boards and course registration.

Residence halls are wired for satellite TV (including several Canisius-oriented channels) and Internet access. Most classrooms provide video and computer projection for the instructor.

Several departments, including Digital Media Arts and Computer Science, maintain a substantial complement of computing equipment specific to their needs.

Career Center

Choosing a career path is one of the most important decisions made by any college student. Obtaining a college education and planning one’s future occupation are activities closely bound to each other. For this reason, Canisius College provides a number of programs and services through the Career Center that are designed to help students define their career goals and be well prepared to ensure a successful transition from student life to the world of work. Services that are available include:

Career Counseling: Individual sessions with a career counselor are always available. Students make appointments to discuss career interests, assess skills and interests, determine the best matches between academic major and post-graduate career, review resumes and develop career strategies.

Career Assessment: All students will have access to self-assessment tools, including the Strong Interest Inventory, to assist them in determining the areas of their occupational interests.

Career Library: An extensive collection of career research resources and self-help career-related materials are available to students and alumni.

Workshops: The Career Center collaborates with Residence Life, Student Activities and other divisions of the college to provide workshops on career-related topics such as interview skills, resume writing and job search strategies.

Web-Based Job Posting Bulletin Board: An on-line, web based job bulletin board lists full and part-time positions, internships and seasonal and volunteer opportunities.

On-Campus Recruiting, Job Fairs, Career Days: Regularly scheduled events provide access to employers from public, private and non-profit organizations.

Students discover that career services are best used early during the college years. Freshmen and sophomores will find the Career Center an excellent source of information on occupations and majors. Juniors refine their career objectives, identify specific career paths and seek internships, as well as volunteer and job opportunities that will aide in their job search. Seniors can take advantage of a variety of programs, such as on-campus recruiting and networking events that are intended to assist them in obtaining their first professional position.

Community-Based Learning: Forming the Complete Student

Community-Based Learning (CBL) is an academic course-based pedagogy that combines formal academics with direct “real-world” exposure to an issue in a community setting. CBL may involve experiential education, immersion experiences, researching community needs, and service-learning. Service-Learning is the incorporation of community service within academic courses, together with structured reflection upon that experience and its connection to the course. The service becomes “a text” within the course. It is called service-learning when it is required within a course.

As an educational method, Service-Learning provides students with fertile ground on which to test theories acquired in the classroom and to concretize abstract thought.
Research has indicated that students involved in Service-Learning courses agree that their service experience helped them better understand the course, and has benefited them personally. Service-Learning is also “values education.” The development and formation of values arise out of a social consciousness of the situation of the other, especially the other who is deprived in some way. Service-Learning attempts to make students more aware of social injustices, causes them to consider serious civic engagement in society and introduces them to the challenges and possibilities of systemic change.

The integration of Service-Learning into an undergraduate or graduate course has five key components:

1. Service activities may be mandatory or optional. When the service is optional, it is called a community-based learning option. The number of service hours can vary, but the suggested norm over a semester is 15-20.

2. Clear connections exist between service activities and the academic discipline.

3. Service activities benefit the one receiving the service, the students, the service partner and the university in a significant way.

4. Students engage in a carefully articulated reflection process around the service, the discipline and the way in which the experience has affected them.

5. Assessment of the outcomes of the service experience is done through evaluations by the service agency, the student and the professor.

For more information, go to the Community-Based Learning website at www.canisius.edu/communitybasedlearning.

International Partnerships and Study Abroad
Students who study abroad say that it is a life-changing experience. Whether you spend a semester or a year abroad, living and learning in another country will open the doors to unique personal and professional experiences as well as improve foreign language skills. Some programs enable students to work as volunteers or interns during their stays and combine language and culture courses with their academic work. The Office of International Partnerships and Study Abroad is continually improving and increasing the options made available to Canisius students interested in expanding their horizons. There are both undergraduate and graduate programs that promote or allow for study abroad opportunities. Canisius offers study abroad programs in the following cities:

Strasbourg, France — University of Strasbourg
Antwerp, Belgium — University of Antwerp
Beijing, China — The Beijing Center for Chinese Studies
Berlin, Germany — Berlin School of Economics
Dortmund, Germany — Technical University of Dortmund
Eichstaett, Germany — Catholic University of Eichstaett
El Salvador — Casa de Solidaridad, University of Central America
Florence, Italy — Lorenzo De'Medici University
Galway, Ireland — National University of Ireland at Galway
Lille, France — The Catholic University of Lille
London, England — London Metropolitan University
Madrid, Spain — Pontifical University Comillas Madrid
Manilla, Philippines — Ateneo de Manilla
Oviedo, Spain — University of Oviedo
Porto Alegre, Brazil — Federal University Rio Grande do Sul
Puerto Rico — Sacred Heart University
Rio de Janeiro, Brazil — Pontifical Catholic University
Queensland, Australia — University of the Sunshine Coast
Rome, Italy — Lorenzo De'Medici University
Seoul, Korea — Sogang University
Tokyo, Japan — Sophia University
Uppsala, Sweden — Uppsala University
OFFICE OF PROFESSIONAL STUDIES
Khalid W. Bibi, Ph.D., Executive Director

Mission Statement
The mission of the Office of Professional Studies is to help adult learners, non-traditional students and working professionals further their education and career opportunities. Wide-ranging and academically innovative programs are being developed to respond to the needs of today's professionals. These new areas of study are co-developed by Canisius faculty and outside partners including industry experts, professional associations, consulting organizations and businesses. The programs are provided in creative scheduling formats and education delivery methods designed to meet the needs of working professionals. Focused on academic excellence, the Office of Professional Studies is committed to continual self-assessment with the goal of achieving outstanding results.

General Goals of the Office of Professional Studies
• To demonstrate a dedication to the mission and goals of Jesuit education, including the promotion of lifelong learning;
• To respond to local and national markets by providing innovative and unique programs of study in a variety of formats;
• To serve the community;
• To provide the foundation for additional studies and higher degrees;
• To provide administrative support services consistent with the special needs of adult learners.

Student Retention
Retention from freshman to sophomore years has been as follows for the last three years:
Class of 2011 (entering 2007) – 82.5%
Class of 2012 (entering 2008) – 82.3%
Class of 2013 (entering 2009) – 83.7%

As defined by the federal government, the retention rate is the percentage of first-time bachelor's degree-seeking undergraduates from the previous fall who are again enrolled in the current fall. Freshmen are defined as those who registered prior to their initial matriculation. Sophomores are those still registered following the drop/add period one year later.

Non-discrimination
Canisius College does not discriminate on the basis of age, race, religion or creed, color, sex, national or ethnic origin, sexual orientation, marital status, veteran's status, genetic predisposition or carrier status, or disability in administration of its educational policies, employment practices, admissions policies, scholarship and loan programs, and athletic and other school administered programs.

Canisius admits students of any age, race, religion or creed, color, sex, national or ethnic origin, sexual orientation, marital status, or veteran's status to all rights, privileges, programs and activities generally accorded or made available to students at the college. It continues to be the policy of Canisius College not to discriminate on the basis of handicap. No person is denied employment, admission, or access solely because of any physical, mental, or medical impairment which is unrelated to the ability to engage in the activities involved in the education requirements or occupation for which application has been made.

Course Offerings
Actual offerings are listed in the online course schedule produced each semester by the Office of Student Records.

1 Commission on Higher Education, Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104 Telephone: (215) 662-5600
2 University of the State of New York, State Education Department, Board of Regents, Room 110EB, Albany, NY 12234 Telephone: (518) 474-5889
3 Association to Advance Collegiate Schools of Business-International, 777 South Harbour Island Blvd, Suite 750, Tampa, FL 33602-5730 Telephone: (813) 769-6500
4 American Chemical Society, 1155 Sixteenth St, NW, Washington, DC 20036 Telephone: (800) 227-5558 (US only) 202-872-4600
5 Commission on Accreditation of Allied Health Education Programs, 1361 Park St, Clearwater, FL 33756 Telephone: (727) 210-2354
6 National Council for Accreditation of Teacher Education, 2010 Massachusetts Ave, NW, Suite 500, Washington, DC 20036-1023 Telephone (202) 466-7496
7 Council on the Education of the Deaf, Dr. Tony Martin, Lamar University, PO Box 10076, Beaumont, TX 77710 Telephone (409) 880-8175
8 Council for Accreditation of Counseling and Related Educational Programs, 1001 North Fairfax Street, Suite 510, Alexandria, VA 22314, Telephone (703) 535-5990
Student Affairs

Participation at all levels of the college’s operation is an important part of the student experience at Canisius. Student involvement is a valuable part of each individual’s learning process and to the college as a whole, enabling the institution to draw upon the creativity, innovation and leadership of its students in its efforts to serve them better.

Students discover that education takes place both inside and outside of the classroom. In keeping with the Jesuit ideal of educating the whole person, students learn and develop a complete sense of self through participation in such experiences as life in the residence halls, co-curricular activities, organizational membership and leadership, social involvement in the community and membership on the various college committees. Through such involvement in the entire life of the college community, a student’s years at Canisius will be a time of intellectual growth, advancement in self-knowledge and an improved knowledge of others.

Division of Student Affairs

The vice president for student affairs and the dean of students, with the aid of staff and various committees, determine all student affairs policies and procedures for the college, subject to the approval of the president.

Assistance to students is provided by the following offices:

<table>
<thead>
<tr>
<th>Athletics Intercollegiate</th>
<th>ALANA Student Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics Intramural Athletics</td>
<td>Public Safety</td>
</tr>
<tr>
<td>Campus Programming and Leadership Development</td>
<td>Residence Life</td>
</tr>
<tr>
<td>Counseling Center</td>
<td>Student Affairs/Community Relations</td>
</tr>
<tr>
<td>Student Academic Support Services</td>
<td>Student Center</td>
</tr>
<tr>
<td>International Student Programs</td>
<td>Student Health Center</td>
</tr>
</tbody>
</table>

| Leadership Development |

Athletics

Canisius College conducts an extensive athletics program for both men and women, including varsity sports (NCAA Division I), clubs and intramural opportunities.

Varsity Sports: Men—baseball, basketball, cross country, golf, ice hockey, lacrosse, soccer, swimming and diving.

Women—basketball, cross country, lacrosse, rowing, soccer, softball, swimming and diving, synchronized swimming and volleyball.

Athletic Clubs:

Men’s—flag football

Women’s—equestrian, field hockey, dance Griffs

Men’s and Women’s—rugby, volleyball, hockey, soccer, bowling, tennis

Co-ed—cheerleading, track and field, endurance athletes

Intramural Opportunities:

Men—5 on 5 and 3 on 3 basketball, flag football

Women—5 on 5 and 3 on 3 basketball

Co-ed—indoor and outdoor soccer, volleyball, floor hockey, water polo, kan jam, softball, badminton

Campus Programming and Leadership Development

The Office of Campus Programming and Leadership Development (CPLD) encourages and promotes involvement and enhances student learning through co-curricular programming and leadership development opportunities.

To help achieve this mission, Campus Programming and Leadership Development allows students the opportunity to get involved on campus. Students may choose from a variety of clubs and organizations, including the Undergraduate Student Association (USA) which is comprised of the entire student body and is represented by an elected group, the Student Senate. The purpose of the Senate is to assist, finance and integrate all student organizations and to represent the views of the student body to the college administration. The Commuter Student Association (CSA) represents all of the commuter students, and the Residence Hall Association (RHA) is the student governing body for the resident students at Canisius. Additionally, there are over 100 student clubs and organizations at Canisius. These organizations provide students with an opportunity to explore an academic subject informally yet deeply, gain familiarity with the arts or with differing cultures, provide service to the college or to the community, develop a wide range of leadership skills, or simply socialize with other students. For example, the Senate Programming Board sponsors the annual fall Semi-Formal, concerts, comedians and the end of the year Spring Fest.

Various honor societies give recognition to student excellence in numerous areas, and the student-run media on campus, such as the college newspaper (The Griffin), the campus radio station (WCCG) and the college’s yearbook (AZUWUR), provide students with opportunities to explore communications media while keeping the college community informed and entertained. Furthermore, Greek social organizations provide students with the opportunity to interact with each other in a unique context. A variety of club sports enhance the recreational opportunities for students. Many special events such as concerts, plays and lectures are also scheduled.

The Office of Campus Programming and Leadership Development sponsors a number of programs throughout the year including Canisius Cinema, Best of Buffalo and the Friday and Saturday Nights in Penfold. The Canisius Cinema series enables the college to show current movies that are no longer playing at the movie theaters but have not been released on VHS or DVD. Through the Best of Buffalo program, students are provided with the
opportunity to attend many of the cultural, sporting, historical and entertainment offerings that Buffalo and Western New York provide. Examples of these programs may include a Buffalo Bills or Buffalo Sabres game, a Broadway musical at Shea’s Center for the Performing Arts and a Ghost Walks Tour of the Theatre District. Our late night programming includes the Friday and Saturday Nights in Penfold series. “Grocery BINGO, Sumo and Sushi and Texas Hold’em Tournament” are just a few examples of the fun, creative programs offered to students. Free food and beverages are provided, as well as prizes at some of the events.

Furthermore, the office sponsors an array of leadership development opportunities and programs that will enhance your college experience such as Leadership Workshops, Brown Bag Lunches, and the High School Leadership Workshop. Additionally, a “leadership library” of books and other resources is available to students. For more information, come visit our office or our website at www.canisius.edu/campus_leader/ to see what’s happening around Canisius!

Counseling Center

The Counseling Center is committed to developing the personal and academic potential of Canisius College students by providing comprehensive counseling services and outreach education to support the emotional and mental health of our students. Professional counseling services are available to all registered students to address issues that may interfere with a student’s academic success and personal growth. In addition to individual and group counseling, the Counseling Center staff is available to conduct educational programs and workshops for the Canisius College community.

Other services available through the Counseling Center are evaluations for medication, as well as consultation and referrals to community resources. In addition, counselors are available after hours for crisis intervention and mental health emergencies.

Students who access counseling services are assured confidentiality, unless it is apparent that the student may do harm to self or others. A student’s privacy and confidentiality are carefully guarded and protected. No information about participation in counseling becomes part of any official record.

Counseling services are of no additional cost to registered students. Students may schedule appointments by calling the Counseling Center at 888-2620. Appointments may also be scheduled in person. The Counseling Center is located in Bosch Hall Room 105, directly off the lobby of Bosch Hall. Enter via the quad side entrance of Bosch.

International Students

Canisius College welcomes international students and appreciates the cultural diversity they offer our student body. Currently our international students are from approximately 30 countries including areas as diverse as Europe, the Middle East, Africa, Asia, South America and Australia. The Office of International Student Programs advises international students and assists them with their adjustment to Canisius College and American culture by organizing educational and social programs. To further encourage cultural understanding within the Canisius community, the International Student Programs Office also arranges host families for our international students and organizes an annual International Fest, a celebration of cultural diversity on campus. Other services for international students include an extensive orientation for new students, assistance with immigration regulations and special tutorial help in English. The Global Horizons Association, a student organization for American and international students, plans additional activities to promote cultural awareness on campus and has a peer mentor program.

All international students studying on an F1 or J1 Visa are required by the college to purchase a health insurance plan offered by Canisius College. This plan is designed and written specifically for the health care needs of international students studying in the United States. Information about the required health insurance plan is available in the International Student Programs Office.

ALANA Student Center (ALANA = African American, Latino/a American, Asian American, Native American students and friends)

A genuine, pluralistic campus fosters respect, equality and understanding of a mosaic of cultural heritages. Such a campus recognizes the interdependence of cross-cultural student communities and the integrity of each individual. The college aims for all individuals to feel a sense of inclusion in the college’s mission and activities, particularly those who have been historically marginalized in America primarily due to the color of their skin. A Canisius alumnus writes, “Understanding how to find the value in a different viewpoint and learning to assimilate the best of the differing approaches into your own are invaluable skills that permeate all fields of life.” - Milton Santiago ’97

The ALANA Student Center assists the college in providing services for ALANA students while educating the entire student population about ALANA cultural patterns and trends in higher education. The staff assists students concerning racial perspectives, self-concept issues and participatory involvement within the framework of the campus.

Although primarily co-curricular focused, the ALANA Student Center also serves students as a referral and support unit with respect to other collegiate matters. The Center provides a place for students to share and discuss cross-cultural experiences and to interpret those experiences. By way of this service, and other support services campus-wide, Canisius College provides
students with tools essential for their success in school and in the greater community.

**Student Academic Support Services**
Canisius College offers a variety of comprehensive academic resources to help students achieve academic success. The Student Academic Support Services (SASS) is a program that provides services to assist students in successfully completing their academic careers. The goal is to provide students with the academic support and assistance they need to become successful lifelong learners.

**Components of SASS include:**
The **Tutoring Center** provides a variety of opportunities for students to achieve their own academic success. The services are free-of-charge and open to all Canisius students. Individual Tutoring Services allow students to receive academic assistance from peer and adjunct professor tutors. Tutors are available in the majority of academic disciplines and employ various academic strategies to help address individual student needs. A Librarian-in-Residence is available once a week to assist with research-based academic needs. The **Study Center Program** is open to all students and is an opportunity for students to focus on their academic work in a quiet environment where tutors are available to answer questions and provide academic support.

The **Academic Mentor Program** offers assistance to students who are on academic probation or who have another type of academic stress. Mentors meet regularly with students and assist with better time management, handling of courses, and study skills to help achieve success.

**Disability Support Services (DSS)** is committed to creating equal access for all Canisius students with disabilities. It is our goal to help meet the needs of individuals registered and documented through the office, whether the disability is permanent or temporary. The Director for DSS serves as the college’s advocate for students with disabilities and is responsible for arranging the necessary accommodations. Any student who needs special services should contact the office at (716) 888-3748 to arrange accommodations.

**Student Health Center**
The Student Health Center is committed to providing students high quality health care that is easy to access, individualized and effective. Our staff views each visit as an opportunity to provide needed medical and nursing care and to educate students to become informed partners in medical decisions. Providers assist students in identifying behaviors, perceptions and habits that are beneficial for current and future health.

The Center is staffed by physicians, a nurse practitioner, a physician assistant, and registered nurses. Appointments are recommended and can be made 24/7 using GriffMed, the student on-line scheduler. Students can also “walk in” to schedule an appointment.

Medical emergencies on campus are handled by Public Safety. Officers are trained in first aid and CPR and respond to the scene of on-campus medical emergencies. A list of off-campus urgent care centers for after hours is available on the Student Health Center website.

Student Health also offers an on-call nurse service 24/7 by calling 1-800-850-4556.

For detailed information about Student Health services please visit www.cansius.edu/student_health.

**Health and Accident Insurance**
Canisius College strongly recommends that all students have health insurance. Uninsured students risk academic success if burdened with medical expenses for an illness or injury.

Students should carry their health insurance card with them and know how their plan coverage works when they are at college.

Contact your health plan member service department for this information.

Canisius offers students registered for 6 or more credits a sickness and accident plan designed for the healthy college student. Enrollment periods occur in September and January. All full-time undergraduates have accident and accidental death coverage through the college. This coverage is limited.

Details about the sickness and accident plan are available on the Student Health Center website.

**New York State Immunization Requirements for Class Attendance**

**Measles, Mumps, Rubella**
New York State laws require all students registered for 6 or more credits and born on or after 1/1/1957 to submit proof of immunity to measles, mumps, and rubella to Student Health. Students must demonstrate two measles (rubeola) vaccinations, one dose of rubella and one dose of mumps vaccine given on or after the first birthday.

**Meningitis Requirement**
All students registered for 6 or more credits regardless of age or year of birth are required by New York to be informed about the risk of meningococcal meningitis and either obtain the meningitis shot against strains A, C, Y, W-135 or sign a waiver declining the vaccination.

**Submission Dates and Non Compliance**
Health requirements must be submitted before the first day of class. Non-compliance with these health requirements results in registration cancellation, removal from college housing, and inability to register with the college for future semesters. This is strictly enforced across the campus.
The Student Health Center web site has detailed information about health requirements and links to the required forms.

Public Safety
The Department of Public Safety, located in the basement of the Bosch Residence Hall, is open 24 hours a day, providing around the clock protection and services to the campus community. The department was established to protect the educational environment of Canisius College, keeping the environment free from the threat of physical harm, property damage and disruptive activity. Departmental objectives include aiding in the enforcement of federal, state and local laws; preventing crime; regulating non-criminal conduct and preserving the peace.

Uniformed Public Safety Officers are on duty 24 hours a day, seven days a week, 365 days a year. Their primary responsibilities include patrolling the campus area on foot, on bicycles and in vehicles; security services; emergency response; and requests for assistance involving members of the campus community.

Public Safety also provides a variety of support services that are tailored to meet the needs of the campus community. These services include conducting crime prevention and personal safety programs, operating the campus shuttle system, providing Canisius ID cards, and providing assistance to campus motorists experiencing minor mechanical problems.

For a comprehensive summary of the activities and services provided by Public Safety, visit the Department of Public Safety web site www.canisius.edu/public_safety.

Crime Statistics
Canisius College complies with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act by making available information on campus security and personal safety. This information includes crime prevention, public safety, law-enforcement authority, crime reporting policies, disciplinary procedures and other important matters about security on campus. Also available are statistics for the three previous calendar years on reported crimes that occurred on campus, in certain off-campus buildings or property owned or controlled by Canisius College and on public property within or immediately adjacent to and accessible from the campus. The Canisius College Advisory Committee on Campus Safety will provide upon request all campus crime statistics as reported to the United States Department of Education. This information is available on-line at www.ope.ed.gov/security. A PDF of the full report is available on the Canisius College web site at /public_safety/stats.asp. A printed copy may be obtained by calling the dean of students at 716-888-2130.

Residence Life (On-Campus Living)
The Office of Residence Life promotes the personal growth of resident students as they adjust to college life and interact with others in the residence halls and the college community. Canisius College believes that the experience of living on-campus contributes to the development of a well-rounded individual. The Office of Residence Life creates an environment where students can live, learn and develop leadership skills, and become men and women for others.

Canisius College has been building and renovating residence halls since 1992. Canisius offers some of the best state-of-the-art residence halls currently in the country.

In the fall of 2005, Canisius College opened a new residence hall, Dugan Hall, which features suites, half with private bathrooms and half with private living rooms. This building also features a kitchen, laundry room and lounge on every floor. Dugan Hall is open to freshmen and sophomores, and it is also home to an exciting new theme floor dedicated to freshmen students who are enrolled in the college’s Honors Program.

There are several other housing options available to resident students. Bosch and Frisch Halls, both renovated in 1996-1997, are the traditional residence halls for freshman students. They include double rooms, suites and social lounges with kitchens and lounges on each floor.

Campion Hall which was renovated in 2002-2003, is the Intercultural Living Center and the George M. Martin Hall, renovated in 1999, offers students in the College Honors Program a unique opportunity to live in an educational learning environment.

Campion Hall features singles, doubles and triple rooms. A large kitchen and computer labs are also available to students. Campion Hall strives to build a community that celebrates, explores and recognizes cultural traditions and heritages from intellectual, interpersonal and individual perspectives.

The George M. Martin Honors Hall features single and double rooms with community bathrooms, kitchen and two social lounges. This hall’s environment stresses academic excellence, social interaction, and fosters community values and trust among its residents.

The Delavan Townhouses, built in 2002, feature one-, two-, three-, four-, and five-person apartments with single-person bedrooms. These apartments also have living rooms, kitchens and private bathrooms.

The Village Townhouses, Main-Humboldt, and Main-Delavan Apartments feature two- four-and five-person apartments. These apartments are equipped with some single and double bedrooms, kitchens, and private bathrooms.

Additional information including virtual tours, pictures, floor plans, cost and the application process can be found on our web site at www.canisius.edu/reslife.
Admission Policies

Men and women of ability and achievement are welcome in all divisions of Canisius College. Admissibility as students is determined based on aptitude, achievement and character.

Secondary School Preparation
The secondary school program of studies should include a minimum of 16 units of credit in academic subjects. The college considers academic subjects as those stressing intellectual development, including English, social studies, science, mathematics and foreign language.

Applications for Freshman Admission
Candidates for freshman admission to the college should complete the admissions application either in paper form or on-line. Alternatively, students may submit the Common Application, which is given full and equal consideration. A complete application requires a $40 application fee, an official high school transcript, a school counselor recommendation, official test scores from the SAT-I or ACT examinations, an essay and any other supporting documentation the student chooses to submit. The application fee is waived for on-line application submissions.

Rolling Admission and Priority Notification
Canisius adheres to a rolling admissions policy, which allows students to apply at any time until the class is full. Canisius offers a priority consideration deadline of November 15. Students who apply by this date will be notified of an admissions decision and scholarship award by December 15. Students who do not apply by this date are encouraged to apply by March 1 for full and equal consideration.

Condition of Admittance
Students who are accepted for freshman admission are admitted with the expectation that they will successfully complete their senior year of high school and graduate prior to enrollment at Canisius. Failure to graduate from high school or to maintain the academic standard for which admission has been granted are sufficient grounds to rescind an offer of admission to Canisius.

Early Admission Policy
Canisius College will accept approved candidates for early admission from high schools that officially approve of this policy and whose curricula are satisfactory. Early admission candidates are defined as students who have completed all or a majority of their high school graduation requirements in less than four years. Students applying for early admission must adhere to all freshmen admission policies.

Additional conditions for early admission are as follows:
1. Students must be recommended by their high school principal or counselor with the understanding that students will only be recommended if they have demonstrated excellence in academic achievement and motivation.
2. Students must have completed three years of their high school curriculum prior to enrollment at Canisius. Exceptions to this rule are very unusual.
3. Ordinarily, students must have reached their sixteenth birthday or will reach their sixteenth birthday by the end of the first semester of freshman year.

Candidate’s Reply Date Agreement – May 1
Canisius College adheres to the College Entrance Examination Board’s Candidates’ Reply Date Agreement (CRDA). According to this policy students may submit their tuition (and housing) deposit upon receipt of their letter of acceptance or any time prior to and including May 1. The deposit is non-refundable after May 1.

Advanced Standing and Transfer Credit Policies and Processes for Incoming Freshmen
Under the conditions indicated below, students may obtain credit for college-level courses delivered in high school through advanced placement exams, International Baccalaureate scores, CLEP exams, and submission of transcripts from accredited two and four-year institutions. Requests for acceptance of such credits should be directed to the Director of Academic Advisement, who will consult with the major program or department as needed. A maximum of 30 credit hours will be granted to first-time freshmen enrolling directly from high school.

College Courses Delivered in High School Settings
Students who achieve a grade of C or above will earn at least elective credit for classes offered in their high school by accredited colleges. An official college transcript must be received by Canisius College before credit can be awarded. All requests to use such credits to fulfill core curriculum or major requirements should be made to the Director of Academic Advisement.

Advanced Placement Courses
Students achieving a 3 or higher on a College Entrance Examination Board Advanced Placement Test will normally earn at least elective credit toward a degree at Canisius College. (Canisius College reserves the right to deny credit for a 3 in a particular Advanced Placement Test if subsequent student performance in relevant courses at Canisius College has provided evidence that a 3 on that Test does not demonstrate college level competence.) Core curriculum credit for such courses is subject to approval by the
Director of Academic Advisement, and credit in the major is subject to approval of course equivalency by the major department or program. Official results of the exam must be sent from the College Board to Canisius College before credit can be awarded. All such requests should be directed to the Director of Academic Advisement who will consult with the major program or department as needed.

**International Baccalaureate Program**

Canisius College grants academic credit for only higher level (HL) IB exams with a minimum grade of five (5). A student who has earned the IB Diploma will be awarded a maximum of 30 credit hours and will have individual HL diploma exams evaluated as transfer credit to be applied toward major, core curriculum, or elective course requirements. Major credit will be determined in consultation with department chairs. Students will not receive additional credit for AP exams that duplicate credit awarded for the IB exams.

If a student does not attain the IB Diploma but presents individual Higher Level examinations with scores of 3 or above, he/she will receive 3-6 credits per examination (depending on the Canisius College course equivalency) up to a total of 30 credits. These credits may be applied toward major, core curriculum, or elective course requirements. Major credit will be determined in consultation with department chairs.

Credit for subsidiary exams will not be awarded. Official IB exam scores should be sent directly to the Office of Student Records, who will consult with the Director of Academic Advisement or the major program or department as needed.

**College Level Examination Program (CLEP) Credit**

Please see page 22 for a full description of the college’s CLEP policy.

**International Students**

International candidates for undergraduate admission should submit a completed application and certified transcripts from all secondary schools or colleges attended. Transcripts not in English should be accompanied by a certified English translation. International students from countries whose original language is not English must also submit official test results from either the paper or electronic version of the Test of English as a Foreign Language (TOEFL) exam. All documents should be submitted to the Office of Undergraduate Admissions.

To be eligible for a student visa, students must also submit evidence of sufficient funding to cover educational expenses.

**Applications for Transfer Admission**

Students who have graduated from high school and have completed at least three credit hours of post-secondary, college-level work as a matriculated student will be considered for transfer admission to Canisius College. Candidates for transfer admission should submit an application for transfer admission and submit official transcripts for all colleges attended. Additionally, a Transfer Recommendation Form completed by the dean of students or other appropriate official from the most recent college attended is required. Candidates who have completed fewer than 24 credit hours of college level work at the time of application must also submit an official high school transcript.

**Adult Applicants**

Applicants for freshmen or transfer admission who have had a break in their academic work must submit a statement of activity for the period representing the break in their education.

**Advanced Standing and Transfer Credit Policies for Transfer Students**

A transfer credit evaluation will be completed for transfer students who are accepted for admission to Canisius. A maximum of 60 credit hours may be transferred from two-year colleges and at least 60 more credit hours must be earned at Canisius in order to be awarded the bachelor's degree. Students transferring from four-year institutions must complete at least 30 credit hours at Canisius, including at least 18 in their major, in order to earn the bachelor's degree.

Transfer credit from accredited two-and four-year institutions of higher education is granted when the course objectives for the completed work are substantially the same as the course objectives at Canisius College. Transfer credit is awarded only for courses with a minimum grade of C or better. If an associate's degree was earned by the student all courses with a minimum grade of D or better will be considered for transfer credit.

For teacher certification candidates, a grade of C or better is required to transfer courses listed as major courses in teacher education, special education, adolescence education, physical education, health education and athletic training programs. Once transcripts have been submitted to and reviewed by the Office of Student Records, the student must meet with the appropriate associate dean to review the transfer credit and register for classes.

Canisius College has a variety of articulation and dual degree agreements with community and junior colleges throughout New York State. These agreements recognize specific programs and majors at the two-year institutions that allow students the most comprehensive transfer of courses and credits. Students at these institutions should consult with their academic counseling center for specific information on articulated programs and majors.

**Dismissed Students**

Academic policy at Canisius College prohibits acceptance of a student who has been academically dismissed from another college or university until one academic year after date of dismissal. Exceptions to this policy may be made after review of the applicant’s academic credentials by the appropriate academic dean.
Non-Matriculated Students

Non-matriculated students, i.e., individuals who are not working towards a degree at Canisius, may be approved for a maximum of three courses per semester. Courses requiring prerequisites may be taken only when supporting documents are presented at the time of application insuring that the prerequisite courses have been successfully completed. Non-matriculated students will receive the normal college credit for all work successfully completed.

Students enrolled on a non-matriculated basis who wish to enroll as matriculated students must complete a Change of Status Request form, available from the Associate Dean of Adult Academic Services. These students must then submit all required admission documentation based on their status as either a freshman or transfer student.

Visiting Students

Students from other colleges or universities who wish to attend Canisius for the purpose of transferring earned credits to their home institutions must apply for entrance through the Office of Undergraduate Admissions.

An application for visitation must be accompanied by a letter of permission from the appropriate academic dean at the home institution. The letter, in substance, should state that the applicant has permission to take courses at Canisius for the purpose of transfer back to the home institution.

Auditors

Students wishing to audit courses at Canisius College must secure the approval of the Office of Student Records and Registration. No credit is granted for an audited course. Responsibility for examination, assignments and attendance is determined by the faculty member teaching the course. No student will be permitted to change from audit to credit after the first session of the class.

Auditing fees are listed in the Tuition section of the catalog.
Class Attendance

Students are expected to attend all regularly scheduled classes, labs and other course-related activities. Students are expected to accept personal responsibility for absences, and are responsible for fulfilling all requirements and completing assignments in each course. However, on some occasions students may need to be absent. When possible, students should inform their instructors if they plan to be absent from class. Instructors are privileged to establish reasonable absence regulations, which should be clearly stated at the first class meeting. The instructor is expected to determine when the number of absences has reached the level where any additional absences would prevent the student from attaining the objectives of the course.

Making Changes

Change in registration: Once registration has been completed, the student must follow the program of studies shown on the official registration form. No change or deletion of courses will be approved after the first five full days of classes. See the academic calendar for dates each semester.

Change in major: A change of major form is available in the Student Records Office. The form should be completed by the student with all appropriate information. It is the student's responsibility to make sure that their major is correctly listed in the official college records. This will insure that the student's information is available to the correct academic departments.

Change in name, address and phone: It is the responsibility of each student to notify the college of any change of name, address and/or phone number. Change-of-address forms are available in the Student Records office.

Withdrawal

Withdrawal from a course: A student wishing to withdraw from a course must submit a course withdrawal form to the Student Records office after it has been signed by the instructor and the departmental or freshman advisor, as well as by a financial aid counselor if the student receives financial aid and by a counselor from COPE if the student is involved in programs through that office. If the student is participating on one of the NCAA athletic teams, the Athletic Academic Advisor must also sign the form. Students receiving any type of Veteran's Benefits need to obtain the signature of the VA benefits certifying official. The instructor indicates either approval or disapproval of the student's request to withdraw. An instructor might disapprove withdrawal if there is evidence of academic dishonesty. In cases where the instructor disapproves of the withdrawal, permission to withdraw is determined by the associate dean of the student's school in consultation with the instructor of the course. Requests for withdrawal are not granted automatically, nor are they denied automatically.

The deadline for withdrawal without academic penalty is the last day of classes of each fall and spring semester. See the Official Calendar. Summer sessions have their own deadlines for withdrawal. Consult the summer session course schedule for details. Withdrawal from a course results automatically in a grade of “W” (withdrawal) for the course. Failure to submit the withdrawal form results automatically in a grade of “FX” (failure due to excessive absence) being entered on the student's record. The student should consult with the Financial Aid Office to see how withdrawing from a course will affect their next semester's financial aid. Withdrawals will not be granted during final exam week.

Withdrawal from the college: A student desiring to withdraw from the college must consult the director of student retention, who will forward the withdrawal form to the appropriate associate dean. In the case of freshmen, a parent or guardian must indicate approval of withdrawal by signing the withdrawal form. The official date of the student's withdrawal is the date on which the withdrawal form is received and approved by the appropriate dean. A student withdrawing from the college at any time during a semester without proper authorization fails all his/her courses for that semester.

A student who does not register for two or more semesters and returns to the college, is required to follow the catalog requirements at the time they were first admitted to the college.

Medical/Psychological Leave of Absence

Students may request a leave of absence from Canisius College when a medical or psychological condition significantly interferes with their ability to function at the college. This policy is intended to assist students with an absence of one to two semesters. It is not intended to allow a long period of absence during a single semester. A student taking a leave of absence for medical reasons will not be eligible to complete courses within the semester for which the medical leave is approved.

Students must submit a written request for a medical leave of absence with the Dean of Student's Office (Old Main 102) or the Student Retention Office (HO-003). For a leave of absence to be considered, a student must provide written verification from a licensed health professional or a licensed mental health professional of the presence and/or severity of a medical/psychological condition. If a student is incapable of completing this request in person, the student may call the Dean of Student's Office at (716)888-2130, to initiate the review process. The dean of students will consult the appropriate associate academic dean prior to granting a leave of absence.

A student granted a leave of absence will be expected to return to Canisius College after the leave has ended. Failure to return from a leave of absence after two semesters results in a formal academic withdrawal from Canisius College. A registration hold will be placed on the student’s account during a leave of absence.
To return from a leave of absence, the student must provide the dean of students with an appropriate written statement from a licensed health professional or a licensed mental health professional that confirms the student sought and received treatment and is capable of meeting the challenges of academic life without further risk to his/her or others’ welfare. When appropriate, this statement should also include recommendations for continued treatment once the student returns to the college and any needed academic restrictions or accommodations. Normally, a request to return should be made at least 30 days in advance of the commencement of the new semester. The dean of students will review the statement with appropriate personnel (e.g. Student Health, Counseling Center, Associate Academic Dean). The dean of students will determine the conditions a student will need to meet in order to return to and continue at Canisius College.

Involuntary Leave of Absence
When a student’s behavior is disruptive to the college community or when a student’s behavior presents a danger to himself/herself or to others, the dean of students may refer the student to the Student Health Center or Counseling Center for the coordination of a medical and/or mental health evaluation. A student may be subject to an involuntary leave of absence if medical or psychological conditions render the student incapable of meeting the challenges of academic life without further risk to his/her or others’ welfare. Students who choose not to cooperate with a request for evaluation are subject to an interim suspension until requirements outlined by the dean of students are satisfied.

Voluntary Leave of Absence
A student who wishes to take a semester or two off, but plans to return to the college within one calendar year, may elect to take a leave of absence. A student who has been on leave for more than one year and/or attended another institution while on leave will be required to re-apply to the college through our Admissions Department.

Examinations
One purpose of examinations is to benefit students. Examinations make more memorable the structure and materials of the course, satisfy the need for definite goals and provide an opportunity to exercise knowledge and skill in the subject. They are experiences in which students can learn about the subject and themselves. In their syllabi, instructors specify examinations of a kind and number that are, in their judgment, appropriate to the needs of the students and to the objectives and conditions of the course. Normally a final exam is given in each course during the final exam period. An instructor who wishes to omit the final exam requires prior approval of their department chairperson. No final exams are to be administered during the final week of classes.

Ombudsman
Students seeking assistance with issues related to college policies including grade grievances and violations of the code of academic integrity have the option of consulting the college ombudsman. The role of the ombudsman is to provide explanations of college policies and advise on handling situations governed by those policies. The current ombudsman can be identified by contacting the Academic Affairs Office.

CODE OF ACADEMIC INTEGRITY

I. Mission and Pledge
The Canisius College community is dedicated to academic excellence and is, therefore, committed to establishing and maintaining an atmosphere of trust. All members of the community agree and pledge to exercise complete integrity in their academic work. Academic integrity is the foundation of true intellectual growth; it demonstrates respect for oneself and for others.

The students, faculty and administration of Canisius College understand their responsibility for maintaining academic integrity to be both individual and collective. Fulfilling this responsibility requires us to uphold high standards in our own conduct and to exercise fairness towards each other. All instances of academic dishonesty are a breach of community standards. Students, administrators and staff, course instructors and their representatives are expected to report violations of the Code of Academic Integrity.

All members of the Canisius College community are committed to administering the Code of Academic Integrity in a manner consistent with our mission: to teach responsibility, to foster learning and to care for the intellectual and ethical development of the whole person.

Violations of the Code of Academic Integrity shall be dealt with in a manner which is just to all parties and contributes to the learning process. Sanctions shall be shaped by the belief that infractions are not simply occasions for punishment, but are opportunities for learning and for improving the ethical standards of the individual and the community.

All Canisius College students are automatically bound by the Code of Academic Integrity. As a reminder and reinforcement of the ideals this code embodies, course instructors are asked to place a pledge on scheduled tests and assignments, as well as in the course syllabus. Students, in turn, are asked to carefully consider and sign the pledge, which reads:

“As a member of the Canisius College Community I understand and will uphold the standards for academic behavior as stated in the Code of Academic Integrity.”
II. Standards for Academic Behavior

A. Prescriptions
Academic integrity requires a commitment to five fundamental values: honesty, trust, fairness, respect and responsibility.

1. Honesty.
   As an academic community of integrity, Canisius College requires intellectual and personal honesty in learning, teaching, research and service. Honesty is the prerequisite for full realization of trust, fairness, respect and responsibility. The policies of Canisius College discourage dishonesty in the forms of cheating, lying, fraud, theft and other behaviors that jeopardize the rights and welfare of the college community and diminish the worth of its academic degrees. All members of the community subscribe to the principle of observing basic honesty in their work, words, ideas and actions.

2. Trust.
   As an academic community of integrity, Canisius College seeks to foster a climate of mutual trust, encourage the free exchange of ideas and enable all members of the community to reach their highest potential. Trust creates an environment in which collaboration is valued and information and ideas can be shared without fear of one’s work being stolen. It also allows us to believe in the social value of our scholarship and the degrees that are achieved here.

3. Fairness.
   As an academic community of integrity, Canisius College seeks to set clear standards, practices and procedures, and expects fairness in the interactions of all members of the community.

4. Respect.
   As an academic community of integrity, Canisius College recognizes the participatory nature of the learning process and honors and respects a wide range of opinions and ideas. If they are to be rewarding, teaching and learning demand both active engagement and mutual respect among all members of the community. Respect is shown by attending class, being on time, paying attention, listening to other points of view, valuing the aspirations and goals of others and recognizing them as individuals, being prepared and contributing to discussions, meeting academic deadlines and performing to the best of one’s ability.

5. Responsibility.
   As an academic community of integrity, Canisius College upholds personal accountability and depends upon action in the face of wrongdoing. Every member of the academic community is responsible for upholding the integrity of the scholarship and research carried out here. Such shared responsibility leads to personal investments in upholding our academic integrity standards. Being responsible means taking action against wrongdoing, discouraging and seeking to prevent misconduct by others. One primary responsibility is to discourage violations of the Code of Academic Integrity by others.

B. Proscriptions
All students of the college are expected to understand the meaning of the Code of Academic Integrity. Ignorance of the code is not a valid reason for committing an act of academic dishonesty. Students should realize that their actions may affect other students. In general, students may not obstruct or interfere with other students’ academic work or otherwise undertake an activity with the purpose of creating or obtaining an unfair academic advantage over other students. Each of the following behaviors violates all of the principles of honesty, trust, fairness, respect and responsibility explained above and is thus prohibited.

1. Plagiarism.
   The MLA Handbook for Writers of Research Papers defines plagiarism as using “another person’s ideas or expressions in your writing without acknowledging the source...” Of course, common sense as well as ethics should determine what you document. For example, you rarely need to give sources for familiar proverbs (“You can’t judge a book by its cover”), well-known quotations (“We shall overcome”), or common knowledge (“George Washington was the first president of the United States’). But you must indicate the source of any appropriated material that readers might otherwise mistake for your own” (5th Edition, pp. 30, 33). Plagiarism may range from isolated formulas, sentences, or paragraphs to entire articles copied from books, periodicals, web sites, speeches, or the writings of other students. Honesty requires that any work or materials taken from another source for either written or oral use must be acknowledged. Any student who fails to give credit for ideas or materials obtained from another source is guilty of plagiarism. Plagiarism, in any of its forms, whether intentional or unintentional, violates standards of academic integrity. Examples of plagiarism include, but are not limited to:

   - Direct quotation of any source material whether published or unpublished without giving proper credit through the use of quotation marks, footnotes and other customary means of identifying sources. This includes complete sentences or paragraphs, or an entire piece of written work.
   - Paraphrasing another person’s ideas, opinions, or theories from books, articles, web sites, etc., without identifying and crediting sources.
   - Borrowing facts, statistics, graphs, diagrams, photographs, or other illustrative or visual materials that are not clearly common knowledge without identifying and crediting sources.
   - Copying another student’s essay test answers.
   - Submitting papers written by another person or persons. This includes copying, or allowing another student to copy, a computer file that contains another student’s assignment and submitting it, in part or in its entirety, as one’s own.
   - Working together on an assignment, sharing the computer files and programs involved, and then submitting individual copies of the assignment as one’s own individual work without course instructor approval.
• Buying or selling, or exchanging term papers, examinations, or other written assignments, or any part of them.
• Offering false, fabricated, or fictitious sources for papers, reports, or other assignments.

2. Cheating.
Cheating includes, but is not limited to: using unauthorized notes, study aids, or information on an examination, test, etc.; altering a graded work after it has been returned, then submitting the work for regrading; or allowing another person to do one's work and submitting that work under one's own name. Cheating also includes the possession, without authorization, of copies of tests, answer sheets, or other materials, however obtained, that could interfere with fair, accurate testing, as well as retaining, possessing, using or circulating previously given examination materials without authorization.

3. Duplicate Submission of the Same Work.
Submitting the same work for more than one course is a violation unless the professor(s) assigning the work gives consent in advance. This includes work first produced in connection with classes at either Canisius College or other institutions attended by the student.

4. Collusion.
Collusion includes cooperation that results in the work or ideas of others being presented as one's own (e.g., rather than as a group effort). However, ordinary consultation of faculty, library staff, tutors or others is legitimate unless the instructor has imposed stricter limits for a particular assignment.

5. False Information and Lying.
This includes consciously furnishing false information to other students, faculty members and their representatives, advisors, administrators or representatives of the college offices with the intent to mislead. Instances would include but are not limited to misrepresenting activity outside of the classroom (reports on field work, internships, etc.) or improperly seeking special consideration or privilege (e.g., for postponement of an examination or assignment deadline, etc.).

This includes any attempt to forge or alter academic documentation (including transcripts, letters of recommendation, certificates of enrollment or good standing, registration forms, drop/add forms, withdrawal forms, and medical certification of absence) or to falsify other writing in academic matters (e.g., any documentation provided to instructors) concerning oneself or others.

7. Theft, Abuse and Destruction of Academic Property.
This comprises unauthorized removal, retention, mutilation or destruction of common property of the college that deprives others of equal access to these materials. Such property includes but is not limited to library materials, laboratory materials, computers and computer software, etc. This includes also sequestering library materials for the use of an individual or group; a willful or repeated failure to respond to recall notices from the library; and the removal or attempt to remove library materials from the library without authorization. The theft, mutilation or destruction of another student's academic work, including books, notes, computer programs, papers, reports, laboratory experiments, etc. also falls under this type of violation.

8. Unauthorized Use of Information Technologies.
In the context of the completion of a course and/or assignments (contained within a course), the unauthorized use of computers or the college's computer network (e.g., the unauthorized use of software, access codes, computing accounts, electronic mail and files) or other electronic devices (calculators, personal digital assistants, pagers, etc.) is prohibited.

This includes intentionally: (a) providing material, information, or other assistance to another person with knowledge that such aid could be used to commit any of the proscribed acts noted above; or (b) providing false information in connection with any inquiry regarding academic integrity.

III. Procedures for Adjudicating Violations of the Code of Academic Integrity
A course instructor who suspects academic dishonesty may ask the associate dean about the student's prior record in this area.

Anyone other than the course instructor suspecting a violation is expected to inform the course instructor or proctor at the earliest possible opportunity, even while the suspected violation is being committed. In the absence of the course instructor, the associate dean will receive reports of violations and will replace the course instructor in the following procedures. "Associate dean" refers throughout to the associate dean of the school to which the course belongs.

A. Initial Procedure
The course instructor meets with the student to discuss the incident. The student will be informed of the course instructor's suspicions. The student may respond to the allegations and may bring witnesses, if deemed pertinent by the instructor.

The instructor decides whether the student has violated the Code of Academic Integrity and, if necessary, assigns a sanction. This determination of responsibility shall be based upon the facts of the incident and whether it is more likely than not that the student is responsible for the alleged violation(s).

The student shall be provided written notification of the instructor's decision and sanction, normally within five business days. Possible sanctions include:
• Warning: a notice in writing to the student that the student has been found responsible for violating the Code of Academic Integrity;
• Grade Reduction or Course Failure;
• Discretionary Sanctions: work assignments, community
service, participation or completion of college service or program, service to the college and/or other related discretionary assignments;

- Educational Program or Project: participation in or completion of a program or project specifically designed to help the student understand why the Academic Integrity violation was inappropriate.

If a sanction is imposed the course instructor is expected to file a “Notification of Academic Dishonesty” form with the appropriate associate dean. Forms are available in all associate dean offices and in other campus offices. The form, the sanction and supporting documentation become part of the academic misconduct file shared by the associate deans of Arts and Sciences, the School of Education and Human Services and the Wehle School of Business.

The Academic Misconduct file is separate from the student’s permanent academic file and confidential. First violations of the Code are a part of this confidential record. Second violations are handled on a case by case basis and will become part of the student’s academic file only in those instances when subsequent offenses are serious enough to warrant inclusion.

B. Appeal
The student may request, in writing, a review by the appropriate associate dean, of the course instructor’s decision. The written request from the student must be submitted to the associate dean not more than five business days after the student is notified of the course instructor’s decision. The associate dean shall review the decision and meet with the student to discuss the matter. If the student chooses, the college ombudsman shall be present during the appeal. The appropriate associate dean coordinates arrangements for the college ombudsman’s presence.

If an appeal is granted, the associate dean may replace the sanction with another that may be more severe, less severe, or otherwise different. The associate dean may impose any sanctions found in Article IV, Section C of the Community Standards except grade change or course failure.

Normally, however, the associate dean may request that the course instructor reconsider the original decision and/or sanction. In very serious cases or when a pattern of academic dishonesty is documented, the associate dean may direct the case to a Hearing Panel. If the associate dean is the course instructor or has acted in the course instructor’s place, the appeal shall be submitted to the dean of the school in which the course is offered.

C. Hearing Panel
When a case of academic dishonesty is very severe or a documented pattern of violations of the Code of Academic Integrity exists, the associate dean may refer the case to the dean of students so that a Hearing Panel from the Community Standards Board may be convened. Normally, the associate dean requests the formation of a Hearing Panel when the violation might merit one of the following sanctions: a notation on the official transcript, probation, suspension, expulsion, or degree revocation. However, the associate dean may choose to hear any case without convening a Hearing Panel and may then impose any sanctions found in Article IV, Section C of the Community Standards except grade reduction or course failure.

Hearing procedures for alleged violations of the Code of Academic Integrity shall operate according to the procedures outlined in Appendix C Hearing Procedures of the Community Standards. However, appeals shall be directed to the vice president of academic affairs.

D. Failure to Appear
The judicial process outlined above is intended to provide the student an opportunity to respond to allegations of violations of the Code of Academic Integrity, thereby enabling the course instructor or associate dean to make an informed decision about responsibility and appropriate sanctions. However, if a student fails to respond to three communications (in the form of written notification, telephone, e-mail, or oral requests) attempting to schedule a meeting, or fails to attend a scheduled meeting, a decision based upon available information may be rendered in absentia.

E. Records
“Notification of Academic Dishonesty” forms and proceedings records shall be maintained confidentially in a central location until five years after the responsible student graduates or permanently separates from Canisius College. In cases where notation on the official transcript, suspension, or expulsion is imposed, the file shall be retained as part of the student’s permanent academic record.

The complete text of the Community Standards judicial policies, procedures and sanctions can be found in the Canisius College Student Handbook.

Portions of this policy were adapted with permission from the University of Scranton, Loyola College in Maryland and Georgetown University.

Academic Forgiveness Policy
This policy is intended to assist former Canisius College students whose grade point average is below 2.0. Education majors must have a grade of “C” or better in their education courses and have a cumulative grade point average of 2.50 or higher to be eligible to student teach. It is to be used to assist students that have reapplied to the college and demonstrate personal growth and motivation to accomplish their educational goals. This policy will allow for up to thirty (30) credit hours of course work with grades of F or FX to be removed from the calculation of the grade point average.

A period of not less than five years must have passed prior to the student’s readmission to the college. The student must submit a petition for academic forgiveness with the application to the college. The appropriate associate dean will meet with the student, review the petition and make a recommendation. No acceptance decision will be made without the recommendation of the associate dean, after the review of the petition.
The admissions office will then process the application and notify the student of the decision. Once the associate dean has made a recommendation, a memo will be sent to the Student Records office indicating that the student has been approved for academic forgiveness. The memo will list the courses that should be removed from the student’s academic record. Each course will have a grade of “X” listed. This will indicate the course is part of the academic forgiveness policy and not included in the calculation of the grade point average. The course will remain on the student’s academic transcript.

The student must maintain a minimum semester average of 2.50 and a minimum cumulative grade point average of 2.00. The student must meet with the department chair of the intended major. The department chair will review the academic record and make recommendations about what courses from five or more years ago will count toward completion of current major requirements. The student must take a minimum of ten (10) courses at Canisius College to be eligible for a degree. The student will be required to meet with the appropriate associate dean at least twice during the first semester. Progress reports will be required for students during their first semester after academic forgiveness is granted.

An agreement between the associate dean and the student will be completed in writing. The agreement will outline all the requirements for the student to be approved for academic forgiveness. This will also include but not be limited to the minimum semester and grade point average requirements, the required appointments for progress review and course restrictions or limitations for the first semester. Failure of the student to meet the forgiveness agreement will result in automatic dismissal from the college.

Mathematics Placement
The Department of Mathematics and Statistics, in conjunction with the Student Advisement Center, screens incoming freshmen for appropriate placement in mathematics. We use high school average, SAT, ACT and high school mathematics scores to determine the placement.

Grades
Grades inform students of the level of performance they have achieved in a course. Grades are means whereby students may come to know and appreciate their capacities and abilities. Instructors are responsible for specifying the performances required in their courses; students are responsible for meeting the requirements specified.

Grades earned by students at Canisius College reflect:
1. The extent to which the requirements specified in the course syllabus have been met.
2. The degree to which the requirements completed exhibit mastery of the subject or skills which are the object of the course.
3. Other criteria specified by the instructor at the beginning of the course, criteria such as, but not limited to, attendance at lectures or other course functions, projects voluntarily undertaken in excess of specified requirements, correct use of oral or written English and contribution to discussion or other course activities.

Grades earned by undergraduate students include the following:
A Superior performance.
A- Good performance.
B+ B+ Good performance.
B B– Adequate performance.
C+ C+ Adequate performance.
C– D Poor, but passing, performance.
F Failing performance.
FX Failure due to excessive absences or unauthorized absence from the final examination.
P or U P Passing. U Failing, The description of the Pass/Fail program is given later in this chapter.

Grades authorized by the deans include the following:
W Authorized Withdrawal from a course. The description of withdrawal procedures is in a preceding section of this chapter.
I Incomplete. A student who has failed to fulfill all requirements of a course may petition the instructor to request an incomplete grade. The request must be approved by the instructor and then the appropriate associate dean. An incomplete grade will be granted for only serious and well-defined reasons.
NG No grade submitted by the course instructor

Final grades are available on the college’s on-line services page at the conclusion of each semester. If an official grade report is needed for any reason, contact the Student Records office to request a grade report.

Final course grades cannot in normal circumstances be altered after they have been recorded on the student academic record. Should an exceptional reason occur that would justify a late grade change, the faculty member can submit to the appropriate associate dean a request to change a student’s recorded grade within the following timeframe:

The end of the spring semester following a course taken in the fall
The end of the fall semester following a course taken in the summer
The end of the fall semester following a course taken in the spring
Any request for a grade change after these deadlines must be submitted to the dean of the appropriate college with documentation as to why the grade should be changed.

Students who are disputing a grade received in a course must do so under the guidelines and within the timeframes described under grade grievance procedures.

Students who are dissatisfied with their grade in a course may repeat the course once (exceptions may be approved by the appropriate associate dean in consultation with the department chair). In such cases both grades will be entered in the student's record, but, for the purpose of computing grade point average, only the second grade will be used for the calculation. Because retaking courses that have already been passed (any grade of D or above) affects a student's financial aid, students should consult with the financial aid office before retaking any courses.

Incomplete Grade:
A student who, for serious and well defined reasons, has failed to fulfill all requirements of a course or has failed to take the final exam may petition the course instructor to request from the appropriate associate dean, a grade of “I”, indicating “Incomplete Performance.”

Only the appropriate associate dean may grant an incomplete grade request. It will not be granted to a student whose only reason is excessive absence during the semester or failure to complete the work of the course before the close of the semester without an exceptionally good reason. Examples of such good reasons might be prolonged illness or hospitalization during the semester, serious illness at the time of the final examination, or other unusual circumstances.

An incomplete grade, when granted, is merely temporary and will automatically be changed to an “FX” grade if a final grade is not submitted by March 1 for the fall, August 1 for the spring and October 1 for the summer.

Grade Grievance Procedure
Occasions may arise when a student does not agree with the grade he/she has received in a course. When this happens, the question of whether the grade should be reconsidered is addressed in two stages.

A. THE INITIAL STAGE IN THE GRIEVANCE PROCEDURE IS AS FOLLOWS:
1. The student first contacts the course instructor to discuss the grade in question within four weeks of the start of the semester (regular academic session) immediately following that in which the grade was awarded. If the instructor agrees that the grade in question was inaccurate, a grade change is processed by the instructor.
2. If the student and the instructor cannot agree on the appropriateness of the grade in question, the student may petition the chair of the instructor's department, in writing, within ten working days after the meeting with the instructor. If a mutually agreeable decision is made through mediation conducted by the chair, the instructor will submit the agreed-upon grade and the process is completed. If there is no outcome that is mutually acceptable to the student and the instructor, the process may continue. If the instructor is also the chair, then Step 2 is omitted and the process goes to Step 3.
3. The student may appeal the decision to the appropriate associate dean's office within ten working days after the mediation process is complete. The associate dean shall collect written views/and other pertinent material from the involved instructor, student and chair, as well as consult with any other individuals deemed necessary. The associate dean shall render the decision whether the grade should be reconsidered.
4. The decision of the associate dean to reconsider or not to reconsider the grade in question is final. If the decision is to reconsider the grade, the procedure outlined in Part B below is followed. If the decision is not to reconsider the grade, the original grade cannot be changed. Cases which are referred to the procedure in Part B can be withdrawn only with the consent of the student, instructor, department chair, and associate dean – and after first informing all parties involved.

B. THE FINAL STAGE IN THE GRIEVANCE PROCEDURE IS AS FOLLOWS:
1. If the associate dean feels that the reconsideration of the grade in question is appropriate, a panel of tenured faculty who have not been involved in the process described above is formed from the department in question. The panel must be formed within ten days of the associate dean’s decision. If the department does not have a minimum of four members, it will be expanded to include all the tenured members of the departments within the division (Natural Science, Social Science, Humanities, or Business) of which the department in question is a member.
2. A three-member panel will be selected as follows. The associate dean, faculty member and student involved will each select one member of the panel from the designated pool.
3. The panel will review all appropriate material and make a determination about the grade change. This review must be completed within thirty days of the formation of the panel. The panel has the authority to assign a grade for the course in question. That grade may be the same grade as assigned by the instructor or a higher or a lower grade, according to the panel’s judgment. The student and the instructor will be informed of the panel's decision and, when applicable, the authorized grade change will be submitted to the registrar.
4. The decision of the panel may be appealed by the original instructor or the student to the vice president for academic affairs only in the following extraordinary circumstances:
6. If a student elects to receive pass or fail in a course, this course
5. A student attaining a grade of Pass will receive full credit
4. Having received permission to take a course on the "Pass-Fail"
3. Within one week after the semester begins, the student must file
2. This course must be a free elective in the student's degree program.
1. Juniors and seniors who have completed at least 30 hours at

- The grade grievance procedure was not followed.
- Prejudice was manifested against either the student or the instructor.
- New, relevant information was introduced.

The appeal must be brought within thirty days of the panel's decision. The burden of proof for the appeal rests with the individual bringing the appeal.

5. If the vice president for academic affairs believes that the decision of the panel should be reviewed, a three-member appeal panel will be appointed from the pool of tenured faculty as described in Step B-1. The vice president, the faculty member and the student involved will each select one member. No member of the original panel may serve on the appeal panel. The appeal panel will follow the procedure in Step B-3, including completion of its task within thirty days of the formation of the panel. The decision of the appeal panel is final.

**Pass/Fail Program**

Seniors and juniors are eligible to elect one course each semester not to exceed four courses total for which they will receive a grade of either “Pass, P grade” or “Fail, U grade.” The purpose of this plan is to enable upperclassmen to take more difficult courses than they would normally take for fear of lowering their grade point average.

The program is as follows:

1. Juniors and seniors who have completed at least 30 hours at Canisius may elect one course each semester, not to exceed a total of four courses in their college careers, for which they will receive a recorded grade on their transcript of either “Pass” or “Fail.”
2. This course must be a free elective in the student's degree program.
3. Within one week after the semester begins, the student must file a request for “Pass-Fail” grading. Application forms may be found in the office of the appropriate associate dean. If the associate dean grants permission for a course to be taken pass-fail, grades will still be assigned for all work done during the course and on the final examination. A final grade will be entered for the student by the instructor. If this grade is "D" or above, the registrar will record a pass (P grade) for the course on the student's transcript; otherwise, he will record a failure (U grade).
4. Having received permission to take a course on the “Pass-Fail” option, a student may request in the last week of classes to withdraw from the option and receive a conventional letter grade. A form for this request is available in the office of the appropriate associate dean. A student who withdraws from the “Pass-Fail” option receives the letter grade assigned by the instructor.
5. A student attaining a grade of Pass will receive full credit for this course.
6. If a student elects to receive pass or fail in a course, this course will not be counted in the grade point average. The student must carry at least four courses to be eligible for this program. Part-time students, however, are eligible with fewer than four courses.
7. This plan is entirely optional. A student may or may not elect to take advantage of it.

**Courses at Other Colleges**

Students matriculating at Canisius should plan to complete all their coursework at the college. The rationale for this policy rests in the mission and philosophy of the college and in its concern for the essential unity and integrity of all aspects of the curriculum: the college core, major requirements and free electives. Permission to take courses at other colleges during the regular and summer sessions is granted by the appropriate associate dean, who will consider all aspects of the student's request, including the quality and level of the proposed course and its role in the student's program. Courses intended to fulfill major requirements must also be approved by department chairperson. Permission to take courses at other colleges must be requested on the appropriate form and in advance of taking the course.

Generally, the following guidelines apply:
1. Students are ordinarily limited to one course at another institution for every ten courses taken at Canisius.
2. Junior and senior-level core curriculum and major course requirements are not transferred from community colleges.
3. Courses taken at a four-year college/university will be accepted only if they are offered at a comparable level at Canisius (i.e., freshman-sophomore level/junior-senior level).
4. Students who live outside the greater Buffalo area may receive more lenient consideration in taking a summer course at another college. However, the associate dean may recommend an online web-based course as a preferred option if he/she considers it more appropriate than the off-campus course.
5. Courses used to fulfill Core requirements should be taken at Canisius College.

**Cross Registration Program**

This program is sponsored by the Western New York Consortium of Colleges. Participating colleges/universities include Alfred State College, Buffalo State College, Canisius College, Daemen College, D'Youville College, Fredonia State College, Empire State College, Erie Community College, Genesee Community College, Jamestown Community College, Medaille College, Niagara County Community College, Niagara University, St. Bonaventure University, Trocaire College, University at Buffalo and Villa Maria College.

Cross registration enables Canisius students to enrich their programs of study by taking specialized undergraduate courses available only at other campuses, and it provides some flexibility for meeting graduation requirements in a timely manner. During the fall and
spring semesters only, full-time undergraduate students are eligible to participate in this program. Students must maintain a full time course load (12 credits minimum) at Canisius during the semester in which they cross register. Students must abide by the rules and regulations of the institution where they are cross registered. Students may cross register for only one undergraduate course per semester. Students may not cross register for independent study or tutorial courses. Course registration is on a space available basis only. At the end of the semester, the grade will be forwarded to the Canisius by the visiting institution. The grade received will count in the Canisius grade point average. Course loads above 18 credit hours including the cross registration course will result in additional Canisius tuition charges.

Students may only cross register for a course that is approved. A major course must be approved by the student’s major department chairperson. A core curriculum course must be approved by the appropriate associate dean. Permission to take the examination must be obtained from the appropriate associate dean. Permission to take the examination must be obtained from the appropriate associate dean.

The cross registration forms are available in the Student Records Office located in Bagen Hall 106.

Students interested in study abroad should begin planning early in their college experience so that preliminary coursework and language study can be completed in advance. Students should confer with the International Programs and Partnerships and Study Abroad office located in HO 014 (extension 2785) and with their academic advisor to discuss the options.

In keeping with the college’s policy on “Courses at Other Colleges,” students who wish to study at the universities listed on pg. 10 must study through the Canisius programs.

Students who wish to study at other foreign universities or in other countries than those listed should confer with the International Programs and Partnerships and Study Abroad office.

Credit by Examinations

Students who are applying for admission or who are presently in attendance may obtain credit for previously completed examinations sponsored by the College Level Examination Program (CLEP) of the College Entrance Examination Board (CEEB) or by the New York State College Proficiency Examination Program (CPE). The minimum acceptable grades for these exams are “Pass” for exams graded Pass/Fail, “C” for exams with letter grades, and 50 on exams graded on a standard score scale of 20 to 80. Credit is not awarded for the CLEP general examinations. Credit in appropriate subject area exams is granted by the Student Records Office after the student has matriculated at the college. However, not all CPE and CLEP exams are acceptable as transfer credits. In addition, credits to be used in fulfilling departmental major requirements must first be approved in writing by the department chair. Students should plan to complete all their coursework at the college. Permission for matriculating students to take CPE or CLEP exams to fulfill degree requirements must be requested from the appropriate associate dean and will be granted only under extraordinary circumstances.

Regents College Examinations

Students who are applying for admission to Canisius College or who are presently in attendance may be eligible, under unusual circumstances, to receive college credit for previous experience through the Regents College Examination program. The minimum acceptable score on the examinations is 50.

Students who have already taken such examinations should speak to the appropriate associate dean. Permission to take the examination must be obtained from the appropriate associate dean.

Quality Points

The grade point average indicates the student’s general scholastic average and is a measure of the quality of his or her work, just as credit hours are the measure of its extent. Points are assigned as follows for each semester hour completed:

- Grade A: 4.0 points
- Grade A–: 3.7 points
- Grade B+: 3.3 points
- Grade B: 3.0 points
- Grade B–: 2.7 points
- Grade C+: 2.3 points
- Grade C: 2.0 points
- Grade C–: 1.7 points
- Grade D: 1.0 point
- Grade F (and its equivalent): 0 points

A student’s grade point average is obtained by dividing the total number of grade quality points by the total number of credit hours carried.

Academic Standing

Academic standing is determined by the cumulative grade point average from the beginning of the student’s studies at Canisius.

The following terms are used to describe a student’s academic standing:

1. Academic probation: When a student’s grade point average falls beneath the level indicated on the chart on the next page, he/she is placed on academic probation – a serious warning that the student’s academic record at the college is unsatisfactory. It is generally not advisable for students on academic probation to take part in extracurricular activities. Varsity athletes, in addition,
are governed by NCAA and regional conference regulations. Probation for two successive semesters will result in automatic academic disqualification from the college.

2. Academic dismissal: Academic dismissal results from any one of the following:
   a. Falling below the grade point average indicated on the chart below.
   b. Failing three courses in a single semester.
   c. Being placed on academic probation for two successive semesters. Dismissed students may not enroll in any division of the college and must wait at least six months before applying for readmission.

3. Good academic standing: This is a term used to determine a student's eligibility for financial aid. A student who is on academic probation is considered to be in good academic standing. Further details may be found in the section on Financial Aid.

The grade point average levels for academic probation and academic dismissal are given as follows:
Cumulative grade point average, based on 0-30 credits and 31 or more credit hours:
ACADEMIC PROBATION: 1.50-1.99
ACADEMIC DISMISSAL: Below 1.50
Cumulative grade point average, based on 31 or more credit hours:
ACADEMIC PROBATION: 1.75-1.99
ACADEMIC DISMISSAL: Below 1.75
To be eligible for graduation, a student must have earned an overall cumulative grade point average of 2.00.

Separation from the College
Each student's continued registration at the college, the awarding of academic credits and the granting of any certificate or degree are entirely subject to the disciplinary authority of the college. The college reserves the right, therefore, to enforce the regulations concerning satisfactory academic performance and, in consequence, to cancel a student's registration, to refuse academic credits or to deny a certificate or degree. Separation from the college may also be imposed as a penalty for any conduct which conflicts with the ideals of the college or damages its reputation and that of its students.

Policy on Student Records
The Family Educational Rights and Privacy Act of 1974, as amended (FERPA), is the federal law governing individuals' access to student records. The guiding principle of FERPA is that education records are private and that students have the right to limit their disclosure to third parties. FERPA grants students the right to inspect and review their education records, the right to request to amend their education records and the right to limit disclosure of some personally identifiable information known as directory information. For purposes of FERPA, "education records" are all records which contain information directly related to a student and maintained by Canisius College. Records that are not "education records" include but are not limited to sole possession, law enforcement, employment, medical and counseling, and post-attendance records. A "student" is defined as one who has attended or is attending Canisius College and regarding whom Canisius College maintains education records.

Normally, education records will not be released – nor access given – to third parties without written consent of the student unless the party meets one of the following:
• To school officials who have a legitimate educational interest in the records.
• To federal, state and local officials involving an audit or evaluation of compliance with educational programs.
• To anyone who is providing financial aid to the student ("financial aid" does not include any payments made by parents).
• To organizations conducting certain studies for or on behalf of the college.
• To accrediting organizations to carry out their functions.
• To comply with a judicial order or a lawfully issued subpoena.
• To parents of a dependent student.
• To appropriate parties in a health or safety emergency.
• To schools in which a student seeks or intends to enroll.
• To an alleged victim of a crime of violence of the results of a disciplinary hearing regarding the alleged perpetrator of that crime with respect to that crime.
• To parents/legal guardians when their children (under age 21) are found to have violated the Canisius College alcohol or drug policy.
• To military recruiters who request "Student Recruiting Information" for recruiting purpose only.
• To the Internal Revenue Service (IRS) for purposes of complying with the Taxpayer Relief Act of 1997.
• To the Bureau of Citizenship and Immigration Services (BCIS) for purposes of the Student and Exchange Visitor Program.
• To authorized representatives of the Department of Veterans Affairs for students receiving educational assistance from the agency.

It should be noted that FERPA permits the disclosure of education records to the parents of a dependent student. The college, however, considers its students to be adult decision-makers; as such, students have the right and responsibility to share information about their grades and degree pursuit with their parents and/or guardians. This means that the staff of the college normally will not give out information about grades or degree pursuit and will instead suggest that parents or guardians have conversations directly with students.
about these matters. The college's policy provides a greater degree of privacy for dependent students than FERPA would require. If the student or the parent wish to have this information released to the parents, the student must sign an Authorization to Disclose Grades form with the Student Records office, Bagen 106.

A notification of releases made to third parties shall be kept in the student’s record (unless forbidden by a judicial order or subpoena). The third party shall be informed that no release of personally identifiable data is authorized without the written consent of the student.

The college has established the following procedures enabling students to have access to their records:

1. The student may inspect and review his or her record by filling out a request form at the office where the record of interest is maintained. Students may not inspect and review the following:
   • Financial information submitted by parents.
   • Confidential letters and recommendations placed in their files prior to January 1, 1975.
   • Confidential letters and statements of recommendation placed in records after January 1, 1975, to which the student has waived his or her right to inspect and review.
   • Education records containing information about more than one student; however, in such cases, students will be given access to the part of the record which pertains only to the inquiring student.

2. Access is to be granted promptly and no later than 30 days from the date of the request.

3. The student may obtain copies of documents to which he or she is entitled. The college may charge for these copies.

4. The student may request and receive interpretation of his or her record from the person (or designee) responsible for maintaining the record.

Students have the right to challenge the content of their education records if they consider the information contained therein to be inaccurate, misleading or inappropriate. The process includes an opportunity for amendment of the records or insertion of written explanations by the student into such records. The procedures for challenging records can be found in the Office of Student Affairs, Old Main 102.

Unlike education records, directory information shall be released freely unless the student files the appropriate form requesting that certain information may not be released. This form is available at the Student Records Office, Bagen 106. Directory information includes but is not limited to name, address, Email address, phone number, photograph, date and place of birth, major field of study, dates of attendance, grade level, enrollment status, participation in officially recognized activities and sports, weight and height of members of athletic teams, degrees, honors and awards, received and most recent education agency or institution attended.

This policy does not preclude the destruction of any record the college does not consider germane. Persons in charge of records shall ensure that only pertinent items are retained in student files. The forms for “Request for Confidential Status of Directory Information” and “Authorization to Disclose Grades” shall be removed from a student's educational records upon graduation unless the student makes a specific request that these forms remain.

**Recognition of Academic Excellence**

Two categories of recognition are awarded at the end of each semester. The first recognizes full-time students and the second recognizes both full-time and part-time students.

In addition, students in either category who achieve a 4.00 will receive the designation “with Special Distinction.”

The two categories are:

1. **Dean's List.**
   Awarded to students who have attained a grade point average of at least 3.50 for the semester and have completed at least four courses of three credits or equivalent.

2. **Merit List.**
   Awarded to students who have attained a grade point average of at least 3.25 for the semester and have completed two courses of three credit hours or equivalent.

Students who receive an “Incomplete” grade will be eligible for the Dean's or Merit lists once the work is completed and a passing grade submitted. The “Incomplete” grade must be changed within six weeks from the end of final examinations deadline.

**Graduation**

Degrees are awarded three times a year: September 15 for students completing their degree requirements during the summer; February 1 for students completing their requirements during the fall semester, and at the annual May commencement ceremony on the date designated in the college academic calendar. Students who anticipate completing degree requirements the following May, August or September should submit an “Application for Graduation/Request for Diploma” form to the Office of Student Records by the deadline listed below:

<table>
<thead>
<tr>
<th>If your requirements will be completed:</th>
<th>Application for Graduation due by:</th>
<th>Your diploma will be available:</th>
</tr>
</thead>
<tbody>
<tr>
<td>In May</td>
<td>December 15</td>
<td>At May Commencement</td>
</tr>
<tr>
<td>In August</td>
<td>August 1</td>
<td>Approx. September 15</td>
</tr>
<tr>
<td>In December</td>
<td>December 1</td>
<td>Approx. February 1</td>
</tr>
</tbody>
</table>
To qualify for the degree of bachelor of arts or bachelor of science, a candidate must complete a minimum of 120 credit hours, the core curriculum requirements and all requirements of the major. To qualify for the degree of associate of arts, a candidate must complete satisfactorily 20 three or four-credit hour courses and a minimum of 60 credit hours.

Satisfactory completion of requirements means that the candidate has maintained the grade point average indicated in the section on Academic Standing and has completed all general and departmental requirements as outlined in this catalog.

In extraordinary circumstances a student may petition the appropriate associate dean to be allowed to participate in graduation ceremonies even though the student will not have completed all degree requirements by the date of commencement. Before graduation, the degree candidate must settle all accounts with the Office of Student Accounts.

A student who completes the degree requirements in August or December and wishes to obtain his/her diploma before the next commencement should call or visit the Office of Student Records after September 15 or February 1. Each student’s name should be submitted to the Student Records office exactly as the student wishes it to appear on all official documents of the college.

It is the student’s responsibility to keep this file accurate. A fee of $30.00 will be assessed to reprint a diploma if the name on the new diploma is to differ from that on the official record of the college.

Graduation Honors:
Only students who have completed the last 60 credit hours of academic work at Canisius College are eligible for graduating with honors. The Canisius College cumulative grade point average determines graduation with honors according to the following scale:

- Degree is awarded summa cum laude to those whose average is 3.80 or higher.
- Degree is awarded magna cum laude to those whose average is 3.65 or higher.
- Degree is awarded cum laude to those whose average is 3.45 or higher.

Alpha Sigma Nu is the honor society of Jesuit institutions of higher education, including all 28 Jesuit colleges and universities in the United States, the two U.S. Jesuit schools of theology, Regis College of the University of Toronto, Campion College in Regina, Saskatchewan, and Sogang University in Seoul, South Korea. Juniors, seniors, and students in graduate and professional schools who rank in the top 15 percent of their classes may be considered for membership. The college’s chapter may nominate no more than four percent of the junior and senior classes for membership. In addition to scholarship, loyalty to the college and the Jesuit ideals of higher education — intellectual, moral, social and religious — and service to the college and larger community are the criteria for admission.

**ALL-COLLEGE AWARDS AND PRIZES**
(Awards and prizes are based upon seven semesters of completed work.)

The Father Francis A. O’Malley, S.J., Memorial Award is awarded to the member of the graduating class who has achieved the highest cumulative average among students who have completed four years of study at Canisius College.

The James M. Demske, S.J., Scholastic Achievement Award is bestowed upon a senior who has transferred to Canisius College and who has completed his or her course of study here with an exceptionally high cumulative average.

The Alumni Association Distinguished Senior Award is awarded to a senior who has distinguished him/herself through leadership roles and service to the college.

The Campus Ministry Award is given to a graduating senior who has contributed to the Canisius College community through participation in the events and programs of Campus Ministry and who has taken a leadership role in faith and justice activities.

The Dr. Martin Luther King, Jr. Awards are given to faculty members, students, or administrators whose lives and work best represent the ideals of Dr. King.

**ALL-COLLEGE HONORS PROGRAM**
The Kristin M. Brady Award for Excellence in Senior Honors Thesis is awarded to the student who writes the most outstanding thesis in the All-College Honors Program.

The Robert J. Butler Award for Leadership recognizes the student who has exercised strong leadership in carrying out the co-curricular and extra-curricular activities for the All-College Honors Program and who has taken leadership roles in honors classes. It is named for a previous director of the Honors Program.

**RAICHLE PRE-LAW CENTER**
The Albert R. Mugel Award is presented annually by the Raichle Pre-Law Center. It is given to a senior intending to pursue a career in law and whose achievements, individual character and dedication to the welfare of the community best exemplify the career and ideals of Albert R. Mugel. Mr. Mugel was a member of the college’s Board of Trustees and worked tirelessly to enhance the Pre-Law Center and enhance its position in Western New York.

**WOMEN’S STUDIES PROGRAM**
The I. Joan Lorch Award for Women’s Studies is awarded to a student who has made a significant contribution to promote women’s issues on the Canisius College campus through such activities as writing a newspaper series, performing committee work, or representing women’s issues on a governing body.
COLLEGE OF ARTS & SCIENCES
DEPARTMENTAL/PROGRAM AWARDS

ABEC PROGRAM
The ABEC Exemplar Award recognizes the graduating senior in the ABEC program who embodies the Canisius College ideal: excellence in the classroom, outstanding scholarship, and a dedication to making the world a better place by advancing the fields of animal welfare and wildlife conservation.

BIOINFORMATICS PROGRAM
The Student General Excellence Award in Bioinformatics honors the bioinformatics major who, along with a high GPA, has also made contributions to the field through research and/or service activities.

The Bioinformatics Program Excellence in Research Award honors a bioinformatics student who has completed significant research at the undergraduate level.

BIOLOGY DEPARTMENT
The Alpha Theta Chapter of Tri Beta, National Biological Honor Society, Fialkiewicz Award for Academic Excellence in Biology is given to the graduating biology major with the highest academic average.

The Alpha Theta Chapter of Tri Beta, National Biological Honor Society, Alexander Award for Outstanding Research in Biology is given to the graduating biology major who has completed the most significant independent research project leading to presentation or publication in scientific literature.

The Nancy Wohlschlag Distinguished Research Award is given to the graduating biology major who has completed a significant research project leading to presentation or publication in the scientific literature.

The John Kalb Award for Exemplary Research in Biology is presented to the graduating senior who completed the most substantial, independent research project in biology and who embodies the enthusiasm for scientific research as that displayed by the late Professor John Kalb.

The Biology Department Excellence in Research Awards are given to graduating biology majors who have completed substantial research projects leading to presentation or publication in the scientific literature of their discipline.

CHEMISTRY/BIOCHEMISTRY DEPARTMENT
The Valerian A. Ruskiewicz Award for Distinction in Chemistry acknowledges superlative academic achievement demonstrated by the highest GPA in the department.

The Student General Excellence Awards of the WNY Section of the American Chemical Society, the department’s highest awards, are presented to one chemistry and one biochemistry major who demonstrate outstanding academic achievement along with a strong commitment to service within our academic community.

The Student General Excellence Award of the American Institute of Chemists is given in recognition of a demonstrated record of ability, leadership and professional promise within the field of chemistry.

The Merck Award recognizes significant research accomplishments in the field of chemistry or biochemistry.

Distinction in Chemistry Award is awarded for outstanding performance (greater than 90%) on the DUCK Test (Diagnostic Undergraduate Chemistry Knowledge Test) as well as a GPA greater than 3.5.

CLASSICS DEPARTMENT
The David B. Dietz Classics Book Award is given for outstanding performance in Classics courses.

COMMUNICATION STUDIES DEPARTMENT
The Academic Excellence in Communication Studies Award is given to the graduating Communication Studies senior with the highest GPA in the major.

The Department Academic Excellence in Digital Media Arts Award is given to the graduating Digital Media Arts senior with the highest GPA in the major.

Digital Media Arts Outstanding Portfolio Award recognizes an exceptional Digital Media Arts capstone project and portfolio. It is given to a student whose portfolio exhibits distinction in creativity, design, technical proficiency and professionalism.

The Association of Women in Communication Scholarship Award is given to the graduating senior member of the association who served as an officer and has the highest GPA in the major.

The American Advertising Federation Academic Excellence Award is given to the graduating senior member of the federation with the highest GPA in the major.

The Public Relations Student Society of America Academic Excellence Award is given to the graduating senior member of the society with the highest GPA in the major.

The Entercom Excellence in Radio Broadcasting Award is presented to the graduating senior Communication Studies or Digital Media Arts major who has demonstrated outstanding skills and a commitment to radio broadcasting.

The Gene and Peter Jankowski Award of Excellence is given to a graduating senior in Communication Studies or Digital Media Arts who has demonstrated excellence in academic performance and television production.
The WGRZ-TV Excellence in Television News Award is presented to a graduating senior Communication Studies major who has demonstrated outstanding skills and a commitment to journalism through the medium of television.

**COMPUTER SCIENCE DEPARTMENT**

The Computer Science Department Excellence in Academics Award is presented to graduating computer science majors who have achieved an outstanding academic performance.

The Computer Science Department Excellence in Research Award is presented to graduating computer science majors who have achieved outstanding results in computer science research.

**ENGLISH DEPARTMENT**

The Charles A. Brady Award for Excellence in English is awarded to the graduating English major whose achievement in English courses and literary extra-curricular involvement has been superior throughout his or her college career.

The G. E. Murray Award for Excellence in Creative Writing is awarded by the faculty to the graduating creative writing minor whose achievement in writing courses and whose own creative writing have been superior throughout his or her college career.

The Leslie C. Warren Award for Academic Excellence is awarded to the graduating English major who has the highest academic average for his or her college career.

**ENVIRONMENTAL SCIENCE PROGRAM**

The Environmental Science Award for Academic Excellence is awarded to the graduating Environmental Science major with the highest academic average for his or her college career.

The Environmental Science Award for Excellence in Research is awarded to the graduating Environmental Science major who has completed a substantial research project in environmental science leading to presentation and/or publication.

**EUROPEAN STUDIES PROGRAM**

Jean Monnet Award for European Studies is named for one of the founders of European integration. It recognizes achievement in European Studies in the classroom and through study-abroad and co-curricular activity.

**FINE ARTS DEPARTMENT**

The Edith DeLuca Memorial Award is given to a graduating senior who has contributed musically to the college and the community through excellence in musicianship, service and leadership. The student exemplifies the high standards and values of Edith DeLuca, the founder of the Buffalo Philharmonic Concert Series at Canisius College.

The Thalia Feldman Memorial Award in Art History is awarded to a graduating senior in Art History who has maintained outstanding academic achievement and has demonstrated leadership in furthering an understanding of the importance of the visual arts in our community.

The Outstanding Achievement in Visual Art Award is presented to a graduating senior whose visual creativity has contributed to Canisius College and the community through excellence in visual art, service and leadership, thereby exemplifying the high standards of Canisius College and the Fine Art Studio Program.

**HISTORY DEPARTMENT**

The Professor William M. Harrigan Award for Excellence in History was inaugurated in 1971 to commemorate the late Dr. William M. Harrigan, chair of the History Department from 1960 to 1968. To promote excellence in historical scholarship, the award is presented to the senior who best exemplifies the standards of scholarship, interest in history and Christian values which Dr. Harrigan upheld.

The Professor Edwin L. Neville Scholarship in History is given to a senior History major or Secondary Education/Social Studies major who will pursue an advanced degree in history or social studies, preferably in Asian history.

The Rev. Nicholas J. Sullivan, S.J. Award is given for excellence in historical writing.

**INTERNATIONAL RELATIONS PROGRAM**

The International Relations Academic Excellence Award is given to the senior with the highest G.P.A. among International Relations majors.

The International Relations Award for Global Understanding and Involvement is presented annually to the senior International Relations major demonstrating academic excellence and furthering international understanding.

**MATHEMATICS & STATISTICS DEPARTMENT**

The Dr. Robert Tidd Award for Distinction in Mathematics is given to an outstanding senior upon recommendation by the Department of Mathematics and Statistics.

The Dr. William M. Huebsch Award in Mathematics is given to a senior who combines excellent performance in mathematics with great promise in a career in the application of mathematics to other fields. The award is named in honor of Dr. Huebsch '43, who was a former chair of the Mathematics department.

**MILITARY SCIENCE PROGRAM**

The General George C. Marshall Award is given annually by the George C. Marshall Foundation to the outstanding senior ROTC cadet in Buffalo.
The Outstanding Military Graduate Award is given to a distinguished Canisius College cadet who demonstrates exceptional leadership potential, academic achievement and participation in ROTC activities.

MODERN LANGUAGES DEPARTMENT
The Northeast Conference on the Teaching of Foreign Languages (NECTFL) Board of Directors Award for Excellence in Language Study is presented to a graduating senior enrolled in the most advanced course of the language who shows evidence of interest in the language and international studies beyond work in the classroom.

The Raymond L. Girard Award for Distinction in French is bestowed annually on the graduating senior who best exemplifies the qualities of academic excellence and service in the field of French language, literature and culture.

The American Association of Teachers of French (AATF) Outstanding Senior in French Award is awarded to a student who has demonstrated exceptional commitment to the study of French through academic and extracurricular activities related to the language.

American Association of Teachers of German (AATG) of Western New York Outstanding Senior in German Award is bestowed annually on the graduating senior who best combines academic excellence in German language, literature and culture with service to his or her fellow students in the major over the course of four years.

The James J. McGoldrick Award for Excellence in German is bestowed annually on the graduating senior who best exemplifies the qualities of academic excellence and service in the field of German language, literature and culture.

The Nebrija-Bello Award for Distinction in Spanish is bestowed annually on the graduating senior who best exemplifies the qualities of academic excellence and service in the field of Spanish language, literature and culture.

PHILOSOPHY DEPARTMENT
The J. Clayton Murray Award in Philosophy is awarded to the outstanding student in philosophy.

The St. Thomas Aquinas Award in Philosophy is given, at the discretion of the Department of Philosophy, to a student who has demonstrated exceptional achievement in satisfying the college's curriculum requirements in philosophy.

PHYSICS DEPARTMENT
The Valerian A. Ruskiewicz Memorial Prize for Distinction in Physics is awarded annually to the member of the senior class who has the highest class standing throughout his/her course in physics.

POLITICAL SCIENCE DEPARTMENT
The Pi Sigma Alpha Award is given to the student who best exemplifies academic excellence and the pursuit of knowledge in political science.

The Woodrow Wilson Award is awarded to the Political Science major who combines academic excellence with a demonstrated commitment to public service.

PSYCHOLOGY DEPARTMENT
The Donald L. Tollefson Annual Psychology Award is bestowed annually to the senior who best personifies Donald L. Tollefson's ideals of intellectual inquiry and professional engagement in the field of psychology.

The Outstanding Psychology Student Award is presented annually to graduating seniors with outstanding academic and pre-professional accomplishments in the field of psychology.

RELIGIOUS STUDIES DEPARTMENT
The Cyril O. Schommer S.J. Memorial Prize in Religious Studies is awarded to the senior whose written work demonstrates theological insights and mastery of one of the religious studies disciplines.

The Dr. James P. McDermott Award in Religion & Life is given to the senior who manifests Dr. Jim McDermott’s love of learning and his application of religious values in his daily life.

SOCIOLOGY/ANTHROPOLOGY/CRIMINAL JUSTICE DEPARTMENT
The Jesse Nash, Jr. Sociology Award is given to the senior sociology major for academic excellence in sociology and a commitment to social justice in the legacy of Jesse Nash, Jr.

The Canisius College Anthropology Award is given to a graduating senior with the highest overall cumulative GPA in the major.

The William H. Jarrett Criminal Justice Award is given to a senior criminal justice major for academic excellence in criminal justice and a commitment to ethics in the legacy of William H. Jarrett.
SCHOOL OF EDUCATION AND HUMAN SERVICES DEPARTMENTAL/PROGRAM AWARDS

The William F. Kean Award of Excellence in Education is given to the graduating major in the School of Education & Human Services with the highest academic average.

ADOLESCENCE EDUCATION
The Thomas W. Fitzsimons Award in Adolescence Education is bestowed upon a student who demonstrates excellence in academic performance, service to the college and the promise of a successful career in adolescence teaching.

Urban Education Award in Adolescence Education is presented to the adolescence education major who shows outstanding dedication to the Canisius College ideals of commitment to urban education and the betterment of our local community.

COUNSELING & HUMAN SERVICES GRADUATE DEPARTMENT
The Thomas & Camille Caulfield Award is given to the graduate student counselor of the year.

EDUCATION DEPARTMENT
The Bruce D. Perry, MD. PhD. Award in Early Childhood Education is given to the outstanding early childhood major who exemplifies knowledge, skills and dispositions as dictated by the practices proposed by the National Association of the Education of Young Children.

The Donald J. Murphy Award in Childhood Education is bestowed upon a student who demonstrates excellence in academic performance, service to the college and the promise of a successful career in childhood teaching.

The Council for Exceptional Children Award in Special Education is given to the graduating senior who has maintained a high level of scholarship and demonstrates a commitment to teaching children with special needs.

The William D. Bennett Award is given to the graduating senior who demonstrates the hallmark of the late William Bennett’s life: commitment to academic excellence and teaching in multi-cultural settings.

DEPARTMENT OF PHYSICAL EDUCATION, HEALTH AND SPORT STUDIES
The Rev. Edward F. Maloney, S.J. Physical Education Award is given to the graduating senior each year who best displays academic achievement, contributions to college life, participation in the department, including sponsored activities and demonstration of professional qualities.

SPORT ADMINISTRATION PROGRAM
The Dr. Paul E. Bieron Sport Administration Award is given to an undergraduate student enrolled in sports management as a concentration. The student will have had overall high academic achievement, participated as a student intern in the sports industry and done significant scholarly work throughout the curriculum.

DEPARTMENT OF SPORTS MEDICINE, HEALTH, & HUMAN PERFORMANCE
The John T. Gabbey, MD. Award for Excellence in Athletic Training is presented to the graduating senior who has demonstrated outstanding skills in all aspects of the Athletic Training program.

The Health and Human Performance Award is awarded to the student who best shows excellence in the field of human performance and exercise science, community involvement and excellent internship performance.
WEHLE SCHOOL OF BUSINESS
DEPARTMENTAL/PROGRAM AWARDS

ENTREPRENEURSHIP PROGRAM
Entrepreneurship Outstanding Student Award is given in recognition of academic excellence and commitment to entrepreneurial leadership as an entrepreneurship major.

INFORMATION SYSTEMS DEPARTMENT
IS Outstanding Student Award is bestowed on an outstanding senior in the Information Systems major.

INTERNATIONAL BUSINESS PROGRAM
The International Business Outstanding Student Award recognizes a student who has demonstrated academic excellence in his/her major as well as achievement in extracurricular activities including study abroad, international internships and participation in international conferences.

MANAGEMENT/MARKETING DEPARTMENT
Donald E. Calvert Scholarship is awarded to a senior marketing or management student who displays superior academic and professional skills.

The Management Academic Excellence Award is presented annually to the top ten percent of senior management majors based on overall G.P.A.

The Marketing Academic Excellence Award is presented annually to the top ten percent of senior marketing majors based on overall G.P.A.

The Management/Marketing Academic Excellence Awards are presented to the outstanding dual majors in the department.

ACCOUNTING DEPARTMENT
The Bradley J. Shelp, Jr. Memorial Award represents the most prestigious honor the Department of Accounting can bestow upon an accounting student. This award is given on those occasions when the Department of Accounting identifies a senior accounting student who excels in demonstrated attributes of excellence in scholarship and service to the college.

The New York State Society of Certified Public Accountants Awards are given annually, one to a graduating senior in accounting and one to a graduating student in the M.B.A. program in professional accounting. In each case the award is given to the student who has attained the highest scholastic average in accounting subjects and who is considered to be a desirable candidate for admission to the profession of public accounting.

The Accounting Society Award for Excellence in Scholarship in the Accounting Program is awarded annually to the outstanding senior accounting major.

The Accounting Society Award for Excellence in Scholarship in the Accounting Information Systems Program recognizes outstanding achievement by a senior AIS major and is given to the senior with the highest GPA in the AIS major courses.

The Financial Executives Institute Award is given to a graduating accounting major who displays, as assessed by the department, superlative academic skills and a commitment to professional success.

ECONOMICS/FINANCE DEPARTMENT
Nelson D. Civello Most Outstanding Graduate Award is given upon the recommendation of the faculty to the outstanding senior in the department.

Economics/Finance Department Best Finance Student Award is given to a graduating senior for academic excellence in finance.

John S. Murphy Award for Academic Excellence in Economics is given to a graduating senior for academic excellence in economics.
Tuition and Fees

NOTE: The information in this section is valid only for the academic year May 12, 2011 through May 9, 2012. For the most updated tuition information, please go to: http://www.canisius.edu/student_accts/tuition.asp. All tuition charges, student fees, room deposit for returning students, and room and board charges are assessed and collected by the Student Accounts Office, with the exception of the application and deposit fees for new students, which are assessed by the Office of Admissions. The Trustees of the college, when necessary, may amend the tuition charges, fees and room and board charges.

Application Fee
An application fee of $40.00 must accompany each formal application for admission to Canisius College. This fee is not refundable.

Tuition Deposits
All candidates for undergraduate admission must make a pre-registration deposit of $200.00 on or before Candidate's Reply Date of May 1. This deposit will be applied to the tuition bill of the first semester after the formal notice of acceptance. The entire deposit is forfeited if the student fails to enter the college or withdraws from the college before the completion of the semester.

Room Deposits
A $200.00 deposit is required of first time students occupying a room in one of the residence halls. The room deposit is non-refundable and is applied as a credit toward the spring semester room rental charge.

Payment of Tuition, Fees and Room and Board
The college bills the student, rather than his or her parent(s). Each semester a student is issued a bill for tuition, fees, and room and board by the Student Accounts Office. Financial responsibility begins with registration for a course. Failure to attend will not cancel a bill. Tuition, fees and room and board are due on the due date printed on the bill. If a bill remains unpaid after the due date without payment arrangements being made, a $300.00 late charge will be added. All money is credited on the day received, NOT the day mailed.

A student must pay the bill in full or make arrangements with the Student Accounts Office to sign a Semester Payment Plan. An administration fee is added to the bill. The bill is then payable in installments throughout the semester. Failure to adhere to the payment plan will result in the canceling of future registrations and placement of a hold on the student’s transcripts, and may also result in suspension from classes. Legal action may result to collect monies due the college.

Canisius College accepts for payment, cash, check (US funds only), checks over the telephone and money orders. It is the college policy to write the student’s ID number on the face of the check or money order to ensure accurate posting. By submitting a check, please be aware that you are authorizing Canisius College to use information on your check to make a one time electronic debit from your account at the financial institution indicated on your check. This electronic debit will be for the amount on the check. Funds may be withdrawn from your account as soon as the same day your payment is received and you will not receive your check back from your financial institution. Call the Student Accounts Office if you have any questions about electronic check collection or options available if you do not want your payments collected electronically.

POLICIES

Withdrawal, Cancellation and Refund
Unofficial withdrawal does not cancel an account. No withdrawal credit will be given to any student who does not fill out the proper withdrawal forms provided by the appropriate academic dean. No withdrawals will be accepted or withdrawal credit given over the telephone. Withdrawal credit or refunds of tuition will be given to those students whose bills are paid, or who have signed a Semester Payment Plan on or before the due date specified on the bill.

No refund of tuition or housing costs may be demanded as a matter of right when a student leaves the college or college owned housing without completing the semester in which enrolled. For a student to request a refund, the withdrawal must be authorized by the appropriate dean and/or the Director of Residence Life or designee by the filing of an official form, countersigned by the parent or guardian in the case of a freshman. If this is done, the student may request in writing a refund of tuition and/or housing costs only according to the following schedule:

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First week of classes (Drop and Add Week)</td>
<td>100%</td>
</tr>
<tr>
<td>Second week of classes</td>
<td>90%</td>
</tr>
<tr>
<td>Third and fourth week of classes</td>
<td>50%</td>
</tr>
<tr>
<td>Fifth week through eighth week of classes</td>
<td>25%</td>
</tr>
<tr>
<td>After eighth week of classes</td>
<td>None</td>
</tr>
</tbody>
</table>

Fees are not refundable.

The refund policy is set by the federal government (Appendix A to Part 668 Standards for Acceptable Refund Policies by Participating Institutions).
Deferred Tuition Payments

Students desiring a tuition deferment or monthly installments in paying their tuition may enter into a Semester Payment Plan with the college. If a student wishes to utilize the Semester Payment Plan, he/she must enroll in the plan by the due date on the bill. All Semester Payment Plans are subject to an administration fee and a penalty fee if the balance is not paid in full by the payment plan’s final due date. Once enrolled in a Semester Payment Plan, the administration fee will be added to the tuition bill and the remaining balance is due in accordance with the terms of the agreed upon plan.

Full-Time Students

A full-time undergraduate student is one who is registered for at least 12 semester hours of credit.

Part-Time Students

A part-time undergraduate student is one who is registered for less than 12 semester credit hours.

Tuition and Fees: Undergraduate Division

Fall And Spring Semesters 1

Effective May 12, 2011 through May 9, 2012

<table>
<thead>
<tr>
<th>PER SEMESTER IN ALL CURRICULA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time (12-18 credit hours)</td>
<td>$14,800.00</td>
</tr>
<tr>
<td>Part-time</td>
<td>$845.00/cr hr</td>
</tr>
<tr>
<td>Undergraduate courses in excess of semester hours allotted to each curriculum per semester hour</td>
<td>$845.00/cr hr</td>
</tr>
<tr>
<td>Audit, per semester hour</td>
<td>$422.50</td>
</tr>
<tr>
<td>Audit, Alumni &amp; Parents of Students, per course(^2)</td>
<td>$60.00</td>
</tr>
<tr>
<td>Audit, Senior Citizens, per semester (no course limit)(^2)</td>
<td>$50.00</td>
</tr>
</tbody>
</table>

Outstanding Financial Obligations

Any outstanding financial obligation which a student owes to the college can prevent the student from registering for courses or making schedule adjustments after registration.

The following types of outstanding financial obligations can cause a financial hold to be placed on a student’s record and stop registration transactions:

A. Student Accounts Office – outstanding tuition, default on payment plans, late charges, write-offs or delinquent NDSL/Perkins loans and Peter Canisius loans;
B. Library – any late fines or replacement fees for books not returned;
C. Residence Life – residence hall damage fees;
D. Koessler Athletic Center – fees for lost or damaged equipment.

In order to clear a financial hold, a student must pay the obligation due at the appropriate office or make suitable payment arrangements with that office. A student must clear ALL financial holds in order to register for classes, make schedule changes, receive or send transcripts or view their transcripts online.

Governmental Programs

Students who attend Canisius College under the provision of Public Laws 16, 346, 550, or 894 and those under the sponsorship and benefits of other government agencies are subject to regulations governing certified papers from the Department of Veterans Affairs or other appropriate government agencies. They must present these papers to the Student Records Office and the Student Accounts Office.
2011-2012 Housing Rates*
*Subject to the approval of the Board of Trustees

<table>
<thead>
<tr>
<th>Room Rates</th>
<th>Per Semester</th>
<th>Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosch or Frisch Triple Room</td>
<td>$2585</td>
<td>$5170</td>
</tr>
<tr>
<td>Bosch or Frisch Double Room</td>
<td>$3335</td>
<td>$6670</td>
</tr>
<tr>
<td>Bosch or Frisch Suite</td>
<td>$3755</td>
<td>$7510</td>
</tr>
<tr>
<td>Bosch or Frisch Corner Suite</td>
<td>$3820</td>
<td>$7640</td>
</tr>
<tr>
<td>Campion Single</td>
<td>$3845</td>
<td>$7690</td>
</tr>
<tr>
<td>Campion 2 &amp; 3 Person</td>
<td>$3325</td>
<td>$6650</td>
</tr>
<tr>
<td>Delavan Townhouses, 2 &amp; 3 person</td>
<td>$4400</td>
<td>$8800</td>
</tr>
<tr>
<td>Delavan Townhouses, 4 &amp; 5 person</td>
<td>$4065</td>
<td>$8130</td>
</tr>
<tr>
<td>Dugan Triple Suite</td>
<td>$3125</td>
<td>$6250</td>
</tr>
<tr>
<td>Dugan Suite</td>
<td>$3875</td>
<td>$7750</td>
</tr>
<tr>
<td>George Martin House - Double</td>
<td>$3325</td>
<td>$6650</td>
</tr>
<tr>
<td>George Martin House - Single</td>
<td>$3845</td>
<td>$7690</td>
</tr>
<tr>
<td>Main Humboldt (4-person apt)</td>
<td>$4065</td>
<td>$8130</td>
</tr>
<tr>
<td>Main Humboldt (2-person apt)</td>
<td>$4400</td>
<td>$8800</td>
</tr>
<tr>
<td>Griffin Hall (2-person apt) (Grads only)</td>
<td>$3785</td>
<td>$7570</td>
</tr>
<tr>
<td>Griffin Hall (1-person apt) (Grads only)</td>
<td>$4415</td>
<td>$8300</td>
</tr>
<tr>
<td>Main Delavan (2-person apt)(Grads only)</td>
<td>$4400</td>
<td>$8800</td>
</tr>
<tr>
<td>Village Townhouses</td>
<td>$4065</td>
<td>$8130</td>
</tr>
</tbody>
</table>

NOTES:
All FRESHMEN in Bosch, Frisch or Dugan must be on either the Griffin A, B or C plan for the fall and spring semester;
Upper-class residents living in Dugan Hall must be on the Ultimate, Supreme or Mega Block plan for the fall and spring semester.
Changes to the meal plans can be during the 1st week of the semester only.
**All freshman and sophomore students must live on campus, unless commuting from their permanent address and living with a parent.

Semester Fees

| Student Government tax (provides partial support for various student activities) | Full-time students | $148.00 |
| Part-time students | 18.00 |
| College fee (including library, facilities use and ID card) | Full-time students | $271.00 |
| Part-time student | 13.00/credit hour |
| Technology fee | Full-time students | $112.50 |
| Part-time students | 7.50/credit hour |
| Health fee | Full-time students | $25.00 |
| Part-time students | $15.00 |

Special Fees

| Non-Collegiate Learning Assessment Program (NLAP) | $200.00 |
| Portfolio assessor fee | 100.00 |
| GRN 497 - Gerontology Practicum Assessment | 40.00 |
| EDU 122, PED 150 Portfolio (4 years) | 105.00 |

Laboratory, Computer Usage, or Cassette Usage Fees: (per course)

| Labor Usage: Athletic training | $20.00 |
| ACC 211 | 30.00 |
| Biology | 40.00 |
| Chemistry (including breakage allowance) | 40.00 |
| Education | 20.00 |
| Modern Language | 25.00 |
| Physics | 35.00 |
| Psychology | 20.00 |
| Electronic Course Usage (where required, cost of workbook will be extra) | 225.00 |

Occasional Fees and Charges

| Application fee | $40.00 |
| Diploma reprint fee | 30.00 |
| Orientation fee: all new full-time undergraduate freshman students | 200.00 |
| Undergraduate transfer orientation fee | 120.00 |
| Late payment fee | 300.00 |
| ID card late fee or replacement | 20.00 |
| Returned check charges | 25.00 |
| Vehicle registration fee | varies |
| Transcript of records, each | N/C |
| Thesis binding fee | varies |
| Consortium Administration fee, per semester | 350.00 |
| Tuition remission and exchange program | varies |
| Study Abroad Canisius Program | 500.00 |
| Study Abroad Non-Canisius Program | 750.00 |

1 Tuition waiver: see Financial Aid section. 2 On a space-available basis. 3 No fees, except for laboratory, are charged.
Student Financial Aid

The cost of financing a college education is an important consideration for both students and parents. A Canisius College education is affordable and can be made financially possible through the many types of financial assistance administered by the Student Financial Aid Office. The staff of this office is available to help both students and parents plan for the financing of a Canisius education.

Students seeking federal and state financial assistance or institutional funds must complete the Free Application for Federal Student Aid (FAFSA).

The FAFSA worksheet may be obtained on-line at www.fafsa.gov. Incoming students (freshmen and transfers) who complete their applications by February 15 will receive first preference in the evaluation procedure. Returning students should submit their applications by April 15 for first-preference consideration. These dates are recommendations. However, students who do not meet these dates are urged to apply at any time for second consideration.

### Estimated Student Budget for the Academic Year 2011-2012

<table>
<thead>
<tr>
<th></th>
<th>Commuter</th>
<th>Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuition</strong></td>
<td>$29,600</td>
<td>$29,600</td>
</tr>
<tr>
<td><strong>Fees</strong></td>
<td>1,113</td>
<td>1,113</td>
</tr>
<tr>
<td><strong>Books/Supplies</strong></td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td><strong>Room and Board</strong></td>
<td>1,500</td>
<td>11,360</td>
</tr>
<tr>
<td><strong>Personal/Recreation</strong></td>
<td>630</td>
<td>700</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td>430</td>
<td>430</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$33,973</td>
<td>$43,903</td>
</tr>
</tbody>
</table>

### General Eligibility Requirements

To be considered for student financial aid, a student must:

1. Study at least half-time at an educational institution approved by the federal government. It may be located in New York, in another state, or in a foreign country.
2. Be a U.S. citizen or eligible non-citizen.
3. Be a resident of New York State for 12 months immediately preceding the first term for which the student is applying for aid (for New York State financial aid programs).
4. Be in good academic standing and making satisfactory academic progress.
5. Have no outstanding debt from a previous student loan default and must not owe a refund on any federal grant at any institution.
6. Demonstrate compliance with applicable Selective Service laws.
7. Demonstrate financial need or meet individual program or scholarship requirements.
8. Have never received a drug conviction while receiving aid OR have satisfied federal requirements to reinstate eligibility after a drug conviction.

### Repeating a Course

The repeating of a course may have an impact on a student’s financial aid. Once a student has received financial aid for a course for which they have obtained a passing grade, they may not receive New York State aid again for that course.

Therefore, students repeating a course in this instance should take care to enroll in enough credit hours in addition to the course to maintain their aid. For example: You are registered for 12 credits and 3 of those credits are for a repeated course. For New York State aid purposes (TAP, HEOP, Merit Scholarship, etc.) you are only taking 9 credits and are not eligible for state aid. You would need to register for 15 credits in order to keep your state financial aid.

Students repeating a failed course, or a course requiring a higher grade for your major requirement in order to graduate, may be able to receive aid for that repeated course.

### Criteria for Student Financial Aid Consideration

In order to be considered for student financial aid, students must matriculate. That is, they must have satisfied the entrance requirements and be following a prescribed program of study toward a degree. Non-matriculated students are students who are not pursuing a degree at Canisius College, but have met the college’s entrance requirements and have received the permission of the appropriate dean to take classes. Non-matriculated students are not eligible for financial aid.

Student Financial Aid awards are generally based on full-time attendance, which is at least 12 credit hours per academic semester. It is recommended that students contact the Financial Aid Office before reducing their academic load below 12 credit hours per semester in order to determine the effect on their financial aid. Students whose academic loads do fall below 12 hours per semester are required to contact the Financial Aid Office because it is very likely that the financial aid award will be affected. Certain aid programs are available to students who have enrolled part-time for at least six credit hours per semester. Students should contact the Financial Aid Office for further information.

Note: To receive financial aid, a student must remain “in Good Academic Standing.” For further information, the student should read the section entitled “Satisfactory Academic Standing.”
New York State Tuition Assistance Program
The Tuition Assistance Program (TAP) is a state-funded program for New York State residents. It may be used only at approved post-secondary institutions within New York State. Grants range from $500 to $5,000 a year, based on the family's net taxable income for the previous year. There is no competition for this award. To be eligible, students must be full-time matriculated students who meet the standards stated below. Students may receive only eight semesters of TAP as undergraduates. However, students enrolled in approved five-year programs are eligible for 10 semesters of undergraduate TAP. At this time, only HEOP (Higher Education Opportunity Program) is such an approved program at Canisius College. The following table illustrates the amount of a TAP award at Canisius.

### 2011-2012 TAP

<table>
<thead>
<tr>
<th>2010 New York State Net Taxable Income</th>
<th>TAP Award</th>
<th>2010 New York State Net Taxable Income</th>
<th>TAP Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - 7,000</td>
<td>5,000</td>
<td>29,000</td>
<td>2,700</td>
</tr>
<tr>
<td>8,000</td>
<td>4,930</td>
<td>30,000</td>
<td>2,580</td>
</tr>
<tr>
<td>9,000</td>
<td>4,860</td>
<td>31,000</td>
<td>2,460</td>
</tr>
<tr>
<td>10,000</td>
<td>4,790</td>
<td>32,000</td>
<td>2,340</td>
</tr>
<tr>
<td>11,000</td>
<td>4,720</td>
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<td>12,000</td>
<td>4,620</td>
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<td>14,000</td>
<td>4,420</td>
<td>36,000</td>
<td>1,860</td>
</tr>
<tr>
<td>15,000</td>
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</tr>
<tr>
<td>16,000</td>
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<td>500</td>
</tr>
<tr>
<td>27,000</td>
<td>2,940</td>
<td>60,001 - 70,000</td>
<td>500</td>
</tr>
<tr>
<td>28,000</td>
<td>2,820</td>
<td>70,001 - 80,000</td>
<td>500</td>
</tr>
</tbody>
</table>

Federal Financial Aid Programs
The FAFSA and all requested income verification forms are the required forms for the following programs administered and/or awarded by Canisius College.

Federal Pell Grant: The Federal Pell Grant Program was legislated by the federal government through the 1972 Education Amendments and was amended by the Higher Education Opportunity Act of 2008.

In order to be eligible for this grant, a student must be a U.S. citizen or a permanent resident alien. All full-time and part-time matriculating students should apply for this grant. Federal Pell grants range from $555 to $5,550 depending on the amount of funds appropriated by the federal government each year. Individual family circumstances and the cost of education at the college being attended are also taken into consideration. The Free Application for Federal Student Aid (FAFSA) is used to apply for the Federal Pell Grant Program. FAFSA worksheets are available on-line at www.fafsa.gov.

Federal Perkins Loan Program: The Federal Perkins Loan Program is a federally funded program administered by Canisius College and awarded on the basis of financial need. It is available to both full-time and part-time matriculating students. The total undergraduate maximum is $15,000.

The aggregate maximum for graduate students is $30,000, including all undergraduate loans through this program.

The annual percentage rate of the loan is 5 percent. Repayment will begin nine months after the student ceases to be enrolled at least on a half-time basis. There is no interest charged while the student is enrolled in school at least half-time or during the nine-month grace period.

Federal and institutional regulations require students who have taken out a Federal Perkins Loan, a Federal Stafford or Direct Student Loan or a Peter Canisius Student Loan to attend pre-loan and exit interviews before graduating or withdrawing from the college. Important information concerning repayment schedules and deferment and cancellation provisions will be discussed. It is to the student's advantage to attend. Students must contact the Financial Aid Office for this interview if they withdraw from the college.

Federal Work-Study Program: The Federal Work-Study Program (FWS) is a federally funded program designed to offer students part-time employment while in school. It is available to both full-time and part-time (at least six hours) matriculating students. Students are employed on campus, ideally in work related to their academic and vocational goals. A student qualifying for Federal Work-Study employment may work between five and 20 hours a week during the academic year and up to 40 hours a week during the summer.

<table>
<thead>
<tr>
<th>Amount Borrowed</th>
<th>Amount of Payment</th>
<th>Number of Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000</td>
<td>$90.26</td>
<td>12</td>
</tr>
<tr>
<td>2,000</td>
<td>93.64</td>
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<tr>
<td>6,000</td>
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<tr>
<td>7,000</td>
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<tr>
<td>9,000</td>
<td>287.29</td>
<td>40</td>
</tr>
<tr>
<td>10,000</td>
<td>319.21</td>
<td>40</td>
</tr>
</tbody>
</table>
All job referrals are made by the Office of Student Financial Aid.

Federal Supplemental Educational Opportunity Grant: The Federal Supplemental Educational Opportunity Grant (FSEOG) is a federally funded program administered by Canisius College and based on financial need. Recipients may be either full-time or part-time (at least six hours) matriculating students. At Canisius, grants range from $200 to $1,500 a year. This award is a grant, not a loan. FSEOG funds are limited. FSEOG will be awarded to students with exceptional financial need, that is, to students whose financial need exceeds 50 percent of the student budget under which they are evaluated. Priority will be given to students who have the lowest expected family contributions and/or who are eligible for the Federal Pell Grant Program.

Teacher Education Assistance for College and Higher Education (TEACH) Grant:
The Teacher Education Assistance for College and Higher Education Grant (TEACH) is a grant funded by the federal government to encourage students to become highly qualified teachers in high-need subject areas to low income students. Undergraduate and graduate students who are U.S. citizens or eligible non-citizens may be eligible for this grant beginning in the 2008-2009 school year. Grants of up to $4,000 per year may be awarded to eligible recipients who agree to a teaching commitment of four years in a specific subject. A FAFSA must be completed to be considered. Failure to complete the commitment will result in a conversion of the grant to a loan payable with interest accrued from the time of the award disbursement.

Canisius College Competitive Merit Scholarships
Competitive scholarships are awarded to the most talented students who embody the Jesuit ideals of academic excellence, service to the community and a commitment to leadership. Nominated students will be invited to compete and will be notified by the Admissions Office of their eligibility.

Presidential Academic Scholarships: The Scholarship Committee annually awards a limited number of Presidential Scholarships (valued at full tuition for each for four years for students entering as freshmen in 2011), based on the ideals listed above. All incoming freshmen who are offered Canisius Presidential Academic Scholarships must maintain a 3.0 cumulative G.P.A. at the college in order to retain their scholarship aid.

Peter Canisius Scholarships: The Scholarship Committee annually awards a limited number of Peter Canisius Scholarships (valued at $25,000 for each of four years for students entering as freshmen in 2011), based upon the ideals listed above.

Ignatian Scholarships: The Scholarship Committee annually awards a limited number of Ignatian Scholarships (valued at $20,000 for each of four years, for students entering as freshmen in 2011) based upon the ideals listed above. All incoming freshmen who are offered Canisius Ignatian Scholarships must maintain a 3.0 cumulative G.P.A. at the college in order to retain their scholarship aid.

Merit Scholarships
Canisius College also funds renewable scholarships for incoming freshmen which range from $10,000 to $17,000 per academic year. Among the scholarships awarded are the Trustee’s Scholarships, the Dean’s Academic Scholarships, and the Benefactor’s Scholarships. These scholarships are awarded on the basis of SAT or ACT scores and high school records. A separate scholarship application is not required. In order to be eligible for one of these scholarships, a student must:

- Be accepted for admission to Canisius;
- Take the SAT or ACT tests. (Scores for tests taken before December 31 of the senior year are preferred)

Freshmen who are offered these scholarships are required to maintain a 2.0 cumulative G.P.A. at the college to retain their scholarship aid. All applicants are encouraged to apply for financial aid.

Martin Luther King Scholarships: The purpose of the Martin Luther King Scholarship Program is to provide assistance to students who aspire to the goals of Dr. Martin Luther King. Recipients are awarded for $1,000 per year for 4 years of full time study. Applicants must be accepted for admissions and submit a separate application, essay and letters of recommendation by the deadline.

Other Programs
Higher Education Opportunity Program: The Higher Education Opportunity Program (HEOP) is a New York State education program. The purpose of this program is to assist academically under-prepared and financially disadvantaged students. In order to qualify, students must meet specific criteria in each of these areas. Students interested in applying for admission under this program should contact the Canisius Opportunity Programs for Education (COPE) Office for more information. All students in this program must file the FAFSA. This program may be affected by State appropriations.

Children of Alumni: Full-time undergraduate students who are children of Canisius alumni are eligible for an alumni grant of $500 per year for 4 years.

Army ROTC Scholarship Program: The purpose of the Army ROTC Scholarship Program is to assist outstanding students in paying for their college education while they complete requirements for a commission in the U.S. Army Reserves, the National Guard,
or the United States Army. High school students interested in the four-year scholarship should contact their high school guidance counselors or the Professor of Military Science at Canisius College. Students may also apply on the Internet at www.armyrotc.com. The application deadline is November 15 of the student’s senior year in high school.

Three- and two-year scholarships are also available to Canisius College students. It is not necessary that a student be enrolled in the Military Science curriculum to qualify for these scholarship awards. Deadlines for these awards are March 15 of the sophomore year for the two-year scholarship and March 15 of the freshman year for the three-year scholarship.

The scholarship covers tuition and mandatory fees. All qualifying students will also receive a flat rate of $600 for books, and a subsistence allowance of up to $400 per month for the length of the scholarship.

Canisius College also provides a grant to assist resident ROTC Scholarship recipients with their room and board costs.

Endowed Scholarships: Endowed scholarships are permanently invested funds that provide a perpetual source of scholarship assistance to deserving students. These are made possible by endowed gifts, which yield an annual income sufficient to defray, in whole or in part, the tuition and fees of the student.

The annual income from endowed scholarships partially finances the scholarship program of Canisius College according to the wishes of the donors.

Education Loans
A loan is money the student borrows. It must be paid back. A loan is a serious obligation. Students should borrow only what they need. Education loans are for tuition and fees, room and board, books, transportation and personal expenses.

An education loan cannot exceed the student’s total educational costs minus other student financial aid and, if required, a family contribution. Education loans have lower interest rates than most other types of loans.

The Federal Direct Loan Program loans offered at Canisius College include:
- Federal Direct Student Loans (subsidized)
- Federal Direct Student Loans (unsubsidized)
- Federal Direct Parent Loans for Students (Federal PLUS)
- Federal Direct Student Loans (subsidized & unsubsidized)

Federal Direct Student Loans are available to undergraduate and graduate students with demonstrated financial need. The maximum loan amounts available to undergraduates are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Loan Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>$3,500 each year</td>
</tr>
<tr>
<td>Second Year</td>
<td>$4,500 each year</td>
</tr>
<tr>
<td>Third, Fourth &amp; Fifth Years +</td>
<td>$5,500 each year</td>
</tr>
</tbody>
</table>

PLEASE NOTE: a combination of subsidized and unsubsidized Federal Direct Loans cannot exceed the class year limits listed above for dependent students. However, for periods of enrollment beginning with July 1, 2008, all eligible undergraduate students may now borrow an additional $2,000 in unsubsidized loan funds.

The total undergraduate Federal Direct amount (both subsidized and unsubsidized combined) cannot exceed $31,000.

Independent undergraduates may borrow up to an additional $4000 for their first and second years and $5000 for their third, fourth, and if necessary fifth year of study through the Federal Direct Unsubsidized Loan Program. Students are required to pay interest on this loan while they are in school. The total undergraduate Federal Direct Loan amount for independent students (both subsidized and unsubsidized) cannot exceed $57,500.

How to Get a Loan:
Three factors must be considered to determine Federal Direct Loan eligibility: educational costs, other financial aid the student will receive, and the expected family contribution as determined through an approved needs-analysis system. Therefore, all students must submit a FAFSA before the Federal Direct Loan can be processed.

The school must report these figures to the federal loan processor and certify the student’s enrollment status. Borrowers are required to complete an electronic Master Promissory Note (e-MPN).

Information about the e-MPN and instructions for submission may be accessed at www.studentloans.gov.

A loan is usually for a single academic year. An entrance interview will be conducted at orientation. Prior to graduation or withdrawal, the student should complete a loan exit interview. The purpose of these interviews is to explain the rights and responsibilities, including repayment obligations.

Paying Back a Loan: The student is responsible for:
1. Repayment of the amount borrowed
2. Interest on the amount borrowed
3. Fees paid at the time he/she receives the loan proceeds

When a student gets a loan, the terms of repayment are explained. Students must be sure that they understand all repayment terms before signing the loan’s promissory note.

If the student fails to meet these terms, he/she is in default and the entire balance of the loan becomes due.

Costs: The interest rate for all Federal Direct Loans on which the first disbursement is made on or after July 1, 2006 (regardless of any previous loan history) will be the current fixed rate. Loans made
prior to July 1, 2006 but after July 1, 1994 (regardless of any previous loan history) will be at the current variable rate. For subsidized loans, there are no interest payments while the student is in school and for six months afterwards. Students who borrow through the unsubsidized Federal Direct Loan must begin to pay the interest while in school. An origination fee of up to 5 percent of the amount borrowed may be charged. The fees are removed from the loan amount at the time the loan is issued.

Federal Direct Parent Loans for Undergraduate Students
(Federal Direct Plus)
These loans are for parents of financially dependent undergraduate students. Parents may borrow up to the cost of attendance minus financial aid per year per child. A student should apply for a Federal Direct Loan before the parent applies for Federal Direct PLUS. PLUS Loans may be applied for at www.studentloans.gov.

Costs: The interest rate for PLUS loans on which the first disbursement is made on or after July 1, 2006 will be the current fixed rate. Interest begins at the time of disbursement. An origination fee of up to 2.5 percent of the amount borrowed. The fees are removed from the loan amount at the time that the loan is issued.

Repayment: Repayment of the amount borrowed plus interest begins 60 days after the loan is fully disbursed. The minimum monthly payment is $50. Repayment must be completed within 5-10 years depending on how much the parent borrowed. Interest accrues immediately and repayment begins within 60 days of disbursement. However, parents may request an in-school deferment from the federal government if they wish. Repayment would then begin at graduation or separation from school.

Peter Canisius Loan: The Peter Canisius Loan Fund is a limited institutional program established to assist Canisius students who are ineligible to borrow from the Federal Perkins Loan Program and the Federal Direct Student Loan. Full-time undergraduate and graduate students may borrow up to $3,000 per year. Part-time students are eligible to borrow up to one half of the maximum amount per year. One co-signer is required of each applicant. The credit ratings of the co-signer and the borrower must be approved before the loan is disbursed. Repayment of the loan, with an annual percentage rate of 5 percent, begins nine months after the borrower graduates or terminates study. The maximum repayment period is ten years, but it is adjusted according to the size of the individual loan.

Financing Options
The following options are available to assist students and their parents in financing a Canisius education:

1. Griffin Tuition Payment Plan: This plan allows parents to budget tuition payments over a full academic year. A semestery fee of $30 is charged. Further information is available at the Financial Aid Office or the Office of Student Accounts;

2. Canisius College Installment Payment Plan: A student who is unable to pay his/her semester bill in full by the due date may pay the balance in monthly payments by signing a 2-payment installment plan. Installment plans are subject to an administrative fee of $30. A 5 percent penalty fee on the total unpaid balance will be added if the plan remains unpaid after the due date.

Other Information
Awards Notification: Freshmen applicants who submit all necessary forms by February 15 are notified by the Student Financial Aid Office by March 1, or before the May 1 Candidate Reply Date. Upperclassmen and graduate students who submit applications by April 15 receive award notices by July 1. Students submitting applications after April 15 are notified as soon as possible.

Over-Awards: Each year a number of financial aid recipients are "over-awarded." As a result, checks are withheld, and, in some cases, students are billed for funds already disbursed. This problem arises because of the length of time needed to match funds from various institutional sources and/or outside agencies against the individual student’s record. To avoid this problem, students are urged to notify the Student Financial Aid Office promptly when they receive additional funds from any source not listed in their award letters, or when a student changes his/her enrollment status.

Financial Aid Check List: To be evaluated for possible financial aid, the student must submit the following forms each academic year:

1. Free Application for Federal Student Aid (FAFSA) and a TAP application. The FAFSA is available on-line at www.fafsa.gov.
   The TAP application is available to New York State residents as a direct link when they file the FAFSA on-line or by visiting Anytime TAP at www.hesc.com
2. If requested, Federal Income Tax 1040 Form (parents and student) for the previous calendar year when available and/or a letter from Social Services, Social Security or other requested verification of income including child support. These items should be returned to the Student Financial Aid Office.

Students are reminded that financial aid awarded for the freshman year or any other year does not guarantee aid for the following year. Students must re-apply for financial assistance each year.

Financial Assistance Information for Students: Section 485 of the Education Amendments of 1998 legislates that institutions participating in Title IV Student Aid Programs shall provide prospective and enrolled students with information about student aid at their respective institutions.

Canisius College has a Student Financial Aid Policy and Procedures Manual which is updated periodically. This manual describes the following:

1. Institutional, federal, and state student aid programs available at Canisius;
2. Procedures for awarding student aid at Canisius;
3. Application processes and deadline dates for the various student aid programs;
4. Student rights and responsibilities under the appropriate student aid programs;
5. Appropriate budgets, outlining an estimated cost of attendance, which includes tuition, fees, books and supplies, room and board on campus and other related costs;
6. Institutional refund policy; and
7. Academic standards needed to retain financial eligibility.

The Student Financial Aid Office (Old Main 100) will provide the above financial aid information upon request. Information pertaining to academic programs, special services available to the handicapped and institutional accreditation is explained elsewhere in the college catalog.

Satisfactory Academic Standing

To receive student financial aid, a student must remain “in Good Academic Standing.” This means that students must: (1) make satisfactory academic progress toward the completion of their program requirements and (2) pursue the program of study in which they are enrolled. The two elements of program pursuit and satisfactory academic progress must be met for each term of study in which an award is received.

NOTE: These standards are subject to change upon legislative changes by New York State and/or the federal government.

Satisfactory Progress: A student must acquire a minimum number of credits at each semester interval and a minimum cumulative G.P.A. Students must meet the following satisfactory progress standards based on a 4.0 grading system:

| Undergraduate #1: Applies to students first receiving aid in 2007-08 through 2009-10 and HEOP students first receiving aid in 2007-08 and thereafter. |
|---|---|---|---|---|---|---|---|---|---|---|
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| A student must have accrued at least this many graded credits: |
| 0 | 3 | 9 | 21 | 33 | 45 | 60 | 75 | 90 | 105 |
| With at least this Cumulative Quality Point Average: |
| 0 | 1.0 | 1.2 | 1.3 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |

For example:
Student A has accumulated 18 hours and has a 1.2 G.P.A. She is entering her fourth semester and fourth payment of aid and needs 21 hours and a 1.3 G.P.A. She is ineligible for New York State student aid because she does not meet the satisfactory progress requirements.

Undergraduate #2: Applies to students first receiving aid in 2010-11 and thereafter (with the exception of HEOP students)

| Undergraduate: |
|---|---|---|---|---|---|---|---|---|---|---|
| Before being certified for aid for this semester: |
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| Minimum credit hours a student must have completed in the previous semester to meet Program Pursuit requirement: |
| 0 | 6 | 6 | 9 | 9 | 12 | 12 | 12 | 12 | 12 |
| Program Pursuit: This requirement applies to all undergraduate students regardless of which Satisfactory Academic Progress Chart they must follow. |

A student must receive a passing or failing grade in a certain percentage of a full-time course load. The percentage increases from 50 percent of the minimum full-time load in each semester of study in the first year for which an award is made, to 75 percent of the minimum full-time load in each term of study in the second year for which an award is made, to 100 percent of the minimum full-time load in each term of study in the third and each succeeding year for which an award is made. Grades of W (indicating a student’s withdrawal from a course) do not satisfy Program Pursuit requirements. Full-time students must meet the following requirements for Program Pursuit:

| Undergraduate: |
|---|---|---|---|---|---|---|---|---|---|---|
| Before being certified for aid for this semester: |
| 1st | 2nd | 3rd | 4th | 5th | 6th | 7th | 8th | 9th | 10th |
| Minimum credit hours a student must have completed in the previous semester to meet Program Pursuit requirement: |
| 0 | 6 | 6 | 9 | 9 | 12 | 12 | 12 | 12 | 12 |

For example:
Student B has accumulated 18 credit hours and has a 2.0 G.P.A. He is entering his third semester of school and his third payment of aid. At this point, he needed nine hours and a 1.2 to maintain satisfactory progress. However, during his second semester, he completed only three credit hours. Consequently, he did not maintain the program pursuit aspect and is ineligible for his third payment.

Waivers: If a student fails to maintain program pursuit, fails to make satisfactory progress, or fails to meet both of these elements of good academic standing, the college may grant a waiver which would allow the student to receive financial aid for the next semester. A maximum of one waiver at the undergraduate level and one at the graduate level may be awarded to a student. The waiver will not be automatic since it is intended to accommodate only extraordinary cases. Waiver policies are somewhat different for aid received under federal Title IV programs and aid received under New York State programs.

Federal Programs: Each student’s progress will be evaluated every semester. Students will be required to meet the academic standards as outlined in the college catalog.

However, Canisius College will allow all students a one-time probationary period following their first adverse determination of satisfactory progress. During this probationary period, the students
still will be considered to be maintaining satisfactory progress and are eligible for federal Title IV funds. “The fact that a student was placed on probation must be made a part of his or her record.” (Source: official Federal Regulations.) A one-time probationary period is defined as one academic semester. Students not meeting satisfactory academic progress or program pursuit requirements will be placed on financial aid probation status for the ensuing semester of the student's enrollment. Students will be allowed to retain their financial aid during the probationary semester.

Financial aid suspension will occur following the semester of probation if the student fails to meet the required academic standards. Reinstatement of aid will occur when the minimum standards have again been earned. Students may use summer classes (at their own expense) to improve their academic records sufficiently to reinstate their eligibility for financial aid. Only courses taken at Canisius College will affect a student's G.P.A. Students must complete the requirements for a degree within 150 percent of the normal time allotted for program completion or within a maximum of six years. The following aid programs are subject to the conditions described above:

- Federal Pell Grant
- Federal Perkins Loan
- Federal Teacher Education Assistance for College and Higher Education (TEACH) Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study (FWS)
- Federal Direct Student Loans (subsidized and unsubsidized)
- Federal Direct Parent Loan for Undergraduate Students (Federal PLUS)

**New York State Programs:** A waiver will be granted if situations beyond a student's control prevent the student from maintaining satisfactory academic progress or program pursuit. These situations must be documented. The waiver will be granted only when there is reasonable expectation that the student will be able to meet the successive steps for financial aid eligibility as specified in the tables above. Reasons for which waivers may be granted include:

1. personal medical problems;
2. family medical problems;
3. severe personal problems; and
4. other circumstances beyond the control of the student.

Any student wishing to request a waiver must submit to the associate dean of his/her division a written statement detailing the reasons why special consideration should be given. (A statement simply requesting a waiver is insufficient.)

The written statement must be postmarked no later than ten calendar days after the date of the notice of loss of financial aid eligibility. Documentation supporting the stated reasons for special consideration must be provided and should be included with the written statement or should be forthcoming from appropriate third parties or agencies. The student is responsible for requesting that all documentation be sent or brought to the associate dean. Documentation should indicate that the student's problems have been directly responsible for his or her inability to meet the satisfactory progress and/or program pursuit requirements.

The appropriate associate dean will review the student's written statement and supporting documentation. If additional information is needed, the associate dean may require an appointment with the student. A student will be informed of the associate dean's decision within seven calendar days of receipt of the student's written request. The associate dean will confer with any student being granted a waiver to assure that the student is fully aware of his/her situation and that the student concurs with the granting of the waiver. The associate dean's decision on the waiver request is final.

Award programs affected by this policy at Canisius College include the following student aid programs:

- Empire State Scholarship for Excellence
- Tuition Assistance Program (TAP) Children of Deceased and Disabled Veterans (CV) Award, Children of Deceased State Correction Officers, State Civilian Employees of a Correction Facility (AT), and Fire Fighter Award
- Higher Education Opportunity Program (HEOP)
- Vietnam Veterans Tuition Award

Reinstatement of Canisius' own institutional aid rests with the discretion of the Student Financial Aid Committee.

**Part-Time Students:** Part-time students may receive financial aid for up to twelve years, except when certain program limits have been reached. During each academic year of attendance as a part-time student, the student must maintain a cumulative quality point average comparable to that required of a full-time student, along with a comparable number of credits accumulated toward a degree. (See chart above.)

**Summer School:** Students who lose eligibility for financial aid at the end of an academic year can sometimes make up the deficiency by attending summer school at their own expense. The Financial Aid Office should be consulted regarding the student's intention to do so and should be supplied with a transcript of grades after the completion of courses. Only courses taken at Canisius will affect a student's grade point average.
Summary of Curriculum for all Students
I. Core Requirements (see below)
II. Major Requirements (see alpha listing)
III. Electives (sufficient courses and credits to reach the minimum of 120 credits to graduate)

To determine how your courses fulfill curricular requirements you should run a GriffAudit. To run a GriffAudit go to http://www.canisius.edu, select 'Current Students' option, then Online Registration option. Complete instructions can be found on this page.

Core Curriculum Mission
The Canisius College Community is concerned with providing each student with an education that embraces the ideals of academic excellence as they are enriched by a sense of responsibility that each person use his/her gifts for the service of others and the benefit of society. In the spirit of our mission as an American Catholic Jesuit University, the Canisius Faculty provides a Core Curriculum richly informed by Ignatian pedagogy and tradition.

Taking courses in our Core Curriculum, students meet faculty whose classroom experiences provide diverse opportunities to explore the meaning of cura personalis — 'care for the whole person' — and that help prepare students to become men and women who aspire continually for magis —'something more'. Courses in our Core Curriculum enable each student to achieve:

1. A breadth of knowledge in the liberal arts for developing reflection and sound judgment;
2. A focused awareness of the human condition, marked by both cooperation and conflict, to which educated people of good will bring thoughtfulness and understanding; and
3. A foundation of skills that helps turn knowledge and understanding into intellectual productivity and social responsibility.

Core Curriculum Experiences

I. Foundation Courses: Four courses — FYS 101, ENG 101, PHI 101, RST 101

Students are encouraged to complete these four foundation courses during their first year and as their major schedules permit. Usually FYS 101 is taken during the fall semester and ENG 101 during the spring semester. First year students should complete PHI 101 or RST 101 during the fall semester and then the other course during the spring semester.

II. Breadth of Knowledge: minimum seven courses

Students take at least seven courses that range over the traditional liberal arts, at least one from each of the following Fields: Religious Studies, Philosophy, Arts, History, Social Sciences, Natural Sciences, and Mathematical Sciences. Only courses having appropriate field-designation satisfy this component of the Core Curriculum.

III. Cross-disciplinary Knowledge and Skills Courses: courses having the following six designations

Students also take courses that satisfy experiencing the following cross-disciplinary knowledges and skills goals: Justice, Ethics, Diversity, Global Awareness, Advanced Writing-intensive, and Oral Communication. Courses with appropriate field-designation or courses that satisfy major or elective credits may also have these designations. Students take as many courses as necessary to complete all six learning goals.

IV. Core Capstone: One designated course or experience

Once students complete all other Core Curriculum expectations, they become eligible for the Core Capstone. Typically this occurs during a student’s junior or senior year. Some Core Capstones might be capstones in a major (see your major course of study for such overlap).

Descriptions of Core Curriculum Components
The Core Curriculum is a multi-disciplinary program of study that all Canisius College students experience. The Core Curriculum components include:

I. Foundation Courses

The Core Curriculum provides a foundation of four common courses, usually completed during the first year. These courses include basic instruction in writing (FYS 101, ENG 101), attention to the process of critical thinking through basic development of information literacy (FYS 101, ENG 101, PHI 101, RST 101), and basic understanding of the importance of studying religion and philosophy within the Catholic Jesuit tradition of education (PHI 101, RST 101).

Foundation FYS 101: Explorations of Academic Writing — Special Topics

This course emphasizes the production of academic writing through critical analysis of texts with topics drawn from a wide range of academic disciplines. These courses are intended to be seminar style with reading and discussion appropriately challenging for first year students. The motivating goal is that students learn to write to
enhance learning, find and evaluate information, practice academic integrity, negotiate the process of revision, and use correct grammar and syntax.

**Foundation ENG 101: Writing about Literature**
This course develops strategies for reading and writing about literature — poetry, drama, fiction, literary essays. The motivating goal is that students come to understand and interpret primary literary texts, develop writing skills, and develop and organize interpretive essays through the use and evaluation of sources. ENG 101 courses have a significant component devoted to writing instruction and developing information literacy. Students undertake appropriate research activities, write at least 15 pages of polished prose, and revise their writing exercises.

**Foundation PHI 101: Introduction to Philosophy**
This course acknowledges the special place of studying philosophy in Catholic Jesuit education. PHI 101 provides a thoughtful examination of philosophical issues, with concern that students learn to use logical and critical analysis to understand the claims and arguments proposed by classical and modern philosophers, including some in the Catholic philosophical tradition.

**Foundation RST 101: Introduction to Religious Studies**
This course acknowledges the special place of studying religion in Catholic Jesuit education. RST 101 provides an academic introduction to religion, with a concern that students understand the nature and role of religion and religious experience in human life and society, including the Jesuit and Catholic traditions as well as other world religions.

**II. Breadth of Knowledge**
The Core Curriculum compasses a distribution of liberal arts and sciences courses, one in each of seven Fields. These courses provide a broad examination to the liberal arts tradition and invite participants to recognize the multiple ways that natural and social phenomena have been studied and categorized. The skills and knowledge students develop through the Breadth of Knowledge component of the Core Curriculum reflect the variety of disciplinary norms specific to each Field. Taken together these courses encourage students to reflect on their inner lives, to consider how attention to the life of the mind bears upon reality, and to discern the human relationship to the natural world and to social institutions.

**The seven fields include:**

**Field 1: Religious Studies and Theology**
Field 1 courses enable students to gain a clearer understanding of the role that religion plays in human life through a careful and systematic examination of religious ideas, institutions, values or patterns of belief and practice.

**Field 2: Philosophy**
Field 2 courses enable students to understand, articulate, and evaluate the values, principles, and assumptions on which individual and social decisions rest.

**Field 3: Arts**
Field 3 courses enable students to understand the aesthetic dimension of creative work in the fine arts and/or literature and to articulate how that creative work mirrors and shapes human experience.

**Field 4: History**
Field 4 courses enable students to understand how historians use evidence to study the recorded past, to situate events, artifacts and experiences in their historical context, and to analyze the process of change over time.

**Field 5: Social Sciences**
Field 5 courses enable students to explain, interpret and critically analyze human behavior and social structures from the perspective of the social sciences and their methods.

**Field 6: Natural Sciences**
Field 6 courses enable students to explain, interpret, and critically analyze the natural world using the scientific method from the perspectives of the various natural science.

**Field 7: Mathematical Sciences**
Field 7 courses enable students to reason quantitatively, abstractly, or computationally about the world using the symbol systems rooted in quantitative measures, logical analysis, and/or algorithms to solve practical problems.
III. Cross-Disciplinary Knowledges and Skills courses
The Core Curriculum provides six focal areas that address matters central to the Catholic Jesuit tradition of education that are necessary for preparing students for the modern world. Students select courses to fulfill all six experiences. Any course may carry a Cross-Disciplinary Knowledge or Skill designation that has a significant component on the focal area. Such courses may also satisfy Field and major requirements as well as elective credit.

Diversity Component
Courses with a diversity component enable students to develop an understanding of the multicultural character of the United States by giving attention to the cultural differences within the United States. This focal concern is grounded on the assumption that a good education ought to provide students with the intellectual tools and broad perspectives for examining their own communities and values as well as the communities and values of other peoples.

Ethics Component
Courses with an ethics component enable students to develop an understanding of personal action, the good in terms of human agency, happiness and living a worthwhile life. Attention focuses on moral issues, living well and the frameworks that make living well intelligible, both personally and professionally. This focal concern is grounded on the assumption that an understanding of ethics is an integral part of educating the whole person for good citizenship.

Global Awareness Component
Courses with a global awareness component enable students to develop an awareness of nations, countries, regions, communities and cultures outside of the United States. This focal concern is grounded on the assumption that we live in an increasingly interconnected world, and that a liberal arts education ought to provide students the intellectual tools and understandings to comprehend global events.

Justice Component
Courses with a justice component enable students to develop an understanding of the nature of justice, including the tension between justice and power, as well as the causes of injustice. This focal concern is grounded on the assumption that we live in a world that increasingly calls its citizens to promote justice, and that a liberal arts education ought to provide students the intellectual tools and understandings to promote justice.

Advanced Writing-intensive component
Courses at the 200-level or above with an advanced writing component provide significant emphasis on using writing as a way to learn. The focal concern is that students participate in the process of drafting, re-writing, and editing at an advanced level, with extensive commentary and assistance from instructors.

Oral Communication Component
Courses with an oral communication component enable students to develop abilities to communicate effectively and appropriately in a range of contexts, including face-to-face engagements, through practicing their skills with sending and receiving messages. Effective communication helps maintain a sense of community as well as an ability to craft consensus in an increasingly diverse and complex world. Preparation for life in the modern world requires sensitive and skillful communication with those of widely different backgrounds, cultural experiences, and values.

Core Capstone
The Core Curriculum includes a Core Capstone that provides students an opportunity to reflect upon the meaning and significance of the Core Curriculum, as well as to consider the value of public service and the necessity of responsible leadership. Students take the Core Capstone upon completion of all the other core components, usually in the junior or senior year.

Undergraduate Degrees
To earn a bachelor’s degree from Canisius College, each student completes a minimum of 120 credit hours. Each student’s course curriculum is distributed across three component areas: (1) Core Curriculum courses; (2) Major Program courses; and 3 free electives courses.

Major Program Courses
Each major program has its own specific requirements that are listed by the individual department under the heading “Curriculum.” Students should make sure that any restricted electives are chosen from among the courses approved by his/her department.

For complete information about the Core Curriculum, go to /academics/core.asp

Electives
The remaining courses may be chosen in any area. These free electives complete the student’s requirements for the baccalaureate degree.

Credit Policy
A bachelor’s degree requires the completion of a minimum of 120 credits. The number of actual courses and credits varies depending upon the particular program as described in this catalog. All Canisius credits, regardless of the number of credits earned for a course, count toward the fulfillment of the 120 total. In practice this means that students may combine one credit courses to make the equivalent of a three credit free elective. A student may also combine unrelated laboratory credits to make free electives if that student has changed from a science to a non-science major. Any questions about the award of credits and their application to a degree can be directed to the Student Records Office or to an academic advisor.
To earn a degree of associate of arts, a student must complete the required Core Curriculum courses, major courses, elective courses and a minimum of 60 credit hours.

Canisius College offers undergraduate curricula leading to the degrees of Bachelor of Arts (B.A.), Bachelor of Science (B.S.), and Associate of Arts (A.A.) in the majors and/or concentrations as listed below. Each program is listed with the official approved title and HEGIS number by which it is registered with the New York State Education Department. Enrollment in programs other than those that are registered or otherwise approved may jeopardize a student's eligibility for certain student-aid awards. The programs are as follows:

**Arts and Sciences – Bachelor of Arts Degree:**

<table>
<thead>
<tr>
<th>Major</th>
<th>HEGIS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>2202</td>
</tr>
<tr>
<td>International Relations</td>
<td>2210</td>
</tr>
<tr>
<td>Art History</td>
<td>1003</td>
</tr>
<tr>
<td>Latin American Studies</td>
<td>0308</td>
</tr>
<tr>
<td>Biology</td>
<td>0401</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1701</td>
</tr>
<tr>
<td>Classics</td>
<td>1504</td>
</tr>
<tr>
<td>Modern Languages</td>
<td></td>
</tr>
<tr>
<td>Communication Studies</td>
<td>0601</td>
</tr>
<tr>
<td>French</td>
<td>1102</td>
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<tr>
<td>Computer Science</td>
<td>0701</td>
</tr>
<tr>
<td>German</td>
<td>1103</td>
</tr>
<tr>
<td>Creative Writing</td>
<td>1507</td>
</tr>
<tr>
<td>Spanish</td>
<td>1105</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>2105</td>
</tr>
<tr>
<td>Music</td>
<td>1005</td>
</tr>
<tr>
<td>Economics</td>
<td>2204</td>
</tr>
<tr>
<td>Philosophy</td>
<td>1509</td>
</tr>
<tr>
<td>English</td>
<td>1501</td>
</tr>
<tr>
<td>Political Science</td>
<td>2207</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>2299</td>
</tr>
<tr>
<td>Psychology</td>
<td>2001</td>
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<tr>
<td>European Studies</td>
<td>0310</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>1510</td>
</tr>
<tr>
<td>History</td>
<td>2205</td>
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<tr>
<td>Sociology and Anthropology</td>
<td>2208</td>
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<tr>
<td>Humanities</td>
<td>4903</td>
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<tr>
<td>Urban Studies</td>
<td>2214</td>
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**Arts and Sciences – Bachelor of Science Degree:**

<table>
<thead>
<tr>
<th>Major</th>
<th>HEGIS Number</th>
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<tbody>
<tr>
<td>Animal Behavior, Ecology, Conservation</td>
<td>0499.99</td>
</tr>
<tr>
<td>Medical Laboratory Science</td>
<td>1223</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>0414</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>0420</td>
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<tr>
<td>Bioinformatics</td>
<td>0499</td>
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<tr>
<td>Journalism</td>
<td>0602</td>
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<tr>
<td>Biology</td>
<td>0401</td>
</tr>
<tr>
<td>Operations Research</td>
<td>0507</td>
</tr>
<tr>
<td>Chemistry</td>
<td>1905</td>
</tr>
<tr>
<td>Physics</td>
<td>1902</td>
</tr>
<tr>
<td>Computational Science</td>
<td>0799</td>
</tr>
<tr>
<td>Social Sciences-General</td>
<td>2201</td>
</tr>
<tr>
<td>Computer Science</td>
<td>0701</td>
</tr>
<tr>
<td>Specialized Studies</td>
<td>4903</td>
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<tr>
<td>Digital Media Arts</td>
<td>0605</td>
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<tr>
<td>Professional and Technical Studies</td>
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**Education and Human Services – Bachelor of Arts Degree:**

<table>
<thead>
<tr>
<th>Major</th>
<th>HEGIS Number</th>
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<tbody>
<tr>
<td>Education (Adolescence)</td>
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<tr>
<td>Biology “7-12”</td>
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<tr>
<td>Chemistry “7-12”</td>
<td>1905-01</td>
</tr>
<tr>
<td>English “7-12”</td>
<td>1501-01</td>
</tr>
<tr>
<td>French “7-12”</td>
<td>1102-01</td>
</tr>
<tr>
<td>German “7-12”</td>
<td>1103-01</td>
</tr>
<tr>
<td>Spanish “7-12”</td>
<td>1105-01</td>
</tr>
<tr>
<td>Mathematics “7-12”</td>
<td>1701-01</td>
</tr>
<tr>
<td>Physics “7-12”</td>
<td>1902-01</td>
</tr>
<tr>
<td>Social Studies “7-12”</td>
<td>2201-01</td>
</tr>
<tr>
<td>Early Childhood Education</td>
<td>0823</td>
</tr>
<tr>
<td>Childhood Education</td>
<td>0802</td>
</tr>
<tr>
<td>English</td>
<td>0804-01</td>
</tr>
<tr>
<td>Social Studies</td>
<td>0804-02</td>
</tr>
<tr>
<td>Mathematics</td>
<td>0804-03</td>
</tr>
<tr>
<td>Science</td>
<td>0804-04</td>
</tr>
<tr>
<td>French</td>
<td>0804-05</td>
</tr>
<tr>
<td>German</td>
<td>0804-06</td>
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<tr>
<td>Spanish</td>
<td>0804-07</td>
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</table>

**Education and Human Services – Bachelor of Science Degree:**

<table>
<thead>
<tr>
<th>Major</th>
<th>HEGIS Number</th>
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<tbody>
<tr>
<td>Athletic Training</td>
<td>1799.30</td>
</tr>
<tr>
<td>Health and Wellness</td>
<td>1299.30</td>
</tr>
<tr>
<td>Physical Education/Health Education</td>
<td>0835</td>
</tr>
<tr>
<td>Physical Education Sport Studies</td>
<td>0835</td>
</tr>
<tr>
<td>Special Education/Early Childhood</td>
<td>0808</td>
</tr>
<tr>
<td>Special Education/Childhood</td>
<td>0808</td>
</tr>
<tr>
<td>Sport Management</td>
<td>0599</td>
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</table>

**Business Administration – Bachelor of Science Degree:**

<table>
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<th>Major</th>
<th>HEGIS Number</th>
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<tbody>
<tr>
<td>Accounting</td>
<td>0502</td>
</tr>
<tr>
<td>Accounting Information Systems</td>
<td>0502</td>
</tr>
<tr>
<td>Economics</td>
<td>0517</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>0506</td>
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<tr>
<td>Finance</td>
<td>0504</td>
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<tr>
<td>Information Systems</td>
<td>0702</td>
</tr>
<tr>
<td>International Business</td>
<td>0513</td>
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<tr>
<td>Management</td>
<td>0506</td>
</tr>
<tr>
<td>Marketing</td>
<td>0509</td>
</tr>
<tr>
<td>Accounting/Professional</td>
<td></td>
</tr>
<tr>
<td>Accounting (150 hour Program)</td>
<td>0502</td>
</tr>
</tbody>
</table>
Pre-Professional Programs
Canisius College offers pre-professional training for students wishing to pursue a graduate degree in a number of professions. Programs and/or concentrations are available in the following areas:

- Pre-Medicine
- Pre-Dentistry
- Pre-Law
- Pre-Veterinary
- Pre-Pharmacy
- Pre-Law

Undergraduate Dual Degree Programs
Canisius College offers 3+2 Dual Degree Program in Physics and Engineering with the State University of New York at Buffalo, and a dual degree program in physics and engineering with Pennsylvania State University at Erie, The Behrend College.

Students begin the program at Canisius and complete three years, or the equivalent, studying liberal arts courses in addition to pre-engineering courses in the basic sciences. Upon completion of the first three years and with a recommendation from Canisius, students then enter State University of New York at Buffalo or Pennsylvania State for two years to complete the engineering courses required there, with articulation agreements in place to ensure a smooth transfer process.

Students who complete one of the dual degree programs receive two bachelor's degrees, one from Canisius in physics, and one in an engineering discipline (UB – Chemical, Civil, Electrical, Industrial, Mechanical, Aerospace and Penn State - Mechanical) from the partner school.

Dual Degree Programs
Canisius College also offers Dual Degree programs in a number of areas. These programs allow for the completion of a bachelor's degree in four years, followed by a master's degree in approximately one year. These programs are as follows:

- A Dual Degree program leading to a Master of Business Administration degree is offered for students majoring in business and a number of majors in the College of Arts and Sciences.
Courses of Instruction

The college year consists of two semesters, fall and spring. The unit of instruction is the semester hour or credit hour, which consists of one lecture period of 50 minutes length each week for the entire semester. A course having three 50-minute class periods a week will, therefore, earn three semester hours of credit. A two- to three-hour period of laboratory work in the sciences or education each week is considered equivalent to one lecture period, and therefore, to one semester hour.

The number of semester credits to be earned in a given course is always indicated by the number after the course title.

Course Registration Restrictions: In some departments registration in all or in some the course offerings may be restricted to majors in that department. In some instances the department chairperson may authorize registration of non-majors in the course offerings.

Prerequisites: Some courses have prerequisites that must be met before a student can register for the course. Prerequisites include such requirements as the successful completion of previous courses, concurrent registration in another course, permission of the instructor or chair, and specific G.P.A. and course grade requirements. A student may not register for a course where prerequisites are indicated unless the prerequisites have been successfully completed.

Note: For two-semester courses that are listed with one title and description (e.g., BIO 107-108 Human Anatomy and Physiology), it is understood that successful completion of the first semester is a prerequisite for admission to the second half of the course.

The numerical sequence used at Canisius College indicates the following: Courses numbered 100-199 and 200-299 are usually freshman/sophomore courses; 300-399 and 400-499 are usually junior/senior courses. Upperclassmen, on the approval of the department chair, may take courses in the 500-599 category. Courses in the 600 category are restricted to graduate students only.

All courses described in the catalog are scheduled for both 2009-2010 and 2010-2011 unless otherwise indicated.

The college reserves the right to cancel a course because of inadequate registration or for reasons that cannot be foreseen. This is especially true of courses that are listed for 2009-2010. Because of the brevity of course descriptions, further information concerning the content of each course should be obtained from the individual department.

Declaring a Major

A student declares a major upon entrance to the college by filling out the “Academic Interest” section on the admission application. If students wish to change their majors, they must complete a Change of Major form in the Student Records Office. It is the students’ responsibly to make sure the record reflects their correct major, concentration or minor data.

Minors are an option available to students. The requirements for each minor are outlined in the appropriate departmental sections.

Dual Majors

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement. But in some cases additional course work may be required.

In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Substitutions

All degree requirements must be satisfied as stated in the catalog. In some circumstances it may be necessary to make adjustments to the student’s curriculum. Substitutions must be approved in writing by the appropriate person: the associate dean for the Core Curriculum and the department chairperson for the major and/or concentration requirements.

Writing

Writing is a way of learning as well as a way of communicating. The development of skill and fluency in the written use of language is inseparable from the development of skill and fluency in thought. As part of their learning experiences, students should expect to write in a variety of modes, from class notes, diaries and poems to examination essays and research papers. Opportunities for writing are a feature of every course in the college. To help develop skill and fluency in writing of various kinds, students may seek assistance from the staff of the Tutoring Center.

Academic Support Services

Students whose prior academic record or performance on placement examinations indicates that they will need additional help to succeed in their college work will be placed into special sections or courses that are designed to assist them in their future course of studies. Students may also be advised to take special courses or sections if their performance in the first year indicates such special attention may be helpful. When necessary, the college, working through the Student Advisement Center and the various departments, may require that such courses be taken.

Summer Session

The Canisius College Summer Session affords qualified graduate and undergraduate students educational opportunities of the same quality as the courses offered during the regular fall and spring semesters. Course offerings are planned especially for the following groups:

- Undergraduate students who wish to complete required courses, acquire additional credits toward a degree, or make up deficiencies.
Transient students, graduate and undergraduate, who are pursuing degree work at other colleges and universities.

**Academic Advisement**

Students come to the college with diverse needs and varied backgrounds. The college believes that this diversity calls for individualized assistance as students develop into self-directed, independent learners. The college's Student Advisement Center is designed to provide professional assistance for students on an individual basis. Advisors help students understand the college's expectations and foster in them a sense of independence as learners and responsibility for achieving their educational goals. The advisor helps students recognize their academic strengths and weaknesses, establish realistic educational goals, and identify the courses and resources necessary to achieve these goals. The advisor provides academic guidance by interpreting institutional requirements, recommending courses of action and referring students to other people or departments for assistance. The Student Advisement Center is located in Bagen Hall, Room 103.

**Freshmen:** Each entering freshman is assigned an academic advisor in the area of their academic interest who assists the student throughout the freshman year by explaining the college's curriculum and discussing the particular program of study that interests the student. During the freshman year the student will meet with an advisor at least twice each semester to discuss academic performance, student needs, available resources and course scheduling for subsequent semesters.

**Undecided Students:** Students who have not selected a major after their freshman year will receive academic advisement from the Student Advisement Center.

**Part-time Students:** Part-time students are required to meet with an advisor, and are encouraged to use the services of the Student Advisement Center in selecting proper courses and understanding the resources that are available to assist them at the college.

**Upper Class Students:** After their freshmen year students who have selected a major are assigned an advisor in their major field. Each academic department will assign their majors to an advisor. The student must meet with his/her advisor within the department of their major for advisement each semester.

**Non-Matriculated Students:** Non-matriculated students are advised through the Office of Student Records in BA 106.

**Second Degree**

Individuals may enroll in a second baccalaureate degree if they can demonstrate that a second bachelor's degree is necessary for their career. Individuals must fulfill the admissions requirements for the degree sought and must receive approval from the appropriate dean prior to matriculation in the program. These individuals, however, should be advised that in most cases it is unnecessary to receive a second baccalaureate degree; rather they merely need to complete a prescribed series of courses that apply to their career or life needs.

If they still wish to receive the second degree, the following policy will be the guideline: The credits received from the first bachelor's degree will be applied as transfer credit to the second degree. The first degree need not have been completed at Canisius. The minimum requirements for the second degree include the completion of a minimum of at least thirty credit hours at Canisius, with at least 18 credit hours of the courses being taken from the selected major. The student must complete all the departmental requirements for the degree, as well as the general graduation requirements, including a 2.00 grade point average for all courses taken at Canisius.

Individuals should meet with the appropriate dean or advisor to outline the program of courses necessary for the completion of the second degree.
The College of Arts and Sciences offers curricula leading to undergraduate and graduate degrees. The undergraduate curricula provide programs in a wide range of disciplines in the humanities, fine arts, natural sciences and social sciences. We offer 38 undergraduate majors in 18 academic departments. Each program combines the liberal-arts objectives of the Core Curriculum with the specific goals of the student’s major field.

The College of Arts and Sciences offers a graduate program leading to master of science degrees in Communication and Leadership, and Anthrozoology.

Undergraduate majors

Animal Behavior, Ecology and Conservation
Anthropology
Art History
Biochemistry
Bioinformatics
Biology
Chemistry
Classics
Creative Writing
Criminal Justice
Communication Studies
Computational Science
Computer Science
Digital Media Arts
Economics
English
Environmental Science
Environmental Studies
European Studies

French
German
History
International Relations
Latin American Studies
Mathematics and Statistics
Medical Laboratory Science
Multimedia Journalism
Music
Operations Research
Philosophy
Physics and Pre-Engineering
Political Science
Psychology
Religious Studies and Theology
Sociology
Spanish
Specialized Studies
Urban Studies

A number of certificate programs and minors are also offered in the College of Arts and Sciences:

- Certificate Programs
- Computer Science
- Women’s Studies

The many minors offered in the College of Arts and Sciences are identified in the descriptions of departmental offerings.

Also housed in the College of Arts and Sciences are:

- The William H. Fitzpatrick Institute of Public Affairs and Leadership
- The Frank G. Raichle Pre-Law Center
- The George E. Schreiner Pre-Medical Center
- The Institute for the Global Study of Religion
- Institute for the Study of Human-Animal Relations

The faculty in the College of Arts and Sciences is committed to developing knowledge and awareness of past and present dimensions of humanity and culture and to enhancing this knowledge through creative expression, scholarly interpretation and research. By demanding teaching and academic excellence, the College strives to instill in all students the attributes of creative and critical thinking, effective oral and written communication skills and social values that embrace diversity and the Jesuit tradition. Through the various disciplines the College of Arts and Sciences contributes to the formation of responsible citizens by providing an educational foundation upon which students build their lives and professions.
Richard J. Wehle School of Business
Antone F. Alber, Dean; James S. Valone, Associate Dean; Laura A. McEwen, Director, Graduate Business Programs; Stephanie Cattarin, Director of External Business Programs and Melinda Rath Sanderson, Director of the Women’s Business Center.

The Richard J. Wehle School of Business offers curricula leading to undergraduate and graduate degrees through the departments described below.

A complete description of the academic majors is contained elsewhere in this catalog. The majors and the departments where they are housed are shown in the following table.

<table>
<thead>
<tr>
<th>Majors</th>
<th>Department</th>
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<tbody>
<tr>
<td>Accounting</td>
<td>Accounting</td>
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<tr>
<td>Accounting Information Systems</td>
<td>Accounting</td>
</tr>
<tr>
<td>Economics</td>
<td>Economics/Finance</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>Management</td>
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<tr>
<td>Finance</td>
<td>Economics/Finance</td>
</tr>
<tr>
<td>Information Systems</td>
<td>Marketing &amp; Information Systems</td>
</tr>
<tr>
<td>International Business</td>
<td>Management</td>
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<tr>
<td>Management</td>
<td>Management</td>
</tr>
<tr>
<td>Marketing</td>
<td>Marketing &amp; Information Systems</td>
</tr>
</tbody>
</table>

In addition, dual majors are available in these areas or in combination with other majors outside the Wehle School of Business.

All students majoring in business will be required to participate in assessment exercises appropriate for meeting accreditation requirements.

The graduate programs lead to the degrees of master of business administration and master of business administration in professional accounting, a master of science in International Business, and a master of science in Forensic Accounting. They provide the graduate student with sound preparation for business decision-making and leadership. They are described in the Graduate Catalog.

The School of Business now offers a 150-hour program leading to undergraduate and graduate degrees in accounting, plus dual degree programs for students in any undergraduate major leading to one of the two graduate degrees: MBA or MBAPA. The 150 hours will be required for anyone in New York wishing to sit for the CPA exam after August 2009.

The School of Business also includes a Center for Professional Development, which provides numerous professional development and training programs for the Western New York community. There is also a Women’s Business Center that assists individuals who are interested in starting a business or growing an existing enterprise.

Mission Statement
The Richard J. Wehle School of Business develops business professionals to lead within their organizations, to excel in the globally competitive marketplace and to behave as ethically and socially responsible individuals. This is achieved through teaching excellence, intellectual vigor and community involvement in the Jesuit tradition.

Lead within their organizations: Prepare students to work with and motivate colleagues to successfully accomplish organizational goals.

Excel in the globally competitive marketplace: Make use of the school’s location on an international border to give students a greater awareness of the challenges faced in the globally competitive marketplace.

Ethically and socially responsible individuals: Help students understand the importance of ethically and socially responsible behavior.

Teaching excellence: Facilitate the intellectual growth of students in an environment of active learning using qualified and caring faculty.

Intellectual vigor: Support student learning and business practices through faculty scholarship that relates primarily to pedagogy and professional practice.

Community involvement: Provide services to and play an active role in the urban environment in which the school is located.

Jesuit tradition: Educate the whole person to use their gifts in the service of others by caring for the spiritual, intellectual, emotional and physical life of the individual.

The AACSB International (The Association to Advance Collegiate Schools of Business) accredits all undergraduate and graduate programs. Accreditation establishes standards for collegiate schools of business in order to promote high levels of educational quality. AACSB International accredits over 540 schools around the world.

Canisius College has a chapter of Beta Gamma Sigma, a national honor society recognizing outstanding scholastic achievement by students in business administration. Juniors ranking in the top seven percent of their class, seniors in the upper 10 percent, and graduate students who graduate in the top 20 percent are eligible for membership.

Business Minor:
The Business minor is available to provide an introduction to business for those non-business students who may want to seek employment in business after graduation. It consists of six required courses and one elective selected from several advanced business courses. For additional information, please see Dr. James Valone, associate dean of business.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 255</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>FIN 201</td>
<td>Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Management of Organizations</td>
<td>3</td>
</tr>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Business elective: one course (ECO 102, 256; FIN 311; MGT 325, 360, 364, 370; MKT 320, 351, 352)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total 7 courses 21 credits
School of Education and Human Services

Mission Statement
The faculty of the School of Education and Human Services (SEHS), in concert with our candidates, school partners, alumni, and the community, seek to prepare highly effective, professional, and socially committed educators and counselors who value the Jesuit traditions of cura personalis, social justice, and leadership through service. The mission of the unit is to prepare educators who possess content, pedagogical, and professional knowledge; use their gifts in the service of others; and demonstrate professionalism and leadership in their field.

Academic Programs
All initial teacher preparation and all advanced preparation programs in the School of Education and Human Services are accredited by the National Council for the Accreditation of Teacher Education (NCATE). The major program in athletic training is accredited by the Commission on Accreditation of Athletic Training Education (CAATE). All programs are registered and approved by the New York State Education Department.

The School of Education and Human Services offers curricula leading to undergraduate and graduate degrees in a number of areas, including 46 different teacher certification programs available at the childhood and adolescence level, and in students with disabilities and physical education.

The Education Department offers undergraduate degree/certification programs in childhood which include: early childhood education (birth through grade 2); childhood education (grades 1 through 6); a dual certification program in early childhood/childhood education (birth through grade 6); a dual certification program in students with disabilities/early childhood (birth through grade 2); and a dual certification program in students with disabilities/childhood education (grades 1 through 6). Each of these five programs requires candidates to select a course academic concentration in one of nine disciplines: English, mathematics, biology, chemistry, physics, social studies, French, German or Spanish. Candidates enrolled in childhood education programs may elect to take two additional courses in middle childhood education and apply for an extension to teach in grades 5 and 6.

The Department of Kinesiology offers a teacher certification program in physical education, and a dual certification program in physical and health education. The department also offers a major program in athletic training as well as physical education and sports studies.

The School of Education and Human Services also offers a major program in Sports Management.

At the graduate level, the School of Education and Human Services offers master’s degree programs in childhood education, adolescence education, literacy, differentiated instruction, physical education, students with disabilities, special education for educators of deaf/hard of hearing students, counselor education, educational administration and supervision, health and human performance, sport administration and college student personnel administration. These programs are described in the Graduate Catalog.

As required by the New York State Education Department, the pass rates for Canisius College on the New York State Teacher Certification Examinations for the period 2008-2009 are as follows:

- Liberal Arts and Science Test (LAST): 99%
- Assessment of Teaching Skills Written (ATS-W): 100%
- Academic Content Scores: 96%

These scores were reported to Canisius College on March 1, 2010 by the New York State Education Department.

Conceptual Framework
Canisius’ teacher preparation programs focus on knowledge, service, leadership and professionalism, the foundational tenets of our conceptual framework. Academic programs offer candidates the content, pedagogical and professional knowledge, skills and dispositions necessary for quality performance in their field of study. Candidates will demonstrate the ability to reflect on their instructional practice, apply knowledge, exhibit skills and develop dispositions essential for success in P-12 schools. In coursework and in practice, candidates will display a clear understanding of the historical, philosophical, sociological, legal and psychological bases of education and educational policy. Candidates must be committed to the education of the whole person and to the belief that all individuals can learn. Within the contexts of their work, candidates promote authentic learning, social and emotional development,
and a commitment to service and social justice in environments that foster respect for diversity and the dignity of all. Candidates are encouraged to participate in the urban community in which the college is located and, through a variety of field experiences and service-learning opportunities, to interact with an ethnically, racially, culturally, religiously and intellectually diverse population. Collaborative projects allow candidates to learn from others, develop a professional orientation, and assume positions of responsibility and leadership. Candidates develop the ability to reflect thoughtfully on their experiences in order to guide professional development and to improve practice and are encouraged to join professional organizations and actively participate in professional conferences.

Performance outcomes aligned with knowledge (K), service (S), and leadership/professionalism (P) are:

Knowledge: The acquisition, creation and dissemination of knowledge is a continuing, transformational process.

Knowledge Outcomes — The competent professional:

- applies theory and research in practice;
- applies effective teacher/counselor/administrator principles;
- demonstrates appropriate dispositions, emphasizing student responsibility for behavior and achievement.

Service: Each individual has gifts and talents that should be developed to the highest level.

Service Outcomes — The competent professional:

- is committed to diversity, equity and social justice;
- has a sense of purpose and power, and in all endeavors works for the benefit of all learners in their respective human-service professions;
- demonstrates appropriate dispositions: enthusiasm toward content/subject area(s);
  - appreciation of social/cognitive/emotional development of all learners;
  - appreciation of human diversity;
  - values development of students’ critical thinking;
  - engages in comprehensive and collaborative planning that meets curricular goals;
  - commitment to utilizing assessment information to inform decisions.

Professionalism/Leadership: Each individual has an obligation to improve the world in which we live as advocates for social justice and through a dedication to education as a vehicle for positive social change.

Professionalism/Leadership Outcomes — The competent professional is:

- an effective communicator;
- a reflective practitioner;
- a lifelong learner;
- demonstrates appropriate dispositions:
  - values and utilizes effective communication techniques in professional settings;
  - is committed to, and actively seeks out, opportunities to grow professionally;
  - is committed to advocating for the well-being of children and families.

Admission, Assessment and Continued Progress

Although coursework for all teacher certification programs normally begins in the freshman year, continued registration as a major is contingent upon several assessments. Through the assessment system performance is evaluated at four transition points, providing candidates with ongoing and integrated feedback on their progress. The four major transition points are: (1) entrance into the program; (2) prior to clinical practice; (3) after clinical practice; and (4) program completion. Transition to each successive level requires successful performance on all measures described at the transition point. Performance measures include outcomes based on INTASC (Interstate New Teacher Assessment and Support Consortium) principles, the standards of specialized professional associations, and faculty expectations of knowledge, service, leadership and professionalism. The faculty review the progress of each candidate and, if deficits are noted, a plan is developed to address and remediate any shortcomings. Candidates who consistently do not meet program expectations may be counseled out of, or dismissed from, the program.

Assessment at Transition Point 1 – Entrance in Program:

- Acceptance to the college: SAT or ACT Score; high school GPA

Assessment at Transition Point 2 – Prior to Clinical Practice:

- Satisfactory performance on early field experience (pre-student teaching) evaluation- Pass/Fail
- Portfolio Review Pass/Fail based average common assignment score of 3/6
- Integrated Portfolio Reflection- Pass/Fail
- Checked in course by program:
  - PED 441 (Phys. Ed.)
  - EDE 432 (Childhood)
  - EDS 432-436 (Adolescence)
  - EDY 433 (Early Childhood)
  - SPE 432/433 (Special Education)
The development and exhibition of dispositions appropriate to teaching all children is a requirement of all Canisius teacher preparation programs. Candidates who demonstrate an unwillingness or inability to act in a mature, respectful and professional manner will be prohibited from participation in field experiences, including student teaching.

Certification
To obtain initial teacher certification, candidates must pass the examinations required by the New York State Education Department. These include the Liberal Arts and Sciences Test (LAST), the Assessment of Teaching Skills-Written (ATS-W), and the Content Specialty Test (CST). The LAST should be taken in the sophomore year or early in the junior year and the ATS-W and the CST in the senior year.

For the professional certificate, candidates will need additional professional development, three years teaching experience, and the completion of an appropriate master's degree within five years. Contact the New York State Education Department at www.nysed.gov for additional information.

Codes
EDE - Childhood Education
EDY - Early Childhood Education
EDU - Teacher Education (applies to several or all programs)
EDS - Adolescence Education
EMC - Middle Childhood Education
SPE - Special Education
PED - Physical Education
HED - Health Education
HHP - Health & Human Performance
ATH - Athletic Training
FE - Free Elective

Assessment at Transition Point 3 – After Clinical Practice
- Checked by the Director of Field Experiences
  Satisfactory performance on clinical practice evaluations
  PED 493 (Phys. Ed.)
  EDE 493 (Childhood)
  EDS 493 (Adolescence)
  EDY 493 (Early Childhood)
  SPEB 493 (Special Education B-2nd grade)
  SPEI 493 (Special Education Grades 1-6)
  ECCH 493 (Early Childhood/Childhood)

Assessment at Transition Point 4 – Program Completion
- GPA 2.0
- Successful completion of core and concentration courses in program

All candidates for teaching certification are required to develop a professional portfolio during their program of study. Using the electronic portfolio model TaskStream, specific common assignments and reflections from selected courses are complied into an assessment portfolio through which the candidate demonstrates successful performance according to the standards of professional organizations and the Interstate New Teacher Assessment and Support Consortium (INTASC). In addition, TaskStream supports the development of a showcase portfolio for future job searches. Please refer to the Undergraduate Student Handbook and the Program Portfolio Guidelines Handbook for more information.
Accounting Information Systems

Chair: Joseph B. O’Donnell

Introduction:
The Department of Accounting seeks to prepare graduates with the skills that are necessary for success in the profession of accounting. Accounting professionals are expected to be competent in accounting skills, well rounded in the various disciplines of business and possess excellent communication and interpersonal skills. Students completing the accounting program find positions in public accounting, industry, the financial sector, government and nonprofit entities.

The accounting curriculum is registered with the New York State Education Department and the 150 hour accounting programs meet the education requirements of the state of New York for C.P.A. licensure. To become a licensed C.P.A., an accounting graduate should also meet the experience requirement of the state of New York. Students desiring to sit for the exam and obtain their C.P.A. license in other states should check with those states for their specific requirements.

For further Accounting program information see http://www.canisius.edu/accounting/

Degree Programs
1. Four-Year Undergraduate Program leading to the degree of B.S. in Accounting Information Systems. Graduates of this program are eligible for a number of certifications such as Certified Computing Professional (C.C.P) and Certified Information Systems Auditor (C.I.S.A.).

2. Four-Year Undergraduate Program leading to the degree of B.S. in Business Administration (major Accounting). Graduates of this program generally do not meet the education requirements for the New York State CPA license.

3. 150-Hours Program, B.S. in Business Administration (major Accounting) at the end of four years of study and an M.B.A. in Accounting (M.B.A.A.) at the end of the fifth year. This program meets the education requirements of the state of New York for C.P.A. licensure. This program usually takes 5 years but with proper planning could be completed in 4 1/2 years.

4. 150 Hours Bachelor’s Degree in Professional Accounting. This program meets the education requirements of the state of New York for C.P.A. licensure. This program usually takes 5 years but with proper planning could be completed in 4 1/2 years.

5. M.B.A. in Professional Accounting and Master of Science in Forensic Accounting. These programs are described in the Graduate Catalog.

Flexibility: Students do not have to make a decision as to which accounting program to pursue until their junior year.

Note: Program is subject to change to meet State standards.

Requirements for Graduation: To qualify for graduation with a B.S. degree in Accounting Information Systems, a candidate must complete all the graduation requirements outlined in this catalog and must have a cumulative average of 2.0 in all accounting courses taken at Canisius College.

Goals:
http://www.canisius.edu/assessment/bsb_goals.asp
As part of a process of continuous quality improvement, accounting faculty annually conduct assessments to determine how well the program is delivering these learning goals.

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Accounting Information Systems. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the Associate Dean of Business directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Six or nine credit hours of free electives must be completed for this major. Students may graduate with more but not less than 120 credit hours.
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Many students choose to dual major in Accounting Information Systems and Accounting. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.
Accounting 120 Hours

Chair: Joseph B. O’Donnell

Introduction:
The Department of Accounting seeks to prepare graduates with the skills that are necessary for success in the profession of accounting. Accounting professionals are expected to be competent in accounting skills, well rounded in the various disciplines of business and possess excellent communication and interpersonal skills. Students completing the accounting program find positions in public accounting, industry, the financial sector, government and nonprofit entities.

The accounting curriculum is registered with the New York State Education Department and the 150 hour accounting programs meet the education requirements of the state of New York for C.P.A. licensure. To become a licensed C.P.A., an accounting graduate should also meet the experience requirement of the state of New York. Students desiring to sit for the exam and obtain their C.P.A. license in other states should check with those states for their specific requirements.

For further Accounting program information see http://www.canisius.edu/accounting/

Degree Programs

1. Four-Year Undergraduate Program leading to the degree of B.S. in Accounting Information Systems. Graduates of this program are eligible for a number of certifications such as Certified Computing Professional (C.C.P) and Certified Information Systems Auditor (C.I.S.A.).

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4. 150 Hours Bachelor's Degree in Professional Accounting. This program meets the education requirements of the state of New York for C.P.A. licensure. This program usually takes 5 years but with proper planning could be completed in 4 1/2 years.

5. M.B.A. in Professional Accounting and Master of Science in Forensic Accounting. These programs are described in the Graduate Catalog.

Flexibility: Students do not have to make a decision as to which accounting program to pursue until their junior year.

Note: Program is subject to change to meet State standards.

Requirements for Graduation: To qualify for graduation with a B.S. degree in Business Administration with a major in Accounting, a candidate must complete all the graduation requirements outlined in this catalog and must have a cumulative average of 2.0 in all accounting courses taken at Canisius College.

Goals:
http://www.canisius.edu/assessment/wsb_goals.asp

As part of a process of continuous quality improvement, accounting faculty annually conduct assessments to determine how well the program is delivering these learning goals.

Qualifications:

Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Accounting Information Systems. All students must complete a minimum of 120 credit hours to graduate.

Advisement:

All students should have an advisor in the major and should contact the Associate Dean of Business directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:

Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Six or nine credit hours of free electives must be completed for this major. Students may graduate with more but not less than 120 credit hours.
Dual Majors:

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Many students choose to dual major in Accounting Information Systems and Accounting. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:

Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.
Professional Accounting 150 Hours

Chair: Joseph B. O'Donnell

Introduction:
The Department of Accounting seeks to prepare graduates with the skills that are necessary for success in the profession of accounting. Accounting professionals are expected to be competent in accounting skills, well rounded in the various disciplines of business and possess excellent communication and interpersonal skills. Students completing the accounting program find positions in public accounting, industry, the financial sector, government and nonprofit entities.

The accounting curriculum is registered with the New York State Education Department and the 150 hour accounting programs meet the education requirements of the state of New York for C.P.A. licensure. To become a licensed C.P.A., an accounting graduate should also meet the experience requirement of the state of New York. Students desiring to sit for the exam and obtain their C.P.A. license in other states should check with those states for their specific requirements.

For further Accounting program information see http://www.canisius.edu/accounting/

Degree Programs
1. Four-Year Undergraduate Program leading to the degree of B.S. in Accounting Information Systems. Graduates of this program are eligible for a number of certifications such as Certified Computing Professional (C.C.P.) and Certified Information Systems Auditor (C.I.S.A.).

2. Four-Year Undergraduate Program leading to the degree of B.S. in Business Administration (major Accounting). Graduates of this program generally do not meet the education requirements for the New York State CPA license.

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4. 150 Hours Bachelor's Degree in Professional Accounting. This program meets the education requirements of the state of New York for C.P.A. licensure. This program usually takes 5 years but with proper planning could be completed in 4 1/2 years.

5. M.B.A. in Professional Accounting and Master of Science in Forensic Accounting. These programs are described in the Graduate Catalog.

Flexibility: Students do not have to make a decision as to which accounting program to pursue until their junior year.

Note: Program is subject to change to meet State standards.

Requirements for Graduation: To qualify for graduation with a B.S. degree in Business Administration with a degree in Professional Accounting a candidate must complete all the graduation requirements outlined in this catalog and must have a cumulative average of 2.0 in all accounting courses taken at Canisius College.

Goals:
http://www.canisius.edu/assessment/wsb_goals.asp

As part of a process of continuous quality improvement, accounting faculty annually conduct assessments to determine how well the program is delivering these learning goals.

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Accounting Information Systems. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the Associate Dean of Business directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 150 credit hours for graduation. Six or nine credit hours of free electives must be completed for this major. Students may graduate with more but not less than 150 credit hours.
Dual Majors:

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Many students choose to dual major in Accounting Information Systems and Accounting. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:

Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 150 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.
Accounting BS/MBAA

Chair: Joseph B. O’Donnell

Introduction:
The Department of Accounting seeks to prepare graduates with the skills that are necessary for success in the profession of accounting. Accounting professionals are expected to be competent in accounting skills, well rounded in the various disciplines of business and possess excellent communication and interpersonal skills. Students completing the accounting program find positions in public accounting, industry, the financial sector, government and nonprofit entities.

The accounting curriculum is registered with the New York State Education Department and the 150 hour accounting programs meet the education requirements of the state of New York for C.P.A. licensure. To become a licensed C.P.A., an accounting graduate should also meet the experience requirement of the state of New York. Students desiring to sit for the exam and obtain their C.P.A. license in other states should check with those states for their specific requirements.

For further Accounting program information see http://www.canisius.edu/accounting/

Degree Programs
1. 150-Hours Program, B.S. in Business Administration (major Accounting) at the end of four years of study and an M.B.A. in Accounting (M.B.A.A.) at the end of the fifth year. This program meets the education requirements of the state of New York for C.P.A. licensure. This 5 year program could be completed in 4 1/2 years with proper planning.

Students must apply to the M.B.A.A. during their junior year. Admission to the M.B.A.A. program is based on the following criteria:

(1) a minimum cumulative average of 2.75 in all accounting courses taken at Canisius, including all junior accounting courses;

(2) a minimum cumulative overall average of 3.0 by the second semester of the junior year;

(3) a minimum score of 500 on the GMAT.

2. Four-Year Undergraduate Program leading to the degree of B.S. in Business Administration (major Accounting). Graduates of this program generally do not meet the education requirements for the New York State CPA license.

3. Four-Year Undergraduate Program leading to the degree of B.S. in Accounting Information Systems. Graduates of this program are eligible for a number of certifications such as Certified Information Systems Auditor (C.I.S.A.).

4. 150 Hours Bachelor’s Degree in Professional Accounting. This program meets the education requirements of the state of New York for C.P.A. licensure.

5. M.B.A. in Professional Accounting and Master of Science in Forensic Accounting. These programs are described in the Graduate Catalog.

Requirements for Graduation
Students will graduate with a B.S. degree in business administration (major Accounting) at the end of their senior year.

To graduate with a degree of M.B.A. in Accounting, a minimum G.P.A. of 3.0 (scale of 4.0) is required in all graduate courses taken.

Goals:
http://www.canisius.edu/assessment/hsb_goals.asp

As part of a process of continuous quality improvement, accounting faculty annually conduct assessments to determine how well the program is delivering these learning goals.

Qualifications:
Students in the 150-Hour Program will graduate with a B.S. degree in business administration (major Accounting) at the end of their senior year.

To graduate with a degree of M.B.A. in Accounting, a minimum G.P.A. of 3.0 (scale of 4.0) is required in all graduate courses taken.

Advisement:
All students should have an advisor in the major and should contact the Associate Dean of Business directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp
Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach the minimum number of 150 combined undergraduate (102) and graduate (48) credit hours for graduation. Zero or three undergraduate and six MBA credit hours of free electives must be completed for this major. Students may graduate with more but not less than 150 credit hours.

<table>
<thead>
<tr>
<th>Major Courses</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>ACC 301</td>
<td>Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ACC 302</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ACC 303</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ACC 307</td>
<td>Management and Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LAW 371</td>
<td>Business and Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LAW 372</td>
<td>Business Organizations and Commercial Paper</td>
<td>3</td>
</tr>
<tr>
<td>Graduate:</td>
<td>MBA 715</td>
<td>Basic Taxation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 716</td>
<td>Advanced Tax</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 721</td>
<td>Advanced Financial Reporting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 725</td>
<td>Auditing Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 726</td>
<td>Information Systems Auditing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 729</td>
<td>Not for Profit Accounting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 751</td>
<td>Accounting Theory and Research</td>
<td>3</td>
</tr>
<tr>
<td>Additional Course Considerations:</td>
<td>Business International Requirement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECO 101</td>
<td>Principles of Macro Economics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECO 102</td>
<td>Principles of Micro Economics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECO 255</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ECO 256</td>
<td>Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FIN 201</td>
<td>Intro to Finance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ISB 101</td>
<td>Management Technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MGT 101</td>
<td>Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 502</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 507</td>
<td>Operations Planning and Control</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 508</td>
<td>Advanced Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 630</td>
<td>Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MBA 690</td>
<td>Strategic Management and Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>FYS 101</td>
<td>ENG 101</td>
</tr>
<tr>
<td></td>
<td>MAT 105 or MAT 111 or MAT 115</td>
<td>RST 101</td>
</tr>
<tr>
<td></td>
<td>ECO 101</td>
<td>MAT 106 or Elective</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge Social Science</td>
<td>ECO 102</td>
</tr>
<tr>
<td></td>
<td>ISB 101</td>
<td>Business International Requirement</td>
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<tr>
<td></td>
<td>Business International Requirement</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>MGT 101</td>
<td>PHI 101</td>
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<tr>
<td></td>
<td>ACC 211</td>
<td>ACC 212</td>
</tr>
<tr>
<td></td>
<td>ECO 255</td>
<td>ECO 256</td>
</tr>
<tr>
<td></td>
<td>MKT 201</td>
<td>ACC 307</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge History</td>
<td>Field of Knowledge Arts</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge Religion</td>
<td>Field of Knowledge Philosophy</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge Science</td>
<td>A and S Elective</td>
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<tr>
<td></td>
<td>A and S Elective</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>ACC 301</td>
<td>ACC 302</td>
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<tr>
<td></td>
<td>ACC 303</td>
<td>ENG 389</td>
</tr>
<tr>
<td></td>
<td>FIN 201</td>
<td>Capstone</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge Religion</td>
<td>Field of Knowledge Philosophy</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge Science</td>
<td>A and S Elective</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>MBA 715</td>
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<td>MBA 725</td>
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<td></td>
<td>MBA 751</td>
<td>MBA 507</td>
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<tr>
<td></td>
<td>LAW 371</td>
<td>MBA 690</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td>LAW 372</td>
</tr>
<tr>
<td>Fifth Year</td>
<td>MBA elective</td>
<td>MBA 620/621</td>
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<tr>
<td></td>
<td>MBA 726</td>
<td>MBA 641</td>
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<td>MBA 502</td>
<td>MBA 729</td>
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<tr>
<td></td>
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<td></td>
<td>MBA 630</td>
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Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Many students choose to dual major in Accounting and Accounting Information Systems. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum credit hour degree requirements for this program, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum credit hour degree requirements for this program, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Note:
Students do not have to make a decision which accounting program to pursue until their junior year. For additional information regarding the M.B.A. in Accounting refer to the Graduate Catalog. Program is subject to change to meet State standards.
Accounting/Accounting Information Systems

COURSES: 2011-2013

ACC 201 Financial Accounting
Introduction to accounting concepts for external financial reporting. Accounting theories and principles relative to asset and liability valuations, and income determination. Spring and Fall

ACC 202 Managerial Accounting
Introduction to accounting concepts for internal reporting and control. Cash budgeting, decision making, capital budgeting, tax aspects of managerial planning and performance evaluation. Prerequisite ACC 201. Spring and Fall

ACC 211-212 Principles of Accounting I and II
Fundamental concepts and procedures of financial and managerial accounting with emphasis on asset and liability valuations, income determination and cash flows. Accounting applications of present value concepts, introduction to budgeting and product costing. For Accounting majors. ACC 211. Spring and Fall, ACC 212 Spring

ACC 301-302 Intermediate Accounting I and II (6)
In-depth accounting concepts and theories pertaining to external financial reporting. Emphasis on theories surrounding asset valuations, liabilities, income determination and cash flows. Prerequisites: ACC 211-212, junior standing, and overall G.P.A. of 2.0; a grade of C or better in ACC 301 to continue to ACC 302. ACC 301 Spring and Fall, ACC 302 Spring

ACC 303 Cost Accounting
Preparation and analysis of data utilized by management in planning and control decisions. Inventory valuation and reporting methods. Establishment and use of standards and budgets. Prerequisites: ACC 211-212, junior standing and overall G.P.A. of 2.0. Spring and Fall

ACC 307 Management and Accounting Information Systems
Development, organization, and implementation of accounting and management information systems. Emphasis on systems controls, processing cycles, and systems development life cycle. Prerequisites: ACC 211 and ISB 101. Spring and Fall

ACC 331 E-Business
Challenges and strategies in electronic mediated business such as electronic business relationships, electronic payment systems, virtual supply chains, product development strategies, legal security and privacy issues. Evaluation and construction of electronic business web sites through case studies and projects. Prerequisites: ACC 307 or concurrent registration. Spring

ACC 340 (ISB 340) Database Management
Design and use of database management systems through host languages and user query languages. Data structures, database design, database access methods, alternate data models, database administration. Prerequisites: ACC 307 and ISB 101. Fall

ACC 415 Basic Taxation
Provisions of Internal Revenue Code affecting individuals and corporations; tax factors in planning and decision making; social, political and economic considerations underlying tax laws. There will be an emphasis on learning research and communications skills. Students will learn to prepare various business and accounting correspondence including, reports, memorandums, client and engagement letters. Prerequisite: ACC 212. Fall

ACC 416 Advanced Tax
Internal Revenue Code provisions relating to taxation of corporations and shareholders; partnerships and partners including organization, reorganization, distribution and liquidation. Emphasis on Sub-Chapters “C,” “S” and “K.” Course includes learning oral and written presentations skills and techniques. Prerequisite: ACC 415. Spring

ACC 421 Advanced Accounting Problems
Problem-solving techniques relative to mergers and consolidations; organization and liquidation of partnerships; introduction to fiduciary accounting for receivers, trusts and estates. Prerequisite: ACC 302. Fall

ACC 425 Auditing Theory and Practice
Generally accepted auditing standards, internal control, professional liability of auditors, ethics of the profession, statistical sampling and the auditor’s report. Prerequisite: ACC 302. Spring

ACC 426 Information Systems Auditing
Information system control design and auditing in the internet, electronic and paperless environment; management of security technology; operating and application system processing controls; prevention of unauthorized activity. Prerequisites: ACC 307 and ACC331 or ACC452 or ACC425. Fall

ACC 441 Fraud Examination: Detection and Deterrence
The course will concentrate on financial fraud, white-collar crime, how financial fraud is perpetrated, approaches to fraud investigations and documentation, and fraud detection and prevention. Ethical issues in fraud examination and investigation will be covered as well as strategies and tools for fraud deterrence in organizations. Prerequisites: ACC 301/302, ACC 425 or ACC 426. Fall

ACC 429 Not For Profit
Accounting and reporting issues that apply to governmental units, hospitals, schools, religious institutions and other non-profit organizations; budgetary procedures including appropriations and encumbrances. Spring

ACC 451 Accounting Theory and Research
Standard setting procedures at the US and international levels, accounting concepts and principles, contemporary accounting issues, concepts of income determination, extensive database research to support or oppose accounting positions and library research culminating in a research paper or class presentation. The course will also provide instruction in business/accounting written and oral communication. Prerequisite: ACC 302. Fall
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>Semester(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 452</td>
<td>Enterprise Systems</td>
<td>3</td>
<td>Measuring the value of enterprise information, enterprise resource planning (ERP) system design and functionality, international accounting systems issues, data integrity, use of financial and non-financial information for corporate decision-making.</td>
<td>ACC 307.</td>
<td>Spring</td>
</tr>
<tr>
<td>ACC 499</td>
<td>Independent Research in Accounting</td>
<td>3</td>
<td>Undertaking of a significant piece of independent research. By appointment with chairperson.</td>
<td></td>
<td>Spring, Fall</td>
</tr>
<tr>
<td>LAW 371</td>
<td>Business and Commercial Law</td>
<td>3</td>
<td>American legal system and substantive law of contracts, agency, bailments, sales, products liability. Uniform Commercial Code and cases.</td>
<td>ACC 212 or permission of instructor.</td>
<td>Fall</td>
</tr>
<tr>
<td>LAW 372</td>
<td>Business Organizations and Commercial Paper</td>
<td>3</td>
<td>Legal aspects of partnerships and corporations; advantages and disadvantages of each, together with commercial paper under Uniform Commercial Code; trade regulation; bankruptcy.</td>
<td>LAW 371.</td>
<td>Spring</td>
</tr>
<tr>
<td>LAW 472</td>
<td>Advanced Commercial Law</td>
<td>3</td>
<td>Foreign Corrupt Practices Act of 1977, secured transactions, accountants liability, real property, trusts and estates, and insurance.</td>
<td>LAW 372.</td>
<td>Fall</td>
</tr>
<tr>
<td>ACC 452</td>
<td>Enterprise Systems</td>
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<td>Measuring the value of enterprise information, enterprise resource planning (ERP) system design and functionality, international accounting systems issues, data integrity, use of financial and non-financial information for corporate decision-making.</td>
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<td>LAW 372.</td>
<td>Fall</td>
</tr>
</tbody>
</table>
Adolescence Education - Biology

Introduction:
The professional sequences in Adolescence Education give the prospective teacher a thorough foundation in the many facets of modern American secondary education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college. The Adolescence Education Department offers nine certification programs at the Adolescence Level – grades 7 through 12.

Please view our website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/adolescence-education/

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Academic criteria for endorsement and completion of the program are as follows: Students must maintain a cumulative GPA of 2.5 or higher and a grade of C or higher in content and pedagogical courses. They must achieve satisfactory performance in field placements and have a successful portfolio review. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students will be assigned an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

In addition, students will be assigned an advisor in their respective concentration area.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses that may be selected in addition to the Core Curriculum, major and concentration requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Free electives may not be available for all concentrations.

Major Courses:
The Adolescence Education Major includes the following required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDS 101</td>
<td>Human Growth and Social Development: Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>EDS 223</td>
<td>Foundations of Adolescent Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDS 224</td>
<td>Adolescent Literacy in a New Literacies World</td>
<td>3</td>
</tr>
<tr>
<td>EDS 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>EDS 402-406</td>
<td>Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 432-436</td>
<td>Applied Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 493</td>
<td>Supervised Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EDS 494</td>
<td>Capstone Seminar for Adolescence Education Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Workshop</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
</tr>
</tbody>
</table>

Major Electives:
Candidates wishing to obtain an extension to teach grades 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

Major Experiences:
New York State requires the successful completion of at least 100 hours of field experience before student teaching. This requirement is divided up among three courses in the major program. EDS 223 has a 20 hour field experience, EDS 360 has a 30 hour field experience and EDS 432-436 (choose the appropriate course) hosts the final 50 hours. The field experience builds from participatory observation to tutoring or working with small groups to teaching a lesson and then teaching lessons from a unit designed by the student in their EDS 432-436 course.
At the development of this catalog, the concentrations of Biology, Chemistry and Physics in the Adolescence Education Program were under review. Please consult with your advisor and Griff Audit for the updates to these concentrations.

| Recommended Semester Schedule for Major Course Requirements |
|---------------------------------|---------------------------------|
| **YEAR** | **FALL SEMESTER** | **SPRING SEMESTER** |
| Freshman | EDS 101 (3) Fall or Spring | EDS 101 (3) Fall or Spring |
|          | Concentration Courses | Concentration Courses |
|          | Concentration Courses | Concentration Courses |
| Sophomore | EDS 223 (3) | EDS 225 |
|           | EDU 250 (3) Fall or Spring | EDU 250 (3) Fall or Spring |
|           | Concentration Courses | Concentration Courses |
|           | Concentration Courses | Concentration Courses |
| Junior | EDS 360 (3) | DS 405 (3) |
|         | EDS 390 (3) or SPE 341 (3) | SPE 341 (3) or EDS 390 (3) |
|         | Concentration Courses | Concentration Courses |
|         | Concentration Courses | Concentration Courses |
|         | Concentration Courses | Concentration Courses |
| Senior | EDS 435 (3) | EDS 493 (12) |
|          | Concentration Courses | EDS 494 (3) |
|          | Concentration Courses | EDU 495 (0) |
|          |                | EDU 496 (0) |

**Dual Majors:**
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

**Minors:**
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

*Some courses in the major and/or the concentration may add additional field experience hours in line with service learning.*
Adolescence Education – Chemistry

Chair: Barbara A. Burns

Introduction:
The professional sequences in Adolescence Education give the prospective teacher a thorough foundation in the many facets of modern American secondary education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college. The Adolescence Education Department offers nine certification programs at the Adolescence Level – grades 7 through 12.

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<td>EDS 223</td>
<td>Foundations of Adolescent Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDS 224</td>
<td>Adolescent Literacy in a New Literacies World</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>EDS 402-406</td>
<td>Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 432-436</td>
<td>Applied Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 493</td>
<td>Supervised Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EDS 494</td>
<td>Capstone Seminar for Adolescence Education Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Workshop</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
</tr>
</tbody>
</table>

Major Electives:
Candidates wishing to obtain an extension to teach grades 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

Major Experiences:
New York State requires the successful completion of at least 100 hours of field experience before student teaching. This requirement is divided up among three courses in the major program. EDS 223 has a 20 hour field experience, EDS 360 has a 30 hour field experience and EDS 432-436 (choose the appropriate course) hosts the final 50 hours. The field experience builds from participatory observation to tutoring or working with small groups to teaching a lesson and then teaching lessons from a unit designed by the student in their EDS 432-436 course.
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Some courses in the major and/or the concentration may add additional field experience hours in line with service learning.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>EDS 101 (3) Fall or Spring</td>
<td>Concentration Courses</td>
</tr>
<tr>
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<td>Concentration Courses</td>
<td>Concentration Courses</td>
</tr>
<tr>
<td>Sophomore</td>
<td>EDS 223 (3)</td>
<td>EDS 225</td>
</tr>
<tr>
<td></td>
<td>EDU 250 (3) Fall or Spring</td>
<td>Concentration Courses</td>
</tr>
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<td>Concentration Courses</td>
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<td>Concentration Courses</td>
<td>Concentration Courses</td>
</tr>
<tr>
<td>Junior</td>
<td>EDS 360 (3)</td>
<td>EDS 405 (3)</td>
</tr>
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<td></td>
<td>EDS 390 (3) or SPE 341 (3)</td>
<td>SPE 341 (3) or EDS 390 (3)</td>
</tr>
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<td></td>
<td>Concentration Courses</td>
<td>Concentration Courses</td>
</tr>
<tr>
<td></td>
<td>Concentration Courses</td>
<td>Concentration Courses</td>
</tr>
<tr>
<td>Senior</td>
<td>EDS 435 (3)</td>
<td>EDS 493 (12)</td>
</tr>
<tr>
<td></td>
<td>Concentration Courses</td>
<td>EDS 494 (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EDU 495 (0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EDU 496 (0)</td>
</tr>
</tbody>
</table>
Adolescence Education – English

Chair: Barbara A. Burns

Introduction:
The professional sequences in Adolescence Education give the prospective teacher a thorough foundation in the many facets of modern American secondary education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college. The Adolescence Education Department offers nine certification programs at the Adolescence Level – grades 7 through 12.

Please view our website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/adolescence-education/

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Academic criteria for endorsement and completion of the program are as follows: Students must maintain a cumulative GPA of 2.5 or higher and a grade of C or higher in content and pedagogical courses. They must achieve satisfactory performance in field placements and have a successful portfolio review. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students will be assigned an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. In addition, students will be assigned an advisor in their respective concentration area.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses that may be selected in addition to the Core Curriculum, major and concentration requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Free electives may not be available for all concentrations.

Major Courses:
The Adolescence Education Major includes the following required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDS 101</td>
<td>Human Growth and Social Development: Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDS 223</td>
<td>Foundations of Adolescent Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDS 224</td>
<td>Adolescent Literacy in a New Literacies World</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>EDS 402-406</td>
<td>Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 432-436</td>
<td>Applied Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 493</td>
<td>Supervised Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EDS 494</td>
<td>Capstone Seminar for Adolescence Education Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Workshop</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
</tr>
</tbody>
</table>

In addition, the Adolescence Education Major with a concentration in English requires EDS 370 Teaching Young Adolescent Literature (3) offered Spring only, EDU 410 Teaching Writing in the Schools (3) offered Spring only, and EDU 415 Grammar and Language Study for Teachers (3) offered Fall only.

Major Electives:
Candidates wishing to obtain an extension to teach grades 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

Major Experiences:
New York State requires the successful completion of at least 100 hours of field experience before student teaching. This requirement is divided up among three courses in the major program. EDS 223 has a 20 hour field experience, EDS 360 has a 30 hour field experience and EDS 432-436 (choose the appropriate course) hosts the final 50 hours. The field experience builds from participatory observation to tutoring or working with small groups to teaching a lesson and then teaching lessons from a unit designed...
by the student in their EDS 432-436 course.

Additional Course Considerations:
The English concentration includes the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 299</td>
<td>Introduction to English Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENG 311</td>
<td>Women Writers</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 325</td>
<td>British Women Writers</td>
<td>3</td>
</tr>
</tbody>
</table>

One 300 or 400 level course in British Literature

One course in Native American Literature or African American Literature

Two 300 or 400 level courses in American Literature, choosing one from the Pre-Civil War Period and one from the Post-Civil War Period

ENG 322  Shakespeare I  3

or

ENG 323  Shakespeare II  3

Two writing courses chosen from:

ENG 205  Varieties of Essays (3)

ENG 385  Persuasive Writing (3)

ENG 394  Creative Writing (3) or

ENG 426  Advanced Playwriting (3) and

ENG 490  Senior Seminar (3)

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>EDS 101 (3) or EDU 122 (3)</td>
<td>EDU 122 (3) or EDS 101 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>EDS 223 (3)</td>
<td>EDS 224 (3)</td>
</tr>
<tr>
<td></td>
<td>EDU 250 (3) Fall or Spring</td>
<td>two concentration courses</td>
</tr>
<tr>
<td></td>
<td>ENG 299 (3)</td>
<td>one additional concentration course</td>
</tr>
<tr>
<td>Junior</td>
<td>EDS 360 (3)</td>
<td>EDS 402 (3)</td>
</tr>
<tr>
<td></td>
<td>EDS 390 (3) or SPE 341 (3)</td>
<td>SPE 341 (3) or EDS 390 (3)</td>
</tr>
<tr>
<td></td>
<td>EDU 410 (3)</td>
<td>EDS 370 (3)</td>
</tr>
<tr>
<td></td>
<td>two concentration courses</td>
<td>EDU 415 (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>one concentration course</td>
</tr>
</tbody>
</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

To complete a dual major in Adolescence Education and English, at least two additional English courses are required. See GriffAudit, in consultation with your advisors, for appropriate selections.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Some courses in the major and/or the concentration may add additional field experience hours in line with service learning.
Adolescence Education – Mathematics
Chair: Barbara A. Burns

Introduction:
The professional sequences in Adolescence Education give the prospective teacher a thorough foundation in the many facets of modern American secondary education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college. The Adolescence Education Department offers nine certification programs at the Adolescence Level - grades 7 through 12.

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Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Academic criteria for endorsement and completion of the program are as follows: Students must maintain a cumulative GPA of 2.5 or higher and a grade of C or higher in content and pedagogical courses. They must achieve satisfactory performance in field placements and have a successful portfolio review. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students will be assigned an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. In addition, students will be assigned an advisor in their respective concentration area.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses that may be selected in addition to the Core Curriculum, major and concentration requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Free electives may not be available for all concentrations.

Major Courses:
The Adolescence Education Major includes the following required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDS 101</td>
<td>Human Growth and Social Development: Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDS 223</td>
<td>Foundations of Adolescent Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDS 224</td>
<td>Adolescent Literacy in a New Literacies World</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>EDS 402-406</td>
<td>Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 432-436</td>
<td>Applied Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 493</td>
<td>Supervised Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EDS 494</td>
<td>Capstone Seminar for Adolescence Education Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Workshop</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
</tr>
</tbody>
</table>
**Major Electives:** Candidates wishing to obtain an extension to teach grades 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

**Major Experiences:**
New York State requires the successful completion of at least 100 hours of field experience before student teaching. This requirement is divided up among three courses in the major program. EDS 223 has a 20 hour field experience, EDS 360 has a 30 hour field experience and EDS 432-436 (choose the appropriate course) hosts the final 50 hours. The field experience builds from participatory observation to tutoring or working with small groups to teaching a lesson and then teaching lessons from a unit designed by the student in their EDS 432-436 course.

**Additional Course Considerations:**
The mathematics concentration includes the following required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 111</td>
<td>Calculus I</td>
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<tr>
<td>MAT 112</td>
<td>Calculus II</td>
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<tr>
<td>MAT 211</td>
<td>Calculus III</td>
<td>4</td>
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<tr>
<td>MAT 219</td>
<td>Linear Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MAT 222</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>MAT 230</td>
<td>Logic, Set Theory and Proofs</td>
<td>4</td>
</tr>
<tr>
<td>MAT 301</td>
<td>History of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 311</td>
<td>Abstract Algebra I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 331</td>
<td>Introduction to Modern Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT 351</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

In addition, one mathematics elective course and one course from CSC/BIF is required in the concentration. See GriffAudit, in consultation with your advisors, for appropriate selections.

**Recommended Semester Schedule for Major Course Requirements**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDS 101 (3) or EDS 122 (3)</td>
<td>EDU 122 (3) or MAT 111 (4)</td>
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</tr>
<tr>
<td></td>
<td>MAT 112 (4)</td>
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</tr>
<tr>
<td></td>
<td>CSC 108 (3), 109(3), 110 (3), 111 (4) or BIF 101(3)</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDS 223 (3)</td>
<td>EDS 224 (3)</td>
<td></td>
</tr>
<tr>
<td>EDU 250 (3) Fall or Spring</td>
<td>MAT 211 (4)</td>
<td></td>
</tr>
<tr>
<td>MAT 219 (4)</td>
<td>MAT 230 (4)</td>
<td></td>
</tr>
<tr>
<td>MAT 222 (4) or MAT 351 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDS 360 (3)</td>
<td>EDS 403 (3)</td>
<td></td>
</tr>
<tr>
<td>EDS 390 (3) or SPE 341 (3)</td>
<td>MAT 311 (4)</td>
<td></td>
</tr>
<tr>
<td>MAT 351 (3) or MAT 222 (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 331 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDS 433 (3)</td>
<td>EDS 493 (12)</td>
<td></td>
</tr>
<tr>
<td>MAT 301 (3)</td>
<td>MAT 301 (3)</td>
<td></td>
</tr>
<tr>
<td>MAT elective</td>
<td>EDU 495 (0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDU 496 (0)</td>
<td></td>
</tr>
</tbody>
</table>

**Dual Majors:**
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

**To complete a dual major in Adolescence Education and Mathematics, the following courses are required in addition to the courses listed above:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 321</td>
<td>Real Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MAT 380-381-480</td>
<td>Mathematics Seminar</td>
<td>1-1-1</td>
</tr>
</tbody>
</table>

and one mathematics elective chosen from

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 311</td>
<td>Abstract Algebra I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 313</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td>MAT 321</td>
<td>Real Analysis</td>
<td>4</td>
</tr>
<tr>
<td>MAT 411</td>
<td>Topology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 416</td>
<td>Differential Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT 421</td>
<td>Complex Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>
Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

*Some courses in the major and/or the concentration may add additional field experience hours in line with service learning.*
Adolescence Education – Modern Languages
Chair: Barbara A. Burns

Introduction:
The professional sequences in Adolescence Education give the prospective teacher a thorough foundation in the many facets of modern American secondary education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college. The Adolescence Education Department offers nine certification programs at the Adolescence Level - grades 7 through 12.

Please view our website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/adolescence-education/

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Academic criteria for endorsement and completion of the program are as follows: Students must maintain a cumulative GPA of 2.5 or higher and a grade of C or higher in content and pedagogical courses. They must achieve satisfactory performance in field placements and have a successful portfolio review. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students will be assigned an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. In addition, students will be assigned an advisor in their respective concentration area.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses that may be selected in addition to the Core Curriculum, major and concentration requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Free electives may not be available for all concentrations.

Major Courses:
The Adolescence Education Major includes the following required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDS 101</td>
<td>Human Growth and Social Development: Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDS 223</td>
<td>Foundations of Adolescent Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDS 224</td>
<td>Adolescent Literacy in a New Literacies World</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>EDS 402-406</td>
<td>Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 432-436</td>
<td>Applied Methods of Teaching in the Content Area (choose the appropriate course)</td>
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</tr>
<tr>
<td>EDS 493</td>
<td>Supervised Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EDS 494</td>
<td>CAPSTONE Seminar for Adolescence Educa- tion Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Workshop</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
</tr>
</tbody>
</table>

The Oral Proficiency Interview is an additional requirement for Adolescence Education majors with a concentration in Modern Languages. This fee based assessment is administered during the semester in which the student is taking EDS 404.

Major Electives:
Candidates wishing to obtain an extension to teach grades 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.
Major Experiences:
New York State requires the successful completion of at least 100 hours of field experience before student teaching. This requirement is divided among three courses in the major program. EDS 223 has a 20 hour field experience, EDS 360 has a 30 hour field experience and EDS 432-436 (choose the appropriate course) hosts the final 50 hours. The field experience builds from participatory observation to tutoring or working with small groups to teaching a lesson and then teaching lessons from a unit designed by the student in their EDS 432-436 course.

Additional Course Considerations:
The Modern Language concentration is offered in one of three languages – Spanish, French, or German – and includes the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 115/FRC 115/GER 103</td>
<td>Advanced Introductory I</td>
<td>3</td>
</tr>
<tr>
<td>SPA 116/FRC 116/GER 104</td>
<td>Advanced Introductory II</td>
<td>3</td>
</tr>
<tr>
<td>SPA/FRC/GER 215</td>
<td>Intermediate I</td>
<td>3</td>
</tr>
<tr>
<td>SPA/FRC/GER 216</td>
<td>Intermediate II</td>
<td>3</td>
</tr>
<tr>
<td>SPA/FRC/GER 323</td>
<td>Advanced Conversation I</td>
<td>3</td>
</tr>
<tr>
<td>SPA/FRC/GER 324</td>
<td>Advanced Conversation II</td>
<td>3</td>
</tr>
<tr>
<td>SPA/FRC/GER 331</td>
<td>Substance and Style I</td>
<td>3</td>
</tr>
<tr>
<td>SPA/FRC/GER 332</td>
<td>Substance and Style II</td>
<td>3</td>
</tr>
<tr>
<td>SPA/FRC/GER Electives</td>
<td>(four courses) - see Griff Audit, in consultation with your advisors, for appropriate course selections.</td>
<td></td>
</tr>
</tbody>
</table>

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>EDS 101 (3) or EDU 122 (3)</td>
<td>EDU 122 (3) or EDS 101 (3)</td>
</tr>
<tr>
<td></td>
<td>SPA 115/FRC 115/GER 103 (3)</td>
<td>SPA 116/FRC 116/GER 104 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>EDS 223 (3)</td>
<td>EDS 224 (3)</td>
</tr>
<tr>
<td></td>
<td>EDU 250 (3) Fall or Spring</td>
<td>SPA/FRC/GER 215 (3)</td>
</tr>
<tr>
<td>Junior</td>
<td>EDS 360 (3)</td>
<td>EDS 404 (3)</td>
</tr>
<tr>
<td></td>
<td>EDS 390 (3) or SPE 341 (3)</td>
<td>SPE 341 (3) or EDS 390 (3)</td>
</tr>
<tr>
<td></td>
<td>SPA/FRC/GER 323 (3)</td>
<td>SPA/FRC/GER 324 (3)</td>
</tr>
<tr>
<td></td>
<td>SPA/FRC/GER 331 (3)</td>
<td>SPA/FRC/GER 332 (3)</td>
</tr>
<tr>
<td></td>
<td>SPA/FRC/GER Elective</td>
<td>SPA/FRC/GER Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>EDS 434 (3)</td>
<td>EDS 493 (12)</td>
</tr>
<tr>
<td></td>
<td>2 SPA/FRC/GER Electives</td>
<td>EDS 494 (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EDU 495 (0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EDU 496 (0)</td>
</tr>
</tbody>
</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Some courses in the major and/or the concentration may add additional field experience hours in line with service learning.
Introduction:
The professional sequences in Adolescence Education give the prospective teacher a thorough foundation in the many facets of modern American secondary education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college. The Adolescence Education Department offers nine certification programs at the Adolescence Level – grades 7 through 12. Please view our website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/adolescence-education/

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Academic criteria for endorsement and completion of the program are as follows: Students must maintain a cumulative GPA of 2.5 or higher and a grade of C or higher in content and pedagogical courses. They must achieve satisfactory performance in field placements and have a successful portfolio review. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students will be assigned an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. In addition, students will be assigned an advisor in their respective concentration area.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp.

Free Electives:
Free electives are courses that may be selected in addition to the Core Curriculum, major, and concentration requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Free electives may not be available for all concentrations.

Major Courses:
The Adolescence Education Major includes the following required courses:

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<td>Human Growth and Social Development: Adolescence</td>
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</tr>
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<td>EDS 223</td>
<td>Foundations of Adolescent Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDS 224</td>
<td>Adolescent Literacy in a New Literacies World</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
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</tr>
<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
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<td>EDS 402-406</td>
<td>Methods of Teaching in the Content Area (choose the appropriate course)</td>
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</tr>
<tr>
<td>EDS 432-436</td>
<td>Applied Methods of Teaching in the Content Area (choose the appropriate course)</td>
<td>3</td>
</tr>
<tr>
<td>EDS 493</td>
<td>Supervised Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EDS 494</td>
<td>Capstone Seminar for Adolescence Education Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Workshop</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
</tr>
</tbody>
</table>

Major Electives:
Candidates wishing to obtain an extension to teach grades 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

Major Experiences:
New York State requires the successful completion of at least 100 hours of field experience before student teaching. This requirement is divided up among three courses in the major program. EDS 223 has a 20 hour field experience, EDS 360 has a 30 hour field experience and EDS 432-436 (choose the appropriate course) hosts the final 50 hours. The field experience builds from participatory observation to tutoring or working with small groups to teaching a lesson and then teaching lessons from a unit designed by the student in their EDS 432-436 course.

At the development of this catalog, the concentrations of Biology,
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Some courses in the major and/or the concentration may add additional field experience hours in line with service learning.
Adolescence Education – Social Studies

Chair: Barbara A. Burns

Introduction:
The professional sequences in Adolescence Education give the prospective teacher a thorough foundation in the many facets of modern American secondary education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college. The Adolescence Education Department offers nine certification programs at the Adolescence Level - grades 7 through 12.

Please view our website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/adolescence-education/

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Academic criteria for endorsement and completion of the program are as follows: Students must maintain a cumulative GPA of 2.5 or higher and a grade of C or higher in content and pedagogical courses. They must achieve satisfactory performance in field placements and have a successful portfolio review. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students will be assigned an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. In addition, students will be assigned an advisor in their respective concentration area.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

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Free electives are courses that may be selected in addition to the Core Curriculum, major and concentration requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Free electives may not be available for all concentrations.

Major Courses:
The Adolescence Education Major includes the following required courses:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDS 101</td>
<td>Human Growth and Social Development: Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDS 223</td>
<td>Foundations of Adolescent Literacy</td>
<td>3</td>
</tr>
<tr>
<td>EDS 224</td>
<td>Adolescent Literacy in a New Literacies World</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 360</td>
<td>Evaluation and Teaching Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDS 390</td>
<td>Cognition, Learning and Assessment of Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>EDS 402-406</td>
<td>Methods of Teaching in the Content Area (choose the appropriate course)</td>
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<td>Applied Methods of Teaching in the Content Area (choose the appropriate course)</td>
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<tr>
<td>EDS 493</td>
<td>Supervised Student Teaching</td>
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<td>EDS 494</td>
<td>Capstone Seminar for Adolescence Education Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Workshop</td>
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<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
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</table>

Major Electives:
Candidates wishing to obtain an extension to teach grades 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

Major Experiences:
New York State requires the successful completion of at least 100 hours of field experience before student teaching. This requirement is divided up among three courses in the major program. EDS 223 has a 20 hour field experience, EDS 360 has a 30 hour field experience and EDS 432-436 (choose the appropriate course) hosts the final 50 hours. The field experience builds from participatory observation to tutoring or working with small groups to teaching a lesson and then teaching lessons from a unit designed by the student in their EDS 432-436 course.
Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>EDS 101 (3) or EDU 122 (3)</td>
<td>EDU 122 (3) or EDS 101 (3)</td>
</tr>
<tr>
<td></td>
<td>Two concentration courses</td>
<td>Two concentration courses</td>
</tr>
<tr>
<td>Sophomore</td>
<td>EDS 223 (3)</td>
<td>EDS 224 (3)</td>
</tr>
<tr>
<td></td>
<td>EDU 250 (3) Fall or Spring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two concentration courses</td>
<td>HIS 300 (3)</td>
</tr>
<tr>
<td>Junior</td>
<td>EDS 360 (3)</td>
<td>EDS 406 (3)</td>
</tr>
<tr>
<td></td>
<td>EDS 390 (3) or SPE 341 (3)</td>
<td>SPE 341 (3) or EDS 390 (3)</td>
</tr>
<tr>
<td></td>
<td>Two concentration courses</td>
<td>Two concentration courses</td>
</tr>
<tr>
<td>Senior</td>
<td>EDS 436 (3)</td>
<td>EDS 493 (12)</td>
</tr>
<tr>
<td></td>
<td>Two concentration courses</td>
<td>EDS 494 (3)</td>
</tr>
<tr>
<td></td>
<td>EDS 495 (0)</td>
<td>EDS 496 (0)</td>
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Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

To complete a dual major in Adolescence Education and Social Studies/History at least two additional History courses are required. See GriffAudit, in consultation with your advisors, for appropriate selections.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Some courses in the major and/or the concentration may add additional field experience hours in line with service learning.
Adolescence Education (Grades 7-12)
COURSES 2011 - 2013

EDS 101 Human Growth and Social Development: Adolescence 3
Introduces human developmental processes and variations in the middle and high school years including physical, cognitive, social, and emotional perspectives. Effects of behavioral and cognitive processes, motivation, and diversity on student performance will be emphasized. Fall

EDS 223 Foundations of Adolescent Literacy 3
Attribute: Advanced Writing Intensive
Focuses on three strands of literacy teaching for adolescent students: strategies for developing reading and writing skills in all secondary content areas, methods for reading and writing in inquiry projects, and pedagogical practices for integrating critical literacy in all secondary classrooms. Fall/Spring

EDS 224 Adolescent Literacy in a New Literacies World 3
This course addresses the multiple literacies that adolescents use to make meaning in the world. The focus is on the integration, implementation and assessment of New Literacies in the content areas. Requires 20 hours of field placement. Fall/Spring

EDS 370 Teaching Young Adolescent Literature 3
Prepares teacher candidates to teach young adult literature to adolescents, grades 7-12. Candidates will consider what, why and how literature is currently taught and learned in middle and high school classrooms. National and state standards, curriculum and assessment, literature of diverse cultures, as well as contemporary theory and research in English Language Arts will be focal points. Spring only

EDS 360 Evaluation and Teaching Strategies 3
Addresses instructional planning, curriculum development, formal and informal assessment methods and reflecting on one's own teaching practice. Highlights instruction modifications and various resources to enhance teaching. Requires 30 hours of field placement. Fall/Spring

EDS 390 Cognition, Learning and Assessment of Adolescents 3
Focuses primarily upon seminal learning theories in order to examine the dynamic nature of knowledge and how changing epistemological positions can affect teaching and learning. Addresses learning processes and the roles that language, motivation, intelligence, creativity and other social processes play in student performance. Emphasis upon instructional design, pedagogical decision making and assessment procedures and instruments. Fall/Spring

Choose the appropriate course from EDS 402, 403, 404, 405, 406:
EDS 402 Methods of Teaching English: Adolescence 3
Combines theory and practice to encourage sound, research-based pedagogical strategies for the teaching of English Language Arts for middle and high school students. Focuses on available teaching materials and multiple approaches to teaching literature, writing, grammar and language development, as well as technology integration. Effective lesson planning and unit planning are emphasized. Prerequisite: EDS 360 Fall/Spring

EDS 403 Methods of Teaching Mathematics: Adolescence 3
Combines theory and practice to encourage sound, research-based pedagogical strategies for the teaching of Mathematics for middle and high school students. Focuses on available teaching materials and multiple approaches to teaching, including technology applications. Effective lesson construction and unit planning are emphasized. Prerequisite: EDS 360. Fall/Spring

EDS 404 Methods of Teaching Modern Languages: Adolescence 3
Combines theory and practice to encourage sound, research-based pedagogical strategies for the teaching of foreign languages for middle and high school students. Focuses on available teaching materials and multiple approaches to teaching the grammar, literature and culture of French, German, and Spanish-speaking countries, as well as technology integration. Effective lesson planning and unit planning are emphasized. Prerequisite: EDS 360 Fall/Spring

EDS 405 Methods of Teaching Science: Adolescence 3
This course focuses on developing a rich intellectual life through study, reflection and practice. Students will have discussions on Philosophy of Science, the philosophy of individual science disciplines and pertinent Education Psychology theories as applied to science teaching. Current research-based science teaching techniques will be emphasized. Students will write reflection papers and use these theories and principles in classroom exercises and presentations. Requires a working knowledge of at least one science discipline. Prerequisite: EDS 360 Fall/Spring

EDS 406 Methods of Teaching Social Studies: Adolescence 3
This course addresses the objectives, methods, curricula, materials and assessment necessary for teaching social studies at the secondary level. Students will examine topics such as teaching for democratic citizenship, authentic instruction and assessment, multicultural social studies curriculum, and technology in the social studies classroom. This course models various instructional strategies and includes practical assignments and experiences for students. Prerequisite: EDS 360 Fall/Spring

EDS 432 Applied Methods of Teaching English: Adolescence 3
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the adolescent level. Requires 50 hours of field experience. Prerequisite: EDS 402. Attribute: Oral Communication. Fall/Spring

EDS 433 Applied Methods of Teaching Mathematics: Adolescence 3
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the adolescent level. Requires 50 hours of field experience. Prerequisite: EDS 403. Attribute: Oral Communication. Fall/Spring

EDS 434 Applied Methods of Teaching Modern Languages: Adolescence 3
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the adolescent level. Requires 50 hours of field experience. Prerequisite: EDS 404. Attribute: Oral Communication. Fall/Spring
EDS 435 Applied Methods of Teaching Science: Adolescence
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the adolescence level. Requires 50 hours of field experience. Prerequisite: EDS 405. Attribute: Oral Communication. Fall/Spring

EDS 436 Applied Methods of Teaching Social Studies
Includes practica and seminars that focus on professional reflection and topics related to teaching diverse students, authentic intellectual work, classroom management, and teaching to higher standards. Requires 50 hours of field experience. Prerequisite: EDS 406. Attribute: Oral Communication. Fall/Spring

EDS 493 Supervised Student Teaching
Highlights knowledge, skills and dispositions of professional educators. Two full-time seven-week placements in adolescent classrooms require candidates to become the instructional leader under the supervision of cooperating teachers and college faculty. Prerequisites: Overall GPA of 2.50 to date, “C” in each required subject area course (modern language majors must also pass oral proficiency interview), “C” in each required Education course, interview, EDS 494. Some schools may require certain health tests. Fall/Spring

EDS 494 Capstone Seminar for Adolescence Education Teacher Candidates
This seminar will be the culminating course that complements student teaching for adolescence education majors. EDS 494 will revolve around assessments of how well teacher candidates can integrate theoretical principles and core attributes into the practical work of student teaching. Teacher candidates will complete readings, engage in classroom discussions and construct artifacts that will be assessed for their integration of pedagogical knowledge with issues of diversity, ethics, global awareness and social justice. The artifacts will demonstrate how well each teacher candidate’s understanding of the four core knowledge attributes is contributing to his or her development as a teacher. Co-requisites: EDS 493, EDU 495 and EDU 496. Students must have a minimum GPA of 2.5 in their concentration as well as in the major. Fall/Spring

EDU 122 Technology in Education
Explores applications of technology in education. Emphasizes evaluation and selection of software, high and low-tech devices, distance learning and state of the art technologies that impact teaching. Fall/Spring

EDU 250 Foundations of Education
This course introduces the historical, sociological, philosophical, and organizational foundations of education in the United States. Topics include a broad overview of teaching as a profession, an understanding of the role of education in a democratic society, diversity and social justice, home/school/community relationships, educational reform and other current issues in education. Attribute: Justice. Fall/Spring

EDU 410 Teaching Writing in the Schools
Emphasizes integrating current theories of writing into classroom curricula. Students develop their own composing abilities and strengthen their ability to teach writing in school settings. Open to all Education and Adolescence Education concentrations. Fall only

EDU 415 Grammar and Language Study for Teachers
Addresses instruction in English grammar for students who will be teaching English Language Arts, as well as instruction in the history and structure of the English language. The course focuses on the study of the eight parts of speech and skills required for effective sentence construction. In addition, students will be exposed to the study of the history of language and how language functions in our lives. Students will focus on how these two aspects of ELA are taught in the schools. Open to all Education and Adolescence Education concentrations. Attribute: Advanced Writing Intensive. Spring only

EDU 495 Child Abuse Workshop
Mandatory training by NY State Education Department for teacher certification. Held during the student teaching seminar. Fall/Spring

EDU 496 Prevention of School Violence Workshop
Mandatory training by NY State Education Department for teacher certification. Held during the student teaching seminar. Fall/Spring

EMC 352 Human Growth and Social Development: Middle Childhood
Major concepts, principles, theories and research related to the intellectual, emotional, physical, social and moral development of young adolescents. Emphasis on contemporary issues related to middle childhood development. Fall/Spring

EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood
Concepts, standards and research related to middle level curriculum development stressing the importance of a curriculum that is relevant, challenging, integrative and exploratory. Interdisciplinary middle level curriculum standards and models will be introduced in addition to assessment strategies that promote the continuous intellectual, social and physical development of all young adolescents. Fall/Spring

SPE 341 Inclusive Strategies
Highlights best practices in general education for students with disabilities. Illustrates current developments in special education. Emphasizes collaboration to meet the diverse needs of learners. Attribute: Diversity. Fall/Spring
Animal Behavior, Ecology, and Conservation

Introduction
The Animal Behavior, Ecology, and Conservation Program combines the rigorous scientific study of Animal Behavior with a values-focused curriculum in the liberal arts tradition. It is for students who want to thoroughly understand the facts and theoretical underpinnings of animal behavior and who want to use that understanding to promote animal welfare and wildlife conservation. Please see the ABEC website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/abec/default.asp

Goals
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Animal Behavior, Ecology, and Conservation. All students must complete a minimum of 120 credit hours to graduate.

Advisement
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All students should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses
The ABEC major requires 15 courses (7 specified and 8 electives).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 215</td>
<td>Introductory Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BIO 111</td>
<td>Intro to Bio 1</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Intro to Bio 2</td>
<td>4</td>
</tr>
<tr>
<td>BIO 322</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 141 or PSY 201</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>PHI 245</td>
<td>Animal Ethics</td>
<td>3</td>
</tr>
<tr>
<td>RST 229</td>
<td>Religious Perspectives on Animals</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives
Any eight of the following electives must be taken:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 218</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 220</td>
<td>Animal Learning</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 250</td>
<td>Zoo Animal Husbandry</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 251</td>
<td>Zoo Animal Management</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 319</td>
<td>Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 330</td>
<td>Animals, Public Policy and the Law</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 339</td>
<td>Animal Enrichment</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 350</td>
<td>Zoo Biology</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 360</td>
<td>Observational Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>BIO 166</td>
<td>Biology of Birds or BIO 366 (Ornithology)</td>
<td>4</td>
</tr>
<tr>
<td>BIO 312</td>
<td>Primatology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 316</td>
<td>Social Organization of Mammals</td>
<td>4</td>
</tr>
<tr>
<td>BIO 317</td>
<td>Sex, Evolution and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BIO 320</td>
<td>Field Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 325</td>
<td>Reproductive Biopsychology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 343</td>
<td>Entomology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 355</td>
<td>Behavioral Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>BIO 365</td>
<td>Vertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 371</td>
<td>Behavioral Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 375</td>
<td>Community Ecology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 285</td>
<td>Writing and Animal Studies</td>
<td>3</td>
</tr>
<tr>
<td>PHI 348</td>
<td>Environmental Ethics</td>
<td>3</td>
</tr>
</tbody>
</table>
Dual Majors
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major, it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from 6-8 required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

The ABEC program offers three minors for students who wish to concentrate in specific areas:

The Anthrozoology Minor (six courses)
The Anthrozoology minor is designed for students who want to concentrate on mankind’s relationships with other animal species. This minor is open to any student from any major.

<table>
<thead>
<tr>
<th>One required course:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 319 Anthrozoology</td>
<td>4</td>
</tr>
</tbody>
</table>

Plus any five of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 218</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 330</td>
<td>Animals, Public Policy and the Law</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 350</td>
<td>Zoo Biology</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 490</td>
<td>Canisius Ambassadors for Conservation</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 491</td>
<td>Internship (Anthrozoology)</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 492</td>
<td>Internship (Anthrozoology)</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 495</td>
<td>Research Seminar (Anthrozoology Project)</td>
<td>3</td>
</tr>
<tr>
<td>BIO 322</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>ENG 285</td>
<td>Writing and Animal Studies</td>
<td>3</td>
</tr>
<tr>
<td>PHI 245</td>
<td>Animal Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHI 348</td>
<td>Environmental Ethics</td>
<td>3</td>
</tr>
<tr>
<td>RST 229</td>
<td>Religious Perspectives on Animals</td>
<td>3</td>
</tr>
</tbody>
</table>
The Zoo Biology Minor (six courses)
The Zoo Biology minor is designed for students who want training relevant to careers associated with captive exotic animals. This minor is open to any student from any major.

<table>
<thead>
<tr>
<th>One required course:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course</strong></td>
<td><strong>Title</strong></td>
</tr>
<tr>
<td>ABEC 350</td>
<td>Zoo Biology</td>
</tr>
</tbody>
</table>

Plus any five of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 250</td>
<td>Zoo Animal Husbandry</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 251</td>
<td>Zoo Animal Management</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 318</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 339</td>
<td>Animal Enrichment</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 360</td>
<td>Observational Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 491</td>
<td>Internship (Zoo/Aquarium based)</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 492</td>
<td>Internship (Zoo/Aquarium based)</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 495</td>
<td>Research Seminar (Zoo-based Project)</td>
<td>3</td>
</tr>
<tr>
<td>BIO 110</td>
<td>Zoo Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>BIO 312</td>
<td>Primatology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 316</td>
<td>Social Organization of Mammals</td>
<td>4</td>
</tr>
<tr>
<td>BIO 325</td>
<td>Reproductive Biopsychology</td>
<td>3</td>
</tr>
</tbody>
</table>

The Animal Behavior Minor (six courses)
The Animal Behavior minor is designed for students who want to concentrate on animal behavior as a topic of study. This minor is open to any student from any major, except ABEC.

<table>
<thead>
<tr>
<th>One required course:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course</strong></td>
<td><strong>Title</strong></td>
</tr>
<tr>
<td>ABEC 215</td>
<td>Introductory Animal Behavior</td>
</tr>
</tbody>
</table>

Plus any five of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 218</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 220</td>
<td>Animal Learning</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 360</td>
<td>Observational Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 491</td>
<td>Internship (Animal Behavior)</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 492</td>
<td>Internship (Animal Behavior)</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 495</td>
<td>Research Seminar (Animal Behavior Project)</td>
<td>3</td>
</tr>
<tr>
<td>BIO 166</td>
<td>Biology of Birds (or BIO 366 Ornithology)</td>
<td>4</td>
</tr>
<tr>
<td>BIO 312</td>
<td>Primatology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 316</td>
<td>Social Organization of Mammals</td>
<td>4</td>
</tr>
<tr>
<td>BIO 317</td>
<td>Sex, Evolution and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BIO 325</td>
<td>Reproductive Biopsychology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 355</td>
<td>Behavioral Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>BIO 365</td>
<td>Vertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 371</td>
<td>Behavioral Ecology</td>
<td>3</td>
</tr>
</tbody>
</table>

For all minors, courses may be taken independently of the others and in any order. Interested students usually begin with the course that best fits their schedule. Most of the courses are offered every other year, so interested students should plan accordingly.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 215</td>
<td>Introductory Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 218</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 220</td>
<td>Animal Learning with Lab</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 250</td>
<td>Zoo Animal Husbandry</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 251</td>
<td>Zoo Animal Management</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 319</td>
<td>Anthrozoology</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 330</td>
<td>Animals, Public Policy, and the Law</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 339</td>
<td>Animal Enrichment</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 350</td>
<td>Zoo Biology</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 360</td>
<td>Observational Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>ABEC 404</td>
<td>Wildlife Ecology and Conservation in South Africa</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 490</td>
<td>Canisius Ambassadors for Conservation</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 491</td>
<td>Internship 1</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 492</td>
<td>Internship 2</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 495</td>
<td>Research Seminar</td>
<td>3</td>
</tr>
<tr>
<td>BIO 111</td>
<td>Introduction to General Biology 1</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Introduction to General Biology 2</td>
<td>4</td>
</tr>
<tr>
<td>BIO 166</td>
<td>Biology of Birds (or BIO 366 Ornithology)</td>
<td>4</td>
</tr>
<tr>
<td>BIO 312</td>
<td>Primatology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 316</td>
<td>Social Organization of Mammals</td>
<td>4</td>
</tr>
<tr>
<td>BIO 317</td>
<td>Sex, Evolution and Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BIO 320</td>
<td>Field Ecology with Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 322</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 325</td>
<td>Reproductive Biopsychology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 343</td>
<td>Entomology</td>
<td>4</td>
</tr>
</tbody>
</table>
BIO 355 Behavioral Neuroscience  
Functions of the nervous/endocrine systems in mediating motivation, movement, sensation, ingestion, aggression, emotion, sleep, learning, memory, thought, and behavior disorders.

BIO 365 Vertebrate Zoology  
The biology of the vertebrates, including anatomy, evolution, ecology, natural history and behavior. (Lab required)

BIO 371 Behavioral Ecology  
Behavioral adaptations and interactions within and among species of animals within the context of ecological considerations.

BIO 372 Evolution  
The mechanisms of evolutionary change, phylogeny and cladistics, molecular methods for exploring patterns of evolutionary relationships.

BIO 375 Community Ecology  
Focus on the complex interactions between diverse species and their environments. Adaptations and interdependency of organisms.

ENG 285 Writing and Animal Studies  
(course description on English pages) (Writing Intensive Attribute)

MAT 141 Inferential Statistics (or PSY 201 Behavioral Statistics)  
Descriptive statistics, probability, sampling distributions, hypothesis testing and inferential statistics.

PHI 245 Animal Ethics  
The philosophical principals underlying concerns for animal welfare/animal rights. Application to real-world examples is stressed.

PHI 348 Environmental Ethics  
Examination of various theories of environmental ethics and the ethical responsibilities human beings ought to have in their relationship with the natural world.

RST 229 Religious Perspectives on Animals  
Comparative survey of mankind's religious perspectives on other species.
Bioinformatics

Director: Debra T. Burhans

Introduction:
Bioinformatics is an exciting field that involves the application of techniques from computer science, mathematics, statistics and information technology to problems in biology. Bioinformatics is a truly interdisciplinary science that teaches students both practical and conceptual tools for the understanding of biological information. Bioinformatics is important in all areas of biology, from human genetics to ecology, evolutionary biology, epidemiology and structural biology. Bioinformatics is transforming drug discovery, medical diagnostics and other biotechnology related areas.

This major is academically rigorous, requiring challenging coursework in biology, chemistry, mathematics and computer science. The major is ideal for students interested in learning about and applying mathematical and computational techniques to problem solving in biology.

A degree in bioinformatics from Canisius College provides you with the experiences and background that will enable you to continue with graduate study or find employment in bioinformatics or computer science. Graduates of the program have pursued graduate school in bioinformatics, biology, biostatistics, and computer science as well as going on to medical school. They have also found employment in academic and industrial settings.

The foundational courses in the major provide a strong general background in computing, biology, and chemistry. Elective courses in the major allow students to specialize in the area of greatest interest to them, whether it is computer science, mathematics, or biology.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/bif/default.asp

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Bioinformatics. In order to proceed in the computer science course sequence students must earn a B- or better in CSC 111 and CSC 111L. Similar requirements are found for the introductory biology and chemistry sequences. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students are advised by the Bioinformatics program director. Students interested in the major or minor should contact Dr. Burhans to set up an advising appointment or to discuss any questions. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Schedule permitting, bioinformatics majors are encouraged to elect additional coursework in mathematics and physics if they are interested in graduate school.

<table>
<thead>
<tr>
<th>Major Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
</tr>
<tr>
<td>BIF 101/L</td>
</tr>
<tr>
<td>BIF 400</td>
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<tr>
<td>CSC 111/L</td>
</tr>
<tr>
<td>CSC 212/L</td>
</tr>
<tr>
<td>CSC 213/L</td>
</tr>
<tr>
<td>CSC 310/L</td>
</tr>
<tr>
<td>MAT 111</td>
</tr>
<tr>
<td>MAT 141</td>
</tr>
<tr>
<td>MAT 191</td>
</tr>
<tr>
<td>BIO 111/L</td>
</tr>
<tr>
<td>BIO 112/L</td>
</tr>
<tr>
<td>BIO 211/L</td>
</tr>
<tr>
<td>BIO 212/L</td>
</tr>
<tr>
<td>CHM 111/L</td>
</tr>
<tr>
<td>CHM 112/L</td>
</tr>
<tr>
<td>CHM 227/L</td>
</tr>
</tbody>
</table>
Students choose 3 elective courses for the major at the 300-400 level from the list below. Note that as new courses are developed this list may be revised to include additional courses. Note also that some of these courses may have additional prerequisites not included in the required BIF courses.

### Elective Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 404</td>
<td>Genetics and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 408</td>
<td>Biotechnology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 412</td>
<td>Evolution and Development</td>
<td>3</td>
</tr>
<tr>
<td>BIO 419</td>
<td>Cell Biology and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 432</td>
<td>Developmental Biology and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 450</td>
<td>Molecular Biology and Lab</td>
<td>4</td>
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</tbody>
</table>

### Chemistry:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 301-302</td>
<td>Classical Physical Chemistry and Lab</td>
<td>8</td>
</tr>
</tbody>
</table>

### Computer Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CSC 313</td>
<td>Advanced Programming Topics</td>
<td>4</td>
</tr>
<tr>
<td>CSC 325</td>
<td>Computer Graphics</td>
<td>4</td>
</tr>
<tr>
<td>CSC 330</td>
<td>Distributed Computing</td>
<td>4</td>
</tr>
<tr>
<td>CSC 351</td>
<td>Comparative Programming Languages</td>
<td>4</td>
</tr>
<tr>
<td>CSC 360</td>
<td>Intelligent Systems</td>
<td>4</td>
</tr>
<tr>
<td>CSC 380</td>
<td>Web Development</td>
<td>4</td>
</tr>
<tr>
<td>CSC 395</td>
<td>Software Engineering</td>
<td>4</td>
</tr>
</tbody>
</table>

### Mathematics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 341</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 351-2</td>
<td>Probability and Statistics</td>
<td>6</td>
</tr>
<tr>
<td>MAT 354</td>
<td>Experimental Design and Statistical Computing</td>
<td>3</td>
</tr>
</tbody>
</table>

### Physics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 360</td>
<td>Scientific Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

### Major Experiences:

#### ADDITIONAL COURSE CONSIDERATIONS:

Students interested in medical or dental school or in advanced study in biology should take the second semester of organic chemistry and a year of physics.

- CHM 228 Organic Chemistry II  4
- PHY 201-202 General Physics (does not require calculus)  (8) or
- PHY 223-224 General Physics for Physical Science Majors (requires Calc I)  (8)

#### ADDITIONAL RECOMMENDED MATH COURSES FOR MAJORS INCLUDE:

- MAT 112 Calculus II  4
- MAT 211 Calculus III  4
- MAT 219 Linear Algebra  4
- MAT 222 Differential Equations  4

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>BIF 101/L (3)</td>
<td>CSC 111/L (4)</td>
</tr>
<tr>
<td></td>
<td>BIO 111/L (4)</td>
<td>BIO 112/L (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 111/L (4)</td>
<td>CHM 112/L (4)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>CSC 212/L (4)</td>
<td>CSC 213/L (4)</td>
</tr>
<tr>
<td></td>
<td>BIO 211/L (4)</td>
<td>BIO 212/L (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 227/L (4)</td>
<td>MAT 191 (4)</td>
</tr>
<tr>
<td>Junior</td>
<td>MAT 111 (4)</td>
<td>CSC 310/L (if offered) (4)</td>
</tr>
<tr>
<td></td>
<td>BIF 400 (if offered) (3)</td>
<td>BIF elective</td>
</tr>
<tr>
<td>Senior</td>
<td>BIF 400 (if not offered in junior year) (3)</td>
<td>CSC 310/L (if not offered in junior year) (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 141 (4)</td>
<td>BIF elective</td>
</tr>
</tbody>
</table>

### Dual Majors:

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Some bioinformatics majors have elected a second major in Computer Science. If all bioinformatics elective courses are taken in computer science students will need an additional 5 courses in Computer Science for the double major. Careful consultation with the advisor is important if this is of interest.

### Minors:

A minor in Bioinformatics is offered. There are 7 required courses (26 credits) that cover Fields 6 and 7 (BIO and CSC courses), the Ethics attribute (BIF 101), and the Advanced Writing-intensive attribute (BIF 400) in the Core Curriculum. The courses are listed below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111/L</td>
<td>Introductory Biology I with Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112/L</td>
<td>Introductory Biology II with Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIF 101/L</td>
<td>Introduction to Bioinformatics with Lab</td>
<td>3</td>
</tr>
<tr>
<td>BIF 400</td>
<td>Bioinformatics Capstone</td>
<td>3</td>
</tr>
<tr>
<td>CSC 111/L</td>
<td>Introduction to Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC 212/L</td>
<td>Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>CSC 213/L</td>
<td>Large Scale Programming</td>
<td>4</td>
</tr>
</tbody>
</table>
Starting in Fall 2012, all bioinformatics majors will automatically earn a minor in Computer Science. Students should ensure that they file the necessary paperwork with the registrar.

Students with a strong background in mathematics are encouraged to consider a math minor. Please consult as soon as possible with your advisor regarding course substitutions if you are interested in this possibility. Minimally, students will elect MAT 230 instead of MAT 191 and MAT 351 instead of MAT 141. This major is most suitable for students with AP credit for calculus.

Note:
The BIF 400 course is offered once every two years, and students should plan accordingly. The BIF 101 course carries the Ethics designation for the Core Curriculum and the BIF 400 course carries the Advanced Writing-intensive attribute. If all of the other core courses elected by students have no overlap of attributes students will need to elect 10 additional core courses after taking the four foundational courses. With this in mind it is important to plan schedules carefully to ensure timely completion of the program. Upper-level Computer Science courses are offered once every other year, and students must ensure that they take CSC 310 as soon as it is offered after completing CSC 213.

COURSES: 2011 - 2013

BIF 101 Introduction to Bioinformatics
This course introduces students to the field of bioinformatics. Students learn basic concepts of genomics and how to write programs to analyze genomic information. Students use a popular scripting language such as Perl or Python. The course includes a focus on ethics and ethical issues in bioinformatics and serves as the introductory course for the bioinformatics and computer science majors and minors. There are no prerequisites. The course satisfies Field 7 and carries the core Ethics attribute. Fall

BIF 400 Bioinformatics Capstone Course
This course covers fundamental algorithms and their application to problems in bioinformatics. Students engage in a semester-long project that is either applied or theoretical based on a contemporary problem in bioinformatics. Students prepare a paper on the project in the style of a scientific journal article. The course is required for BIF majors and minors and serves as an upper-level elective for CS majors and minors. Prerequisites are either CSC 111 and MAT 191, or CSC 212, or MAT 230, or permission of instructor. The course carries the core Advanced Writing-intensive attribute. Fall 2011

BIF 499 Bioinformatics Internship
Students are strongly encouraged to take part in a bioinformatics internship, which typically would take place in a research laboratory or biotechnology firm. Application and faculty advisor approval required. Note that this course cannot count as a bioinformatics elective for the major.
Biology
Chair: Susan M. Aronica, Co-Chair: Sara R. Morris

Introduction:
The Biology major offers broad training in the biological sciences and balances organismal with cellular/molecular biology. This background serves as a solid preparation for (1) future graduate level education in the biological sciences, (2) future professional education in clinical and health-related sciences, (3) employment at the bachelor's level, and (4) additional training in other disciplines that require a thorough understanding of biology, such as various areas of business, communications, engineering, law and social policy development. The biology program of study combines lectures and a hands-on learning experience in both its core and elective courses. The elective courses offered within the major cover a variety of biological fields, which allow students to sample many areas of biology or to investigate more thoroughly specific areas of special interest. In addition, the opportunity to do independent research with a faculty member in the Biology Department helps develop additional skills not normally offered in undergraduate courses and enhances the total undergraduate science experience through the application of knowledge acquired in coursework. Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities. The department also has developed programs for students interested in Early Assurance Acceptance into the SUNY/Buffalo Medical and Dental Schools and Syracuse Medical School; Joint Degree Programs with SUNY/Buffalo Dental School, Lake Erie College of Osteopathic Medicine, the New York and Ohio Colleges of Podiatric Medicine, and the New York College of Optometry; and dual major programs in Biology-Psychology. In addition, a series of specialized courses have been developed for the non-science major that relate biological concepts and scientific methodologies to societal issues facing humankind as a result of technological advances. Please see Biology Department webpages for more information. http://www.canisius.edu/biology

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Biology. All students must complete a minimum of 120 credit hours to graduate. Students must attain a C- or greater in each of the freshmen and sophomore introductory courses (BIO 111, 112, 211, 212) in order to progress into the major.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Individual meetings with their academic advisor is required prior to students registering for courses each semester. In addition to academic advisement for the major, advisement relevant to career options in the biological sciences, including pre-clinical and research interests, is also provided.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:
The Biology curriculum fulfills all requirements and prepares students well for graduate programs in the biological sciences, and for schools of allopathic (MD) and osteopathic (DO) medicine, dentistry, veterinary medicine, and several allied health programs including, but not limited to, chiropractic, optometry, physician's assistant, and podiatry.
Major Experiences:
All faculty in the Biology Department are research-active and maintain their own research program at Canisius. Students interested in pursuing research opportunities with Biology faculty are encouraged to speak with individual faculty members about their work and research opportunities in their respective laboratories.

Biology With Distinction
This degree option for the biology program is intended for biology majors who have a true interest in research and may have career interests in biological or biomedical research. Upon graduation they will receive certification of completing their major with distinction.

Program requirements include writing of a formal research proposal to be submitted to their thesis committee, completion of the research project (600 research hours minimum), writing the final thesis paper, and presentation of a departmental seminar with verbal thesis defense in front of their committee. Interested students must apply to this program by January of their junior year. See department chair for complete details.

Additional Course Considerations:
It is particularly important that the biology major maintain the indicated required science course sequence to ensure prerequisite requirements are met for upper-level courses and to ensure that all basic requirements have been completed prior to taking standardized graduate/professional school entrance examinations (e.g. GRE, MCAT, DAT). These exams are normally taken late in spring semester of the junior year. Biology majors take BIO 111/111L and CHM 111-112 in the freshman year, and BIO 211/211L and CHM 227-228 in the sophomore year so that they stay on schedule for completing the major requirements. In selecting courses for the major, students should consult carefully with their advisors each semester about the best selection of courses for the coming semesters. In addition, students will want to consult the on-line advisement guide, which is published each semester and contains valuable information about course offerings for the coming semester's offerings.

Mathematics Electives: two courses (8 credits), three options:
(1) MAT 111 Calculus I and MAT 141 or PSY 201 (Statistics)
(2) MAT 111-112 Calculus I and II
(3) One year of statistics for the sciences

(Note: the combination of MAT 109 and 110 Calculus with Review I and II can be taken in place of MAT 111)

Major Electives:

Biology Electives: Six 300-level or 400-level lecture courses, four with associated laboratories.

Three courses and their associated laboratories must come from any three of the following four tracks:

Track I: Animal Biology:
BIO 310 Histology and Histophysiology, BIO 313 Comparative Chordate Embryology, BIO 314 Comparative Anatomy, BIO 340 Physiology, BIO 365 Vertebrate Zoology and Ecology, BIO 366 Ornithology

Track II: Biological Diversity:
BIO 305 Microbiology: An Environmental Perspective, BIO 307 Microbiology, BIO 320 Field Ecology, BIO 335 Plant Biology, BIO 343 Entomology

Track III: Cellular Biology:
BIO 418 Endocrinology, BIO 419 Cell Biology, BIO 425 Cellular Neurobiology, BIO 426 Immunology, BIO 432 Developmental Biology, BIO 445 Cellular Imaging

Track IV: Genetics/Molecular Biology:
BIO 404 Genetics, BIO 405 Medical Genetics, BIO 408 Biotechnology, Theory in Practice, BIO 412 Evolution and Development, BIO 450 Molecular Biology

The remaining three biology elective lectures may come from within these areas, or from any other 300- or 400-level elective courses in biology, and at least one must include a laboratory. A student enrolled in three semesters of BIO 300 Research Methods would fulfill this fourth laboratory requirement.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111/111L</td>
<td>Introductory Biology I with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112/112L</td>
<td>Introductory Biology II with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO 211/211L</td>
<td>Biochemistry and Cell Biology I with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO 212/212L</td>
<td>Biochemistry and Cell Biology II with laboratory</td>
<td>4</td>
</tr>
<tr>
<td>BIO 351</td>
<td>Biology Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>BIO 353</td>
<td>Biology Seminar II</td>
<td>1</td>
</tr>
<tr>
<td>CHM 111-112</td>
<td>General Chemistry I and II with laboratories</td>
<td>8</td>
</tr>
<tr>
<td>CHM 227-228</td>
<td>Organic Chemistry I and II with laboratories</td>
<td>8</td>
</tr>
<tr>
<td>PHY 201-202</td>
<td>General Physics I and II with laboratories</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematics Electives: two courses (8 credits), three options:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) MAT 111 Calculus I and MAT 141 or PSY 201 (Statistics)</td>
</tr>
<tr>
<td>(2) MAT 111-112 Calculus I and II</td>
</tr>
<tr>
<td>(3) One year of statistics for the sciences</td>
</tr>
</tbody>
</table>

Recommended Semester Schedule for Major Course Requirements:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>BIO 111/111L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIO 112/112L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHM 111/111L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHM 112/112L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>MAT (calculus or statistics)</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>BIO 211/211L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIO 212/212L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHM 227/227L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHM 228/228L</td>
<td>4</td>
</tr>
<tr>
<td>Junior</td>
<td>PHY 201/201L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PHY 202/202L</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BIO Elective with lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO Elective with lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO 351 Seminar I (1)</td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>BIO Elective with lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO Elective with lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO 353 Seminar II (1)</td>
<td></td>
</tr>
</tbody>
</table>
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form. The Biology Department offers six minors: Cell and Molecular Biology, Environmental Biology, Neuroscience, Biology, Animal Behavior, and Zoo Biology. The Biology Minor requires completion of 6 courses with their associated labs. BIO 111, 112, 211,212, one 300-level elective, and one 400-level elective. Students interested in the Cell and Molecular Biology, Environmental Biology, Neuroscience, or Biology minors should consult with their departmental advisor to plan the proper course selections. Students interested in the Animal Behavior and Zoo Biology minors should consult with Dr. Michael Noonan, director of the Animal Behavior, Ecology and Conservation (ABEC) program. A description of the Animal Behavior and Zoo Biology minors can be located within the ABEC pages of the college catalog.

COURSES: 2011 - 2013

BIO 111 Introductory Biology I
Introductory course for freshmen biology and other science majors. Course provides foundation of evolution, natural selection and heredity, and ecological principles. Topics include the basis of evolutionary theory, concept of natural selection, evolution of living cells, basic inheritance, biological diversity, intra- and inter-specific interactions between organisms, and interactions between organisms and their environments. Three hours of lecture and one one-hour recitation per week. Field 6

BIO 111L Introductory Biology Laboratory I
Laboratories in selection, heredity, diversity, population biology and ecology. Also includes introduction to scientific method and scientific writing. Corequisites: concurrent enrollment in BIO 111.

BIO 112 Introductory Biology II
Introductory course for freshmen biology and other science majors. Course focuses on homeostasis in multicellular organisms through exploring structure and function relationships in plants and animals. Topics include cell interactions in tissues and organs, anatomy and physiology of plants and animals, and the role of natural selection in shaping the anatomy and physiology of plants and animals. Three hours of lecture and one one-hour recitation per week. Prerequisites: C- or better in BIO111. Field 6

BIO 112L Introductory Biology Laboratory II
Laboratories that provide an examination of the structure and function of living organisms (plants and animals). Corequisites: concurrent enrollment in BIO 112.

BIO 211 Biochemistry and Cell Biology I
Fundamentals of biochemistry (biological chemistry) for students majoring in the biological sciences. Explores principles governing biological processes at the cellular/molecular level with an emphasis on characterization of macromolecules, roles of biological membranes, synthesis and biological activities of lipids, synthesis and biological activities of proteins. Three hours of lecture and one one-hour recitation per week. Prerequisites: C- or better in BIO 112 and completion of CHM 111/112.

BIO 211L Biochemistry and Cell Biology Lab I
Investigative laboratory provides opportunity for students to learn how to isolate, measure, and characterize macromolecules present within a variety of cellular systems. Corequisites: BIO 211 and Chem 227 (Organic Chemistry I).

BIO 212 Biochemistry and Cell Biology II
Fundamentals of biochemistry (biological chemistry) and cell biology for students majoring in the biological sciences. Continuation of BIO 211. Synthesis and biological activities of carbohydrates, synthesis and biological activities of nucleic acids. Explores principles governing biological processes at the cellular/molecular level with an emphasis on the role of macromolecules in cell division, cell communication, metabolism, control of gene expression, and development. Three hours of lecture and one one-hour recitation per week. Prerequisites: C- or better in BIO 211 and completion of CHM 227.
### BIO 212L Biochemistry and Cell Biology Lab II
Examination of experimental methodologies that relate the expression and action of various macromolecules to biological processes at the cellular/molecular level. The role of experimentation in the scientific process is emphasized. Prerequisites: BIO 211/211L and concurrent registration in BIO 212.

### BIO 298 Pre-clinical Experience for Undergraduates
Students undertake a substantial shadowing experience in a clinical setting. Must document and complete a minimum of 100 hours of voluntary work with the same clinician within the academic period. Academic component as well. Student arranges contact with clinician. Application process and approval of department chair required. Prerequisite: BIO 305.

### BIO 300 Research Methods
Training in experimental methods for the biological sciences under the direct supervision of a faculty member. Each section and research methodologies taught within the section unique to the instruction and research work of a specific faculty member. May be taken in multiple semesters for credit. Requires approval of faculty member for enrollment into each section.

### BIO 351 Biology Seminar I
Skills-based course designed to provide third-year Biology major students with the opportunity to learn various methods of preparing scientific/experimental information for oral presentation. Attendance at departmental seminars required.

### BIO 353 Biology Seminar II
This course provides opportunities for fourth-year Biology major students to present seminars on research of the primary biological literature. Attendance at departmental seminars required. Prerequisite: BIO 351 Seminar I. Oral Communication Attribute for Core Curriculum

### BIOLOGY ELECTIVES FOR MAJORS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 305 Microbiology: An Environmental Perspective</td>
<td>Microbiology course with emphasis on microbes and their ecology in humans, soil and water environments. Topics include diversity and characteristics of microorganisms, techniques used to isolate and study microorganisms, interactions among microbial populations in a variety of microbial communities and ecosystems, human host-microbe interactions, and bioremediation. Prerequisites: BIO 111-112</td>
<td>3</td>
</tr>
<tr>
<td>BIO 305L Microbiology: An Environmental Perspective Laboratory</td>
<td>This course teaches techniques which allow the measurement of microorganisms in the environment. Topics include light microscopy, preparation of culture media and aseptic technique, staining of microorganisms, isolation and culture of specialized groups of bacteria from human, soil and aquatic environments. Interactions between microbial populations, biogeochemical cycling, and assessment of water quality will be discussed. Prerequisite: Concurrent enrollment in BIO 305.</td>
<td>1</td>
</tr>
<tr>
<td>BIO 307 Microbiology</td>
<td>Cell structure, genetics, biochemistry and physiology of microorganisms, with emphasis on bacteria. Medical, food, and industrial microbiology also discussed. Prerequisites: BIO 111-112</td>
<td>3</td>
</tr>
<tr>
<td>BIO 307L Microbiology Laboratory</td>
<td>Microbiology laboratory is concerned primarily with the cell structure, growth, physiology and identification of bacteria. Prerequisite: Concurrent enrollment in BIO 307.</td>
<td>1</td>
</tr>
<tr>
<td>BIO 310 Histology and Histophysics</td>
<td>A systematic study of structure and function of cells and tissues as viewed by light microscopy. Lab employs tissue slides and digital images. Three hours of lecture and one three-hour lab per week. Prerequisite: BIO 111-112</td>
<td>4</td>
</tr>
<tr>
<td>BIO 312 Primatology</td>
<td>Primatology is the scientific study of primates. Topics include primate evolution, behavior, ecology, and conservation. Emphasis will be placed on reading and critiquing primary literature. Prerequisites: BIO 111-112</td>
<td>3</td>
</tr>
<tr>
<td>BIO 313 Comparative Chordate Embryology</td>
<td>Comparative study of chordate ontogenetic development. Emphasis will be on early developmental stages as seen in the invertebrate sea urchin and in the chordate animals. Lecture discussion and laboratory investigation will center on classic models such as the frog, chick and pig, and more current models such as zebra fish and mouse development. Specific embryological and anatomical knowledge will be gained through macro- and microscopic investigations and dissections where appropriate. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112</td>
<td>4</td>
</tr>
<tr>
<td>BIO 314 Comparative Anatomy</td>
<td>Intensive study of selected organ systems of lower chordates and representative vertebrates. Evolutionary modifications will provide the framework for the course. The laboratory will focus on dissection and will concentrate on structure/function relationships. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112</td>
<td>4</td>
</tr>
<tr>
<td>BIO 316 Social Organization of Mammals</td>
<td>Behavior and social structures of rodents, felines, canines, cetaceans, elephants, monkeys, apes and humans. Lab is required and includes observation of animal groupings at local zoos and aquariums. Prerequisites: BIO 111-112</td>
<td>4</td>
</tr>
<tr>
<td>BIO 317 Sex, Evolution and Behavior</td>
<td>Reproductive behavior of diverse animal species, including humans, from evolutionary perspective. Focus on how evolutionary accounts explain male-female differences in life style and behavior. Prerequisites: BIO 111-112</td>
<td>3</td>
</tr>
<tr>
<td>BIO 320 Field Ecology</td>
<td>Introduction to the flora, fauna and physical characteristics of regional ecosystems, with emphasis on field methods and application of ecological theory. Three hours of lecture and six hours of lab per week. Prerequisites: BIO 111-112</td>
<td>4</td>
</tr>
</tbody>
</table>
BIO 322 Conservation Biology
Study of the plight of endangered species, the biological consequences of fragmented populations, and the scientific basis of habitat/species restoration. Prerequisites: BIO 111-112

BIO 325 Reproductive Biopsychology
Neuro-endocrine mechanisms underlying behavior associated with sex, pregnancy, and parental care. Equal focus on human and non-human behavior. Prerequisites: BIO 111-112

BIO 332 Medical and Veterinary Entomology
Introduction to the arthropods that cause disease and public health issues in humans and animals. Prerequisites: BIO 111-112

BIO 335 Plant Biology
Critical examination of the structure, physiology and biochemistry of vascular plants. Plant taxonomy. Emphasis on the interaction of plants with their environment. Prerequisites: BIO 111-112

BIO 335L Plant Biology Laboratory
Investigative survey of plant structure and function. Prerequisite: Concurrent enrollment in BIO 335.

BIO 340 Physiology
Provides an examination of the biochemical, molecular and cellular regulatory mechanisms involved in maintaining stable internal environments required for normal cell, tissue and organ function. Course focuses on cell and organ function, integrated physiological control systems for various organ systems, and the maintenance of homeostasis. Topics include cellular control mechanisms and metabolism, neuronal and hormonal control of physiological systems, signal transduction mechanisms, cardiovascular and respiratory physiology, immune function, and reproduction. Prerequisites: BIO 111-112

BIO 340L Physiology Laboratory
Experimental study of physiological systems, using biochemical, cellular and hematological techniques and electronic instrumentation. Prerequisite: Concurrent enrollment in BIO 340.

BIO 343 Entomology
Introduction to the diversity and natural history of insects, with emphasis on identification of species. Three hours of lecture and three hours of lab weekly. Prerequisites: BIO 111-112

BIO 345 Functional Neuroanatomy
Fundamentals of neuroanatomy and neurophysiology. Embryology, histology, and cellular structure as well as sensory and motor components and circuitry. Prerequisites: BIO 111-112

BIO 355 Behavioral Neuroscience
Functions of nervous and endocrine systems in mediating motivation, movement, sensation, ingestion, aggression, emotion, sleep, learning, memory, thought and behavior disorders. Prerequisites: BIO 111-112

BIO 360 Environmental Health
Environmental effects on human health, including biological, physical and chemical hazards in water, soil, and air. Course focuses on public health and epidemiological study approaches. Emerging issues also discussed. Prerequisites: BIO 111-112

BIO 365 Vertebrate Zoology and Ecology
The biology of the vertebrates including anatomy, evolution, ecology, natural history and behavior. Labs involve some anatomy, learning local and North American species and groups, and field trips. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 366 Ornithology
Phylogenetic relationships, ecology, natural history and the behavior of birds. Laboratory focuses on world-wide diversity, local species and field techniques. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 370 Plant Morphology
Examination of plant morphology and the relationship between morphology, evolution, plant adaptation and plant biology is emphasized. Laboratory focuses on examining morphological features of local and non-local plants in a hands-on-setting. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 371 Behavioral Ecology
Animal behavior from an evolutionary perspective, focusing on the influences of evolutionary history and environment on behaviors including foraging, communication, reproduction, and social behavior. Prerequisites: BIO 111-112

BIO 375 Community Ecology
This course focuses on how processes in multi-species assemblages affect communities by altering species' abundances, distributions, composition, and driving long term evolutionary change. Principles are taught theoretically and supported through examples in the primary literature. Three hours of lecture per week. Prerequisites: BIO 111-112

BIO 400 Independent Study
Independent study under the direction of a faculty member. Arrangements made prior to registration. Prerequisite: Written permission of tutorial faculty member.

BIO 401 Independent Research
Independent laboratory research in biology conducted under the supervision of a faculty member. Arrangements made prior to registration. Prerequisite: Written permission of faculty member.

BIO 404 Genetics
Principles of Mendelian, molecular, population, human and quantitative genetics, with emphasis on inherited diseases. Prerequisite: BIO 111, 112, 211, 212
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 404L</td>
<td>Genetics Laboratory</td>
<td>Principles of Mendelian and molecular genetics as demonstrated by experiments with C. elegans. Prerequisite: Concurrent enrollment in BIO 404.</td>
</tr>
<tr>
<td>BIO 405</td>
<td>Medical Genetics</td>
<td>Modes of transmission of human characteristics and diseases in families and populations; the molecular basis of human disease; the genetics of cancer and the screening, diagnosis and therapy of specific genetic diseases. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 405L</td>
<td>Medical Genetics Laboratory</td>
<td>Experimental methods used in the study of medical genetics. Corequisite: Concurrent enrollment in BIO 405.</td>
</tr>
<tr>
<td>BIO 408</td>
<td>Biotechnology, Theory in Practice</td>
<td>Introduction to the theory and experiments that are the foundation of biotechnology through lecture and laboratory. Topics include genetic engineering, mutagenesis, separation technology, immunobiotechnology and cell biology. Lab required. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 412</td>
<td>Evolution and Development</td>
<td>Evolution of development, e.g. how structures arise during development of the embryo and the evolution of genetic pathways that control the process of development. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 412L</td>
<td>Evolution and Development Laboratory</td>
<td>Investigative lab focuses on projects designed to characterize molecular changes during development in a variety of organisms. Corequisite: concurrent registration in BIO 412</td>
</tr>
<tr>
<td>BIO 414</td>
<td>Enzymes and Proteins</td>
<td>The biochemical characteristics of proteins and enzymes will be examined using a modular approach to target important structural proteins and regulatory enzymes of animal and plant metabolism. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 414L</td>
<td>Enzymes and Proteins Laboratory</td>
<td>Experimental techniques for the purification of proteins, the analysis of protein function and the measurement of enzyme kinetics. Corequisite: concurrent registration in BIO 414</td>
</tr>
<tr>
<td>BIO 416</td>
<td>Virology</td>
<td>This course will discuss the types and pathogenesis of viruses that cause human and animal viral diseases. The medically important groups of DNA viruses, RNA viruses, and slow viruses (prions) will be discussed in terms of pathogenesis and epidemiology. In addition, techniques for studying the replication and quantification of viral infections will be discussed. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 416L</td>
<td>Virology Laboratory</td>
<td>Methods for culturing, isolating and characterizing viruses, as well as experimental methods used in the study of viruses. Prerequisite: Concurrent enrollment in BIO 416.</td>
</tr>
<tr>
<td>BIO 418</td>
<td>Endocrinology</td>
<td>Synthesis and cellular/molecular actions of peptides and steroid hormones, growth factors, cytokines, and their roles in regulating physiological processes, maintenance of homeostasis and cancer biology. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 418L</td>
<td>Endocrinology Laboratory</td>
<td>Experimental laboratories researching current topics in endocrinology at the molecular, cellular and organismal levels. Prerequisite: Concurrent enrollment in BIO 418.</td>
</tr>
<tr>
<td>BIO 419</td>
<td>Cell Biology</td>
<td>Recent developments in cell biology, including genetic information storage and retrieval, protein processing and secretion, motility, chemotaxis, energy sources and the cell in its environment. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 425</td>
<td>Cellular Neurobiology</td>
<td>Cellular and molecular mechanisms underlying nerve function. Topics include signaling within the nervous system, neuropharmacology and neuropathology. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 425L</td>
<td>Cellular Neurobiology Laboratory</td>
<td>Experimental laboratories researching current topics in cell and molecular neurobiology. Corequisite: Concurrent enrollment in BIO 425.</td>
</tr>
<tr>
<td>BIO 426</td>
<td>Immunochemistry</td>
<td>Structural concept of antigenic determinants, immunoglobulin sequences and combining site specificity related to the diversity of the immune response and its control. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 426L</td>
<td>Immunochemistry Laboratory</td>
<td>Current methods in immunological research and diagnosis. Designed to present available methodology and insight into the underlying principles.</td>
</tr>
<tr>
<td>BIO 430</td>
<td>Medicinal Botany</td>
<td>The importance of diverse plant life to human health; the biosynthesis, ecological significance and pharmacology of drugs derived from plants. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
<tr>
<td>BIO 432</td>
<td>Developmental Biology</td>
<td>The cellular and molecular phenomena that result in the development of a complex multicellular organism from a single cell, the zygote. Prerequisite: BIO 111, 112, 211, 212</td>
</tr>
</tbody>
</table>
### BIO 435 Developmental Neurobiology
Cellular and molecular mechanisms underlying neural development: neural determination, cell migration, axon guidance, apoptosis, synaptogenesis, myelination and nerve regeneration. The scientific methodology used in current research will be stressed. Prerequisite: BIO 111, 112, 211, 212

### BIO 435L Developmental Neurobiology Laboratory
Experimental studies of the development and regeneration of nervous tissue using neuronal tissue culture and digital microscopy. Corequisite: Concurrent enrollment in BIO 435.

### BIO 440 Medical Biochemistry
Biochemistry of disease. Includes examination of pathways and regulatory enzymes that lead to normal and disease states. Prerequisite: BIO 111, 112, 211, 212

### BIO 444 Cancer Biology
This course focuses on understanding the causes of cancer, progression of the disease (tumor formation to metastasis), and therapeutic approaches. There will be an examination of the underlying genetic and molecular changes that occur as well as global changes within tumors. Students will learn the common features of different types of cancers as well as the distinguishing characteristics of a few specific cancers. Throughout the course therapeutic targets will be identified and discussed and the end of the course will focus on traditional and novel therapeutic approaches. Prerequisite: BIO 111, 112, 211, 212

### BIO 445 Cellular Imaging
Use of microscopy and digital imaging technology to study living eukaryotic cells. Experimental laboratory focused. Lab required. Prerequisite: BIO 111, 112, 211, 212

### BIO 450 Molecular Biology
Current approaches to recombinant DNA technology and molecular genetic research. Both conceptual and laboratory approaches will be pursued. Topics: cancer development, cell growth, chemical evolution. Prerequisite: BIO 111, 112, 211, 212

### BIO 450L Molecular Biology Laboratory
Exposure to electrophoresis, bacterial transformation, restriction enzyme analysis, techniques used in recombinant DNA research, PCR. Corequisite: Concurrent enrollment in BIO 450.

### BIO 454 Genomics and Proteomics
A survey of genomic, proteomic and metabolomic techniques used in modern biological and biochemical studies. Journal articles utilizing these techniques will be used as the basis for understanding these techniques and how they fit into systems biology. Prerequisite: BIO 111, 112, 211, 212

### BIO 498 Biology With Distinction Thesis
Requirement for any student seeking to complete the Biology with Distinction degree option. Must be taken by seniors in the fall or spring of their senior year.

### BIO 499 Biology Internship
Provides students with work experience in the biological sciences. Practical application of material taught in biology classes to the work environment. Application process and permission of department chair required.

### NON-MAJOR BIOLOGY COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 109</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>BIO 115</td>
<td>Disease: Myth and Reality</td>
<td>3</td>
</tr>
<tr>
<td>BIO 125</td>
<td>Microbes and People</td>
<td>3</td>
</tr>
<tr>
<td>BIO 130</td>
<td>Biotechnology and Society</td>
<td>3</td>
</tr>
<tr>
<td>BIO 132</td>
<td>Genes and People</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Environmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 221</td>
<td>Biology of Women</td>
<td>3</td>
</tr>
</tbody>
</table>

### CORE CAPSTONE COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 477</td>
<td>Plants and Society</td>
<td>3</td>
</tr>
<tr>
<td>BIO 499</td>
<td>Distinction Internship</td>
<td>3</td>
</tr>
</tbody>
</table>
OTHER COURSES
(for allied health professionals, clinical laboratory science, pre-pharmacy and select majors within the college of education; may not be used as electives for the Biology major).

**BIO 114/114L Human Biology: Introduction to Human Anatomy and Physiology**

Introductory course for those students requiring an understanding of the structure and function of the human body. Course examines the relationships among physiology, anatomy, metabolism, genetics, evolution, the physical environment, and exercise, and how they relate to diet, human health and disease. Three hours of lecture and one three-hour lab per week.

**BIO 115/115L Musculoskeletal Anatomy and Physiology**

The course will thoroughly explore the anatomy, physiology and biomechanical characteristics of the musculoskeletal components, and associated neural and vascular structures, of the human body. Three hours of lecture and one three-hour lab per week. Students must earn a minimum grade of C in BIO 114 to advance to BIO 115. Prerequisite: BIO 114
Biochemistry

Chair: Mariusz M. Kozik

Introduction:
Biochemistry graduates enter a variety of professions, including careers in research and industry, the health professions, teaching, technical writing, business, sales, patent law and civil service. A major in biochemistry is an excellent preparation for entrance into medical, dental and pharmacy schools. It also prepares students to enter a range of graduate programs including biochemistry, biotechnology, bioinformatics, medicinal chemistry, bioengineering, business and law.

The Department of Chemistry and Biochemistry offers two tracks that lead to a BS degree in Biochemistry. They are Biochemistry BS track certified by the American Chemical Society (BCH track certified by ACS) and Biochemistry BS track designed for students who intend to pursue employment in industry (BCH track).

Advisors in the Department will help you choose the track that best fits your interests and career plans. Students in both program tracks will gain hands-on experience with a wide variety of modern, sophisticated laboratory instrumentation; this helps provide the experience necessary to be competitive in today's job market and/or to gain entrance into highly ranked graduate programs.

Both Biochemistry tracks can be completed with a business minor. This option provides a very useful preparation for employment in sales, marketing, or other industrial professions, as well as preparing students for graduate studies in business or administration.

Please see the website for a more detailed description of the program, faculty, facilities, and academic and co-curricular opportunities: http://www.canisius.edu/chemistry/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must attain the grade of C or greater in General Chemistry II (CHM 112) and C- or greater in Organic Chemistry II (CHM 228) in order to progress into the major. Several two-semester courses (CHM 111 and CHM 112, CHM 227 and CHM 228, BCH 301 and BCH 302) have a requirement for a minimum grade of C- in the first course to continue with the second course. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students in this major should have an advisor and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students must complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach the minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 111/111L</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 112/112L</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHM 227/227L</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 228/228L</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHM 230/230L</td>
<td>Analytical Chemistry (required for the ACS certified track)</td>
<td>4</td>
</tr>
<tr>
<td>CHM 244</td>
<td>Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHM 301</td>
<td>Classical Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHM 302/302L</td>
<td>Modern Physical Chemistry (required only for the ACS certified track)</td>
<td>4</td>
</tr>
<tr>
<td>BCH 301/301L</td>
<td>Introduction to Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>BCH 302/302L</td>
<td>Cellular Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHM 381-480-481</td>
<td>Seminars in Chemistry and Biochemistry Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Spectroscopy or Instrumentation Course with lab:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 334/334L</td>
<td>Spectrometric Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHM 430/430L</td>
<td>Instrumental Analytical Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

(con’t next page)
Major Experiences:
Following their sophomore year, and sometimes earlier, chemistry and biochemistry majors are encouraged to become involved in research or other professional projects. Stipends are often available for students to work on these projects during the summer and school year in the Department. Summer work in industrial laboratories and research institutions is also available. Our close relationship with local industries and institutions aids in job placement before and after graduation. Students may also choose to undertake industrial internships for advanced elective course credit.

Special Programs Offered by the Department:
Early Assurance Program with SUNY Buffalo Medical School or Syracuse Medical School: Qualified students may apply to the State University of New York at Buffalo Medical School or Syracuse University Medical School during their sophomore year. Those accepted will be admitted into the Medical School freshman class after their graduation from Canisius.

Early Assurance Program with SUNY Buffalo Dental School: Qualified students may apply to the State University of New York at Buffalo Dental School during their sophomore year. Those accepted will be admitted into the Dental School freshman class after their graduation from Canisius.

Pre-Medical and Pre-Dental: The Chemistry and Biochemistry BS degrees are excellent preparations for entering into medical and dental schools, and a third of the graduates from this Department enter into these programs. Students applying to medical or dental schools must take the Medical College Admission Test (MCAT) or Dental Admission Test (DAT).

Pre-Pharmacy: Students who are planning to enter pharmacy school after their junior year will be listed as biochemistry majors since the first three years of the biochemistry program satisfy most pharmacy school admission requirements for students without BS degrees. For students who want to complete a BS degree before starting pharmacy school, we recommend the Chemistry Health Professions track, since students in this track can meet all pharmacy school entrance requirements. Students applying to most pharmacy schools must take the Pharmacy College Admission Test (PCAT).

Additional Course Considerations:
MAT 211 Calculus III (4) is highly recommended for students interested in pursuing a PhD degree.

<table>
<thead>
<tr>
<th>Major Electives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Biology elective with laboratory (4)</td>
</tr>
<tr>
<td>(BIO 404 Genetics, BIO 405 Medical Genetics, BIO 408 Biotechnology, BIO 412 Evolution and Development, or BIO 450 Molecular Biology)</td>
</tr>
<tr>
<td>Biochemistry elective (3)</td>
</tr>
<tr>
<td>(any 300 or 400 level BCH course and some CHM courses except BCH 301 and BCH 302)</td>
</tr>
<tr>
<td>Biochemistry or Chemistry elective (3) (not required for ACS certified track)</td>
</tr>
<tr>
<td>BCH 450 or CHM 450 Research in Biochemistry or Chemistry (3) and BCH 451 or CHM 451 Research in Biochemistry or Chemistry (4) can be taken instead of one advanced elective in biochemistry or chemistry.</td>
</tr>
<tr>
<td>Recommended Semester Schedule for Major Course Requirements:</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td><strong>FALL</strong></td>
</tr>
<tr>
<td><strong>Freshman</strong></td>
</tr>
<tr>
<td>BCH ACS certified track, BCH track, and both tracks with business minor:</td>
</tr>
<tr>
<td>CHM 111/111L (4)</td>
</tr>
<tr>
<td>BIO 111/111L (4)</td>
</tr>
<tr>
<td>MAT 111 (4)</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
</tr>
<tr>
<td>BCH ACS certified track:</td>
</tr>
<tr>
<td>CHM 227/227L (4)</td>
</tr>
<tr>
<td>CHM 244 (3)</td>
</tr>
<tr>
<td>BCH ACS certified track with business minor:</td>
</tr>
<tr>
<td>CHM 227/227L (4)</td>
</tr>
<tr>
<td>CHM 244 (3)</td>
</tr>
<tr>
<td>ECO 101 (3)</td>
</tr>
<tr>
<td>BCH track and BCH track with business minor:</td>
</tr>
<tr>
<td>CHM 227/227L (4)</td>
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<tr>
<td>CHM 244 (3)</td>
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<tr>
<td>PHY 201/201L (4)</td>
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<tr>
<td><strong>Junior</strong></td>
</tr>
<tr>
<td>BCH ACS certified track and BCH ACS certified track with business minor:</td>
</tr>
<tr>
<td>BCH 301/301L (4)</td>
</tr>
<tr>
<td>PHY 224/224L (4)</td>
</tr>
<tr>
<td>CHM 301 (3)</td>
</tr>
<tr>
<td>BCH track:</td>
</tr>
<tr>
<td>BCH 301/301L (4)</td>
</tr>
<tr>
<td>CHM 301 (3)</td>
</tr>
<tr>
<td>BCH track with business minor:</td>
</tr>
<tr>
<td>BCH 301/301L (4)</td>
</tr>
<tr>
<td>CHM 301 (3)</td>
</tr>
<tr>
<td>ECO 101 (3)</td>
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</tbody>
</table>
Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.
Chemistry

Chair: Mariusz M. Kozik

Introduction:
Chemistry or Biochemistry graduates enter a variety of professions, including careers in research and industry, the health professions, teaching, technical writing, business, sales, patent law and civil service. A major in chemistry or biochemistry is an excellent preparation for entrance into medical, dental and pharmacy schools. It also prepares students to enter a range of graduate programs including chemistry, biochemistry, biotechnology, bioinformatics, medicinal chemistry, chemical engineering, environmental science, bioengineering, business and law.

The Department of Chemistry and Biochemistry offers three tracks that lead to a BS degree in Chemistry. They include Chemistry track that is certified by the American Chemical Society (CHM ACS certified track), Chemistry Health Professions track, and Chemistry track designed for students who intend to pursue employment in industry.

Advisors in the Department will help you choose the track that best fits your interests and career plans. Students in all program tracks will gain hands-on experience with a wide variety of modern, sophisticated laboratory instrumentation; this helps provide the experience necessary to be competitive in today's job market and/or to gain entrance into highly ranked graduate programs.

All Chemistry tracks can be completed with a business minor. This option provides a very useful preparation for employment in sales, marketing, or other industrial professions, as well as preparing students for graduate studies in business or administration.

Please see the website for a more detailed description of the program, faculty, facilities, and academic and co-curricular opportunities: http://www.canisius.edu/chemistry/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must attain the grade of C or greater in General Chemistry II (CHM 112) and C- or greater in Organic Chemistry II (CHM 228) in order to progress into the major. Several two-semester courses (CHM 111 and CHM 112, CHM 227 and CHM 228, BCH 301 and BCH 302) have a requirement for a minimum grade of C- in the first course to continue with the second course.

All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students in this major should have an advisor and should contact the department directly to have an advisor assigned if they do not already have one. All students should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular and/or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students must complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach the minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:

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<tbody>
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<td>Organic Chemistry I</td>
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<td>CHM 230/230L</td>
<td>Analytical Chemistry</td>
<td>4</td>
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<tr>
<td>CHM 244</td>
<td>Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHM 301/301L</td>
<td>Classical Physical Chemistry (lab not required for the Health Professions track)</td>
<td>3</td>
</tr>
<tr>
<td>CHM 302/302L</td>
<td>Modern Physical Chemistry (required only for the ACS certified track)</td>
<td>4</td>
</tr>
<tr>
<td>BCH 301</td>
<td>Introduction to Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHM 381-380-481</td>
<td>Seminars in Chemistry and Biochemistry Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Spectroscopy or Instrumentation Courses (not required by the Health Professions track):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 334/334L</td>
<td>Spectrometric Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHM 430/430L</td>
<td>Instrumental Analytical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>BCH 302</td>
<td>Cellular Biochemistry (required only by the Health Professions track)</td>
<td>3</td>
</tr>
</tbody>
</table>
BCH 450 or CHM 450 Research in Biochemistry or Chemistry (3) and BCH 451 or CHM 451 Research in Biochemistry or Chemistry (4) can be taken instead of one advanced elective in biochemistry or chemistry.

Major Experiences:
Following their sophomore year, and sometimes earlier, chemistry and biochemistry majors are encouraged to become involved in research or other professional projects. Stipends for qualified students are often available for students to work on these projects during the summer and school year in the Department. Summer work in industrial laboratories and research institutions is also available. Our close relationship with local industries and institutions aids in job placement before and after graduation. Students may also choose to undertake industrial internships for advanced elective course credit.

Special Programs Offered by the Department:
Early Assurance Program with SUNY Buffalo Medical School or Syracuse Medical School: Qualified students may apply to the State University of New York at Buffalo Medical School or Syracuse University Medical School during their sophomore year. Those accepted will be admitted into the Medical School freshman class after their graduation from Canisius.

Early Assurance Program with SUNY Buffalo Dental School: Qualified students may apply to the State University of New York at Buffalo Dental School during their sophomore year. Those accepted will be admitted into the Dental School freshman class after their graduation from Canisius.

Pre-Medical and Pre-Dental: The Chemistry and Biochemistry BS degrees are excellent preparations for entering into medical and dental schools, and a third of the graduates from this Department typically enter into these programs. Students applying to medical or dental schools must take the Medical College Admission Test (MCAT) or Dental Admission Test (DAT).

Pre-Pharmacy: Students who are planning to enter pharmacy school after their junior year will be listed as biochemistry majors since the first three years of the biochemistry tracks satisfy most pharmacy school entrance requirements for students without BS degrees. For students who want to complete a BS degree before starting pharmacy school, we recommend the CHM Health Professions track, since students in this track can meet all pharmacy school entrance requirements. Students applying to most pharmacy schools must take the Pharmacy College Admission Test (PCAT).

Additional Course Considerations:
MAT 211 Calculus III (4) is highly recommended for students interested in pursuing a PhD degree. In addition, MAT 219 Linear Algebra (4) and MAT 222 Differential Equations (4) are highly recommended for students interested in pursuing a PhD degree in physical, inorganic, or analytical chemistry.

<table>
<thead>
<tr>
<th>One year of physics (8 cr)</th>
<th>BCH 450 or CHM 450 Research in Biochemistry or Chemistry (3) and BCH 451 or CHM 451 Research in Biochemistry or Chemistry (4) can be taken instead of one advanced elective in biochemistry or chemistry.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS certified track:</td>
<td></td>
</tr>
<tr>
<td>PHY 223/223L and PHY 224/224L</td>
<td>General Physics for Science Majors</td>
</tr>
<tr>
<td>Other CHM tracks:</td>
<td></td>
</tr>
<tr>
<td>PHY 201/201L and PHY 202/202L or</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHY 223/223L and PHY 224/224L</td>
<td></td>
</tr>
<tr>
<td>One year of mathematics (8 cr)</td>
<td></td>
</tr>
<tr>
<td>ACS certified track:</td>
<td></td>
</tr>
<tr>
<td>MAT 111 and MAT 112</td>
<td>Calculus I</td>
</tr>
<tr>
<td>Other CHM tracks:</td>
<td></td>
</tr>
<tr>
<td>MAT 111 and MAT 141 or MAT 111 and MAT 112</td>
<td>Inferential Statistics and Computers for Science</td>
</tr>
<tr>
<td>Note: Pharmacy schools require MAT 111, MAT 112, and MAT 141.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Biology</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health professions track:</td>
<td></td>
</tr>
<tr>
<td>BIO 111/111L and BIO 112/112L</td>
<td>Introductory Biology I and Lab</td>
</tr>
<tr>
<td>Other CHM tracks:</td>
<td></td>
</tr>
<tr>
<td>BIO 111/111L</td>
<td>Introductory Biology I and Lab</td>
</tr>
</tbody>
</table>

Major Electives:
Three major electives are required by each track.

CHM ACS certified track and CHM track require:
- one chemistry elective with lab (4)
- two chemistry electives (6)
- The chemistry elective lab for ACS certified track may be replaced by BCH 301 lab.

CHM Health Professions track requires:
- one chemistry elective with lab (4)
- one science elective with lab (4)
- one science elective (3)
- Science electives may come from CHM and BCH or from other science departments (BIO, PHY, CSC, MAT).
<table>
<thead>
<tr>
<th></th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>CHM ACS certified track, CHM track, CHM Health Professions track, and all these tracks with business minor:</td>
<td>CHM ACS certified track and CHM ACS certified track with business minor:</td>
</tr>
<tr>
<td></td>
<td>CHM 111/111L (4)</td>
<td>CHM 112/112L (4)</td>
</tr>
<tr>
<td></td>
<td>BIO 111/111L (4)</td>
<td>PHY 223/223L (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 111 (4)</td>
<td>MAT 112 (4)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>CHM ACS certified track and CHM ACS certified track with business minor:</td>
<td>CHM ACS certified track:</td>
</tr>
<tr>
<td></td>
<td>CHM 227/227L (4)</td>
<td>CHM 228/228L (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 244 (3)</td>
<td>CHM 230/230L (4)</td>
</tr>
<tr>
<td></td>
<td>PHY 224/224L (4)</td>
<td>CHM ACS certified track with business minor:</td>
</tr>
<tr>
<td></td>
<td>CHM track, CHM Health Professions track, and both these tracks with business minor:</td>
<td>CHM 228/228L (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 227/227L (4)</td>
<td>CHM 230/230L (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 244 (3)</td>
<td>ECO 102 (3)</td>
</tr>
<tr>
<td></td>
<td>PHY 201/201L (3)</td>
<td>MAT 141 or ECO 255 (4/3)</td>
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<tr>
<td></td>
<td></td>
<td>CHM track and CHM Health Professions track:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CHM 228/228L (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHY 202/202L (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CHM track and CHM Health Professions track with business minor:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CHM 228/228L (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHY 202/202L (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ECO 102 (3)</td>
</tr>
<tr>
<td>Junior</td>
<td>FALL</td>
<td>SPRING</td>
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<tr>
<td>---</td>
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<tr>
<td><strong>CHM ACS certified track:</strong></td>
<td><strong>CHM ACS certified track:</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 301/301L  (4)</td>
<td>CHM 302/302L  (4)</td>
<td></td>
</tr>
<tr>
<td>CHM 334/334L  (4)</td>
<td>CHM 430/430L  (4)</td>
<td></td>
</tr>
<tr>
<td><strong>CHM ACS certified track with business minor:</strong></td>
<td><strong>CHM ACS certified track with business minor:</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 301/301L  (4)</td>
<td>CHM 381  (1)</td>
<td></td>
</tr>
<tr>
<td>CHM 334/334L  (4)</td>
<td>CHM 302/302L  (4)</td>
<td></td>
</tr>
<tr>
<td>ECO 101  (3)</td>
<td>CHM 430/430L  (4)</td>
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</tr>
<tr>
<td>MKT 201  (3)</td>
<td>CHM 381  (1)</td>
<td></td>
</tr>
<tr>
<td><strong>CHM track:</strong></td>
<td><strong>MGT 101  (3)</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 334/334L  (4)</td>
<td><strong>CHM track:</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 301/301L  (4)</td>
<td>CHM 230/230L  (4)</td>
<td></td>
</tr>
<tr>
<td><strong>CHM track with business minor:</strong></td>
<td><strong>CHM Elective  (3)</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 334/334L  (4)</td>
<td>CHM 381  (1)</td>
<td></td>
</tr>
<tr>
<td>BCH 301  (3)</td>
<td><strong>CHM track with business minor:</strong></td>
<td></td>
</tr>
<tr>
<td>ECO 101  (3)</td>
<td>CHM 230/230L  (4)</td>
<td></td>
</tr>
<tr>
<td><strong>CHM Health Professions track:</strong></td>
<td><strong>CHM Elective  (3)</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 301  (3)</td>
<td>CHM 381  (1)</td>
<td></td>
</tr>
<tr>
<td>BCH 301  (3)</td>
<td><strong>MGT 101  (3)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CHM Health Professions track with business minor:</strong></td>
<td><strong>CHM Health Professions track:</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 301  (3)</td>
<td>CHM 230/230L  (4)</td>
<td></td>
</tr>
<tr>
<td>BCH 301  (3)</td>
<td>BCH 302  (3)</td>
<td></td>
</tr>
<tr>
<td>ECO 101  (3)</td>
<td>CHM 381  (1)</td>
<td></td>
</tr>
<tr>
<td><strong>CHM track with business minor:</strong></td>
<td><strong>CHM Health Professions track with business minor:</strong></td>
<td></td>
</tr>
<tr>
<td>CHM 301/301L  (4)</td>
<td>CHM 230/230L  (4)</td>
<td></td>
</tr>
<tr>
<td>BCH 302  (3)</td>
<td>CHM 381  (1)</td>
<td></td>
</tr>
<tr>
<td>MGT 101  (3)</td>
<td><strong>CHM Elective  (3)</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHM ACS certified track:</strong></td>
<td><strong>CHM ACS certified track:</strong></td>
<td></td>
</tr>
<tr>
<td>CHM Elective  (3)</td>
<td>CHM Elective + Lab  (4)</td>
<td></td>
</tr>
<tr>
<td>CHM 480  (1)</td>
<td><strong>CHM Elective  (3)</strong></td>
<td></td>
</tr>
<tr>
<td>BCH 301 (3)</td>
<td>CHM 481  (1)</td>
<td></td>
</tr>
</tbody>
</table>
Students majoring in various disciplines such as biology, mathematics, physics, bioinformatics, computer science, psychology and business can benefit from pursuing a minor in chemistry. The chemistry minor requires a student to complete the following sequence of courses:

- **Two semesters of General Chemistry with laboratory:**
  - CHM 111/111L and CHM 112/112L  (8)
- **Two semesters of Organic Chemistry with laboratory:**
  - CHM 227/227L and CHM 228/228L  (8)
- **One semester of Analytical Chemistry with laboratory:**
  - CHM 301 or CHM 302 or CHM 244  (3)
- **Chemistry Elective:**
  - one CHM or BCH 300 or 400 level course  (3)

Minors 2:

Students majoring in various disciplines such as biology, mathematics, physics, bioinformatics, computer science, psychology and business can benefit from pursuing a minor in chemistry. The chemistry minor requires a student to complete the following sequence of courses:

- **Two semesters of General Chemistry with laboratory:**
  - CHM 111/111L and CHM 112/112L  (8)
- **Two semesters of Organic Chemistry with laboratory:**
  - CHM 227/227L and CHM 228/228L  (8)
- **One semester of Analytical Chemistry with laboratory:**
  - CHM 301 or CHM 302 or CHM 244  (3)
- **Chemistry Elective:**
  - one CHM or BCH 300 or 400 level course  (3)
CHEMISTRY COURSES  
2011 - 2013

CHM 100 Preparation for Physical Science 3
Designed to improve student scientific reading comprehension and applied mathematical and logic skills in the context of basic chemistry principles and terminology. This course prepares students for General Chemistry, CHM 111. Not a Field 6 course.

CHM 104 Energy, Environment, and Society 3
Designed to provide a better understanding of energy and our environment, including man's interaction with his environment and the consequences facing society today. Field 6. Fall

CHM 105 Chemistry: A Human Perspective 3
Fundamental principles of chemical theory are presented by examining their historical development. Impact of chemistry on society and scientific basis for chemical phenomena that dramatically impact our lives. Field 6. Spring

CHM 111-112 General Chemistry 8
General chemistry for science majors. Emphasizes physical chemical principles. Includes stoichiometry, atomic structure and periodicity, chemical bonding, gas laws, kinetics, equilibrium, electrochemistry, nuclear chemistry, and three laws of thermodynamics. Three lectures, one laboratory, and one recitation per week. Section LTL has three lectures and three recitations per week, and each lecture is followed by a recitation with problem solving in teams. Laboratory includes quantitative and qualitative analysis. Prerequisite for CHM 111: CHM 100 with the minimum grade of C or permission by department. Minimum C- in CHM 111 is a prerequisite for CHM 112 (General Chemistry II) and CHM 227 (Organic Chemistry I). Minimum C- in CHM 111 Lab is a prerequisite for CHM 112 Lab. Field 6. Fall - Spring

CHM 227-228 Organic Chemistry 8
Fundamental treatment of organic chemistry. Mechanisms, structure and synthetic methods. Laboratory covers techniques of separation, purification, analysis and organic synthesis. Three lectures, one laboratory, and one recitation per week. Prerequisite for CHM 227: CHM 112 or concurrent registration in CHM 112. Minimum C- in CHM 227 is a prerequisite for CHM 228. Minimum C- in CHM 227 Lab is a prerequisite for CHM 228 Lab. Fall - Spring

CHM 230 Analytical Chemistry 4
Principles and methodology of modern analytical chemistry presented with particular emphasis on chromatographic, spectrophotometric and electroanalytical techniques. Three lectures, one laboratory and one recitation per week. Prerequisite: CHM 112 with the minimum grade of C. Spring

CHM 232 Analytical Environmental Chemistry 4
First-level analytical course. Environmental applications. Sampling techniques and statistical analysis of data. Soil chemistry, aquatic chemistry and atmospheric chemistry. Trace analysis with electroanalytical, liquid and gas chromatography, atomic absorption spectroscopy and ion selective electrodes. Three lectures, one laboratory and one recitation per week. Prerequisites: CHM 111-112. Spring

CHM 244 Inorganic Chemistry 3
Electronic configuration of atoms, periodic classification of the elements, nature of chemical bonding including molecular orbital theory, symmetry and group theory, coordination compounds, and other aspects of modern inorganic chemistry. Prerequisite: CHM 112 with the minimum grade of C. Fall

CHM 301 Classical Physical Chemistry 3
Principles of thermodynamics with applications to phase and chemical equilibria. Kinetic theory of gases and chemical kinetics. Three lectures and one recitation per week. Prerequisites: CHM 112 with the minimum grade of C, MAT 111, PHY 201-202 or 223-224, or equivalent courses. Fall

CHM 301L Classical Physical Chemistry Laboratory 1
Selected experiments demonstrating principles of thermodynamics and chemical kinetics. One four-hour lab per week. Advanced Writing-intensive attribute. Prerequisite: CHM230 Laboratory and CHM 301 or concurrent registration in CHM 301. Fall

CHM 302 Modern Physical Chemistry 3
Introduction to quantum chemistry with applications to the structure of atoms and molecules. Molecular spectroscopy. Three lectures and one recitation per week. Prerequisites: CHM 112 with the minimum grade of C, MAT 111-112, PHY 201-202 or 223-224, or equivalent courses. Spring

CHM 302L Modern Physical Chemistry Laboratory 1
Selected spectroscopic experiments with applications to molecular structure. One four-hour lab per week. Prerequisite: CHM 302 or concurrent registration in CHM 302 and CHM 230L or CHM 301L or CHM 334L or CHM 430L with the minimum grade of C-. Spring

CHM 334 Spectrometric Analysis 4
Spectrometric methods for the elucidation of chemical structures. Includes nuclear magnetic resonance, infrared, ultraviolet and mass spectrometry. Emphasis on organic compounds. Three lectures and one laboratory per week. Prerequisites: CHM 227-228. Fall

CHM 338 Intermediate Organic Chemistry 3
Important basic concepts in organic chemistry are reviewed at a higher level than is possible in an introductory course. New concepts are presented in the area of reaction mechanisms, physical organic chemistry, and in the use of retrosynthetic analysis to plan multi-step organic syntheses. Prerequisites: CHM 227-228. Fall
CHM 344 Metal Ions in Biological Systems  
The course covers chemical processes in biological systems, which include participation of metal ions. Organized according to the functions performed by the metal centers: gene expression and signal transduction, digestion, bioenergetics and electron transfer, oxygen transport, liver functions and anticancer drugs. Prerequisites: CHM 227-228, CHM 244. Spring 2012

CHM 381-480-481 Seminars in Chemistry and Biochemistry Communication

CHM 381 Scientific Literature and Communication  

CHM 480 Communication of Concepts in Chemistry and Biochemistry  

CHM 481 Communication of Research Literature (Oral Communication attribute)  
Student-faculty seminar for majors. To be taken for three semesters. Prerequisite: CHM 228 and Junior standing. Spring - Fall - Spring

CHM 401 Modern Synthetic Methods  
Structure-reactivity relationships in organometallic chemistry and the application of organometallic compounds in organic synthesis, including industrial catalysis. Prerequisites: CHM 228 and CHM 244. Spring 2013

CHM 401L Modern Synthetic Methods Laboratory  
Designed to illustrate some of the most important synthetic and physical techniques used by modern synthetic chemists. Prerequisite: CHM 401 or concurrent registration in CHM 401. Spring 2013

CHM 430 Instrumental Analytical Chemistry  
Advanced instrumental methods of analysis including optical emission, spectroscopy, gas chromatography and various electrochemical techniques. Three lectures and one laboratory per week. Prerequisites: CHM 111-112. Spring

CHM 450 and CHM 451 Research in Chemistry  
Independent research under the direction of a member of the chemistry faculty. Research and consultation times to be arranged after approval of department chair. Fall/Spring

CHM 455 Medicinal Chemistry  
Chemical principles are used to explain the interaction of drugs with biological targets. Strategies used in the design and development of medicines are discussed. Prerequisites: CHM 227-228 and BCH 301. Spring 2013

CHM 461 Polymer Chemistry  
Survey of the physical and organic principles of polymer chemistry, with special emphasis on industrial applications. Prerequisites: CHM 227-228. Fall 2012

CHM 499 Independent Study  
Independent study under the direction of the chemistry staff. Prerequisite: Permission of the department chair. Fall/Spring

BIOCHEMISTRY COURSES  
2011-2013

BCH 301 Introduction to Biochemistry  
Structure and function of biological molecules including proteins, carbohydrates, nucleic acids and lipids. Topics include transmission of genetic information from DNA to RNA to protein; recombinant DNA technology, catalysis and enzyme kinetics, ligand binding, signal transduction and membrane transport. Prerequisites: CHM 228 with the minimum grade of C-. Fall

BCH 301L Introduction to Biochemistry Lab  
One four-hour lab per week. Prerequisite: BCH 301 or concurrent registration in BCH 301. Fall

BCH 302 Cellular Biochemistry  
The more biological aspects of biochemistry. Topics include bioenergetics, anabolism and catabolism of carbohydrates, lipids, proteins and control of metabolism, emphasizing hormones. Prerequisite: BCH 301 with the minimum grade of C-. Spring

BCH 302L Cellular Biochemistry Lab  
One four-hour lab per week. Prerequisites: BCH 301L and BCH 302 or concurrent registration in BCH 302. Advanced Writing-intensive attribute. Spring

BCH 450 and BCH 451 Research in Biochemistry  
3 and 4 credits Independent research under the direction of the biochemistry faculty. Research and consultation times to be arranged after approval of department chair. Fall/Spring

BCH 455 Medicinal Chemistry  
Chemical principles are used to explain the interaction of drugs with biological targets. Strategies used in the design and development of medicines are discussed. Prerequisites: CHM 227-228 and BCH 301. Spring 2013

CHM 461 Polymer Chemistry  
Survey of the physical and organic principles of polymer chemistry, with special emphasis on industrial applications. Prerequisites: CHM 227-228. Fall 2012

CHM 499 Independent Study  
Independent study under the direction of the chemistry staff. Prerequisite: Permission of the department chair. Fall/Spring
Classics
Chair: Thomas M. Banchich

Introduction
Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/classics/

Goals
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Classics. All students must complete a minimum of 120 credit hours to graduate.

Advisement
All students should have a Classics Department advisor and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses
Classics Major:

<p>| Course Language and Hellenic Studies Track (CLSG): |</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 103</td>
<td>Greek History</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLS 104</td>
<td>Roman History</td>
<td>3</td>
</tr>
<tr>
<td>CLS 205</td>
<td>Mirror of the Past: Greece</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLS 206</td>
<td>Mirror of the Past: Rome</td>
<td>3</td>
</tr>
<tr>
<td>Classical Greek (CLG) (at least 6 credits at the 300 level or above)</td>
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<td></td>
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<p>| Latin Language and Roman Studies Track (CLSL): |</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CLS 103</td>
<td>Greek History</td>
<td>3</td>
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<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLS 104</td>
<td>Roman History 3</td>
<td>3</td>
</tr>
<tr>
<td>CLS 205</td>
<td>Mirror of the Past: Greece</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLS 206</td>
<td>Mirror of the Past Rome 3</td>
<td>3</td>
</tr>
<tr>
<td>Latin (CLL) (at least 6 credits at the 300 level or above)</td>
<td>18</td>
<td></td>
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</tbody>
</table>

| Both CLSG and CLSL tracks: |
| 6-9 credits selected from Classics Department electives |
| 3-6 credits selected from Interdepartmental electives |
| TOTAL CREDITS | 36 |

<p>| Any CLG or CLL classes not used to satisfy language requirements: |</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLG 101</td>
<td>Elementary Greek</td>
<td>3</td>
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<tr>
<td>CLG 102</td>
<td>Elementary Greek 3</td>
<td>3</td>
</tr>
<tr>
<td>CLG 201-218</td>
<td>Clark</td>
<td>3</td>
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<tr>
<td>CLG 301-318</td>
<td>Clark</td>
<td>3</td>
</tr>
<tr>
<td>CLL 101</td>
<td>Elementary Latin</td>
<td>3</td>
</tr>
<tr>
<td>CLL102</td>
<td>Elementary Latin</td>
<td>3</td>
</tr>
<tr>
<td>CLL 201-218</td>
<td>Clark</td>
<td>3</td>
</tr>
<tr>
<td>CLL 301-318</td>
<td>Clark</td>
<td>3</td>
</tr>
<tr>
<td>(6 CLL credits strongly recommended for students on CLS-Greek track; 6 CLG credits strongly recommended for students on CLS-Latin track)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLS 200</td>
<td>The 300: Myth and Reality</td>
<td>3</td>
</tr>
<tr>
<td>CLS 207</td>
<td>Mythology and Literature</td>
<td>3</td>
</tr>
<tr>
<td>CLS 208</td>
<td>Epic Heroes</td>
<td>3</td>
</tr>
<tr>
<td>CLS 214</td>
<td>Greek and Roman Tragedy</td>
<td>3</td>
</tr>
<tr>
<td>CLS 215</td>
<td>Greek and Roman Comedy</td>
<td>3</td>
</tr>
<tr>
<td>CLS 300</td>
<td>Roman Law and Society</td>
<td>3</td>
</tr>
<tr>
<td>CLS 301</td>
<td>The Age of Cicero</td>
<td>3</td>
</tr>
<tr>
<td>CLS 308</td>
<td>Pagans and Christians</td>
<td>3</td>
</tr>
<tr>
<td>CLS 309</td>
<td>Greek and Roman Religion</td>
<td>3</td>
</tr>
<tr>
<td>CLS 311</td>
<td>Alexander the Great</td>
<td>3</td>
</tr>
<tr>
<td>CLS 312</td>
<td>The Greek Enlightenment</td>
<td>3</td>
</tr>
</tbody>
</table>
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Classics Minors:
Students who wish to minor in Classics must meet the following requirements:

- Classical language: two semesters of Latin or Greek (CLL OR CLG) 6 credits
  - RST 250 Biblical Greek (3 credits)
  - RST 251 Greek Exegesis (3 credits)
  - RST 321 New Testament Society (3 credits)
  - RST 323 Biblical Archaeology (3 credits)
  - RST 325 Early Christianity (3 credits)

- Classics electives: two upper-level (select from any CLG, CLL or CLS courses at the 200-level or above; FAH 210 and 213) 6 credits
  - Total (6 courses) 18 credits

Major Experiences
Classics majors and minors are encouraged to become members of the Canisius Classics Club. The department also offers the opportunity for Classics majors and minors to become members of Eta Sigma Phi, the national Classics Honor Society. Majors and minors should consider participating in Canisius’ Study Abroad programs, especially those in Rome and Florence.

Additional Course Considerations
Classics majors who are interested in pursuing graduate work in Classics are encouraged to enroll in German and French language courses.

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLSG: CLG 101 (3)</td>
<td>CLSG: CLG 102 (3)</td>
</tr>
<tr>
<td></td>
<td>CLSL: CLL 101 (3) (or 200-level)</td>
<td>CLSL: CLL 102 (3) (or 200-level)</td>
</tr>
<tr>
<td></td>
<td>CLS 103 (3) or CLS 205 (3)</td>
<td>Major elective</td>
</tr>
<tr>
<td></td>
<td>CLSG: CLG 200-level</td>
<td>CLSG: CLG 200-level</td>
</tr>
<tr>
<td></td>
<td>CLSL: CLL 200-level</td>
<td>CLSL: CLL 200-level</td>
</tr>
<tr>
<td></td>
<td>CLS 207 (3) or other major elective</td>
<td>CLS 207 (3) or other major elective</td>
</tr>
<tr>
<td></td>
<td>CLSG: CLG 200 or 300-level, CLL 101 (3)</td>
<td>CLSG: CLG 300-level, CLL 102 (3)</td>
</tr>
<tr>
<td></td>
<td>CLSL: CLL 200 or 300-level, CLG 101 (3)</td>
<td>CLSL: CLG 300-level, CLG 102 (3)</td>
</tr>
<tr>
<td></td>
<td>Major elective</td>
<td>Major elective</td>
</tr>
<tr>
<td></td>
<td>CLSG: CLG 300-level</td>
<td>CLSG: CLG 400 (3)</td>
</tr>
<tr>
<td></td>
<td>CLSL: CLL 300-level</td>
<td>CLSL: CLL 400 (3)</td>
</tr>
<tr>
<td></td>
<td>Major elective</td>
<td>Major elective</td>
</tr>
</tbody>
</table>
Classics Courses: 2011-2013

CLS 103 Greek History (Accepted for HIS credit) 3
Social, political, and intellectual history of the Greeks from the end of the Bronze Age to the Hellenistic period. (Global Awareness Attribute, Field 4) Fall

CLS 104 Roman History (Accepted for HIS credit) 3
Social, political, and intellectual history of Rome from the foundation of the city to late antiquity. (Global Awareness Attribute, Field 4) Spring

CLS 200 The 300: Myth and Reality (Accepted for HIS credit) 3
The 300 Spartans’ defense of Thermopylae and its subsequent portrayal in literature, art, and film from antiquity to the present. Summers only

CLS 205 Mirror of the Past: Greece 3
Fundamental social, political, moral, religious, and intellectual aspects of the human condition as reflected in a variety of Greek writers. (Global Awareness Attribute, Field 3) Fall

CLS 206 Mirror of the Past: Rome 3
Fundamental social, political, moral, religious, and intellectual aspects of the human condition as reflected in a variety of Roman writers. (Global Awareness Attribute, Field 3) Spring

CLS 207 Mythology and Literature 3
Origin, content, and interpretation of the major classical myths. Modern approaches to mythology. Influence upon literature. (Global Awareness Attribute, Field 3) Fall/Spring

CLS 208 Epic Heroes 3
Portrayal of heroes in Gilgamesh, Homer's Iliad and Odyssey, Apollonius' Argonautica, and Virgil's Aeneid. Influence of ancient epic heroes on literature, art, and film from antiquity to the present. (Field 3) Fall 2011

FAH 210 Ancient Egyptian and Near Eastern Art (Accepted for CLS credit) 3
Introduction to the formal and cultural analysis and interpretation of the painting, sculpture, and architecture of ancient Egypt and the Near East. (Field 3) Spring 2012

FAH 213 Greek and Roman Art (Accepted for CLS credit) 3
A look at the temples, tombs, pottery, painting, and sculpture of the Greek and Roman worlds, at what these objects meant to their creators, and at how they have influenced the things we see around us and our feelings about beauty and art. (Field 3) Spring 2013

CLS 214 Greek and Roman Tragedy (Accepted for WST credit) 3
Study of Greek and Roman tragedy, its origins, cultural setting, staging, performance, and influence. Readings from Aeschylus, Sophocles, Euripides, and Seneca. (Field 3) Fall 2012

CLS 215 Greek and Roman Comedy 3
Study of Greek and Roman comedy, its origins, cultural settings, staging, performance, and influence. Readings from Aristophanes, Menander, Plautus, and Terence. (Field 3) Spring 2013

CLS 300 Roman Law and Society (Accepted for HIS & WST credit) 3
Exploration of major concepts and principles of Roman law and the society in which they developed. Studies of cases from the writings of Roman jurists. (Justice and Oral Communication Attributes, Field 5) Fall 2011

CLS 301 The Age of Cicero (Accepted for HIS credit) 3
An introduction to Roman literature and society in the first century B.C. with a focus on the development of the genres of Latin literature and the relationship between politics and literature. (Writing Intensive Attribute, Field 3) Spring 2012

CLS 308 Pagans and Christians (Accepted for HIS & RST credit) 3
Religious thought and action from the 3rd through 8th centuries A.D. The idea of the holy; manifestations of the sacred; body, soul, and cosmos; Christianity and classical culture; Neoplatonism. (Global Awareness Attribute, Field 1) Spring 2012

CLS 309 Greek and Roman Religion (Accepted for RST credit) 3
Religious thought and action in ancient Greece and Rome from Homer through the 2nd century A.D. Polytheism, anthropomorphism, ritual, cult and sacrifice. (Global Awareness Attribute, Field 1) Fall 2012

CLS 311 Alexander the Great (Accepted for HIS credit) 3
Philip II and the rise of Macedon. Alexander’s personality, his conquests, and the social, political, and intellectual consequences of his reign. Hellenistic culture. (Global Awareness Attribute) Fall 2012

CLS 312 The Greek Enlightenment (Accepted for HIS credit) 3
Greek thought from Homer to Plato. Lyric poets, Hippocratic texts, Presocratics and Sophists, Athenian tragedy, Thucydides, Aristophanes, and Plato. Impact of literacy on Greek thought. Greek philosophy in its social and historical context. (Field 2) Spring 2013
# Greek Language Courses (CLG)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLG 101</td>
<td>Elementary Greek</td>
<td>3</td>
<td>Intensive introduction to the grammar, syntax, and vocabulary of classical Greek. Selected readings. <strong>Fall</strong></td>
</tr>
<tr>
<td>CLG 102</td>
<td>Elementary Greek</td>
<td>3</td>
<td>Intensive introduction to the grammar, syntax, and vocabulary of classical Greek. Selected readings. Prerequisite: CLG 101 or instructor's permission. <strong>Spring</strong></td>
</tr>
<tr>
<td>CLG 201-206</td>
<td>Greek Literature</td>
<td>3 credits each</td>
<td>Selected Greek literary authors, genres, or themes. (Field 3) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLG 207-212</td>
<td>Greek Historians</td>
<td>3 credits each</td>
<td>Selected Greek historical authors, genres, or themes. (Field 4) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLG 213-218</td>
<td>Greek Philosophers</td>
<td>3 credits each</td>
<td>Selected Greek philosophical authors, genres, or themes. (Field 2) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLG 301-306</td>
<td>Readings in Greek Literature</td>
<td>3 credits each</td>
<td>Selected Greek literary authors, genres, or themes. (Field 3) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLG 307-312</td>
<td>Readings in Greek History</td>
<td>3 credits each</td>
<td>Selected Greek historical authors, genres, or themes. (Field 4) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLG 313-318</td>
<td>Readings in Greek Philosophy</td>
<td>3 credits each</td>
<td>Selected Greek philosophical authors, genres, or themes. (Field 2) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>GLG 400</td>
<td>Paideia</td>
<td>3</td>
<td>Selected Greek authors, texts, themes, or genres. (Core Capstone) Prerequisites: at least three semesters of ancient Greek, completion of core requirements, and chair's permission. <strong>Fall/Spring</strong></td>
</tr>
</tbody>
</table>

# Latin Language Courses (CLL)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLL 101</td>
<td>Elementary Latin</td>
<td>3</td>
<td>Intensive introduction to the grammar, syntax, and vocabulary of classical Latin. Selected readings. <strong>Fall</strong></td>
</tr>
<tr>
<td>CLL 102</td>
<td>Elementary Latin</td>
<td>3</td>
<td>Intensive introduction to the grammar, syntax, and vocabulary of classical Latin. Selected readings. Prerequisite: CLL 101 or instructor's permission. <strong>Spring</strong></td>
</tr>
<tr>
<td>CLL 201-206</td>
<td>Latin Literature</td>
<td>3 credits each</td>
<td>Selected Latin literary authors, genres, or themes. <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLL 207-212</td>
<td>Roman Historians</td>
<td>3 credits each</td>
<td>Selected Roman historical authors, genres, or themes. (Field 4) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLL 213-218</td>
<td>Roman Philosophers</td>
<td>3 credits each</td>
<td>Selected Roman philosophical authors, genres, or themes. (Field 2) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLL 301-306</td>
<td>Readings in Latin Literature</td>
<td>3 credits each</td>
<td>Selected Latin literary authors, genres, or themes. (Field 3) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLL 307-312</td>
<td>Readings in Roman History</td>
<td>3 credits each</td>
<td>Selected Roman historical authors, genres, or themes. (Field 4) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>CLL 313-318</td>
<td>Readings in Roman Philosophy</td>
<td>3 credits each</td>
<td>Selected Roman philosophical authors, genres, or themes. (Field 2) <strong>Fall/Spring</strong></td>
</tr>
<tr>
<td>GLG 400</td>
<td>Humanitas</td>
<td>3</td>
<td>Selected Latin authors, texts, themes, or genres. (Core Capstone) Prerequisites: at least three semesters of Latin, completion of core requirements, and chair's permission. <strong>Fall/Spring</strong></td>
</tr>
</tbody>
</table>
Communication Studies

Chair: Barbara J. Irwin

Introduction:
The Communication Studies major is grounded firmly in the liberal arts tradition. The Communication Studies curriculum reflects an equal interest in what is communicated within and between cultures and in how communication takes place in intrapersonal, interpersonal, organizational and mediated contexts. The department’s curriculum addresses three major facets of the academic study of communication: theory, criticism and professional skills.

In the Communication Studies program, students examine the dynamic nature of modern communication processes and technologies by emphasizing the theory, structure, function, value systems and effects of society’s communication institutions. The program offers students a variety of opportunities to acquire professional knowledge and production competencies relevant to diverse careers in many communication-related fields.

Recognizing the need to prepare students for productive lives in a changing world, the department aims at educating its graduates to welcome change. Instead of focusing on preparation for specialized jobs that exist today but may not be viable in the future, the Communication Studies faculty provides the foundation on which to build meaningful roles in the contemporary world.

Students may concentrate in Media Studies, Advertising and Public Relations, and/or Interpersonal/Organizational Communication.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: www.canisius.edu/comm

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
 Majors must have a cumulative GPA of at least 2.0, a minimum grade of C- in all communication courses, and a minimum overall average of 2.0 in all communication coursework. Performance of majors is subject to review relative to their continuation in the program. Communication Studies majors select an academic sequence within the Communication major and need at least 36 hrs. of communication courses (33 hrs. for dual majors) but are limited to a maximum of 54 hrs. in communication.

Advisement:
Communication Studies majors are assigned an advisor at the beginning of their freshman year. If you are a transfer into the Communication Studies major or you do not have an advisor, please contact the Communication Studies departmental office at 888-2115 so that an advisor can be assigned to you. Each student should have an academic advisor. Students should meet with their advisors regularly. Canisius College requires all students to meet with their advisor and obtain their alternate PIN in order to register each semester.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:

<table>
<thead>
<tr>
<th>Major course requirements (12 courses)</th>
<th>36 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>Title</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>A. Major Required Courses (6 courses)</td>
<td></td>
</tr>
<tr>
<td>COM 201</td>
<td>Oral Communication</td>
</tr>
<tr>
<td>COM 202</td>
<td>Communication Theory</td>
</tr>
<tr>
<td>COM 203</td>
<td>Writing for the Public Media</td>
</tr>
<tr>
<td>COM 204</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>COM 205</td>
<td>Mass Communication and Society</td>
</tr>
<tr>
<td>COM 206</td>
<td>Introduction to Research Methods</td>
</tr>
<tr>
<td>B. Sequence Courses (2 courses) 6 credits</td>
<td></td>
</tr>
</tbody>
</table>

Major Electives:
To be selected from available COM courses, or courses with the DMA, JRN, or FAS prefix that are designated as COM electives. Photography courses listed in Fine Arts are limited to six credits in the Communication Studies major.

<table>
<thead>
<tr>
<th>Major Electives (4 courses)</th>
<th>12 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>Title</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>COM 302</td>
<td>Small Group Communication</td>
</tr>
<tr>
<td>COM 304</td>
<td>Family Communication</td>
</tr>
<tr>
<td>COM 311</td>
<td>Principles of Advertising</td>
</tr>
<tr>
<td>COM 312</td>
<td>Public Relations: Principles and Practices</td>
</tr>
<tr>
<td>COM 315</td>
<td>Advertising and the Creative Process</td>
</tr>
<tr>
<td>COM 318</td>
<td>Organizational Communication</td>
</tr>
<tr>
<td>COM 319</td>
<td>Training and Development</td>
</tr>
<tr>
<td>COM 320</td>
<td>Advertising Writing</td>
</tr>
<tr>
<td>COM 323</td>
<td>Social Effects of Media</td>
</tr>
</tbody>
</table>
Major Experiences:

**INTERNSHIPS AND INDEPENDENT STUDY**

Internships (COM 488, COM 498) awarding up to a maximum of 12 credit hours may be earned by qualified Communication Studies majors at approved locations in Buffalo or other cities. The internships are individually arranged, require department approval and are available only to junior or senior candidates with a cumulative G.P.A. of at least 2.5 and a Communication average of at least 2.7. Internships are taken on a Pass/Fail basis and are counted towards free elective credit. Students are encouraged to plan early to do an internship during their Junior or Senior year.

Independent Study (COM 499) provides the opportunity for a student to work under the supervision of a faculty member to complete an academic research project culminating in a scholarly product or a production of some kind. Opportunity for independent study (three credits) is open only to Junior and Senior majors in good standing with consent of the instructor and chair. Please note that Independent Studies are granted only in very specific circumstances. See the department chair for more information.

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### Major Electives (continued)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 325</td>
<td>Media Literacy</td>
<td>3</td>
</tr>
<tr>
<td>COM 327</td>
<td>Gender Differences in Human Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 330</td>
<td>Public Relations Writing</td>
<td>3</td>
</tr>
<tr>
<td>COM 335</td>
<td>Communication and Personality</td>
<td>3</td>
</tr>
<tr>
<td>COM 337</td>
<td>Constructive Uses of Humor</td>
<td>3</td>
</tr>
<tr>
<td>COM 350</td>
<td>Health Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 351</td>
<td>Media Ethics</td>
<td>3</td>
</tr>
<tr>
<td>COM 353</td>
<td>Advertising Media Strategies</td>
<td>3</td>
</tr>
<tr>
<td>COM 361</td>
<td>Introduction to Television Production</td>
<td>3</td>
</tr>
<tr>
<td>COM 367</td>
<td>Broadcasting in America</td>
<td>3</td>
</tr>
<tr>
<td>COM 374</td>
<td>Film History</td>
<td>3</td>
</tr>
<tr>
<td>COM 375</td>
<td>Film Classics</td>
<td>3</td>
</tr>
<tr>
<td>COM 411</td>
<td>Advertising Campaigns</td>
<td>3</td>
</tr>
<tr>
<td>COM 412</td>
<td>Public Relations Case Studies</td>
<td>3</td>
</tr>
<tr>
<td>COM 413</td>
<td>Issues in Public Relations</td>
<td>3</td>
</tr>
<tr>
<td>COM 414</td>
<td>Issues in Advertising</td>
<td>3</td>
</tr>
<tr>
<td>COM 422</td>
<td>Public Relations Campaigns</td>
<td>3</td>
</tr>
<tr>
<td>COM 488</td>
<td>Internship I Seminar</td>
<td>3-12</td>
</tr>
<tr>
<td>COM 498</td>
<td>Internship II Seminar</td>
<td>3-9</td>
</tr>
<tr>
<td>COM 499</td>
<td>Independent Study</td>
<td>3</td>
</tr>
<tr>
<td>DMA 201</td>
<td>Introduction to Digital Media</td>
<td>3</td>
</tr>
<tr>
<td>DMA 202</td>
<td>Digital Media Culture</td>
<td>3</td>
</tr>
<tr>
<td>DMA 204</td>
<td>Digital Media Law/Ethics</td>
<td>3</td>
</tr>
<tr>
<td>DMA 205</td>
<td>Digital Graphics</td>
<td>3</td>
</tr>
<tr>
<td>DMA 206</td>
<td>Interactive Multimedia</td>
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</tr>
<tr>
<td>DMA 310</td>
<td>Digital Audio/Music Production</td>
<td>3</td>
</tr>
<tr>
<td>DMA 342</td>
<td>Introduction to Web Design</td>
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<tr>
<td>DMA 442</td>
<td>Advanced Web Design</td>
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<tr>
<td>DMA 385</td>
<td>Digital Filmmaking</td>
<td>3</td>
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<tr>
<td>FAS 140</td>
<td>Introduction to Still Photography</td>
<td>3</td>
</tr>
<tr>
<td>FAS 141</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>FAS 142</td>
<td>Travel Photography</td>
<td>3</td>
</tr>
<tr>
<td>JRN 310</td>
<td>Journalism I</td>
<td>3</td>
</tr>
<tr>
<td>JRN 311</td>
<td>Journalism II</td>
<td>3</td>
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<tr>
<td>JRN 322</td>
<td>Feature/Magazine Writing</td>
<td>3</td>
</tr>
<tr>
<td>JRN 336</td>
<td>Sports Journalism</td>
<td>3</td>
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<tr>
<td>JRN 363</td>
<td>Journalistic Editing</td>
<td>3</td>
</tr>
<tr>
<td>JRN 369</td>
<td>Television Features</td>
<td>3</td>
</tr>
</tbody>
</table>

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>COM 205 (3)</td>
<td>COM 204 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>COM 201 (3)</td>
<td>COM 202 (3)</td>
</tr>
<tr>
<td></td>
<td>COM 206 (3)</td>
<td>COM 203 (3)</td>
</tr>
<tr>
<td></td>
<td>COM Elective (3)</td>
<td>COM Elective (3)</td>
</tr>
</tbody>
</table>
Dual Majors:
Dual majors with Communication Studies are available with the permission and guidance of both chairs. Students complete a minimum of 33 credit hours of communication courses. Communication Studies dual major sequences allow several different choices; among those most frequently involved are digital media arts, journalism, political science, psychology, English, history, management/marketing and modern languages. Each Communication Studies and dual major is assigned a department faculty advisor for the purpose of planning an individual program that will satisfy the department’s requirements and the student’s personal goals. Course selections develop from communication major requirements, prerequisites, recommended sequences and communication electives.

Communication Studies students who are dual majors and successfully complete 3 or more credit hours in Internships or Independent Study (COM 488, COM 498 or COM 499) are required to complete 30 hours of in-class credit in order to complete the Communication Studies major (i.e., not 33 or 36 in-class hours).

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

The Communication Studies department participates in programs with Women’s Studies and Fine Arts, and also offers courses towards a minor in Child, Family and Community Studies.

Note:
Four computer labs, HD digital video editing stations, an audio/music production studio and an HD television studio/control room are available for student use in Lyons Hall. For more information please visit:
http://www.canisius.edu/comm_stud/facilities.asp

COMMUNICATION STUDIES
COURSES: 2011-2013
Note: Additional Communication Studies courses may be offered each semester in both the day and evening. Students should consult the department.

COM 201 Oral Communication
Study and practice of concepts, processes and techniques of effective verbal communication in face-to-face, small group and public-address contexts. Speeches required. Oral Communication attribute.

COM 202 Communication Theory
Fundamental forms of communication theory and perspectives are explored and related to particular lines of research in interpersonal, group, organizational, public and mass mediated communication contexts.

COM 203 Writing for the Public Media
Intensive writing assignments employing message-design principles provide opportunities to prepare news, features, press releases, advertising copy and opinion pieces. Advanced Writing Intensive attribute.

COM 204 Interpersonal Communication
Examines the theoretical and pragmatic aspects of interpersonal communication in various contexts to enhance self-awareness and effective self-expression in relationships. Field 5 – Social Sciences course.

COM 205 Mass Communication and Society
Survey of mass communication processes and the mass media in terms of development, structures, functions, effects and interactive relationships with American society. Field 5 – Social Sciences course.

COM 206 Introduction to Research Methods
The fundamentals of the scientific method, especially the basics of research methods, designs and hypothesis testing.

COM 302 Small Group Communication
Communication variables in small groups involving task, maintenance, leadership, conformity, shift-to-risk and development. Some emphasis on skill development.

COM 304 Family Communication
Examines contemporary family communication theories, concepts, models and research. Special emphasis on improving family communication across the lifespan. Field 5 – Social Sciences course.

COM 311 Principles of Advertising
The fundamentals of advertising, including history and development, advertising media, marketing, audiences, campaign objectives, budget, creativity and agency functions. DMA elective.

COM 312 Public Relations: Principles and Practices
Historical antecedents and contemporary practice of public relations are examined in the context of public relations concepts and theories. The course also examines the day-to-day responsibilities and ethical obligations of PR practitioners in a variety of public settings.
COM 315 Advertising and the Creative Process
Study of techniques, tools and theories for generating innovative concepts and ideas. Emphasize application to advertising context. DMA elective.

COM 318 Organizational Communication
Communication principles and practices, including communicator style variables, communication flow and competent superior-subordinate communication.

COM 319 Training and Development
Methods for assessing training needs within organizations, and designing, implementing and assessing outcomes of training. Emphasis on principles of effective training and development of training competencies. Students develop training skills. Prerequisite: COM 201.

COM 320 Advertising Writing
Covers a variety of ways of developing advertising copy (copy-writing) and creative concepts for persuasive advertising pieces. Includes workshop writing for print, television and radio commercials.

COM 323 Social Effects of Media
Focuses on how and why the media influence our attitudes, behaviors and perceptions of the world. Review of theories and research in media effects.

COM 325 Media Literacy
Focuses on theoretical approaches and practical skills enabling students to analyze, think critically and produce effective mediated messages in a variety of formats and specialized content areas. Service Learning Option. DMA elective.

COM 327 Gender Differences in Human Communication
Examines gender as a variable of interest in social interaction with special emphasis on contemporary gender theories, concepts, and research. Understand the reasons why communication misunderstandings related to gender differences occur.

COM 330 Public Relations Writing
Theoretical perspectives on various forms of public relations writing and the applications of each. Writing and editing skills. Students produce portfolio of PR writing tools and techniques.

COM 335 Communication and Personality
The role of personality in human communication (especially argumentative and aggressive traits). Emphasis on critical thinking and constructive arguing. Students develop arguing skills.

COM 337 Constructive Uses of Humor
Survey of classic and contemporary humor theories, concepts and research. Special emphasis on research that highlights the benefits of humor in education, medicine, business and relational contexts.

COM 350 Health Communication
Examines how communication plays a role in the health decisions people make from a variety of perspectives. Focuses on theoretical approaches to health communication, influence tactics, challenges associated with medical adherence/compliance gaining, caregiver-client communication, how personality affects health decisions, nonverbal and verbal factors in the health interaction, and social-cultural factors in health. Field 5 – Social Sciences course.

COM 351 Media Ethics
Explores ethics across media disciplines through the work of professional communicators—journalists, broadcasters, advertising and public relations practitioners, as well as cyber-communicators. Develop practices of making crucial media decisions based on principles and idealism. Ethics attribute.

COM 353 Advertising Media Strategies
Topics include client/business strategy, marketing communication planning, media plans, media mix (TV, print, Internet, etc.), media sales and the most efficient, effective way to plan and place an ad campaign.

COM 361 Introduction to Television Production
Studio techniques, lighting, sound recording, set design, electronic graphics and editing, production of live and edited programs in studio. DMA elective.

COM 367 Broadcasting in America
Examines the history and development, regulation, operations, programming, technology and economics of broadcasting, cable and satellite pertaining to both the radio and television industries in the U.S.

COM 374 Film History
Development of film-making and cinema art from 1895 through World War II. Students study, view, and discuss classic silent and sound pictures from Hollywood and abroad. DMA elective. Also accepted for Art History major/minor credit.

COM 375 Film Classics
The development of cinema worldwide from World War II through the 1990s. Study, view and discuss films representative of major directors, genres and national cinema movements. DMA elective. Also accepted for Art History major/minor credit.

COM 411 Advertising Campaigns
Designed as a capstone course for advertising students, this course examines current and classic advertising campaigns for technique and effectiveness. Students also have the chance to develop their own advertising campaigns. Prerequisite: COM 311 or permission of instructor.

COM 412 Public Relations Case Studies
Students will become familiar with a process for public relations problem-solving through analysis of a variety of PR case studies in major areas of the field, including employee relations, consumer relations, media relations and crisis communications.
COM 413 Issues in Public Relations  
In this seminar, students explore a range of contemporary issues surrounding the field of public relations. Course content will vary; past semesters have centered on issues related to crisis communication and the growth of social media tactics.

COM 414 Issues in Advertising  
In this seminar, students explore a range of contemporary issues surrounding the advertising industry including consumerism, effects, ethics, racism and sexism and trends. Prerequisite: COM 311 or permission of instructor.

COM 422 Public Relations Campaigns  
Designed as a capstone course for public relations students, this course examines PR campaigns as the concerted efforts of an organization to build socially responsible relationships by achieving research-based goals through the application of communication strategies and the measurement of outcomes. Students produce an actual campaign. Prerequisite: COM 312 or permission of instructor.

COM 488 Internship I Seminar  
Student experientially learns communication functions in compatibly matched professional setting, locally or out-of-town. Faculty and on-site supervision. Seminar required. Pass/fail. May be repeated as COM 498; 12-credit limit for COM 488/498 combined. Prerequisite: Open to junior and senior majors with G.P.A. of at least 2.50 and Communication Studies average of 2.70 and approved by department faculty. Information about the internship application process is available on the Communication Studies Department website.

COM 498 Internship II Seminar  
Sequel to COM 488 for students taking a second internship. Each student is limited to a combined total of 12 credit hours for COM 488 and 498. Prerequisite: Same as for COM 488.

COM 499 Independent Study  
Student conducts original project or self-designed course of study under the tutelage of Communication Studies faculty member. Open to junior and senior majors in good standing with consent of instructor, chair and associate dean; offered only in very specific circumstances.

NOTE: Students may also earn Communication Studies credit for the following courses offered through other programs. Please see course descriptions in the respective major/program pages in this catalog.
Computer Science

Chair: Matthew Hertz

Introduction:
A degree in computer science from Canisius College provides you the experiences and background that will enable you to continue with graduate school or find employment in a variety of fields and companies. Our graduates enjoy challenging and lucrative careers all over the country and in many types of companies, from banking to the defense industry, from web startups to major corporations. The computer science major gives you the essential theoretical background along with practical programming experience and knowledge about many of the important and cutting edge areas today, such as robotics, web and app development, software engineering, databases, operating systems and distributed computing, and many more topics.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://cs.canisius.edu

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Computer Science. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Computer Science majors often benefit from taking more mathematics courses and also courses in ethics or logic that are offered by the Philosophy Department.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIF 101</td>
<td>Introduction to Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
<td>4</td>
</tr>
<tr>
<td>CSC 108</td>
<td>Introduction to Web Computing</td>
<td>3</td>
</tr>
<tr>
<td>CSC 109</td>
<td>Robotics Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>CSC 127</td>
<td>Introduction to Game Programming</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CSC 111</td>
<td>Introduction to Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC 111L</td>
<td>Introduction to Programming Lab</td>
<td></td>
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<tr>
<td>CSC 212</td>
<td>Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>CSC 212L</td>
<td>Data Structures Lab</td>
<td></td>
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<tr>
<td>CSC 213</td>
<td>Large Scale Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC 213L</td>
<td>Large Scale Programming Lab</td>
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<tr>
<td>CSC 253</td>
<td>Computer Hardware</td>
<td>3</td>
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<tr>
<td>CSC 281</td>
<td>Automata and Algorithms</td>
<td>3</td>
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<tr>
<td>CSC 310</td>
<td>Information Organization and Processing</td>
<td>4</td>
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<tr>
<td>CSC 310L</td>
<td>Information Organization and Processing Lab</td>
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<tr>
<td>CSC 330</td>
<td>Distributed Computing</td>
<td>4</td>
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<td>CSC 330L</td>
<td>Distributed Computing Lab</td>
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<tr>
<td>CSC 351</td>
<td>Comparative Programming Languages</td>
<td>4</td>
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<tr>
<td>CSC 351L</td>
<td>Comparative Programming Languages Lab</td>
<td></td>
</tr>
<tr>
<td>CSC 360</td>
<td>Intelligent Systems</td>
<td>4</td>
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<tr>
<td>CSC 360L</td>
<td>Intelligent Systems Lab</td>
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<tr>
<td>CSC 395</td>
<td>Software Engineering</td>
<td>4</td>
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<tr>
<td>CSC 395L</td>
<td>Software Engineering Lab</td>
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</tbody>
</table>
Recent electives include:
- CSC 313 Advanced Programming Topics (4)
- CSC 320 App Development for Mobile Devices
- CSC 325 Graphics (4)
- CSC 380 Web Development (4)
- BIF 400 Bioinformatics Capstone (3)

Additional Course Considerations:
- MAT 111 Calculus I (4)
- MAT 191 Discrete Mathematics (4)

BS only: MAT 112 Calculus II (4), MAT 141 Inferential Statistics and Computers for Science (4), two semesters of a lab science: BIO 111-112 (8), CHM 111-112 (8), or PHY 223-224 (8)

BA only: an approved minor in another department

### Minors: Two Minors are Offered

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Computer Science Minor (5 courses, 18-20 credit hours)</strong></td>
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<tr>
<td>BIF 101</td>
<td>Introduction to Bioinformatics</td>
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<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
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<td>or</td>
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<td>CSC 108</td>
<td>Introduction to Web Computing</td>
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<td>or</td>
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<tr>
<td>CSC 109</td>
<td>Robotics Introduction to Computer Science</td>
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<td>or</td>
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<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
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<td>or</td>
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<tr>
<td>CSC 127</td>
<td>Introduction to Game Programming</td>
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<tr>
<td>CSC 111L</td>
<td>Introduction to Programming Lab</td>
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<tr>
<td>CSC 212</td>
<td>Data Structures</td>
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<tr>
<td>CSC 212L</td>
<td>Data Structures Lab</td>
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<tr>
<td>CSC 213</td>
<td>Large Scale Programming</td>
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<td>or</td>
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<tr>
<td>CSC 213L</td>
<td>Large Scale Programming Lab</td>
<td>4</td>
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</tbody>
</table>

One course at the 300 or 400 level, chosen after consulting with advisor

**Computer Theory Minor: (5 courses, 18-19 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>BIF 101</td>
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<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
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<tr>
<td>CSC 108</td>
<td>Introduction to Web Computing</td>
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<td>or</td>
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<td>or</td>
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<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
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<td>or</td>
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<tr>
<td>CSC 127</td>
<td>Introduction to Game Programming</td>
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<td>or</td>
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<tr>
<td>CSC 281</td>
<td>Automata and Algorithms</td>
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<td>or</td>
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<tr>
<td>MAT 191</td>
<td>Introduction to Discrete Mathematics</td>
<td>4</td>
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</tbody>
</table>

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
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</tr>
<tr>
<td></td>
<td>One of BIF 101 (3), CSC 107 (4), CSC 108 (3), CSC 109 (3), CSC 110 (3), CSC 127 (3)</td>
<td>CSC 111 and lab (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 111 (4)</td>
<td>BS Only; MAT 112 (4)</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td>CSC 212 and lab (4)</td>
<td>CSC 213 and lab (4)</td>
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<td></td>
<td>CSC 253 (3)</td>
<td>CSC 281 (3)</td>
</tr>
<tr>
<td></td>
<td>MAT 191 (4)</td>
<td>BS Only; MAT 141 (4)</td>
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<tr>
<td><strong>Junior</strong></td>
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<tr>
<td></td>
<td>CSC elective</td>
<td>CSC elective</td>
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<tr>
<td></td>
<td>CSC 360 (4)</td>
<td>CSC 310 (4)</td>
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<tr>
<td>or</td>
<td>CSC 395 (4)</td>
<td>CSC 351 (4)</td>
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<tr>
<td>(alternating years)</td>
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<td>(alternating years)</td>
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<td>or</td>
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<tr>
<td></td>
<td>CSC 360 (4)</td>
<td>CSC elective</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
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<tr>
<td></td>
<td>CSC 395 (4)</td>
<td>CSC 351 (4)</td>
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<tr>
<td>or</td>
<td>CSC 330 (4)</td>
<td>CSC 310 (4)</td>
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<tr>
<td>(alternating years)</td>
<td>(alternating years)</td>
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</tr>
<tr>
<td>or</td>
<td>CSC 360 (4)</td>
<td>CSC elective</td>
</tr>
</tbody>
</table>

**Dual Majors:**

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean. Computer Science majors have had dual majors in the past in many other areas. Physics, Mathematics, and Digital Media Arts are the most common, but some students have dual-majored in Religious Studies, English and other areas.
The Computer Science Department offers two degrees: Bachelor of Science in Computer Science (BS) and Bachelor of Arts in Computer Science (BA). Students must choose one or the other. The ancillary course requirements are slightly different. BS students take two more math courses and a two-semester sequence of a lab science. BA students take a minor in another approved program, such as Business, History, or Philosophy, among others. Students who are dual majors should choose the BA route since the other major counts as a minor. However, students whose second major is a science program such as Biology, Chemistry or Physics should consider taking the two additional math courses and opting for a BS degree.

The upper level courses (300 and 400) level are offered every two years. Thus, some students will take, for example, CSC 330 in their junior year, while the students who entered the previous year will take CSC 330 in their senior year.

All CSC majors and minors may use the departmental facilities 24/7 from their sophomore year on. The facilities include Linux workstations, personal computers, printers and some storage space for student books and personal effects.

CSC majors often get part-time jobs or paid internships in the Western New York region while still taking classes, though we do not formally require an internship. CSC 497 “Internship” is a way to get credit for an internship, but the experience must include a significant learning component that does not overlap required coursework and must be pre-approved by the department chair. The Internship cannot count as one of the two CSC electives.
Creative Writing

Director: Hamilton E. Cochrane; Co-Director: Eric L. Gansworth

Introduction:
In keeping with the college’s Jesuit mission to educate the whole person, the English Department strives to nurture intellectual and spiritual growth through the study of literature and the practice of writing. The department fosters academic excellence through a diverse and rigorous curriculum that serves all students at Canisius.

The department’s creative writing major is structured to help students develop their writing skills, as they gain broad exposure to literature in a variety of periods, genres, and modes. In English 294 students explore the fundamental skills of fiction and poetry writing. They learn to read as writers, and become acquainted with the workshop method, which involves close reading and critiques of student manuscripts. In courses numbered 300 and above, they have the opportunity to gain more in-depth practice of a particular genre. Finally, in the senior creative writing capstone students will learn to do all the things working writers do: prepare, submit, and present work consistent with professional standards; understand and articulate how their work fits into larger literary traditions; and show a practical knowledge of the particular professional lives of writers, what they do and how they prepare themselves to do that work.

Prerequisites for 200-level and above English courses: FYS 101 and English 101, or permission of the department chair. ENG 294 (or permission of the instructor) is a prerequisite for ENG 391, ENG 392, and ENG 393.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities:
http://www.canisius.edu/creativewriting

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in creative writing. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
Creative writing faculty advisors work closely with students regarding course selection and career opportunities.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Major Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
</tr>
<tr>
<td>ENG 294</td>
</tr>
<tr>
<td>ENG 299</td>
</tr>
<tr>
<td>Contemporary literature: one course.</td>
</tr>
<tr>
<td>British literature: one course.</td>
</tr>
<tr>
<td>American literature: one course.</td>
</tr>
<tr>
<td>ENG 490</td>
</tr>
</tbody>
</table>

Three of the following creative writing courses:

| Course | Title | Credits |
| ENG 342 | Writing Young Adult Fiction | 3 |
| ENG 388 | Literary Publishing | 3 |
| ENG 391 | Advanced Creative Writing: Fiction | 3 |
| ENG 392 | Advanced Creative Writing: Poetry | 3 |
| ENG 393 | Advanced Creative Writing: Memoir | 3 |
| ENG 411 | Playwriting | 3 |
| ENG 426 | Advanced Playwriting | 3 |
| ENG 498 | Internship | 3 |

Major Electives:
Three literature courses. 9 credits.

Major Experiences:
The Canisius College Contemporary Writers Series brings nationally-known writers to meet with Canisius students and to discuss their craft in an informal setting. The Quadrangle is the Canisius journal of literary and visual arts. Students may publish their own pieces or work as editors gaining real-world publishing skills. Internships with local literary publishers and arts organizations provide our students the opportunity to participate in the vibrant Buffalo literary scene and to acquire professional experience as writers, teachers, editors, and administrators.
### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>ENG 294 (3) creative writing elective</td>
<td>creative writing elective</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ENG 299 (3) American literature requirement</td>
<td>contemporary literature requirement</td>
</tr>
<tr>
<td>Junior</td>
<td>creative writing elective</td>
<td>creative writing elective</td>
</tr>
<tr>
<td>Senior</td>
<td>ENG 490 (3) literature elective</td>
<td>literature elective</td>
</tr>
</tbody>
</table>

### CREATIVE WRITING COURSES: 2011 - 2013

- **ENG 294 Introduction to Creative Writing**
  Workshop in the fundamentals of poetry and fiction writing, focusing on the close study and discussion of both student manuscripts and professional texts.

- **ENG 342 Writing Young Adult Fiction**
  Combines the study and the practice of the genre, reading and writing. Students study young adult novels in order to gain a sense of the variety of approaches and techniques available to a writer of YA fiction and, in a workshop setting, students propose, draft, revise, and edit YA stories of their own.

- **ENG 388 Literary Publishing**
  A practicum combining the study of the history of the literary magazine in America with the practical work of editing The Quadrangle, the Canisius College literary magazine.

- **ENG 391 Advanced Creative Writing: Fiction**
  Workshop for experienced writers in fiction. Prerequisite: ENG 294 or permission of instructor.

- **ENG 392 Advanced Creative Writing: Poetry**
  Workshop for experienced writers in poetry. Prerequisite: ENG 294 or permission of instructor.

- **ENG 393 Advanced Creative Writing: Memoir**
  Workshop for experienced writers in memoir. Prerequisite: ENG 294 or permission of instructor.

- **ENG 411 Playwriting**
  The playwriting process. Brief review of dramatic technique and theory, followed by working through the process from germinal idea to finished playscript.

- **ENG 426 Advanced Playwriting**
  Further exploration of the playwriting process, with attention to a variety of dramatic modes and styles.

- **ENG 490 Creative Writing Senior Capstone**
  Focus on preparation of a portfolio of polished work, creation of an artistic statement, submission of professional work, and career opportunities for writers.
Digital Media Arts

Director: James M. O’Neil

Introduction:
The Digital Media Arts major, offered through the Communication Studies Department, focuses on converging fields of study in design, animation, video and interactive media. Students specialize in (1) web and graphic design, (2) digital video and audio production, or (3) 3D animation/game design. Through project-oriented coursework, they prepare for careers in an environment that requires technical proficiency, critical thinking and creative capacity.

Digital Media Arts majors take a core set of hands-on courses and choose electives from a wide variety of advanced classes. Students often complete dual majors and minors that combine important cross-functional skill sets, including Communication Studies, Business - Marketing, Computer Science and Fine Arts. For more information, please see the college’s web site at: http://www.canisius.edu/dma/

Goals:

Goal 1: DMA majors will design and construct effective messages through the use of digital tools.

Goal 2: DMA majors will evince technical prowess in digital media.

Details of DMA learning goals can be found here: http://www.canisius.edu/comm_stud/dma/curriculum.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with B.S. degree in Digital Media. All students must complete a minimum of 120 credit hours to graduate with a minimum of 39 hours (13 courses) of Digital Media Arts coursework.

Advisement:
All students should have an adviser in the major and should contact the department directly to have an adviser assigned if they do not already have one. All majors should work closely with their adviser in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Digital Media Arts majors are assigned a Communication Studies Department faculty adviser in the fall of their freshman year. If you transfer into the Digital Media Arts major or you do not have an adviser, please see the administrative associate in the department office.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. Digital Media Arts majors are encouraged to explore a diverse range of free electives to help them develop content and understand the broad industry applications of digital media.

Major Courses:
The Digital Media Arts program, in the Communication Studies Department, offers a 13-course major to those seeking to design and construct effective messages/content both visually and textually through the creative use of an array of digital tools. The courses range from those in graphic design and web development to animation, game design and video, culminating in a capstone project.

Although DMA majors can take their required courses in any order, the required DMA courses (201-207 and 408) are offered in a sequence that encourages a flow from one course to another.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMA 201</td>
<td>Intro to Digital Media</td>
<td>3</td>
</tr>
<tr>
<td>DMA 202</td>
<td>Digital Media Culture</td>
<td>3</td>
</tr>
<tr>
<td>DMA 203</td>
<td>Digital Design Concepts</td>
<td>3</td>
</tr>
<tr>
<td>DMA 204</td>
<td>Digital Media Law/Ethics</td>
<td>3</td>
</tr>
<tr>
<td>DMA 205</td>
<td>Digital Graphics</td>
<td>3</td>
</tr>
<tr>
<td>DMA 206</td>
<td>Interactive Multimedia</td>
<td>3</td>
</tr>
<tr>
<td>DMA 207</td>
<td>Digital Media Programming</td>
<td>3</td>
</tr>
<tr>
<td>DMA 408</td>
<td>Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives:
In addition to the required DMA courses, students must take at least five DMA electives (300 and 400 level DMA courses). Note most of the following courses are offered every other semester. See the department handbook and advisement guide for schedule.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Design / Web Design</td>
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<td></td>
</tr>
<tr>
<td>DMA 342</td>
<td>Intro to Web Design</td>
<td>3</td>
</tr>
<tr>
<td>DMA 363</td>
<td>Print Design</td>
<td>3</td>
</tr>
<tr>
<td>DMA 384</td>
<td>Digital Typography</td>
<td>3</td>
</tr>
<tr>
<td>DMA 393</td>
<td>Advanced Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>DMA 395</td>
<td>Digital Illustration</td>
<td>3</td>
</tr>
<tr>
<td>DMA 442</td>
<td>Advanced Web Design</td>
<td>3</td>
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</tbody>
</table>
Students may earn Digital Media Arts elective credit for courses offered through other programs. More information on these courses is available from the DMA website, advisement guide and handbook available in the department office. Please see course descriptions in the respective major/program pages in this catalog.

**Major Experiences:**

Digital Media Arts majors should plan an internship in their area of interest. A student may do two Digital Media Arts internships during his or her college career, provided that the total credit hours earned does not exceed 12 hours. These internships take place at approved locations in Buffalo or in such cities as New York, Boston, Washington, Chicago and Los Angeles.

The internships are individually arranged, require departmental approval, and are available only to Junior or Senior candidates with a cumulative GPA of at least 2.5 and a Communication Studies/Digital Media Arts/ Journalism average of at least 2.7.

Internship applicants are required to complete all required courses in their major with a grade of C- or higher in each, and at least two courses in their academic sequence related to the internship sought prior to the start of the internship.

The internship is seen as a culminating opportunity through which you apply, in an assigned professional setting, the theory and background developed in your coursework. These situations are supervised by a field professional as well as by the Communication Studies Department Internship Director, who will be your academic adviser during the internship experience. Dr. Barbara Irwin, Professor and Chair of Communication Studies, is the Internship Director.

Internships are taken on a Pass/Fail basis. All internship credit is allocated to the free elective requirement.

Preference and priority will be given to those majors having the best performance records as measured by cumulative academic average and participation in extra-curricular or community communication-related activities. A readiness to apply course theories and skills and a mature professional attitude should be characteristics demonstrated by the prospective intern.

A separate handout is available which describes the procedure and requirements for application. Each qualified Digital Media Arts student is limited to a total of 15 hours of combined credit from Internship (DMA 488 and 498) and Independent Study (DMA 499).

**Additional Course Considerations:**

The Communication Studies Department regularly reviews the academic progress of prospective Digital Media Arts majors. Although there is no portfolio requirement for admission, every class will be evaluated for progress within the major when they are second-semester sophomores and have accumulated 45 credits. This evaluation reviews the overall GPA, the student’s GPA in DMA 201 and at least two other DMA courses, as well as a portfolio of the student’s work. In regard to transfers, the department will review each after he/she has taken three DMA courses at Canisius.

**Recommended Semester Schedule for Major Course Requirements**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>DMA 201 (3)</td>
<td>DMA 206 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>DMA 202 (3)</td>
<td>DMA 205 (3)</td>
</tr>
<tr>
<td>DMA 207 (3)</td>
<td>DMA Elective</td>
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<tr>
<td>DMA Elective</td>
<td>DMA Elective</td>
<td></td>
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<tr>
<td>Senior</td>
<td>DMA Elective</td>
<td>DMA Elective</td>
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<tr>
<td>DMA Elective</td>
<td>DMA Elective</td>
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</tr>
</tbody>
</table>

**Dual Majors:**

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Students may complete a dual or multiple major in Communication Studies, Digital Media Arts, or Journalism by completing the college requirements for any other such dual or multiple major. In addition, students need to to complete a dual major form (available in the department office) which is signed by appropriate department chairs and program directors. IMPORTANT : Students should carefully examine the rules for dual majors in the department handbook (available in the department office).
Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Note:
State-of-the-art facilities include four computer labs, HD video editing stations, audio/music production areas, and an HD television studio located in Lyons Hall. Courses provide hands-on training in cutting-edge software including Adobe CS, Maya, Final Cut Pro and Ableton Live – all running the most up-to-date versions available.

DIGITAL MEDIA ARTS Courses 2011 – 2013

Note: Some COM, JRN, FAS, ENT, CSC and CSE courses count as DMA courses. Please refer to the list below, on the website and in the advisement guide and departmental handbook. For descriptions of the Communication Studies courses, refer to the Communication Studies sections of the catalog. Additional courses may be offered each semester in both the day and evening. Students should consult the department.

DMA 201 Intro to Digital Media
Introduces the fundamentals of digital media technologies through hands-on approaches. Software and hardware used for web design, multimedia, video production, graphics and audio production.

DMA 202 Digital Media Culture
Explores how digitization impacts our personal, business, cultural, institutional and international lives. Also examines the ways in which digital media transform communication and expression.

DMA 203 Digital Design Concepts
Introduces the conceptual, perceptual and manual skills of traditional graphic design. Topics include typography and visual communication, color theory, the principles of form, structure, spatial design and photo manipulation. Prerequisite: DMA 201 or permission of instructor.

DMA 204 Digital Media Law/Ethics
Introduces a wide range of legal and ethical issues in cyberspace, including: the First Amendment, copyright, fair use, libel, hate speech, pornography/obscenity, privacy, commercial speech and national security.

DMA 205 Digital Graphics
This course will familiarize students with digital graphics techniques, drawing and layout software applications. Students will develop a structure for their portfolio along with effective workflow and presentation habits. Prerequisite: DMA 201 or permission of instructor.

DMA 206 Interactive Multimedia
This course will examine the types, processes and application of Adobe Flash needed to create multimedia content. Emphasis will be on critical analysis, interface design, organization of content and manipulation of video, sound and animation elements to create interactive computer presentations. Prerequisite: DMA 201 or permission of instructor.

DMA 207 Digital Media Programming
Students will learn Action Script 3.0, the scripting language of Adobe Flash, to build interactivity into web pages and digital applications. Students will learn how to structure and develop small online games for advertising, educational or entertainment purposes. Prerequisite: DMA 206 or permission of instructor.

DMA 309 Music Technology
Explore music sequencing, midi, audio plug-ins and other tools used by professional musicians, sound designers and multimedia specialists. No music background required. Prerequisite: DMA 201 or permission of instructor.
DMA 310 Digital Audio/Music Production
Learn fundamental techniques of digital audio and music production using current technologies in digital recording, software and audio post-production. Discuss current trends in audio production business and the tools used for composing and producing electronic music. No music background required.

DMA 316 Intro to Special Effects
This course consists of hands-on exercises and projects utilizing After Effects and other digital animation applications to learn green screen compositing, rotoscoping and special effects for video and film production.

DMA 317 Introduction to Motion Graphics
New methods of visual communication include sequences of digitally enhanced visual imagery. One of the most popular methods of enhancing the appeal of these sequences is through the addition of computer generated motion graphics and typography. Through hands-on projects and exercises utilizing primarily Adobe After Effects and Photoshop students will unlock the secrets of motion graphics.

DMA 342 Intro to Web Design
Introduction to the state of the art in HTML and CSS formatting of web pages. Working individually and in teams, students learn to publish well-designed World Wide Web documents that communicate effectively.

DMA 346 Video Games-History/Technique
Provides an analytical and historical approach to the advancement of entertainment software for games. Encompassing cultural, professional, business, and scientific and technical evolution, the History of Video Games will communicate the socio-cultural impacts of interactive entertainment on society.

DMA 347 Electronic Game Design
Covers the art, craft and business of creating electronic games. Develop your own game concept, learn the basics of interactive authoring and produce a storyboard. Emphasis will be placed on understanding the gaming industry and the languages of game design.

DMA 351 3D Modeling, Texturing and Lighting
This course is a hands-on overview of the broad and complex areas of 3D computer modeling, texturing and lighting. Different modeling approaches will be explored, including box modeling, lofting and sculpting. Various 3D texturing techniques and lighting approaches will also be investigated.

DMA 352 3D Character Animation
A hands-on overview of the broad and complex areas of 3D computer character rigging and animation. The process of rigging the underlying structure of bone and muscle will be explored along with styles and techniques of character animation. Students will uncover secrets for rigging and animating bipeds, quadrupeds and other living creatures, real or fictional.

DMA 353 3D Dynamics
In the real world, dynamics is the branch of classical mechanics that is concerned with the effects of forces on the motion of objects. In the world of 3D computer animation, dynamics is the virtual replication of these effects of forces on the motion of virtual objects, including gravity, explosions, collisions, fluids, etc.

DMA 354 3D Graphics for Electronic Games
This course is a hands-on overview of 3D computer-generated content creation for electronic games. Students will explore the concepts of low-poly modeling, texture-mapping and the interaction between the Maya 3D toolset and the state-of-the-art Unity3D game engine.

DMA 363 Print Design
Focuses on critical topics in layout, folding, binding and printing, as well as critical/creative issues in magazine, publication and high-end corporate design. Prerequisites: DMA 203 Digital Design Concepts and DMA 205 Digital Graphics.

DMA 370: Designing for Mobile Devices
Development of smart phones has enabled viewers to browse the Internet, send and receive e-mail, experience video and audio, play sophisticated games, and even manipulate images and video. Additional functionalities like Global Positioning System, accelerometer and barcode scanners allow for the emergence of new interaction techniques and locative media experiences previously unavailable in personal computers. In this course students will learn how to create and design content targeted for mobile screens and to take advantage of the functionalities specific to mobile devices.

DMA 384 Digital Typography
Principles of typography will be presented, including popular and classic typefaces. Students can design their own typefaces for both print and screen.

DMA 385 Introduction to Digital Filmmaking
In this introductory course we will utilize new HD video and photographic cameras, as well as new camera mounts, dolly tracks, robotic controls, green screen, lights, sound equipment and editing systems, in the process of making narrative films (films that tell stories). Prerequisite: DMA 201 or permission of instructor.

DMA 393 Advanced Digital Design
Advanced course demanding innovative, intellectual, design and technical skills in multimedia and cyber-communication projects. Authoring, video and sound editing computer applications, animation, as well as cyberspace file transfer and programming are emphasized. Prerequisite: DMA 203 or permission of instructor.

DMA 395 Digital Illustration
You don’t have to know how to draw to create stunning graphics. Use Adobe CS to learn approaches, techniques and current trends of professional illustrators. Prerequisite: DMA 201 or permission of instructor.
**NOTE:** Students may also earn Digital Media Arts elective credit for the following courses offered through other programs. More information on these courses is available from the DMA website, advisement guide and handbook available in the COM/DMA/JRN office. Please see course descriptions in the respective major/program pages in this catalog.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 311</td>
<td>Principles of Advertising (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>COM 315</td>
<td>Advertising and the Creative Process (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>COM 325</td>
<td>Media Literacy (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>COM 361</td>
<td>Introduction to TV Production (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>COM 373</td>
<td>Best Picture: Academy Awards</td>
<td>3</td>
</tr>
<tr>
<td>COM 374</td>
<td>Film History (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>COM 375</td>
<td>Film Classics (Fall)</td>
<td>3</td>
</tr>
<tr>
<td>COM 376</td>
<td>Film Genres: Thrillers/Comedies</td>
<td>3</td>
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<tr>
<td>CSC 108</td>
<td>Intro to Web Computing</td>
<td>3</td>
</tr>
<tr>
<td>CSC 111</td>
<td>Intro to Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC 127</td>
<td>Introduction to Game Programming</td>
<td>3</td>
</tr>
<tr>
<td>CSE 121</td>
<td>Introduction to Physical Computing</td>
<td>3</td>
</tr>
<tr>
<td>ENT 201</td>
<td>Introduction to Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>FAS 110</td>
<td>2D Design</td>
<td>3</td>
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<tr>
<td>FAS 120</td>
<td>Drawing I</td>
<td>3</td>
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<tr>
<td>FAS 130</td>
<td>3D Design</td>
<td>3</td>
</tr>
<tr>
<td>FAS 140</td>
<td>Intro to Still Photography</td>
<td>3</td>
</tr>
<tr>
<td>FAS 141</td>
<td>Digital Photography</td>
<td>3</td>
</tr>
<tr>
<td>FAS 142</td>
<td>Travel Photography</td>
<td>3</td>
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<tr>
<td>FAS 150</td>
<td>Color</td>
<td>3</td>
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<tr>
<td>FAS 170</td>
<td>Painting I</td>
<td>3</td>
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<tr>
<td>ISB 455</td>
<td>E-Commerce and Web Design</td>
<td>3</td>
</tr>
<tr>
<td>ISB 470</td>
<td>Cyber Security</td>
<td>3</td>
</tr>
<tr>
<td>PHI 291</td>
<td>Philosophy of Art and Beauty</td>
<td>3</td>
</tr>
<tr>
<td>PHI 397</td>
<td>Philosophy and Film</td>
<td>3</td>
</tr>
<tr>
<td>SOC 324</td>
<td>Visual Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>
Dual Degrees B.A./B.S. and M.B.A

Director: James S. Valone

This program enables a qualified student in most majors to earn an undergraduate degree and an M.B.A. within a five-year period. During the first three years, students take courses to fulfill their core curriculum and major-area requirements, saving electives for their senior year. In their senior year, they complete their undergraduate requirements and use their free electives to take a series of introductory graduate courses. They complete the M.B.A. requirements in the fifth year.

 Students may have to take more than the normal 15 credit hours per semester in the fourth year in order to satisfy the requirements of their undergraduate major and complete the MBA program by the summer of their fifth year. This will depend upon the number of credit hours remaining in their undergraduate program at the beginning of the fourth year.

Waivers for MBA classes are based on equivalent courses taken at Canisius College. MBA courses in economics, statistics and accounting may be waived for students who achieve a grade of B or higher in ECO 101-102, ECO 255-256, and ACC 201-202 (or 211-212) respectively. MBA courses in organizational behavior, marketing, operations management and finance may be waived for students in those majors. However, students will not be granted more than 12 credit-hours of waivers. See an advisor for further information on waivers.

Admission

Application is made by students in the spring semester of their junior year. The Graduate Management Admission Test (GMAT) is required. Admission to the program will require meeting current M.B.A. admission standards.

Since individual programs of study are custom designed, interested students should see Dr. Valone as early as possible in their academic careers. The graduate section of the program is designed specifically for each student on the basis of his/her undergraduate experience and will vary from student to student. Hence, early and continuous advisement is important. Students in majors with relatively few free electives, e.g. business, science or education, are especially encouraged to see an advisor early in their academic careers to ensure timely completion of required courses.

For further information, students should see Dr. James Valone, Associate Dean of the Wehle School of Business.
Economics
Chair: Mark P. Zaporowski

Introduction
ECONOMICS B.A. PROGRAM
The Economics Department provides courses designed to help all Canisius students understand the national and global economy. The major in the College of Arts and Sciences provides preparation for entry-level and advanced positions in a variety of career choices through its broad based study of economic activity. Potential career choices include sales, marketing, production, finance and banking, and at various levels of government such as municipalities, local development authorities, the Federal Reserve, the Department of Labor and the Department of Commerce. All of these employers value the critical thinking and analysis skills fostered in an economics curriculum.

The Economics program has also proven to be an excellent preparation for graduate schools. Some students choose to continue the study of economics in Ph.D. and master's programs. Other students use the strong analytical foundations of their economics training to pursue advanced degrees in business, health, public administration or law.

Goals:
Student learning goals and objectives can be found at www.canisius.edu/eco/eco/courses.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Economics. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:

<table>
<thead>
<tr>
<th>One Field of Knowledge Mathematics course:</th>
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<tbody>
<tr>
<td><strong>Course</strong></td>
</tr>
<tr>
<td>MAT 106</td>
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<tr>
<td>or</td>
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<tr>
<td>MAT 111</td>
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<tr>
<td>or</td>
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<tr>
<td>MAT 115</td>
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<td>ECO 101</td>
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<td>ECO 102</td>
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<td>ECO 205</td>
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<tr>
<td>ECO 206</td>
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<tr>
<td>ECO 255</td>
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<tr>
<td>ECO 256</td>
</tr>
</tbody>
</table>

Economics electives: Five courses at the 300 or 400 level

Major Electives:
Up to 2 of the following courses (with a minimum grade of C- in each) may be substituted for ECO elective credit: MAT 112, 211, 219, 222. All Finance courses serve as Economics electives. ECO 455 and additional Mathematics and Accounting courses are strongly recommended for graduate school and the business world.

Major Experiences:
The department encourages internship experiences as part of the major and accepts one internship on a pass/fail basis as an Economics elective.

Many of our majors have participated in the All-College Honors program and have written honors theses on topics in Economics and Finance.

Additional Course Considerations:
Economics majors may also obtain a concentration in Finance by using Economics electives to take the following courses: FIN 201, FIN 311, FIN 312, FIN 414, and any FIN elective at the 300 or 400 level. This specialization is appropriate for students who wish to make a career in banking or finance. These students should also use free electives to take accounting courses.
Minors:

Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

ECONOMICS MINOR (21 credits)
ECO 101 Principles of Macroeconomics (3)
ECO 102 Principles of Microeconomics (3)
ECO 255 Business Statistics I (3)

Economics electives: four courses at the 200, 300, or 400 level one of which must be ECO 205 or ECO 206. (12)

Dual Majors:

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

The Economics-Mathematics dual major is strongly recommended for the student who is interested in graduate school in either finance or economics. Up to two mathematics courses beyond MAT 111 may be used as economics electives.

Dual majors are also available with history, urban studies, international relations and other areas.
Introduction
ECONOMICS B.S. PROGRAM - BUSINESS ECONOMICS
The objective of the Economics curriculum is to provide students with an understanding of the economic environment in which they will participate as professionals. The major in Economics requires a sequence of economics courses from which the student is expected to obtain a substantially greater understanding of the economic environment. The Business Economics major program in the Richard J. Wehle School of Business requires, in addition to the major courses, a business core curriculum that provides the student with a common body of business knowledge. It is anticipated that Economics majors will gain sufficient training in methods of economic analysis to be able to help solve the numerous economic problems of society.

Many economics graduates find rewarding and challenging employment in government and industry positions where their specialized training is put to the test and found valuable. Other students choose to deepen their knowledge of economics by attending graduate school. Still others find professional studies in business, law and health sciences more rewarding because of their economics training.

Goals:
The goals and objectives of the Economics B.S. major parallels that of the B.A. The differentiation focuses on a career inside a modern corporation, requiring immersion in the Wehle School of Business core curriculum. The goals and objectives can be found at www.canisius.edu/ecofin/ecocourses.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Business Economics. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MAT 105</td>
<td>Finite Mathematics</td>
<td>3</td>
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<tr>
<td>and</td>
<td>Calculus for the Non-Sciences</td>
<td>3</td>
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<tr>
<td>MAT 106</td>
<td>Calculus for Business I</td>
<td>4</td>
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<tr>
<td>or</td>
<td>Calculus I</td>
<td>4</td>
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<tr>
<td>MAT 115</td>
<td>(MAT 115 is recommended over MAT 106. Additional mathematics is recommended if the student is preparing for a graduate program in economics or finance. The student should consult a departmental advisor.)</td>
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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
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<tr>
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<td>Business Statistics I</td>
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<tr>
<td>ECO 256</td>
<td>Business Statistics II</td>
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</tr>
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<td>FIN 201</td>
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<td>Operations Analysis for Business</td>
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<td>Managerial Policy Strategy</td>
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</tr>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
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</tbody>
</table>

Economics major:
ECO 205 Intermediate Microeconomic Analysis (3)
ECO 206 Intermediate Macroeconomic Analysis (3)

Major Electives:
Economics electives [4 courses at the 300 or 400 level]
Up to 2 of the following courses (with a minimum grade of C- in each) may be substituted for ECO elective credit: MAT 112, 211, 219, 222 and/or Accounting courses beyond ACC 202. All 300 and 400 level Finance courses serve as Economics electives.
Major Experiences:
The department encourages internship experiences as part of the major and accepts one internship on a pass/fail basis as an Economics elective.

Many of our majors have participated in the All-College Honors program and have written honors theses on topics in Economics and Finance.

Additional Course Considerations:
Restricted electives (must be liberal arts): 4 courses
Free Electives: 3 or 4 courses

ECO 455 and additional Mathematics courses are strongly recommended for students wishing to obtain graduate degrees in Economics and Finance.

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Dual majors in Economics(B.S.) and Finance are required to take six electives in total. At least two must be Economics electives and at least two must be Finance electives.

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>FYS 101 (3)</td>
<td>ENG 101 (3)</td>
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<tr>
<td></td>
<td>ECO 101 (3)</td>
<td>ECO 102 (3)</td>
</tr>
<tr>
<td></td>
<td>MAT 105 (3) or MAT 115 (4) or MAT 111 (4)</td>
<td>MAT 106 (3) or Free Elective if MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>RST 101 (3)</td>
<td>PHI 101 (3)</td>
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<tr>
<td></td>
<td>Business International Requirement I *</td>
<td>Business International Requirement II</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ACC 201 (3)</td>
<td>ACC 202 (3)</td>
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<tr>
<td></td>
<td>ECO 205 (3)</td>
<td>ECO 206 (3)</td>
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<td></td>
<td>ECO 255 (3)</td>
<td>ECO 256 (3)</td>
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<tr>
<td></td>
<td>ISB 101 (3)</td>
<td>FIN 201 (3)</td>
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<tr>
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<td>Field of Knowledge 4</td>
<td>Field of Knowledge 4</td>
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<tr>
<td>Junior</td>
<td>ECO Elective</td>
<td>ECO Elective</td>
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<td></td>
<td>MKT 201 (3)</td>
<td>MGT 325 (3)</td>
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<tr>
<td></td>
<td>Field of Knowledge 1</td>
<td>MGT 370 (3)</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge 3</td>
<td>Field of Knowledge 2 (Ethics)*</td>
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<tr>
<td></td>
<td>Field of Knowledge 6</td>
<td>Field Capstone</td>
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<tr>
<td>Senior</td>
<td>ECO Elective</td>
<td>ECO Elective</td>
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<td></td>
<td>A and S Elective</td>
<td>MGT 446 (3)</td>
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<td></td>
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<td></td>
<td>Free Elective</td>
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<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
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</tbody>
</table>

* Two semesters of language or approved regional studies HIS 107-108, 109-110, 131-132)
2011-2013 Economics Courses

ECO 101 Principles of Macroeconomics
Explanation of market system through supply and demand analysis. Measurement of macroeconomic variables and development of economic models to analyze problems of unemployment, inflation and economic growth. Various fiscal and monetary policies will be discussed. (Field 5)

ECO 102 Principles of Microeconomics
Explanation of how the market system operates in the context of limited resources. Emphasis on the manner in which consumers and firms determine what to produce, how to produce and for whom to produce. (Field 5)

ECO 205 Intermediate Microeconomic Analysis
Analysis of demand and supply under various market structures. Cost and production theory, factor pricing, and welfare economics. Prerequisites: ECO 101-102. Fall

ECO 206 Intermediate Macroeconomic Analysis
The determination of national income and product in the short run and long run. Unemployment, inflation, fiscal and monetary policy will be examined in the context of static and dynamic macroeconomic models. Prerequisites: ECO 101-102. Spring

ECO 222 The Apprentice
An experiential course in which students “learn by doing” in QuadGear, Canisius’ student-operated on-campus business. The curriculum is specifically designed around the small business and integrates all functional areas of business, from economics and finance to human resources and strategic planning. Students who take this course cannot also use an internship for credit toward the economics major. Consent of instructor required.

ECO 255 Business Statistics I
Fundamental concepts of probability and statistics with emphasis on business and economic applications. Organizing and describing data, probability theory, sampling, estimation and hypothesis testing. (Field 7)

ECO 256 Business Statistics II
Hypothesis testing, regression analysis, goodness of fit, contingency tables, analysis of variance, time series analysis and forecasting. Prerequisite: ECO 255. (Field 7)

ECO 310 Introduction to Geographic Information Systems
An applied introduction to Geographic Information Systems (GIS), a mapping and spatial analysis tool that is widely used in education, government, and industry to solve spatial problems. This course combines lectures and hands-on exercises and provides students the opportunity to use ArcGIS software. Prerequisites: ECO 101-102 or permission of the instructor.

ECO 311 Regional Economics and GIS
An analysis of the spatial regional economic patterns in the U.S. with an emphasis on market forces that helped determine the growth and decline of population, employment and income of regional economies through the use of Geographic Information System tools. Prerequisites: ECO 101-102.

ECO 330 Money, Banking and the Economy
The connection between financial markets, the economy and the Federal Reserve. Examination of the nature of financial markets, the determination of interest rates, bank management and regulation, money and monetary policy. Emphasis on the impact of monetary policy on the macro economy. This course also serves as a Finance elective. Prerequisites: ECO 101-102.

ECO 333 Economics of Public Issues
This course uses economic principles to analyze an array of public policy issues, providing insights into public policy, the effects of policy on the behavior of consumers and producers, the costs and benefits of specific policies and the distribution of these costs and benefits. Current policy debates, such as income inequality and poverty, pollution and environmental issues, health care, international trade and education are analyzed. Prerequisites: ECO 101-102.

ECO 355 Business Analytics and Reporting
Using Microsoft Access and Excel, students will learn how to use data analysis, quantitative modeling skills, and enhanced visual presentation to prepare concise reports to meet business performance objectives. Effective oral and written communication will be emphasized. Prerequisites: ECO 255-256.

ECO 401 Public Finance
A microeconomic analysis of the role of the public sector in resource allocation. Topics include the theory of market failures, alternative corrective measures for market failures, efficiency/equity analysis of taxes and public expenditure programs. Prerequisite: ECO 102.

ECO 411 State and Local Finance
Municipal credit risk and municipal bonds analysis of revenue sources for state and local governments. Public/private sector interaction in urban areas, city-suburban fiscal disparity and competition, state/local government structure, inter-governmental relations. This course also serves as a Finance elective. Prerequisites: ECO 101-102, ECO 256 or equivalent.

ECO 455 Econometrics
Estimation and analysis of linear and non-linear regression models using statistical inference. Topics include multicolinearity, heteroskedastic and serially correlated errors, forecasting, dummy variables and simultaneous equations models. Emphasis on analysis of data using EViews statistical software. Prerequisites: ECO 205-206, ECO 256 or equivalent.

ECO 460 International Trade
Theory and practice of international trade, why countries trade, what explains the patterns of trade, and what are the effects of trade on a country’s welfare and income distribution. Analysis of international trade policies and their implications. Prerequisites: ECO 101-102.

ECO 497 Internship
May be used for Economics elective credit. Pass/Fail only. Requires consent of department chair.

ECO 499 Independent Research
Requires consent of department chair.
FINANCE

Chair: Mark P. Zaporowski

Introduction:
FINANCE B.S. PROGRAM
The analytical tools and problem-solving skills fostered in the Finance major will prove useful to any student who wishes to pursue a career in security analysis, business valuation, corporate management, investments, banking, real estate, insurance or small business. The program provides a concentration designed to help the student prepare for exams for licenses as Chartered Financial Analysts (CFA), Certified Financial Planners (CFP) and Insurance Brokers. A Finance concentration is also available through the Economics major. Interested students should contact the department chair.

Goals:
www.canisius.edu/ecofin/fincourses.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Finance. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Electives:
Four Finance courses at the 300 or 400-level. A maximum of two of the following four accounting courses (with a minimum grade of C- in each) may be substituted for Finance electives: ACC 301, 302, 303, 415.*

Major Experiences:
The Golden Griffin Fund is an investment fund run by Canisius students under the guidance of designated faculty members and local investment industry advisors. The fund selects students from applicants (usually Juniors) in the Spring for year-long participation during the Senior year. The student is expected to investigate several firms (under appropriate guidance) for possible inclusion in the portfolio. Students who have completed this experience have had exceptional success in securing high-profile positions.

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<td>FIN 311</td>
<td>Corporate Finance</td>
<td>3</td>
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<tr>
<td>FIN 312</td>
<td>Investments</td>
<td>3</td>
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<tr>
<td>FIN 414</td>
<td>Portfolio Management</td>
<td>3</td>
</tr>
</tbody>
</table>
The department also encourages internship experiences as part of the major and accepts one internship on a pass/fail basis as a Finance elective.

Many of our majors have participated in the All-College Honors program and have written honors theses on topics in Economics and Finance.

**Additional Course Considerations:**
- FIN 455 Computers and Financial Planning (3) is strongly recommended for students wishing to pursue careers in banking, securities analysis or other financial services.
- Additional Mathematics courses are strongly recommended for students wishing to obtain graduate degrees in Economics and Finance.
- Restricted electives (must be liberal arts) 4 courses
- Free Electives (3 or 4 courses)

<table>
<thead>
<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
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<tbody>
<tr>
<td><strong>YEAR</strong></td>
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<td>Freshman</td>
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Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Dual majors in Business Economics and Finance are required to take six electives in total. At least two must be Economics electives and at least two must be Finance electives.

**Note:**
* A strong accounting background is desired by many corporations seeking job candidates with degrees in finance. For those who desire a degree in corporate financial planning, ACC 303 is strongly recommended. FIN 455 is strongly recommended because many entry-level positions in finance require experience with financial modeling using personal computers.
2011-2013 Finance Courses

FIN 201 Introduction to Finance
An introduction to financial analysis, markets, institutions and instruments. Topics covered include financial intermediation, interest rate determination, bond and equity valuation, diversification, financial management and agency issues. Prerequisites: ECO 101-102, ECO 255 or concurrent registration.

FIN 311 Corporate Finance
Examination of the procedures and objectives of capital budgeting, the financing of the firm by means of debt and equity, and short-term and long-term financial management. Prerequisite: FIN 201.

FIN 312 Investments
Introduction to the institutional features of securities trading, portfolio construction, and the capital asset pricing model. Valuation of equities and bonds and an introduction to various derivative instruments. Prerequisites: FIN 201, ECO 256.

ECO 330 Money, Banking and the Economy
See ECO 330 for course description.

ECO 411 State and Local Finance
See ECO 411 for course description.

FIN 412 Equity Analysis
The analysis and interpretation of financial information and accounting statements in order to assess security risk and return, credit worthiness, financing needs, and the valuation of the firm. Prerequisite: FIN 312.

FIN 414 Portfolio Management
An introduction to modern portfolio theory and management. The strategies underlying portfolio construction and evaluation will be examined. The implications of market efficiency on portfolio management will also be considered. Finance Major Assessment will be performed in this class. Prerequisites: FIN 311, FIN 312.

FIN 420 Financial Institutions and Markets
Examines the changing world of financial services and the role that financial intermediaries and financial markets are playing in a rapidly changing industry with new benchmarks and success factors. Universal banking as the new model will be analyzed. Prerequisite: FIN 312.

FIN 423 Fixed Income Securities
This course discusses the various types of fixed income securities and the markets in which they are traded. Emphasis is placed on contract evaluation, extracting term/risk structure information from pricing, evaluating investment opportunities and (interest rate) risk management. Prerequisite: FIN 312.

FIN 425 Advanced Corporate Finance
This course provides a more in-depth treatment of corporate financial management. Topics from the introductory course (FIN 311) are developed in greater detail with emphasis on the underlying theories and more extensive applications to financial decision making. Additional topics beyond the introductory level are presented and discussed. Prerequisite: FIN 311.

FIN 454 Financial Data Management
An introduction to collecting, organizing, and using financial data. Includes an introduction to database management using Access and a survey of data mining techniques. Prerequisite: FIN 201.

FIN 455 Computers and Financial Planning
Programming in EXCEL via construction of custom functions and macros using Visual Basic. These techniques are applied to a variety of financial models. Prerequisite: FIN 201.

FIN 460 International Finance
Examination of the international monetary system, exchange rate determination, capital flows and various exchange rate regimes. Open economy macroeconomic policies will be discussed. Prerequisites: ECO 101-102, FIN 201.

FIN 480 Derivative Securities
Analysis of derivative instruments such as options, futures, swaps, warrants, and convertibles. Emphasis on valuation and use of the instruments in hedging. Prerequisites: FIN 311, FIN 312.

FIN 485 - FIN 486 Golden Griffin Fund
This is a two-semester sequence in which students become equity analysts and portfolio managers for a real money portfolio of common equity securities (the Golden Griffin Fund “GGF”). Students screen companies in the fall semester and perform detailed financial statement and valuation analyses in the spring semester. Current macroeconomic and financial market developments are discussed weekly. Monthly written reports regarding current GGF portfolio positions are produced by the student managers beginning in the summer. Students taking FIN 485 are expected to continue into the spring semester in FIN 486. Prerequisites: FIN 311, FIN 312. Prerequisites or concurrent registration: FIN 412, FIN 414, FIN 420, FIN 480. NOTE: GGF students are selected during an application process during the student’s junior year.

FIN 497 Internship
May be used for Finance elective credit. Pass/Fail only. Requires consent of department chair.

FIN 499 Independent Research
Requires consent of department chair.
Introduction:
The Education Department offers teacher certification programs at a variety of levels. These programs include: Early Childhood Education (birth through grade two); Childhood Education (grades one through six); dual certification in Early Childhood/Childhood Education (birth through grade six); dual certification in Students with Disabilities/Early Childhood (birth through grade 2); and dual certification in Students with Disabilities/Childhood Education (grades 1 through 6). Teacher candidates majoring in Childhood Education will be eligible to apply for a grade 7-9 certification extension in Middle Childhood. Each of these five programs requires candidates to select a 10-course academic concentration in one of eight disciplines: English, Mathematics, Music, Science, Social Studies, French, German or Spanish.

The professional sequences in Early Childhood, Childhood, and Students with Disabilities give the prospective teacher a thorough foundation in the many facets of modern American education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities as well as transition points in the programs and portfolio requirements: http://www.canisius.edu/childhood/

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Students must meet the requirements at all transition points in order to graduate with an education degree and be recommended for teacher certification. Please see School of Education and Human Services website for transition point requirements: http://www.canisius.edu/catalog/edu_humanservices.asp

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their coursework, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Freshmen meet with upperclass mentors as well to discuss coursework and co-curricular experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

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<th>Credits</th>
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<tbody>
<tr>
<td>EDE 100</td>
<td>Human Growth and Social Development: Birth-Childhood</td>
<td>3</td>
</tr>
<tr>
<td>EDE 121</td>
<td>Introduction to Literacy, Children’s Literature and the Arts</td>
<td>3</td>
</tr>
<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDY 208</td>
<td>Infant/Toddler Care &amp; Education</td>
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<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
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</table>
Additional Course Considerations:
Early childhood majors need to choose one of the following academic concentrations: English, Mathematics, Music, Science, Social Studies, French, German or Spanish. A list of concentration courses is available at: http://www.canisius.edu/images/userImages/avswep/Page_12836/CONCENTRATION%20COURSES.pdf

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<td></td>
<td></td>
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Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.
**Childhood Education Gr. 1-6**

Chair: Julie Henry

**Introduction:**

The Education Department offers teacher certification programs at a variety of levels. These programs include: Early Childhood Education (birth through grade two); Childhood Education (grades one through six); dual certification in Early Childhood/Childhood Education (birth through grade six); dual certification in Students with Disabilities/Early Childhood (birth through grade 2); and dual certification in Students with Disabilities/Childhood Education (grades 1 through 6). Teacher candidates majoring in Childhood Education will be eligible to apply for a grade 7-9 certification extension in Middle Childhood. Each of these five programs requires candidates to select a 9–10-course academic concentration in one of eight disciplines: English, Mathematics, Music, Science, Social Studies, French, German or Spanish.

The professional sequences in Early Childhood, Childhood, and Students with Disabilities give the prospective teacher a thorough foundation in the many facets of modern American education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities as well as transition points in the programs and portfolio requirements: [http://www.canisius.edu/early-childhood-education/](http://www.canisius.edu/early-childhood-education/)

**Goals:**


**Qualifications:**

Students must meet the requirements at all transition points in order to graduate with an education degree and be recommended for teacher certification. Please see School of Education and Human Services website for transition point requirements: [http://www.canisius.edu/education/portfolio.asp](http://www.canisius.edu/education/portfolio.asp)

**Advisement:**

All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their coursework, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Freshmen meet with upperclass mentors as well to discuss coursework and co-curricular experiences.

**Curricular Requirements for the Major:**

Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [www.canisius.edu/core_curriculum/default.asp](http://www.canisius.edu/core_curriculum/default.asp)

**Free Electives:**

Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

**Major Courses**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>Introduction to Literacy, Children's Literature and the Arts</td>
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<td>Technology in Education</td>
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<td>ECCH 221</td>
<td>Literacy I</td>
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<tr>
<td>ECCH 222</td>
<td>Literacy II</td>
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<td>Inclusive Strategies</td>
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<td>Managing the Early Childhood and Elementary School Classroom</td>
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<td>Seminar in Teaching and Assessment Elementary</td>
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<td>ECCH 493</td>
<td>Student Teaching</td>
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<td>ECCH 494</td>
<td>Capstone Seminar for Teacher Candidates</td>
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<td>EDU 495</td>
<td>Child Abuse Seminar</td>
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</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
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</table>
Major Electives:
Candidates wishing to obtain an extension to teach grades 7-9 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood in addition to the courses listed above.

Additional Course Considerations:
Childhood majors need to choose one of the following academic concentrations: English, Mathematics, Music, Science, Social Studies, French, German or Spanish. A list of concentration courses is available at: http://www.canisius.edu/images/userImages/avsweb/Page_12836/CONCENTRATION%20COURSES.pdf

Recommended Semester Schedule for Major Course Requirements

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<th>YEAR</th>
<th>FALL SEMESTER</th>
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<td>Junior</td>
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<td>SPE 341 (3) or</td>
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<td>EDE 432 (3)</td>
<td>EDE 495 (0)</td>
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<td>Senior</td>
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Early Childhood/Childhood

Chair: Julie Henry

Introduction:
The Education Department offers teacher certification programs at a variety of levels. These programs include Early Childhood Education (birth through grade two), Childhood Education (grades one through six), dual certification in Early Childhood/Childhood Education (birth through grade six), dual certification in Students with Disabilities/Early Childhood (birth through grade 2), and dual certification in Students with Disabilities/Childhood Education (grades 1 through 6). Teacher candidates majoring in Childhood Education will be eligible to apply for a grade 7-9 certification extension in Middle Childhood. Each of these five programs requires candidates to select a 9–10-course academic concentration in one of eight disciplines: English, Mathematics, Music, Science, Social Studies, French, German or Spanish.

The professional sequences in Early Childhood, Childhood, and Students with Disabilities give the prospective teacher a thorough foundation in the many facets of modern American education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities as well as transition points in the programs and portfolio requirements: http://www.canisius.edu/early-childhood-education.asp

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Students must meet the requirements at all transition points in order to graduate with an education degree and be recommended for teacher certification. Please see School of Education and Human Services website for transition point requirements: http://www.canisius.edu/education/portfolio.asp

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their coursework, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Freshmen meet with upperclass mentors as well to discuss coursework and co-curricular experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

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<th>Major Courses</th>
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<td>EDE 100</td>
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<td>Introduction to Literacy, Children’s Literature and the Arts</td>
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<td>Technology in Education</td>
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<td>EDE 310</td>
<td>Science in the Schools</td>
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<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
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</table>
**Major Electives:**
Candidates wishing to obtain an extension to teach grades 7-9 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3); and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

**Additional Course Considerations:**
Early Childhood/Childhood majors need to choose one of the following academic concentrations: English, Mathematics, Music, Science, Social Studies, French, German or Spanish. A list of concentration courses is available at: http://www.canisius.edu/images/userImages/avsweb/Page_12836/CONCENTRATION%20COURSES.pdf

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**Dual Majors:**
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Special Education Early Childhood  
Chair: Julie Henry

Introduction:
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Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities as well as transition points in the programs and portfolio requirements: http://www.canisius.edu/special-education/early_childhood.asp

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
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Advisement:
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<td>EDY 208</td>
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<td>Developmentally Appropriate Practices in EC Classrooms: Playing to Learn</td>
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Additional Course Considerations:
Early Childhood/Special Education majors need to choose one of the following academic concentrations: English, Mathematics, Music, Science, Social Studies, French, German or Spanish. A list of concentration courses is available at: http://www.canisius.edu/images/userImages/avsweb/Page_12836/CONCENTRATION%20COURSES.pdf

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</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.
Special Education Childhood

Chair: Julie Henry

Introduction:
The Education Department offers teacher certification programs at a variety of levels. These programs include Early Childhood Education (birth through grade two), Childhood Education (grades one through six), dual certification in Early Childhood/Childhood Education (birth through grade six), dual certification in Students with Disabilities/Early Childhood (birth through grade two), and dual certification in Students with Disabilities/Childhood Education (grades one through six). Teacher candidates majoring in Childhood Education will be eligible to apply for a grade 7-9 certification extension in Middle Childhood. Each of these five programs requires candidates to select a 10-course academic concentration in one of eight disciplines: English, Mathematics, Music, Science, Social Studies, French, German or Spanish.

The professional sequences in Early Childhood, Childhood, and Students with Disabilities give the prospective teacher a thorough foundation in the many facets of modern American education and a gradually increasing exposure to the realities of the classroom. A broad range of field experiences, from observation and tutoring to a full semester of student teaching, is an essential part of the curriculum. Each program also includes an integrated sequence of subject-area courses offered by one or more of the academic departments at the college.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities as well as transition points in the programs and portfolio requirements: http://www.canisius.edu/childhood/

Goals:
http://www.canisius.edu/assessment/soe_goals.asp

Qualifications:
Students must meet the requirements at all transition points in order to graduate with an education degree and be recommended for teacher certification. Please see School of Education and Human Services website for transition point requirements: http://www.canisius.edu/catalog/edu_humanservices.asp

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their coursework, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Freshmen meet with upperclass mentors as well to discuss coursework and co-curricular experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDE 100</td>
<td>Human Growth and Social Development: Birth-Childhood</td>
<td>3</td>
</tr>
<tr>
<td>EDE 121</td>
<td>Introduction to Literacy, Children's Literature and the</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Arts</td>
<td></td>
</tr>
<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>ECCH 221</td>
<td>Literacy I</td>
<td>3</td>
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<tr>
<td>ECCH 222</td>
<td>Literacy II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 291</td>
<td>Nature and Needs of Students with Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPE 292</td>
<td>Remedial Strategies for Teaching in the Childhood</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Content Areas</td>
<td></td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 311</td>
<td>Nature and Needs of Childhood Students with Developmental Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPE 312</td>
<td>Multidisciplinary Assessment and Teaching: Childhood</td>
<td>3</td>
</tr>
<tr>
<td>EDE 317</td>
<td>Teaching Math in Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDE 390</td>
<td>Cognition, Learning, and Assessment Birth-Childhood</td>
<td>3</td>
</tr>
<tr>
<td>SPE 330</td>
<td>Nature and Needs of Childhood Students with Behavior Disorders</td>
<td>3</td>
</tr>
<tr>
<td>SPE 335</td>
<td>Classroom Management in the Childhood Classroom</td>
<td>3</td>
</tr>
<tr>
<td>SPE 432</td>
<td>Seminar in Teaching and Assessment</td>
<td>3</td>
</tr>
<tr>
<td>SPEI 494</td>
<td>Capstone Seminar for Teacher Candidates</td>
<td>3</td>
</tr>
<tr>
<td>EDU 495</td>
<td>Child Abuse Seminar</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Prevention of School Violence Workshop</td>
<td>0</td>
</tr>
<tr>
<td>SPEI 493</td>
<td>Student Teaching</td>
<td>12</td>
</tr>
</tbody>
</table>
Major Electives:
Candidates wishing to obtain an extension to teach grades 7-9 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3) in addition to the courses listed above.

Additional Course Considerations:
Childhood/Special Education majors need to choose one of the following academic concentrations: English, Mathematics, Music, Science, Social Studies, French, German or Spanish. A list of concentration courses is available at: http://www.canisius.edu/images/userImages/avsweb/Page_12836/CONCENTRATION%20COURSES.pdf

<table>
<thead>
<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
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<tbody>
<tr>
<td>YEAR</td>
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<tr>
<td>Freshman</td>
</tr>
</tbody>
</table>
|               | or
|               | EDE 121 (3)       | or
|               | EDE 121 (3)       | EDE 121 (3)                          |
|               | EDU 122 (3)       | SPE 100 (3)                          |
|               | or
|               | SPE 100 (3)       | or
|               | SPE 100 (3)       | EDU 122 (3)                          |
| Sophomore     | EDU 250 (3)       | SPE 291 (3)                          |
|               | ECCH 221 (3)      | SPE 292 (3)                          |
|               | ECCH 222 (3)      |                                        |
| Junior        | EDE 317 (3)       | EDE 390 (3)                          |
|               | or
|               | EDE 390 (3)       | or                                    |
|               | EDE 317 (3)       | EDE 390 (3)                          |
|               | SPE 311 (3)       | SPE 330 (3)                          |
|               | SPE 312 (3)       | SPE 335 (3)                          |
| Senior        | SPE 432 (3)       | SPE 1 494 (3)                        |
|               | EDU 495 (0)       |                                        |
|               | EDU 496 (0)       |                                        |
|               | SPE 1 493 (12)    |                                        |

Dual Majors:
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Early Childhood, Childhood, and Special Education
COURSES 2011-2013

ECCH 221 Literacy I
Examines theories of language development and implications for practice. Strategies are presented to facilitate emergent and developing literacy skills in young children and to develop fluent readers and writers throughout the elementary years. Includes twenty pages of polished prose including a literature review, literature project and lesson plans. Fall/Spring

ECCH 222 Literacy II
Examines effective methods for assessing children’s literacy skills and for developing targeted instruction that reinforces, Remediation and/or enriches literacy learning. Issues related to the literacy learning of all children, including children with disabilities and children from linguistically and culturally diverse backgrounds are examined. Research-based early intervention programs will be examined. Includes 40 hours of field experience in grades PreK-6. Fall/Spring

EDE 100 Human Growth and Development - Birth through Childhood
Introduces multiple dimensions of development including influence of family, culture and society. Examines physical, cognitive, emotional and behavioral theories and emphasizes education’s role in promoting wellness. Fall/Spring

EDE 121 Introduction to Literacy, Children’s Literature and The Arts
Focuses on the uses of children’s books across all curriculum areas. Multicultural literature, authors, illustrators, genres and age-appropriate directions are explored. Discusses basic approaches to literacy and the use of children’s books in developing literacy. Emphasizes integrating the arts into the total curriculum. Fall/Spring

EDE 311 Science in the Schools
Addresses objectives, curriculum, strategies, materials and evaluation necessary for teaching science. Emphasizes content, inquiry skills, problem solving and scientific attitude highlighting the NY State Standards. Includes 10 hours of field experience in Grades 1-6. Fall/Spring

EDE 317 Teaching Math in Elementary Schools
Addresses objectives, curriculum, strategies, materials and evaluation necessary for teaching mathematical concepts. Emphasizes content, inquiry skills and problem solving highlighting the New York State Standards. Fall/Spring

EDE 331 Teaching Social Studies in Elementary Schools
Addresses the objectives, curriculum, strategies, materials and evaluation necessary for teaching social studies content. Emphasizes historic, geographic, economic, political and social concepts highlighting the New York State Standards. Fall/Spring

EDE 390 Cognition, Learning and Assessment - Birth through Childhood
Investigates theories of learning and current brain research. Integrates emotion and motivation and the neurological basis for learning. Analyzes formal and informal procedures for reporting student progress. Fall/Spring

ECCH 412 Managing the Early Childhood and Elementary Classroom
Develops understanding of how to build classroom communities and organize the classroom for student success. Discusses the importance of a proactive approach to prevent behavior problems and investigates a variety of classroom management strategies. Strategies for collaborating with diverse families and other professionals will be explored, including strategies for co-teaching. Fall/Spring

EDE 432 Seminar in Teaching and Assessment
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the childhood level. Requires 50 hours of field placement. Fall/Spring

EDE 494 Capstone Seminar for Teacher Candidates
Complements student teaching for education majors. Includes activities that demonstrate how well teacher candidates can integrate theoretical principles and core attributes into the practical work of student teaching. Teacher candidates will complete readings, engage in classroom discussions and construct artifacts related to issues of diversity, ethics, global awareness and social justice. Each artifact will be presented and discussed in class and evaluated for content, effectiveness and illustration of specific core attributes. Prerequisites: Signature, concurrent registration in Student Teaching. Fall/Spring

EDY 494 Capstone Seminar for Teacher Candidates
Complements student teaching for education majors. Includes activities that demonstrate how well teacher candidates can integrate theoretical principles and core attributes into the practical work of student teaching. Teacher candidates will complete readings, engage in classroom discussions and construct artifacts related to issues of diversity, ethics, global awareness and social justice. Each artifact will be presented and discussed in class and evaluated for content, effectiveness and illustration of specific core attributes. Prerequisites: Signature, concurrent registration in Student Teaching. Fall/Spring

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SPE 1494 Capstone Seminar for Teacher Candidates
Complements student teaching for education majors. Includes activities that demonstrate how well teacher candidates can integrate theoretical principles and core attributes into the practical work of student teaching. Teacher candidates will complete readings, engage in classroom discussions and construct artifacts related to issues of diversity, ethics, global awareness and social justice. Each artifact will be presented and discussed in class and evaluated for content, effectiveness and illustration of specific core attributes. Prerequisites: Signature, concurrent registration in Student Teaching. Fall/Spring

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EDE 493 Student Teaching - CH
Highlights knowledge, skills, and dispositions of professional educators. Two full-time 7-week placements in childhood classrooms require candidates to become the instructional leader under the supervision of cooperating teachers and college faculty. Prerequisites: Signature, concurrent registration in EDE 494. Fall/Spring

ECCH 493 Student Teaching - EC/CH
Highlights knowledge, skills, and dispositions of professional educators. One full-time 7-week placement in each childhood and early childhood classroom requires candidates to become the instructional leader under the supervision of cooperating teachers and college faculty. Prerequisites: Signature, concurrent registration in ECCH 494. Fall/Spring

EDU 122 Technology in Education
Explores applications of technology in education. Emphasizes evaluation and selection of software, high and low-tech devices, distance learning and state of the art technologies that impact teaching. Fall/Spring

EDU 250 Foundations of Education
Addresses social, philosophical, legal, historical, organizational, theoretical perspectives on education, including multicultural perspectives. Highlights rights and responsibilities of teachers, students and others involved in education. Fall/Spring

EDU 495 Child Abuse Workshop
Mandatory training by New York State Education Department for teacher certification. Held during the student teaching seminar. Fall/Spring

EDU 496 Prevention of School Violence Workshop
Mandatory training by New York State Education Department for teacher certification. Held during the student teaching seminar. Fall/Spring

EDY 208 Infant/Toddler Care and Education
This course utilizes developmental theory and research findings to examine issues of attachment, perception, motor skills, cognition, language, emotions and social skills in children birth through age three. An emphasis is placed on understanding children in the context of family and culture. Requires 10 hours of field placement: infant/toddler. Fall/Spring

EDY 209 Developmentally Appropriate Curriculum in Early Childhood Classrooms
Emphasizes research-supported practice for enhancing children's physical, cognitive, social, emotional and behavioral development within the framework of the New York State Standards. Focuses on developmentally appropriate learning opportunities. Requires 10 hours of field placement: PreK/K. Fall/Spring

EDY 306 Music, Movement and the Arts in Early Childhood Classrooms
Emphasizes the integration of music, movement, and the arts into the curriculum in K-6 classrooms. Explores various media and materials utilized to enrich learning and stimulate children's creativity. Fall/Spring

EDY 310 Teaching Math/Science in Early Childhood Classrooms
Focuses on inquiry methods, problem solving, and diagnostic teaching addressing the New York State standards. Emphasizes hands-on materials, visuals and other multi-model experiences in math/science learning in the early years. Requires 10 hours of field placement Grades 1-2: Fall/Spring

EDY 433 Seminar in Teaching and Assessment
Includes practice and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the early childhood level. Requires 50 hours of field placement: Grades 1-2. Fall/Spring

EDY 493 Student Teaching - Early Childhood
Highlights knowledge, skills, and dispositions of professional educators. Two full-time seven-week placements in early childhood classrooms require candidates to become the instructional leader under the supervision of cooperating teachers and college faculty. Prerequisites: Signature, concurrent registration in EDY 494. Fall/Spring

EMC 352 Human Growth and Social Development: Middle Childhood
Major concepts, principles, theories and research related to the intellectual, emotional, physical, social and moral development of young adolescents. Fall/Spring

EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood
Concepts, standards and research related to middle level curriculum development stressing the importance of a curriculum that is relevant, challenging, integrative and exploratory. Interdisciplinary middle level curriculum standards and models will be introduced in addition to assessment strategies that promote the continuous intellectual, social and physical development of all young adolescents. Fall/Spring
GEO 325 Introduction to Physical Geography  3
Physical geography focuses on the reshaping of the Earth's surface through the many interactions that occur between the atmosphere, hydrosphere, lithosphere and biosphere. It entails an examination of the terrestrial and aquatic character of the Earth, its climate and biodiversity and the sources of energy that promote change. Ultimately, physical geography provides a panoramic view of our relationship to a physical setting that is undergoing constant modification. Fall/Spring

SPE 100 Introduction to Special Education  3
Presents the definitions, causes, psychological and behavioral characteristics of disabilities outlined in the IDEA. Emphasizes assessment procedures, multicultural issues, family involvement and the referral process. Fall/Spring

SPE 281 Nature and Needs of EC Students with Learning Disabilities  3
Describes the effect of mild disabilities on early childhood. Focuses on collaborative strategies for parental involvement. Highlights the CPSE process, placement options and instructional strategies through second grade. Requires 20 hours field placement. Prerequisite: SPE 100. Concurrent enrollment in SPE 282. Spring

SPE 282 Remedial Strategies in the EC Content Areas  3
Describes developmentally appropriate techniques and materials for instruction to students with disabilities and those at risk of failure. Emphasizes assistive technology for students in early childhood classrooms across the curriculum. Prerequisite: SPE 100. Concurrent enrollment in SPE 281. Spring

SPE 291 Nature and Needs of CH Students with Learning Disabilities  3
Describes the effect of mild disabilities on childhood. Focuses on collaborative strategies for parental involvement. Highlights the CSE process, placement options and instructional strategies in grades one to six. Requires 20 hours field placement. Prerequisite: SPE 100. Concurrent enrollment in SPE 292. Spring

SPE 292 Remedial Strategies in the CH Content Areas  3
Describes appropriate techniques and materials for instruction to students with disabilities and those at risk of failure. Emphasizes assistive technology for students in childhood classrooms across the curriculum. Prerequisite: SPE 100. Concurrent enrollment in SPE 291. Spring

SPE 301 Nature and Needs of EC Students with Developmental Disabilities  3
Describes the effect of Mental Retardation and other developmental disabilities on early childhood. Focuses on collaborative strategies for parental involvement. Highlights the CPSE process and placement options through second grade. Requires 20 hours field placement. Prerequisites: SPE 281 and 282. Concurrent enrollment in SPE 302. Fall

SPE 302 Multidisciplinary Assessment and EC Teaching  3
Emphasizes a multidisciplinary approach to meet the assessment and learning needs of early childhood students with disabilities. Explores home-based and center-based models and strategies that promote family collaboration. Prerequisites: SPE 281 and 282. Concurrent enrollment in SPE 301. Fall

SPE 311 Nature and Needs of CH Students with Developmental Disabilities  3
Describes effects of MR and other developmental disabilities on childhood. Focuses on collaborative strategies for parental involvement. Highlights instructional strategies for grades 1-6 across the continuum of services. Requires 20 hours field placement. Prerequisites: SPE 291 and SPE 292. Concurrent enrollment in SPE 312. Fall

SPE 312 Multidisciplinary Assessment and CH Teaching  3
Emphasizes a multidisciplinary approach to meet the assessment and learning needs of childhood students with disabilities. Explores assessment and evaluation using the New York State Standards for Severe Disabilities and the Alternative Performance Indicators. Prerequisites: SPE 291 and SPE 292. Concurrent enrollment in SPE 311. Fall

SPE 320 Nature and Needs of EC Students with Behavioral Disorders  3
Describes the effect of Emotional and Behavioral Disorders on young children and their families. Highlights CPSE, placement options, collaboration and instructional strategies to address academic and behavioral issues through second grade. Requires 20 hours field placement. Prerequisites: SPE 301, 302. Concurrent enrollment in SPE 325. Spring

SPE 325 Classroom Management in Early Childhood Classrooms  3
Discusses implications of behavior management and importance of a proactive approach to prevent behavior problems. Emphasizes developmentally appropriate classroom structure that supports children with E/BD. Prerequisites: SPE 301, 302. Concurrent enrollment in SPE 320. Spring

SPE 330 Nature and Needs of CH Students with Behavioral Disorders  3
Describes the effect of Emotional and Behavioral Disorders on children and their families. Highlights NYSED Regulations, collaboration and instructional strategies to address academic and behavioral issues. Requires 20 hours of field placement. Prerequisites: SPE 311, 312. Concurrent enrollment in SPE 335. Spring

SPE 335 Classroom Management in Childhood Classrooms  3
Discusses implications of behavior management and importance of a proactive approach to prevent behavior problems. Emphasizes appropriate classroom structure, and individual and group contingencies to support children with E/BD in grades 1-6. Prerequisites: SPE 311, 312. Concurrent enrollment in SPE 330. Spring

SPE 341 Inclusive Strategies  3
Highlights best practices in general education for students with disabilities. Illustrates current developments in special education. Emphasizes collaboration to meet the diverse needs of learners. Fall/Spring

SPE 432 Seminar in Teaching and Assessment  3
Includes practica and seminars that focus on professional reflection and topics related to classroom management, increasing family involvement, teaching to higher standards and assessment at the special education-childhood level. Requires 50 hours of field placement. Fall/Spring
SPE 433 Seminar in Teaching and Assessment  3
Includes practica and seminars that focus on professional reflection and
topics related to classroom management, increasing family involvement,
teaching to higher standards and assessment at the special education-early
childhood level. Requires 50 hours of field placement. Fall/Spring

SPEB 493 Supervised Student Teaching  12
Highlights knowledge, skills and dispositions of professional educators.
One full-time 7-week placement in each childhood and special education-
childhood classroom requires candidates to become the instructional
leader under the supervision of cooperating teachers and college
faculty. Prerequisites: Signature, overall G.P.A. of 2.50 to date, “C”
in each required Education course, interview, concurrent registration in
SPEB 494. Some schools may require certain health tests. Fall/Spring

SPE1 493 Supervised Student Teaching  12
Highlights knowledge, skills and dispositions of professional educators.
One full-time 7-week placement in each childhood and special education-
childhood classroom requires candidates to become the instructional
leader under the supervision of cooperating teachers and college faculty.
Prerequisites: Signature, overall G.P.A. of 2.50 to date, “C” in each
required Education course, interview, concurrent registration in
SPE1 494. Some schools may require certain health tests. Fall/Spring
Introduction:
In keeping with the college’s Jesuit mission to educate the whole person, the English Department strives to nurture intellectual and spiritual growth through the study of literature and the practice of writing. The department fosters academic excellence through a diverse and rigorous curriculum that serves all students at Canisius.

The English department is vitally committed to student learning in the Canisius Core Curriculum. Writing About Literature (English 101), a required foundations course in the Core, studies literature as creative expression and builds critical and analytical skills through a writing process that includes a research assignment. In addition, the English department offers a range of literature and writing courses in the Core’s Breadth of Knowledge field for the Arts (Field 3). These courses, taught at all levels, emphasize the aesthetic value of the works studied. Several English courses also fulfill Core cross-disciplinary knowledge requirements (in diversity or global awareness) and Core cross-disciplinary skills requirements (in oral communication or advanced writing intensive).

The English major is structured to help students build their reading, writing, and critical skills, as they gain broad exposure to British and American literature and develop a particular interest within the field of English studies. Two-hundred level courses, usually taken in the sophomore year, are organized around a particular literary genre or theme and emphasize literary analysis. English 299 introduces majors to critical methods and theoretical approaches to reading and writing, providing a gateway for studying literature at the upper-level. Courses numbered 300 and above are typically based in British or American literature from a particular historical period and usually focus on a tradition, issue, or topic vital to English studies. These more advanced courses often require student presentations, critical approaches, and researched papers. Finally, an English capstone seminar helps students synthesize skills and knowledge from their coursework and reflect upon the meaning and value of their English major, preparing them for the transition from undergraduate work to graduate school or a professional career.

Prerequisites for 200-level and above English courses: FYS 101 and English 101, or permission of the department chair. Acting courses (I and II) carry no prerequisites and are open to freshmen.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/english/

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in English. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
Departmental faculty advisors work closely with students regarding course selection and career opportunities.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Major Courses</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 299</td>
<td>Introduction to English Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300 level</td>
<td>Shakespeare: (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300 level</td>
<td>British literature before 1800: (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300 level</td>
<td>American literature before 1900: (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 200 level</td>
<td>Writing/Rhetoric: (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300 level</td>
<td>English major capstone seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minor Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-level English electives: 2 courses</td>
<td>6</td>
</tr>
<tr>
<td>English Major electives: 4 courses (3/4 at 300-level)</td>
<td>12</td>
</tr>
</tbody>
</table>

Internships:
In addition to the classroom experience, internships in local businesses, arts, non-profit and social service oriented organizations prepare majors for careers in all areas where effective communication and understanding are essential, such as teaching, writing, law, social work, mass media and public relations.
Co-Curricular Activities:
Additional department activities, designed to make literature a more integral part of the academic and creative life of English majors and other members of the college community, include The Quadrangle literary magazine, the English Council, Sigma Tau Delta (International English Honors Society) and the Canisius College Contemporary Writers’ Series. Also available for students are The Griffin college newspaper and the Little Theatre.

Additional Course Considerations:

glish Honors
English Honors is a flexible program designed to offer interested and motivated English majors the chance to earn honors designation by participating in innovative seminars and working with a faculty mentor in the writing of an original thesis.

The program requires three courses: two seminars and a thesis. The seminars are unique courses, limited in enrollment, designed by faculty around especially engaging questions, topics, and texts. Some are interdisciplinary; some involve both critical and creative writing; others are organized around a particular period, theme, critical approach or major writer. Typically one English honors seminar is offered each semester. The honors thesis is a long paper, written on a topic of the student’s own choosing under the direction of a faculty mentor, the culmination of a semester’s reading, researching and writing. To read more about the Honors program, visit the English Department website.

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>200-level English elective</td>
<td>ENG 299 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>200-level English elective</td>
<td>Writing/Rhetoric or Major elective</td>
</tr>
<tr>
<td></td>
<td>Shakespeare</td>
<td>Pre-1800 British Literature</td>
</tr>
<tr>
<td></td>
<td>Major Elective</td>
<td>English Major Capstone Seminar</td>
</tr>
<tr>
<td>Senior</td>
<td>Major Elective</td>
<td>Major Elective</td>
</tr>
</tbody>
</table>

Dual Majors:
Dual majors involving English are available in a large number of areas, including creative writing, communication, history, modern languages, philosophy, psychology, sociology, and biology. Interested students should consult the chairs of both departments. With the permission of both chairs, inter-disciplinary courses may be used for credit toward the major requirements in both departments.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major.

The English Department Offers Four Minors:

**English Minor: 6 courses (For non-majors only. A six-course sequence that includes many of the basic requirements for English majors)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 200 level</td>
<td>Elective Course (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 299</td>
<td>Introduction to English Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300/400 level</td>
<td>British Literature course (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300/400 level</td>
<td>American Literature course (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300 level</td>
<td>Shakespeare course (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 200/300/400 level</td>
<td>Writing/Rhetoric course (one)</td>
<td>3</td>
</tr>
</tbody>
</table>

**The Writing Minor: 5 courses (for majors and non-majors)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 401</td>
<td>Texts, Contexts, and Subtexts (offered every other spring)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 498</td>
<td>Internship (one of the student’s choice, with the advice of a faculty supervisor)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives:**
Choose three of the following. No more than one of the following courses may be taken for the minor:

ENG 294, ENG 342, ENG 411, ENG 426

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 205</td>
<td>Varieties of the Essay</td>
<td>3</td>
</tr>
<tr>
<td>ENG 294</td>
<td>Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 342</td>
<td>Writing Young Adult Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 385</td>
<td>Persuasive Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 388</td>
<td>Literary Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 389</td>
<td>Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 402</td>
<td>Creativity and Composition Theory</td>
<td>3</td>
</tr>
<tr>
<td>ENG 411</td>
<td>Playwriting</td>
<td>3</td>
</tr>
<tr>
<td>ENG 426</td>
<td>Advanced Playwriting</td>
<td>3</td>
</tr>
</tbody>
</table>
**Creative Writing Minor: 5 courses (For both majors and non-majors. A five-course program that provides interested students the opportunity to learn and practice the fundamentals of writing stories, poems, essays and plays. For more information on Creative Writing at Canisius, please visit the Creative Writing website.)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 294</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 490</td>
<td>Creative Writing Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

**Required: Three of the following Creative Writing Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 342</td>
<td>Young Adult Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 388</td>
<td>Literary Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 392</td>
<td>Advanced Creative Writing: Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENG 411</td>
<td>Playwriting</td>
<td>3</td>
</tr>
<tr>
<td>ENG 426</td>
<td>Advanced Playwriting</td>
<td>3</td>
</tr>
<tr>
<td>ENG 494</td>
<td>Advanced Creative Writing: Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 496</td>
<td>Advanced Creative Writing: Memoir</td>
<td>3</td>
</tr>
<tr>
<td>ENG 498</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**ENGLISH COURSES: 2011 - 2013**

**ENG 100 Introduction to College Writing**  
3 credits  
Designed to help improve proficiency in English composition. Involves frequent writing, practicing strategies for gathering ideas, drafting, revising and editing, and reading/studying prose models.

**ENG 101 Writing about Literature**  
3 credits  
Introduces students to the study of literature as a creative expression of ideas. Students will sample literary work from the major genres (poetry, fiction, drama, literary nonfiction). They will develop a literary vocabulary, hone their critical and analytical skills and practice the writing process, including completion of a research assignment.

**ENG 147 Acting I (Field 3)**  
3 credits  
Introduction to the art of acting. Through lecture and practice in acting assignments in class, students gain understanding of the actor’s role in theater.

**ENG 148 Acting II (Field 3)**  
3 credits  
Continuation of Acting I.

**ENG 201 Poetry (Field 3)**  
3 credits  
Introductory survey of poetry for majors and non-majors.

**ENG 202 Drama (Field 3)**  
3 credits  
Introductory survey of drama for majors and non-majors.

**ENG 205 Varieties of the Essay (Field 3, Advanced writing Intensive)**  
3 credits  
Practice in writing several kinds of essays. Readings will provide models for writing on topics such as interpersonal relationships, cultural values, politics, nature and the environment. Special attention given to writing style.

**ENG 206 Art of the Essay (Field 3)**  
3 credits  
Survey of the essay as a literary form. Open to majors and non-majors.

**ENG 211 Science Fiction (Field 3)**  
3 credits  
Survey of science fiction for majors and non-majors.

**ENG 212 Classic English and American Novel (Field 3)**  
3 credits  
Novels chosen to represent main developments in form and theme. Open to majors and non-majors.

**ENG 213 Word and Image (Field 3)**  
3 credits  
Focuses on the formal and thematic elements of literary texts, films and texts composed of both words and images. Open to majors and non-majors.

**ENG 220 Contemporary Catholic Fiction (Field 3)**  
3 credits  
Study of novels and short stories by Catholic American writers from 1950 to the present, such as Flannery O’Connor, Walker Percy, Mary Gordon and Andre Dubus.
ENG 221 Hallowed Houses in American Literature (Field 3, Diversity, Advanced Writing Intensive) 3
American literature that emphasizes place as embodied in houses-haunted or otherwise esteemed. Open to majors and non-majors. American Lit II credit for majors.

ENG 222 Vampires in Literature and Culture (Field 3, Advanced Writing Intensive) 3
The image of the vampire in English and American literature and culture, covered in a range of literary and other aesthetic genres and historical periods. Open to majors and non-majors.

ENG 223 Images of Women in Literature and Film (Field 3) 3
Representations of women as major characters in literature and film. Open to majors and non-majors.

ENG 224 The Journey in World Literature (Field 3, Global Awareness, Advanced Writing Intensive) 3
Explores the concept of the journey in international literature from a number of cultural and intellectual perspectives. Open to majors and non-majors.

ENG 225 The Journey in American Literature (Field 3, Diversity, Advanced Writing Intensive) 3
Explores the concept of the journey in American Literature. Open to majors and non-majors.

ENG 285 Writing and Animal Studies: Representations in Film and Literature (Advanced Writing Intensive) 3
This advanced writing-intensive course enables students to explore and evaluate representations of non-human animals, as well as how these representations signify human uses and understandings of non-human animals, in a range of literary texts and films. Some knowledge of or interest in animal behavior strongly recommended.

ENG 243 Comedy and Humor (Field 3) 3
A course for enjoying and thinking critically about a great variety of texts, ranging from single-sentence jokes to stage plays and novels.

ENG 294 Introduction to Creative Writing (Field 3, Advanced Writing Intensive) 3
Workshop in the fundamentals of poetry and fiction writing, focusing on the creative process and discussion of both student manuscripts and professional texts.

ENG 299 Introduction to English Studies 3
Introduction to the essentials of literary analysis and interpretation. Focusing on the rigorous analysis of poetry, prose narrative and drama chosen from different historical periods, the course will stress writing with critical awareness about literature. Required of all English majors.

ENG 303 Medieval Literature 3
A survey of the major voices of medieval British literature centering on Chaucer.

ENG 305 Seventeenth Century Literature 3
A survey of the poetry and prose of major British authors from the Renaissance to the Restoration.

ENG 306 Eighteenth Century Literature 3
A survey of the poetry and prose of major British authors in the “long” eighteenth century.

ENG 307 English Gothic Novel 3
Characterized by opposing forces: knowledge and mystery, good and evil, the beautiful and the sublime, light and dark, these novels often dramatize psychological, social and sexual conflict.

ENG 308 Nineteenth Century British Literature 3
A survey of the major works and authors of the Romantic and Victorian periods.

ENG 309 Modern and Contemporary British Literature 3
A survey of representative figures and genres in British literature of the twentieth-century and beyond.

ENG 311 Women Writers 3
Works by women writers from all periods and backgrounds. (WST)

ENG 312 American Women Poets: Reading and Writing (Field 3) 3
Practice in reading and writing poetry, as well as critical interpretation. Emphasis on women poets from 1950s to present. (WST)

ENG 313 Literature and Psychology (Field 3) 3
Focuses on the convergence of the disciplines of literature and psychology, especially the ways in which psychology has drawn on literary genres, techniques, and motifs. (WST)

ENG 314 Chaucer 3
Studies the major works, including The Canterbury Tales.

ENG 315 American Literature I (Diversity) 3
Studies the formation of a national literature from origins to 1900 through a diversity of American writers.

ENG 316 The American Renaissance (Diversity) 3
The course looks at a prolific period in American Literature from 1820-1865 examining romanticism, sentimentalism, the slave narrative and periodical literature.

ENG 317 Heroes and Heroines in American Literature 3
A study of uniquely American heroic types, including the Alger hero, the western hero and the picturesque hero. Representative texts studied in detail, in historical and cultural context.

ENG 318 Modern American Novel 3
A study of representative modern and contemporary American novels.

ENG 319 Special Topics in American Literature 3
The study of a particular theme, mode or period, such as “Captive Narratives,” “Fictions of the Real,” and the “Roaring Twenties.” Topics vary semester to semester.

ENG 321 Child and Adolescent Hero in American Literature 3
Examines child and adolescent heroes in American literature from post-Civil War period to the present. Texts explore major themes in American literature, from Mark Twain on.
ENG 322 Shakespeare I 3
Introductory survey for majors. Plays drawn from the categories of comedy, tragedy and history.

ENG 323 Shakespeare II 3
Works selected with emphasis on specific themes, structures, or styles. Shakespeare I is not a prerequisite.

ENG 324 Reading and Writing in Early America 3
This course explores pre-Civil War writers and the audiences of their texts in terms of the social and cultural significance of literacy and literary production. (WST)

ENG 325 British Women Writers 3
A survey of British women writers in different genres and historical periods.

ENG 330 The Bible as Literature (Field 3) 3
A study of the Bible as literary text and cultural source, integrating film, painting and sculpture as representations of biblical images for interpretation.

ENG 331 Studies in Irish Literature 3
An historical survey focused mainly on twentieth century Irish writers. An aim of the course is to define Irish literature and identify its distinguishing features.

ENG 332 Literature of Anglo-Saxon England 3
Covers the period from roughly 800 to 1100, with Beowulf dominating the course. Other works include “The Wanderer,” “The Dream of the Rood” and excerpts from the Anglo-Saxon Chronicle, and prose pieces.

ENG 333 James Joyce’s Ulysses 3
Semester-long seminar in the study of the novel.

ENG 342 Writing Young Adult Fiction 3
Combines the study and the practice of the genre, reading and writing. Students study young adult novels in order to gain a sense of the variety of approaches and techniques available to a writer of YA fiction and, in a workshop setting, students propose, draft, revise, and edit YA stories of their own.

ENG 346 Introduction to Theater (Field 3) 3
The collaborative efforts of theater, play and audience to create the theater experience. Exploration of the development of modern theater from its ritualistic roots to modern times.

ENG 347 English Novel I 3
Studies a range of seventeenth- and eighteenth-century novels and their contexts, including both experimental works and traditional domestic tales.

ENG 348 English Novel II 3
Major British novels from the nineteenth and twentieth centuries.

ENG 350 The Theater Experience 3
Up close and personal experience in theater production through attendance at professional plays in the city, and hands-on experience in reading and producing short works in the classroom. Intro to Theater (Eng 346) recommended as a pre-requisite but not required.

ENG 351 Theater Arts Elective 3
Aspects of theatrical production, performance and direction. Topics vary by semester.

ENG 361 The Literature of Service (Field 3) 3
Develops connections between literary works and various forms of community service. Requires that students perform community service as part of the course. (SL)

ENG 364 Short Fiction (Field 3) 3
Detailed investigation of various modes of short fiction to develop students’ ability to read, comprehend and appreciate short fiction through an understanding of its techniques.

ENG 365 Native American Literature (Field 3, Diversity) 3
A survey of contemporary Native American literature, covering major and lesser-known authors. The course traces the origins of traditions, both thematic and structural. (WST)

ENG 369 Contemporary Fiction (Field 3) 3
Study of recently published novels and short stories, exploring the formal and thematic range of new fiction and focusing on the contemporary issues it reflects. (WST)

ENG 370 Beauties and Beasts 3
Multiple versions of the beautiful and the ugly in nineteenth-century British literature, stemming from the fairy tale and rooted in changing views of good and evil, sexuality, the growth of science and industry and other massive cultural shifts.

ENG 371 Special Topics in Drama 3
Selected plays chosen by the instructor to elucidate the nature of the dramatic genre or sub-genre, or to study a specific historical period, such as modern Irish drama.

ENG 372 Charles Dickens 3
An in-depth examination of the major works, life and times of one of the most important British novelists of the nineteenth century.

ENG 373 Jane Austen 3
Studies the novels along with literary criticism and other eighteenth-century texts in order to understand Austen and her time.

ENG 374 Interdisciplinary Studies 3
Selected works chosen by the instructor to examine the connections between English or American literature and other disciplines.

ENG 375 Studies in Literary Criticism 3
Selected works studied in the context of critical theory, aesthetics, or the history of literary criticism; for example, “New Historicism and 19th Century American literature” or “Cultural Studies and the Cold War.”

ENG 376 Film as Literature (Field 3) 3
An exploration of the relationship between two distinct aesthetic forms: film and literature. The course relies heavily on the original written text and then explores the film director’s interpretation of the literary work.
ENG 378 The City in American Literature (Diversity)  
The city as the focus for literary representation in the American tradition.

ENG 382 African American Literature (Field 3, Diversity)  
A survey of major writers and historical trends in African American literature from the time of slavery to the present.

ENG 385 Persuasive Writing  
Analysis and construction of arguments. Readings on issues in law, politics and education.

ENG 388 Literary Publishing  
A practicum combining the study of the history of the literary magazine in America with the practical work of editing The Quadrangle, the Canisius College literary magazine.

ENG 389 Business Communication (Advanced Writing Intensive)  
Practice in writing letters, memos and reports, with models and strategies offered for each form.

ENG 392 Advanced Creative Writing Poetry  
Workshop for experienced writers in poetry. Prerequisite: ENG 294 or permission of instructor.

ENG 396 English Honors Seminar  
Any student may take one or more of the seminars. Seminar topics vary each semester.

ENG 401 Texts, Contexts and Subtexts (Advanced Writing Intensive)  
The dynamic of rhetorical situations. Observations/practical writing in rhetorical theory, writing process theory, writing and thinking, socio-cognitive theory. Writing is both creative and analytical. (WST)

ENG 402 Creativity and Composition Theory (Advanced Writing Intensive)  
A writing theory course that addresses a variety of composing patterns and strategies found in the invention, development and revision of writing for different purposes and audiences.

ENG 411 Playwriting (Field 3, Advanced Writing Intensive)  
The playwriting process. Brief review of dramatic technique and theory, followed by working through the process from germinal idea to finished playscript.

ENG 426 Advanced Playwriting (Advanced Writing Intensive)  
Further exploration of the playwriting process, with attention to a variety of dramatic modes and styles.

ENG 450 English Capstone Seminar  
A culminating experience where students apply critical skills and knowledge gained from their English major coursework to an intensive study of a particular literary theme, topic, author, or genre. Topics vary by semester.

ENG 490 Creative Writing Senior Capstone  
Focus on preparation of a portfolio of polished work, creation of an artistic statement, submission of professional work, and career opportunities for writers.

ENG 494 Advanced Creative Writing: Fiction (Advanced Writing Intensive)  
Workshop for experienced writers in fiction. Prerequisite: ENG 294 or permission of instructor.

ENG 496 Advanced Creative Writing: Memoir (Advanced Creative Writing Intensive)  
Workshop for experienced writers in memoir. Prerequisite: ENG 294

ENG 497 English Honors Thesis  

ENG 498 Internship  

ENG 499 Independent Study  
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean.
The English as a Second Language (ESL) Program at Canisius is a part-time program intended to assist all international students with the improvement of their English language skills. This includes exchange students visiting for a study abroad experience and international students seeking a degree.

Courses are offered in all four language areas including reading, writing, speaking and listening. The purpose of these courses is to assist students with the development of the language skills they will need in both academic and social settings. Classes are small and meet four days per week to provide not only language instruction but social support. Students can complete up to three ESL courses per semester for a total of twelve credits and status as a full time student.

Some students are still developing basic English language skills and take introductory ESL courses exclusively for up to one year while other students with more advanced English language skills combine intermediate to advanced ESL course work with courses in their majors or the core curriculum. A typical schedule for a student solely focused on ESL course work and language improvement would include three courses, one course each in writing, conversation and related skills such as pronunciation, listening, note taking and oral presentations. More advanced students combine courses in their major(s) with selected ESL courses targeted on improving key language skills for a total of four to five course or twelve to fifteen credits.

All international students, including both exchange students and degree seeking students, must have their language skills evaluated. Students are evaluated for placement into ESL courses based on a variety of factors. They are initially screened based on application materials including scores on TOEFL or IELTS as well as transcripts indicating coursework in English at other institutions. The College uses these factors in combination with a comprehensive language assessment test given during International Student Orientation to identify the best ESL course work for each student’s needs. ALL International students must attend orientation and complete the language assessment. Students who demonstrate proficiency in English will place out of ESL courses. Exchange students who need ESL courses will use those courses for transfer back to their home institution. International students seeking a degree will consult with their academic advisor to determine how their ESL courses will count for their degree.

Please see the Canisius College website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities.

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Advisement:
International exchange students are advised by the appropriate Associate Dean or an advisor designated by the Associate Dean. International students seeking a degree should have an advisor in their major and should contact the department directly to have an advisor assigned if they do not already have one. All students should work closely with their advisor in their major(s) discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.
ESL COURSES 2011-2013

ESL101: Reading and Writing I
Introduction to the basics of reading and writing in English. Students will work on learning strategies for reading focusing on non-fiction texts. Additional focus on mastering the writing process as a means to creating effective written work. Students will be engaged in practice with sentence and paragraph structure and developing ideas through basic rhetorical patterns including narration, description, example, etc. Special emphasis on all ESL concerns including vocabulary, idioms, grammar, sentence structure, etc.

ESL102: Reading and Writing II
Continued focus on writing process and products. Students will work on organizing and developing short essays (2-3 pages) using rhetorical patterns including narration, description, example and comparison and contrast. Continued focus on strategies for effective reading of non-fiction texts. Introduction to and emphasis on information literacy and research based writing. Special emphasis on all ESL concerns including vocabulary, idioms, grammar, sentence structure, etc.

ESL 103: The Art of Conversation I: Listening and Speaking in Academic and Social Settings
Students will participate in guided language tasks ranging from answering questions and asking questions to role plays, dialogues with practice in simple grammatical patterns to brief personal presentations. Practice in aural/oral communication including listening for main ideas, practice note taking, learning and recognizing transitional words. Students will participate in group discussions and give an informative presentation.

ESL 104: The Art of Conversation II: Listening and Speaking in Academic and Social Settings
Students will practice note taking and organizing ideas on paper, note main ideas and supporting evidence, recognize developmental patterns/cues, ask questions to clarify ideas. Students will participate in group discussions, give an informative presentation, lead class discussions, and give a persuasive presentation.

ESL105-106, 107-108
Enhancing Skills: Seminar Series
Enhancing skills seminars are two credit courses which meet twice a week (100 minutes) for eight weeks a semester. Two skills courses are offered each semester. Skills seminars are designed to meet student needs for additional practice in skills areas including but not limited to pronunciation, US idioms and vocabulary, grammar, understanding cultural differences and communication, advanced library use, advanced research paper writing, advanced oral presentations, and communication in career and business contexts. (ESL 105-106 Fall, ESL 107-108 Spring)

ESL109 and 110
Reading and Writing III: Special Topics
Continued emphasis on student’s ability to understand and control the writing process. Focus on producing longer essays (3-5 pages) using wide range of rhetorical modes including analysis and argument. Readings to be drawn from various disciplines including the humanities, social sciences and sciences as well as literature. Clear emphasis on information literacy and research based writing.
Entrepreneurship

Director: Ji-Hee Kim

Introduction:
Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities:
[http://www.canisius.edu/catalog/entrepreneurship.asp](http://www.canisius.edu/catalog/entrepreneurship.asp)

The entrepreneurship major at Canisius College includes the study of subjects traditional business programs rarely cover, such as how to start new business and how to run a small growth company.

The entrepreneurship major at Canisius offers an integrated curriculum which draws upon management, marketing and finance to provide students with a broad background in business while developing entrepreneurial skills and insights. The curriculum emphasizes creativity, innovation and interpersonal skills.

Students learn to identify and evaluate business opportunities, acquire capital and other resources, and start, develop, grow and sell a business interest. Entrepreneurship majors are encouraged to develop a business and make it a reality. A key component of the curriculum is a year-long experience in which seniors develop business plans for a company, ideally one that they will eventually start and operate themselves. Real-world experience is part of the bedrock of a Canisius business education. In some courses, entrepreneurship majors act as consultants for small businesses. With faculty guidance, students work on projects for and advise practicing entrepreneurs. Students gain valuable insight by examining failure as well as success and often help their clients fix what is going wrong.

The entrepreneurship major is career oriented with courses built upon a business core but tailored to the needs of entrepreneurs. Students discover their innate entrepreneurial potential and gain a set of tools and perspectives to capitalize on that potential.

The Canisius program prepares students to:
1. acquire an existing business or franchise or start up a new venture,
2. manage an existing family business for growth, and
3. engage in entrepreneurship – the development of new products or programs – or evaluation and pursuit of potential merger or acquisition within a mature corporation.

Career Opportunities:
Gaining experience on their own is natural for entrepreneurship majors. Many Canisius College students start and run a business while still pursuing their degrees. A car detailing firm, a landscaping service, a small business promotional agency and a retail store are current examples. Virtually all graduates of the Canisius College entrepreneurship program are involved in their own business ventures. Many junior and senior entrepreneurship majors have actually created and run their own companies.

Internships:
The entrepreneurship major at Canisius College strongly emphasizes hands-on experience in addition to a high-quality curriculum.

Goals:
[http://www.canisius.edu/assessment/wsb_goals.asp](http://www.canisius.edu/assessment/wsb_goals.asp)

Goal 1: to gain knowledge of the principles of entrepreneurship, analysis, and problem solving.
Goal 2: to create and start new ventures.
Goal 3: to manage, grow, and harvest a new venture.
Goal 4: to understand entrepreneurship in the global market.

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Entrepreneurship. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [www.canisius.edu/core_curriculum/default.asp](http://www.canisius.edu/core_curriculum/default.asp)

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.
Major Experiences:

Outside the classroom:

(1) Canisius Entrepreneurs Organization (CEO): Student members develop entrepreneurial leadership and professional communication skills through team building and teamwork as well as knowledge in entrepreneurship by planning and implementing educational outreach and experiential entrepreneurship projects. CEO teams are guided by faculty advisors and supported by businesses and not-for-profit organizations in the community.

(2) MYLINKFACE: a student-run social venture to which entrepreneurship majors contribute. MYLINKFACE is an English teaching-learning program that utilizes dynamic and interactive online multimedia teaching-learning contents to deliver instruction. This program schedules convenient on-line video classes with Canisius College students and certified native English speaking teachers to develop conversation skills, and target and support foreign students with English learning needs.

(3) Annual Empire Creativity Competition: Teams of students have an opportunity to pitch their business ideas to a panel of judges and a chance to win cash prizes. Ideas may be at any stage of development from creation of concepts or ideas to helping an established business.

(4) Women’s Business Center (WBC): Students are encouraged to develop their own businesses, both real and simulated. This practical experience is reinforced through a working relationship with the Canisius College Women’s Business Center. We encourage students to participate in outside-of-classroom programs such as CEO and MyLinkFace during their undergraduate careers.

Major Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common body of business knowledge: (14-15 courses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 105</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>and MAT 106</td>
<td>Calculus for the Non-Sciences</td>
<td>3</td>
</tr>
<tr>
<td>or MAT 111</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or MAT 115</td>
<td>Calculus for Business I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 255</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 256</td>
<td>Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>FIN 201</td>
<td>Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>ISB 101</td>
<td>Management Technology</td>
<td>3</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 325</td>
<td>Operations Analysis for Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT 370</td>
<td>Managerial Environment</td>
<td>3</td>
</tr>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing (ENT section)</td>
<td>3</td>
</tr>
</tbody>
</table>

Entrepreneurship Major Curriculum:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 101</td>
<td>Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation</td>
<td>3</td>
</tr>
<tr>
<td>ENT 201</td>
<td>Introduction to Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 401</td>
<td>Small Business Management and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 402</td>
<td>New Venture Creation</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 310</td>
<td>International Entrepreneurship Practicum</td>
<td>3</td>
</tr>
<tr>
<td>ENT 311</td>
<td>Entrepreneurship and Family Business</td>
<td>3</td>
</tr>
<tr>
<td>ENT 312</td>
<td>International Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 314</td>
<td>Social Entrepreneurship and Not-for-Profit Sector Enterprise</td>
<td>3</td>
</tr>
<tr>
<td>ENT 411</td>
<td>Entrepreneurial and Managerial Leadership Skill Development</td>
<td>3</td>
</tr>
<tr>
<td>ENT 414</td>
<td>Franchising and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 496</td>
<td>Internship in Entrepreneurial</td>
<td>3</td>
</tr>
<tr>
<td>ENT 497</td>
<td>Entrepreneurial Summer Internship in Korea</td>
<td>3</td>
</tr>
<tr>
<td>ENT 499</td>
<td>Independent Study in Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ABR 496</td>
<td>Contemporary Business and Culture in Korea</td>
<td>3</td>
</tr>
<tr>
<td>DMA 201</td>
<td>Introduction to Digital Media Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

Restricted Electives (must be liberal arts) 4 courses

Electives (2 or 3 courses)
The following courses are strongly recommended as Entrepreneurship electives: ENT 310, 311, 312, 314, 411, 414. Non-credit practica via active involvement in Canisius Entrepreneurs Organization (CEO), MyLinkFace (student-run social venture), and practical experiences with the Canisius College Women's Business Center are strongly recommended in the Entrepreneurship major. For further information, contact the entrepreneurship program director.

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>FYS 101 (3)</td>
<td>ENG 101 (3)</td>
</tr>
<tr>
<td></td>
<td>QNT 101 (3) or MAT 111 or MAT 115 (3)</td>
<td>MAT 106 (3) or Free Elect if MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>RST 101 (3)</td>
<td>ECO 102 MICRO (3)</td>
</tr>
<tr>
<td></td>
<td>ECO 101 MACRO (3) (Social Science Field of Knowledge 5)</td>
<td>Business International Requirement (2 semester sequence required)</td>
</tr>
<tr>
<td></td>
<td>(2 semesters of language or approved regional studies HIS 107-108, 109-110, 131-132, when taken is flexible)</td>
<td>Business International Requirement (2 semester sequence required)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ENT 201 (3)</td>
<td>MGT 101 (3)</td>
</tr>
<tr>
<td></td>
<td>ACC 201 (3)</td>
<td>ACC 202 (3)</td>
</tr>
<tr>
<td></td>
<td>JSB 101 (3)</td>
<td>PHI 101 (3)</td>
</tr>
<tr>
<td></td>
<td>History (Field of Knowledge 4)</td>
<td>Arts (Field of Knowledge 3)</td>
</tr>
<tr>
<td></td>
<td>ECO 255 STATS 1 (3) (Field of Knowledge 7)</td>
<td>ECO 256 STATS 2 (3)</td>
</tr>
<tr>
<td>Junior</td>
<td>ENT Elective</td>
<td>ENT Elective</td>
</tr>
<tr>
<td></td>
<td>FIN 201 (3)</td>
<td>MGT 325 (Operations) (3)</td>
</tr>
<tr>
<td></td>
<td>MGT 201E (3) (ENT Section)</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Science (Field of Knowledge 5)</td>
<td>Philosophy (Field of Knowledge 2, Ethics)</td>
</tr>
<tr>
<td></td>
<td>Religion (Field of Knowledge 1)</td>
<td>Core Capstone</td>
</tr>
<tr>
<td>Senior</td>
<td>ENT Elective</td>
<td>ENT Elective</td>
</tr>
<tr>
<td></td>
<td>MGT 370 (3)</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td>A and S Elective</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td>A and S Elective</td>
</tr>
</tbody>
</table>
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Students are encouraged to combine entrepreneurship with another discipline for a dual major. The interdisciplinary nature of the entrepreneurship program makes it very effective for the students to fulfill a dual major. Science and technology fields also hold great potential for entrepreneurs.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

ENTREPRENEURSHIP COURSES: 2011 – 2013
Entrepreneurship courses required of entrepreneurship majors

Complete all the specified courses in the Entrepreneurship major including the following required courses:

ENT 101 Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation 3
Attributes: Oral Communication Skills
Provides a broad introduction to entrepreneurship and prepares students for developing a mindset for thinking creatively, using innovation, recognizing opportunities and generating entrepreneurial ideas. Other topics include strategic and tactical planning and entrepreneurial activities of an actual business enterprise. Students will participate in the “Business Idea Pitch and Empire Creativity Competition.” No prerequisite. Open to business and non-business majors including students from the College of Arts and Sciences and the School of Education and Human Services. Spring only.

ENT 201 Introduction to Entrepreneurship 3
The foundation course in the entrepreneurship major. Examines the nature of entrepreneurs and the role of entrepreneurship in society. Investigates the entrepreneurial process in a variety of contexts. The course explores issues surrounding new venture creation, the economics of the business, determination of resource needs and acquisition of resources, marketing requirements, deal structures and technology issues. Students will engage in real entrepreneurial projects. No prerequisite. Open to business and non-business majors including students from the College of Arts and Sciences and the School of Education and Human Services. Fall only.

ENT 401 Small Business Management and Entrepreneurship 3
This course focuses on the most common problems encountered by owners, managers and entrepreneurs in organizing and operating small enterprises. Topics include entrepreneurial strategy; pursuing new venture opportunities, management, marketing and financial challenges; creative small business marketing, innovative small business management and entrepreneurial financial management and legal requirements. Students will experience a real entrepreneurial world through working with entrepreneurs in the small business enterprise. Prerequisites: MGT 101 and MKT 201 (Entrepreneurship section) or ENT 201, FIN 201, ACC 202 and junior standing. Fall only.

ENT 402 New Venture Creation 3
This is a capstone course that all entrepreneurship majors must take at the end of the program. It is a business plan course. Student must develop an original idea for a new venture and write a comprehensive business plan for that venture. This integrative course brings together the theory and practice of entrepreneurship. The course focuses on identifying opportunities for a new venture and the process of starting and growing a new business. The business plan will apply key principles and concepts to real world situations. Prerequisites: ENT 401 and senior standing. Spring only.
MKT 201E Principles of Marketing (Entrepreneurship Section) 3
Analytical approach to distribution of goods and services in a market economy. Product, price, promotion and channel decisions within context of overall environment. *Spring only for entrepreneurship section.*

**ELECTIVE COURSES IN ENTREPRENEURSHIP**

**Note:** Additional or different entrepreneurship electives may be offered. Students should consult the semester-specific Registration and Advisement Guide and/or their academic advisor.

**ENT 310 International Entrepreneurship Practicum** 4
Attributes: Global Awareness and Oral Communication Skills
This unique course will provide students from all majors hands-on experiences. The academic component will include exploration of cultural differences in global business settings; experiential learning about entrepreneurial processes including how to recognize an opportunity, develop a business idea, obtain and manage resources and work in an entrepreneurial team.

The practicum experience will focus on oral communication skills in international entrepreneurship, interpersonal relationship skills, and global awareness. Not only will Canisius students increase their international awareness, but will become better able to travel, work and live internationally. May be used as ENT and/or IBUS Elective or Free Elective.

**ENT 311 Entrepreneurship and Family Business** 3
Designed to provide key concepts and challenges faced by family businesses. Family dynamics, succession planning, family creeds and councils, special problems of family businesses and other closely-held corporations will be explored. Prerequisites: MGT 101 and MKT 201 or ENT 201 and junior standing. *Fall only.*

**ENT 312 International Entrepreneurship** 3
Explores international entrepreneurship – its dimensions and importance — and how it differs from other areas of international business. Students learn to identify and analyze information available for entrepreneurs seeking to move internationally and to address the important strategic issues in international entrepreneurship. Prerequisites: MGT 101 and MKT 201 or ENT 201 and junior standing. May be used as ENT and/or IBUS Elective or Free Elective. *Spring only.*

**ENT 314 Social Entrepreneurship and Not-for-Profit Sector Enterprise** 3
Attributes: Justice
This practitioner-oriented course focuses on innovative, values-driven organizations which have explicit civic missions or social purposes and which are most typically associated with the not-for-profit sector of the economy. The chief aims of the course are to help students understand and appreciate the role of the nonprofit sector in creating societal wealth in the economy, to engage participants in institutional efforts to create a good society through exposure to the work of these organizations, and to have students consider a variety of forms of involvement available to aspiring entrepreneurs in preparing for leadership roles in their communities. Prerequisites: MGT 101 and MKT 201 or ENT 201 and junior standing. *Spring only.*

**ENT 411 Entrepreneurial and Managerial Leadership Skill Development** 3
The purpose of this course is to enable potential entrepreneurs to learn about leading. The course will focus the development of the skills necessary to be effective entrepreneurial leaders. May be used as ENT elective or MGT elective and/or to fulfill the requirement for MGT 464 in the HR Minor. Prerequisites: MGT 101 and junior standing. *Fall only.*

**ENT 414 Franchising and Entrepreneurship** 3
Analytical approach to understanding the basic forms of franchising, legal agreements and requirements in franchising businesses. Explores how to foster a new generation of independent business owners and reasons for buying a franchise. Prerequisites: MGT 101 and junior standing. *Fall only.*

**ENT 496 Internship in Entrepreneurship** 3
Non-routine job experiences that link specific entrepreneurship topics and academic concepts with practical experience. Requires supervision by faculty and student demonstration of academic value through papers and reports.

**ENT 497 Entrepreneurial Summer Internship in Korea** 3
Global business demands an international perspective. Students in the program are encouraged to participate in an international entrepreneurial summer internship in Korea. This may take place at one of the many international and entrepreneurial agencies and companies in the area of South Korea. Non-routine job experiences that link academic concepts with practical experience. Requires supervision by the Director of Entrepreneurship and student demonstration of academic value through practical work experiences, papers, and reports. This course can be used as an ENT elective, free elective, and/or study abroad in Korean credits.

**ABR 496 Contemporary Business and Culture in Korea** 3
This unique short-term international study tour will provide students hands-on experiences and an exploration of contemporary Korean culture and businesses in global entrepreneurship environments. An international experience that consists primarily of travel to and time spent at historical, cultural, commercial, industrial, governmental or other type of locations where first-hand learning experiences may occur. Classroom or non-classroom time devoted to the broader aspects of cultural and business environment. May be used as ENT and/or IBUS Elective or Free Elective. *Fall only.*
Environmental Science

Director: Sara R. Morris

Introduction:
The Environmental Science major provides both theoretical and applied knowledge for students interested in professional careers in the environmental sciences, e.g., environmental consulting, environmental regulation and monitoring, environmental conservation, environmental health sciences (toxicology, occupational health, health physics, industrial hygiene, water quality industry) and the ecological sciences. In addition, the curriculum facilitates entry into graduate programs in the ecological, environmental health (health physics, microbiology, toxicology) and environmental sciences.

The Environmental Science program is designed to have an interdisciplinary focus with required and recommended courses coming from biology, chemistry, geology, philosophy and social sciences. In addition, it is designed to provide needed job experiences through the completion of two required internships. For students interested in graduate study in the environmental sciences, one internship may be replaced with independent research in the environmental sciences.

Please see the website for a more detailed description of the faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/envsci/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and support courses and a 2.0 overall average to graduate with a degree in Environmental Science. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All Environmental Science majors are assigned advisors within the program. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their internships and co-curricular or supplemental academic experiences. The advisor may be changed at the student’s request.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. We encourage Environmental Science majors to take humanities classes that combine social and environmental issues like Environmental Ethics (PHI 244), Environment and Society (SOC 234), and Theological Ethics and Environmental Justice (RST 342).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 111/111L</td>
<td>Introductory Biology I and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112/112L</td>
<td>Introductory Biology II and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 211/211L</td>
<td>Biochemistry and Cell Biology I and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 212/212L</td>
<td>Biochemistry and Cell Biology II and Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHM 111/111L</td>
<td>General Chemistry I and Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHM 112/112L</td>
<td>General Chemistry II and Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHM 227/227L</td>
<td>Organic Chemistry and Lab</td>
<td>4</td>
</tr>
<tr>
<td>PSY 201 or MAT 141</td>
<td>Basic Statistics for Behavioral Science</td>
<td>3/4</td>
</tr>
<tr>
<td>MAT 111 or MAT 109-110</td>
<td>Calculus with Review I and II</td>
<td>4-4</td>
</tr>
<tr>
<td>BIO 320</td>
<td>Field Ecology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 305/305L</td>
<td>Microbial Ecology and Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 360</td>
<td>Environmental Health</td>
<td>3</td>
</tr>
<tr>
<td>CHM 232</td>
<td>Analytical Environmental Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>ENV 100</td>
<td>Introduction to Environmental Science Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ENV 200</td>
<td>Introduction to Hydrology and Lab</td>
<td>4</td>
</tr>
<tr>
<td>ENV 352</td>
<td>Environmental Science Junior Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ENV 499</td>
<td>Environmental Science Internship (2)</td>
<td>3/3</td>
</tr>
<tr>
<td>GEOL 120</td>
<td>Introduction to Geology and Lab</td>
<td>4</td>
</tr>
</tbody>
</table>
Major Experiences:
All environmental science majors must complete two internship experiences. Recent internships have included Ecology and Environment, New York State Department of Environmental Conservation, US Fish and Wildlife Service, Iroquois National Wildlife Refuge, Waste Stream Technologies, Penn Dixie Paleontological and Outdoor Education Center, and the Buffalo Museum of Science. We encourage students to work with any faculty member in the program to find internships that will best meet their goals and needs.

Additional Course Considerations:

<table>
<thead>
<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEAR</strong></td>
<td><strong>FALL SEMESTER</strong></td>
</tr>
<tr>
<td>Freshman</td>
<td>BIO 111 (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 111 (4)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>BIO 211 (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 227 (4)</td>
</tr>
<tr>
<td></td>
<td>GEOL 120 (4)</td>
</tr>
<tr>
<td>Junior</td>
<td>BIO 320 (4)</td>
</tr>
<tr>
<td></td>
<td>ENV elective</td>
</tr>
<tr>
<td></td>
<td>ENV 352 (1)</td>
</tr>
<tr>
<td>Senior</td>
<td>ENV 499 (3)</td>
</tr>
<tr>
<td></td>
<td>BIO 360 (3)</td>
</tr>
</tbody>
</table>

Major Electives:
Students must complete two of the following (at least one with a lab):

- BIO 322 Conservation Biology 3
- BIO 335 Plant Biology and Lab 4
- BIO 343 Entomology 4
- BIO 365 Vertebrate Zoology and Ecology 4
- BIO 366 Ornithology 4
- BIO 370 Plant Morphology 4
- BIO 371 Behavioral Ecology 3
- BIO 430 Medicinal Botany 3
- CHM 301 Classical Physical Chemistry 4
- SCI 360 Scientific Modeling 3

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean. Your advisor will be able to assist with course planning to facilitate a second major, so please let your advisor know if you are considering a dual major.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form. Your advisor will be able to assist with course planning to facilitate a minor, so please let your advisor know if you are considering a minor.

Most classes are offered every other year. Please check the advisement guide each semester to see which classes are being offered. The advisement guide will be used to indicate which courses students in each class year should be taking and when internship applications need to be submitted.

ENVIRONMENTAL SCIENCE COURSES 2011 - 2013

- ENV 100 Introduction to Environmental Science Seminar 1
  Introduction to the field. Career information included. Required in freshman or sophomore year. Spring 2013 only
- GEOL 120 Introduction to Geology 4
  Basic concepts, including uniformitarianism, the rock cycle, the hydrologic cycle, tectonics and surface processes. Also covers how humans affect and are affected by their environment. Lab required. Prerequisite: Students may not receive credit for both GEOL 120 and PHY 130. Fall 2011 only
- ENV 200 Introduction to Hydrology 4
  Introduction to hydrologic processes, methods for quantifying hydrologic parameters and processes, and practical exposure to conducting and reporting hydrological studies. Lab required. Prerequisites: GEOL 120 and lab. Spring 2012 only
ENV 352 Environmental Science Junior Seminar
Students attend scientific talks and present information relevant to their internship experiences. Career preparations also included. Offered every fall

ENV 401 Independent Research
Independent laboratory research in environmental science conducted under the supervision of a faculty member. Arrangements made prior to registration. Prerequisite: Written permission of faculty member. Offered every semester

ENV 499 Environmental Science Internship
Practical experiences in the environmental sciences. Students must complete two internships in different areas of environmental sciences. Prerequisites: Junior with a G.P.A. of at least 2.0 in the major, a positive recommendation from a faculty member and a completed and approved internship application (applications are available from the program coordinator and must meet the deadlines in the advisement guide). Offered every semester.
Environmental Studies

Director: Erin Robinson

Introduction:
Environmental problems are more visible in our society than ever before. In order to address these issues, there is an ever present need to develop an understanding of the social and natural systems that foster the creation and resolution of environmental issues. Cultural, economic, and social systems provide the structure within which environmental problems are created and solved.

The Environmental Studies BA focuses on interdisciplinary connections between environmental and social systems. The program engages students to think critically about environmental issues and offers active learning experiences for students to apply their knowledge. Combining environmental science with social sciences, business and economics, and the humanities ensures an integrated perspective on environmental issues which lays a foundation for a wide range of careers. The interdisciplinary nature of the program allows students to combine ways of knowing which fully address the multiple facets and complex systems of environmental issues. Students take a series of required courses for the major and then select a specialization option to further focus their knowledge.

All Environmental Studies (EVST) majors will take a core of eight major requirements including Environmental Issues: Science of Environmental Issues I/II, Environment and Society, Environmental Ethics, Macroeconomics, Introduction to Geographic Information Systems, Research Methods, and Environmental Studies Capstone.

All Environmental Studies majors will select a specialization track made up of five courses: three electives, an internship, and three 1-credit professional seminars. Specialization Tracks include Environmental Justice, Environmental Conservation and Administration, Sustainable Economics, Environmental Literacy and Public Health.

The one credit professional seminars will be intensive experiences taught by local, regional and international experts in environmental issues. When possible these intensive experiences will be taught by an Expert in Residence. In some instances the seminars will be presented as webinars to allow international presentations.

All EVST majors will complete a Senior Capstone experience course (EVST 400) during which they will work in the community addressing an environmental issue, in partnership with a private or public environmental organization.

All Environmental Studies majors will complete an internship (EVST 499). Internships opportunities will range from local and regional opportunities to international opportunities through partnerships with well established environmental organizations.

For more information go to: www.canisius.edu/envstudies

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Environmental Studies. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Students should consult with Dr. Erin Robinson, Director of Environmental Studies, for current advisement information. Students are advised to be familiar with their Griff Audit and should make arrangements each semester to receive their registration PIN.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Students may have as many as 14 free elective credits outside of the EVST major to fulfill graduation requirements. Students are encouraged to use free elective credits to complement their major or secure a minor. Complementary minors for Environmental Studies majors include sociology, biology, peace and justice studies, political science, history, or philosophy, among others. Please see GriffAudit for an accurate account of these courses.
### Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVST 110</td>
<td>Science of Environmental Problems I</td>
<td>3</td>
</tr>
<tr>
<td>EVST 111</td>
<td>Science of Environmental Problems II</td>
<td>3</td>
</tr>
<tr>
<td>SOC 234</td>
<td>Environment and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 342</td>
<td>Social Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>or PSC 217</td>
<td>Social Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>or ANT 351</td>
<td>Qualitative Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>RST 342</td>
<td>Theological Ethics and Environmental Justice</td>
<td>3</td>
</tr>
<tr>
<td>or PHI 244</td>
<td>Environmental Ethics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 310</td>
<td>Introduction to Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>EVST 400</td>
<td>Environmental Studies Capstone</td>
<td>3</td>
</tr>
<tr>
<td>ECO 411</td>
<td>State and Local Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

### Major Electives:

Students need to complete 5 additional courses: 3 courses from a designated major track; 1-credit EVST 315; Professional Seminars; and EVST 499 Environmental Studies Internship (3).

### ENVIRONMENTAL JUSTICE TRACK:

Focuses student attention on social and environmental justice through the use of critical thinking of structural problems and how these issues are applied to environmental problems and human society.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVST 250</td>
<td>Nature, Culture and Interpretation</td>
<td>3</td>
</tr>
<tr>
<td>SOC 273</td>
<td>Social Movements and Social Change</td>
<td>3</td>
</tr>
<tr>
<td>SOC 340</td>
<td>Sociology of the City</td>
<td>3</td>
</tr>
<tr>
<td>PHI 245</td>
<td>Animal Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PSY 329</td>
<td>Leadership and Motivation</td>
<td>3</td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL CONSERVATION AND ADMINISTRATION:

Focuses student attention on the movements for conservation practices and the legal, historical, and organization implications for the welfare of the environment.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 259</td>
<td>Environmental History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>COM 302</td>
<td>Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Environmental Biology</td>
<td>3</td>
</tr>
<tr>
<td>ENT 101</td>
<td>Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation</td>
<td>3</td>
</tr>
<tr>
<td>PSC 242</td>
<td>International Organizations</td>
<td>3</td>
</tr>
<tr>
<td>EVST 235</td>
<td>Environmental Policy and Green Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

### SUSTAINABLE ECONOMICS:

Focuses student attention on the development of sustainable business practices from a systems approach. Enables students to develop an understanding of the nature of green economic practices.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 101</td>
<td>Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation</td>
<td>3</td>
</tr>
<tr>
<td>ENT 314</td>
<td>Social Entrepreneurship and Not-for-Profit Sector Enterprise</td>
<td>3</td>
</tr>
<tr>
<td>ISB 302</td>
<td>Sustainable Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 440</td>
<td>Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 479</td>
<td>Current Topics in Global Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL LITERACY AND PUBLIC HEALTH:

Focuses student attention on the role of information literacy in environmental issues. Allows for critical perspective and analysis of the role of science, risk, and communication in society today.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 348</td>
<td>Environmental Communication</td>
<td>3</td>
</tr>
<tr>
<td>SOC 330</td>
<td>Health and Wellness</td>
<td>3</td>
</tr>
<tr>
<td>BIO 116</td>
<td>Disease, Myth and Reality</td>
<td>3</td>
</tr>
<tr>
<td>BIO 135</td>
<td>Environmental Biology</td>
<td>3</td>
</tr>
</tbody>
</table>
Major Experiences:
Students are required to complete an internship with an environmental organization EVST 499. Additionally, students are encouraged to pursue community based learning opportunities as they pertain to their interests and course selection.

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>EVST 110</td>
<td>EVST 111</td>
</tr>
<tr>
<td></td>
<td>ECO 101</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>SOC 342/PSC 217/ANT 351</td>
<td>SOC 234</td>
</tr>
<tr>
<td></td>
<td>RST 342 PHI 244 EVST 315</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>ECO 310</td>
<td>EVST 315</td>
</tr>
<tr>
<td></td>
<td>Track option elective</td>
<td>Track option elective</td>
</tr>
<tr>
<td>Senior</td>
<td>EVST 315</td>
<td>EVST 315</td>
</tr>
<tr>
<td></td>
<td>EVST 499</td>
<td>EVST 400</td>
</tr>
</tbody>
</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

ENVIRONMENTAL STUDIES
2011-2013 COURSES

EVST 110/111 Science of Environmental Problems I and II 3
The field of environmental studies is motivated by the desire to solve existing environmental problems and avoid future problems. Environmental problems are defined here as problems that result from interactions between humans and the natural environment. This course is designed to provide a conceptual framework for understanding and analyzing environmental problems, an introduction to the scientific basis of key environmental problems, and an introduction to efforts to find scientific solutions to environmental problems. EVST 110, Fall; EVST 111, Spring. Field 6

ANT 351 Qualitative Research Methods 3
Survey of research designs from a qualitative perspective, including field research, participant observation, content analysis, ethnography, and focus groups. Analysis and reporting of qualitative data.

SOC 234 Environment and Society 3
Explores connections between environmental issues and their social causes. Topics of analysis include environmental racism, environmental health, risk and uncertainty, political economy, globalizations and sustainability. Spring. Field 5

SOC 342 Social Research Methods 3
Overview of the major steps in constructing social science research, from developing a research question, operationalization and measurement through data collection and analysis.

PSC 217 Social Research Methods 3
Basic, non-statistical treatment of current techniques and methodologies which characterize political science research.

RST 342 Theological Ethics and Environmental Justice 3
Investigation of the models of theological ethics and the ways in which ethics informs human interaction with the environment. Field 1, Ethics, Oral Communication

PHI 244 Environmental Ethics 3
A study of classical and contemporary moral theories concerning the relationship of human beings to the manifold of their natural surroundings. Field 2, Ethics

ECO 101 Principles of Macroeconomics 3
Explanation of market system through supply and demand analysis. Measurement of important macroeconomic variables and development of economic models to analyze problems of unemployment, inflation and economic growth. Efficacy of various fiscal and monetary policies. Field 2

ECO 310 Introduction to Geographical Information Systems 3
This course is designed as an applied introduction to Geographical Information Systems (GIS) that will introduce students to the concepts and uses of GIS. GIS is an emerging mapping and spatial analysis tool that is widely used in education, government and industry to identify and solve spatial problems. This course will use a combination of lectures and hands-on exercises to provide students the opportunity to apply basic GIS concepts and the fundamentals of spatial analysis using ArcGIS software to a variety of business and economic issues.
EVST 315 Professional Seminar in Environmental Studies
A course model consisting of one credit seminar classes, taught by well-known local, regional, and national/international environmental experts, will focus on professionalization and skills for students entering the green economy and career market, as well as those who plan to pursue advanced graduate degrees in this or related areas. Completing three courses provides a three credit hour sequence of classes. We will also incorporate “webinar” and video technology to offer virtual symposium opportunities for our students.

EVST 400 Environmental Studies Capstone
Senior Capstone experience course during which students will work in the community addressing an environmental issue, in partnership with a private or public environmental organization. Students will demonstrate an understanding of the foundations of environmental problems in society from an interdisciplinary approach.

EVST 499 Environmental Internship
Students will have the opportunity to participate in the daily work of an environmental agency or organization. Students assume responsibility for daily work and, upon agreement with the instructor and site supervisor, a reflection journal, a research paper and 120 hours of work on-site.

### Course Descriptions for Specialization Track Electives

#### ENVIRONMENTAL JUSTICE

**EVST 250 Nature, Culture and Interpretation**
Narratives—stories—are one of the primary tools humans use to shape their understanding of themselves and their environment. This course will examine non-fiction, creative non-fiction and fictional narratives to begin to identify the origins and elaborations of the stories we tell ourselves about nature and culture and the dynamic relationship between the two as they impact our own definitions of ourselves and our relationships to our environments. Field 5

**SOC 273 Social Movements and Social Change**
Explores the development of social movements as a force of social change in society. Focus is on theoretical developments in movement theory, as well as explorations of social movements through history. *Spring*. Field 5, Justice

**SOC 340 Sociology of the City**
Exploration of how people experience and understand city life, how cities grow and develop, and various issues affecting cities today such as suburbanization and urban sprawl. *Fall*

**PHI 245 Animal Ethics**
An examination of the notion that animals are things, machines, commodities, or resources, and whether sentient beings have intrinsic value and should be respected. Field 2, Ethics

**PSY 329 Leadership and Motivation**
Determinants of leadership effectiveness, factors influencing effectiveness in maintaining leadership position, influencing followers and accomplishing group objectives. Emphasis on communication competencies, group interaction, experiential learning. Prerequisite: PSY 101 or PSY 102, junior or senior status. *Spring*

#### ENVIRONMENTAL CONSERVATION AND ADMINISTRATION

**BIO 135 Environmental Biology**
Introduction to the complex interactions that occur between humans and their environments and how other life forms are impacted by these activities. Field 6

**COM 302 Small Group Communication**
Communication variables in small groups involving task, maintenance, leadership, conformity, shift-to-risk and development. Some emphasis on skill development.

**ENT 101 Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation**
Provides a broad introduction to entrepreneurship and prepares students for developing a mindset for thinking creatively, using innovation, recognizing opportunities and generating entrepreneurial ideas. Other topics include strategic and tactical planning and entrepreneurial activities of an actual business enterprise. Students will participate in the “Business Idea Pitch and Empire Creativity Competition.” Formerly ENT 202. No prerequisite. Open to business and non-business majors including students from the College of Arts and Sciences and the School of Education and Human Services.

**EVST 235: Environmental Policy and Green Theory**
This seminar will explore key issues within green political theory. As well as exploring the history and origins of green theory, we will explore some of the key debates such as eco-centrism versus anthropocentrism, animal rights, global justice and our obligations to future generations. Debates within green political theory will include attitudes to the state, market and community from green perspectives, green views of democracy, justice and the “good life.” Throughout, reference will be made to other strands of contemporary political theory such as liberalism, socialism, feminism, nationalism and anarchism.

**HIS 259 Environmental History of the United States**
This course examines the evolving relationship between humans and the nonhuman natural world in the lands now known as the United States. Our course begins in the pre-colonial era with a consideration of the ecological footprint of Native American societies. It ends with the paradoxical present – when “going green” is an undeniably widespread cultural phenomenon, yet environmental regulations and even the science upon which these regulations are based endure an increasingly withering political backlash. Topics to be discussed include, but are not limited to, the ecological implications of the arrival of African and European peoples in North America, westward expansion, the environmental roots and impacts of industrialization, the industrialization of agriculture, the advent of an increasingly complex built environment, the environmental implications of an economy of mass consumption, and the development of ecological consciousness. Field 4
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 242</td>
<td>International Organizations</td>
<td>3</td>
</tr>
<tr>
<td>ENT 101</td>
<td>Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation</td>
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<td>Global Supply Chain Management</td>
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</tr>
<tr>
<td>MGT 479</td>
<td>Current Topics in Global Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### ENVIRONMENTAL LITERACY AND PUBLIC HEALTH

- **BIO 116 Disease: Myth and Reality**
  - Exploration of causation, treatment and prevention of illness. Objective: to increase awareness and understanding of health and disease. Field 6

- **BIO 135 Environmental Biology**
  - Introduction to the complex interactions that occur between humans and their environments, and how other life forms are impacted by these activities. Field 6

- **SOC 330 Perspectives on Health and Illness**
  - The social aspects of health, illness and health care. Epidemiology, the experience of illness, the evolving health care industry, and a comparison of alternative and traditional medicine. Fall

- **COM 348 Environmental Communication**
  - Risk communication encompasses many types of messages and processes. It is the poster warning food workers to handle food safety to prevent the spread of E. coli bacteria. It is the emergency response worker rallying a community to evacuate amidst the rising flood. It is community representatives sitting down with industry to discuss the siting and operation of a hazardous waste incinerator. Risk communication involves people in all walks of life – parents, children, legislative representatives, regulators, scientists, farmers, industrialists, factory workers. It is part of the science of risk assessment and the process of risk management.

- **ISB 302 System Dynamics**
  - An introduction to systems thinking and system dynamics. Uses tools and computer models to help solve interdisciplinary problems. Using computer-based models or virtual worlds, one can then test the consequences of actions before making actual decisions. Field 5

- **MGT 479 Current Topics in Global Supply Chain Management**
  - Seminar on selected topics with focus on emerging practices and contemporary examples in Global Supply Chain Management. Selected course in Information Systems and Supply Chain Management, International Accounting and Law, E-Commerce and Finance may also be accepted as the equivalent of MGT 479. Consult your departmental advisor. Prerequisite: MGT 336 or MGT 325. Elective. Fall or Spring
European Studies

Director: John D Occhipinti

Introduction:
Today's world has been shaped by Europe. In fact, the study of Europe is growing even more important as globalization intensifies and the world becomes increasingly interdependent. Meanwhile, the expanding European Union has emerged as an influential player in international diplomacy and business and represents Europe's future in the 21st century.

European Studies is an interdisciplinary program designed to familiarize students with the politics, history, language and culture of this diverse continent. European Studies can be pursued as part of a double or triple major or as a minor. The major and minors are intended to supplement students' majors in more traditional academic disciplines, as well as to provide a "home" for courses taken while studying abroad in Europe.

European Studies helps students build their resumes and "European credentials" when added to majors in international relations, political science, history, foreign language, fine arts, English or international business. The European Studies Program encourages students to develop fluency in a modern European foreign language and to study abroad in Europe. By guiding students in their course selection and encouraging them to develop valuable skills and experiences, European Studies helps prepare students for graduate school, apply for fellowships, such as the Fulbright Scholarship, and enter careers in international law, business, diplomacy or teaching. For more information go to: http://www.canisius.edu/europe/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must have another major in a traditional academic discipline. No more than four courses at the 100-level may be counted toward the European Studies major. At least one course in the major must be taught by a member of the History Department, and one must be taught by a member of the Political Science Department.

Advisement:
All students should be advised by the Program Director for this major. All majors should work closely with their advisors in European Studies and their other major(s) in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular and study abroad experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and any major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:
- PSC 150A Comparative Government and Politics

Major Electives:
- History and Politics Major Electives (3 courses - 9 credits)
- European Foreign Language, Literature and Culture Major Electives (4 courses - 12 credits)
- European Studies Major Electives (2 courses - 6 credits)

Major Experiences:
Majors in European Studies must complete a substantial short- or long-term experience in Europe to be approved by the Program Director. For this, students must complete and submit a reflective journal. An example of an acceptable short-term experience would be EuroSim. Long-term experiences would include one of the college’s study abroad semesters in Europe or an alternative approved by the Program Director. Many courses taken abroad can be applied to the requirements of the major or minor.

Major or minors must also demonstrate proficiency in German, French or Spanish through the 216 level, the approved equivalent, or at a lower level of proficiency for other European languages when combined with approved study abroad in a country where that language is spoken.

Courses in a modern European language or those on European literature may be counted toward the language, literature and culture or major elective categories noted above. Latin and Ancient Greek may not be used to fulfill the modern foreign language requirement, but courses in the Classics can be counted in the major.

For further details and options, students should consult with their advisor and the Director of the European Studies Program.
Additional Course Considerations:
The variety and sequence of courses for the European Studies major will vary according to the second or third academic major. Students are encouraged to fulfill their fields of study, attributes for the core curriculum and requirements of the All College Honors Program by taking courses on Europe in the social sciences, art and literature, history, religion, philosophy and foreign language.

It is especially important for students to take a course in a European foreign language in their first semester at Canisius College and continue with this language at least through the 215-216 level. Students should also fulfill Field 4 or Honors requirements by taking courses on European history. Students with a strong interest in European politics should take PSC 150 during their first year.

Students may participate in an annual international, intercollegiate simulation of the European Union, known as EuroSim, which is related to PSC 355 (European Union). This program is held in Europe and the United States in alternating years. Additional information is available on the European Studies Program website at http://www.canisius.edu/europe/ and from the Political Science department. Students may also enjoy an international living experience in the Campion residence hall.

<table>
<thead>
<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
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<tbody>
<tr>
<td>YEAR</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Freshman</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
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<td></td>
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<tr>
<td>Junior</td>
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<tr>
<td>Senior</td>
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</tbody>
</table>

Dual Majors:
Students must have another major in a traditional academic discipline. An unlimited number of courses may be applied to the major from fields of study in the core curriculum, the All-College Honors Program or from a second, third, or fourth major. Most dual major combinations can be completed within the minimum 120 credit hour degree requirement. However, in some cases, additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and program director and the appropriate associate dean.

Minors:
- PSC 150A Comparative Government and Politics or Field 4 course on European history (1 course - 3 credits)
- History and Politics Major Electives (2 courses - 6 credits)
- European Foreign Language, Literature and Culture Major Electives (3 courses - 9 credits)
- Students must complete the appropriate minor request form.

Minors 2:
The requirements for proficiency in a modern European foreign language are the same as for the major. No more than three courses at the 100-level may be counted toward the minor. A maximum of two courses in a modern European foreign language may be counted toward the language, literature or culture category of the minor. Courses taken from a second or third major, area studies or the All-College Honors Program may be applied to the European Studies minor.

International Business:
A special minor has been tailored to the needs and interests of students majoring in International Business. Consult the program director for details.

Jean Monnet Award:
Each year, the program honors its best graduating senior, taking into account academic performance, study abroad and co-curricular activity related to Europe.
The Fine Arts Department provides opportunities for students to obtain a sound knowledge of the visual and performing arts. The department’s offerings include a major and a minor in art history, a major and a minor in music, a minor in studio art, and a minor in dance. These programs enable students to explore the arts for their own personal and professional development and to receive training in the theory and practice of the four areas involved.

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Art History

Introduction:
Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/finearts/art_history.asp

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
There is no minimum grade requirement in the major, but students must have a cumulative 2.0 in order to graduate with a degree in art history. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

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Major Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAH 101</td>
<td>Introduction to Art History I</td>
<td>3</td>
</tr>
<tr>
<td>FAH 102</td>
<td>Introduction to Art History II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Ancient and/or medieval art: one course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Renaissance and/or Baroque art: one course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Art since 1800: one course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Non-Western or non period-based topic: one course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>One 300 level Art History course</td>
<td>3</td>
</tr>
<tr>
<td>FAH 450</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives:
In addition to the above, majors complete four art history courses, 12 credits. Dual majors complete two art history electives courses, 6 credits.

Major Experiences:
Many students take the opportunity to gain practical experience in an art institution through the Museum Internship course. Art history majors and minors have interned at the Albright-Knox Art Gallery, the Darwin Martin House, the Roycroft Campus, the Buffalo Central Terminal Restoration Corporation, Hallwalls, the Castellani Art Museum, CEPA and Big Orbit Gallery.

Additional Course Considerations:
All art history students are encouraged to take courses in a foreign language, since jobs and graduate programs in the field often require some familiarity with languages. Students interested in studying abroad are strongly encouraged to pursue two years of foreign language study in advance of their time abroad.
The following courses may also be used towards the art history major and minor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 374</td>
<td>Film History</td>
<td>3</td>
</tr>
<tr>
<td>COM 375</td>
<td>Film Classics</td>
<td>3</td>
</tr>
<tr>
<td>COM 376</td>
<td>Film Genres</td>
<td>3</td>
</tr>
<tr>
<td>COM 479</td>
<td>World Cinema</td>
<td>3</td>
</tr>
<tr>
<td>HON 320</td>
<td>The Nude in Modern Art</td>
<td>3</td>
</tr>
<tr>
<td>HON 321</td>
<td>Critical Issues in the History of Photography</td>
<td>3</td>
</tr>
<tr>
<td>HON 322</td>
<td>20th Century Art and Photography</td>
<td>3</td>
</tr>
<tr>
<td>HON 326</td>
<td>Sex and Religion in Baroque Art</td>
<td>3</td>
</tr>
<tr>
<td>HON 328</td>
<td>Age of Michelangelo</td>
<td>3</td>
</tr>
<tr>
<td>PHI 291</td>
<td>Philosophy of Art and Beauty</td>
<td>3</td>
</tr>
<tr>
<td>RST 314</td>
<td>New Testament in Literature and Art</td>
<td>3</td>
</tr>
</tbody>
</table>

Other courses may also be eligible for inclusion in the art history major or minor.

**Art History Courses: 2011-2013**

**FAH 101 Introduction to Art History I**
Introduction to visual and cultural analysis of major works of art from ancient times through the Middle Ages. Covers prehistoric through Gothic art. (Field 3, Global Awareness) Fall, Spring, Summer

**FAH 102 Introduction to Art History II**
Introduction to visual and cultural analysis of major works of Western art from the Renaissance through the twentieth century. (Field 3, Global Awareness) Fall, Spring, Summer

**FAH 103 Survey of Pre-Columbian and Native American Art**
The artistic achievements of native peoples from the Americas. Toltec, Maya, and Aztec civilizations of Central America, and culture groups from the Woodlands, Plains, Southwest, and Northwest in North America prior to and after contact with Europe. Recent exhibitions of Native American art will be examined. (Field 3, Diversity)

**FAH 107 Introduction to African and Asian Art**
Introduction to the art of Africa, India, Japan and China. Examines works from various time periods, geographic areas, religious orientations and historical circumstances. (Field 3, Global Awareness)

**FAH 108 African-American Art in Context**
A history of the development of African-American art, from its beginnings in African cultures to contemporary African-American artists working today. (Field 3)

**FAH 109 History of Architecture**
Visual and cultural analysis of major monuments of global architecture from antiquity to the present. (Field 3, Global Awareness)
FAH 110 History of Photography
Introduction to artistic and technical origins and subsequent developments of photographic processes from their invention in 1839 to global contemporary practices. (Field 3, Global Awareness)

FAH 159 Women and Art
Introduction to selected women artists in western culture and analysis of issues involving the relationships among gender, representations of gender, and art in western culture. (Field 3, Global Awareness)

FAH 210 Ancient Egyptian and Near Eastern Art
(Accepted for Classics minor credit) Introduction to visual and cultural analysis and interpretation of the painting, sculpture and architecture of ancient Egypt and the ancient Near East. (Field 3, Global Awareness) Spring

FAH 213 Greek and Roman Art
(Accepted for Classics minor credit) Visual and cultural analysis of the painting, sculpture and architecture of Greece and Rome. (Field 3, Global Awareness, pending 2011) Spring

FAH 224 Medieval Art
Visual analysis, cultural analysis, and interpretation of major works of Early Christian, Byzantine, Islamic, Carolingian, Ottonian, Romanesque and Gothic periods. (Global Awareness)

FAH 245 Renaissance Art
Visual, cultural, and iconographic analysis of painting, sculpture, architecture and art theory in Europe from the fourteenth through the sixteenth centuries. (Global Awareness)

FAH 248 Baroque Art
Visual, cultural and iconographic analysis of painting, sculpture and architecture during the 17th and 18th centuries in France, Italy, England, Spain and the Netherlands. (Global Awareness)

FAH 261 Monet and the Age of Impressionism
Visual and cultural analysis of major works from Western Europe and the United States, from the early 19th century through Post-Impressionism. (Field 3, Global Awareness)

FAH 262 Modern Art
Visual and cultural analysis of major works from Western Europe and the United States, from the late 19th century through 1960. (Global Awareness)

FAH 265 Contemporary Art
Visual and cultural analysis of major works from the United States and Western Europe, from 1940 to the present.

FAH 266 Modern Architecture
Introduction to the architectural history of the modern world, focusing on major works in western architecture from the Industrial Revolution through Post Modernism. (Global Awareness)

FAH 267 Frank Lloyd Wright
Introduction to the influential, iconic work of American architect Frank Lloyd Wright. Presents his major works and considers American and Modern architecture as a whole. Visits to major Wright buildings in Western New York.

FAH 271 Art in Buffalo
Examination of the artistic and historical resources in the Greater Buffalo region, including prominent examples of architecture, museum collections and artists in Western New York. Lecture and field trip format.

FAH 340 Topics in Early Modern European Art
Varying topics in the art of Europe from 1400 to 1800. Major or minor status or permission of the instructor. (Intensive Writing, pending 2011)

FAH 350 Topics in Modernism
Varying topics in art from 1800 to the present day. Course offerings will center primarily on 19th century France and 20th century America. Course will run as a seminar. Major or minor status or permission of the instructor. (Intensive Writing)

FAH 352 Museum Studies
Research, curatorial and administrative aspects of museum management. Includes researching works of art, cataloging a collection, exhibits, budgets, long-range planning. Major or minor status or permission of the instructor.

FAH 450 Senior Seminar
For advanced art history students, to tie together experiences in the field and formalize their understanding of the discipline. Explores the history of art history and the status of institutions and professions within the art world. Junior and senior majors and minors.

FAH 460 Museum Internship
Research, curatorial and administrative internship at selected Buffalo area art galleries. Junior and senior majors and minors or permission of internship director.

FAH 480 Art, Beauty, and Terror in the 20th Century
Core Capstone.

FAH 499 Independent Study in Art History
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean.
Music
Director: Jane Cary

Introduction:
The study of music develops and enhances analytical, creative, listening, and performing skills. Music majors choose a concentration in one of four sequences—music history and literature, music education, music technology, or music business—or they can follow the Music Performance or Music Major with a Music Business Concentration curricula (these two programs are described in separate catalog entries). The Buffalo Philharmonic Orchestra has a special relationship with Canisius College, and several of its members are on the music faculty. Performance, both individual and ensemble, is an integral part of the Music Program: students may perform in the Chorale, Chamber Orchestra, Concert Band, Jazz Ensemble and other ensembles, and there are many other opportunities for student performance. As an adjunct to the Music Program, the ArtsCanisius cultural series features concerts by faculty and guest artists that range from classical music to jazz.

Students who would like to study music, but not as a major, may combine a Music Minor with another discipline or may choose the Music Concentration offered in the Early Childhood and Childhood Education Programs.

Please see the following website for a more detailed description of the Music Program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/finearts/music/music.asp The website also has links to video and audio clips of student ensembles and music major recitals.

Goals:
Please see the following website for the Music Program’s Student Learning Goals and Objectives:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
A vocal or instrumental performance audition is required prior to acceptance in the major. In order to successfully complete the major, students must have a minimum grade of C- in each course included in the major. Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Music. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All music majors should contact Dr. Richard Falkenstein for advisement. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. With the permission of the chair, music majors may take an additional 8 credits of lessons and/or ensembles for free elective credit.

<table>
<thead>
<tr>
<th>Major Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 119</td>
<td>3</td>
</tr>
<tr>
<td>FAM 210</td>
<td>3</td>
</tr>
<tr>
<td>FAM 230/230L</td>
<td>4</td>
</tr>
<tr>
<td>FAM 240/240L</td>
<td>4</td>
</tr>
<tr>
<td>FAM 330/330L</td>
<td>4</td>
</tr>
<tr>
<td>FAM 340/340L</td>
<td>4</td>
</tr>
<tr>
<td>FAM 450</td>
<td>3</td>
</tr>
<tr>
<td>FAM 225</td>
<td>8</td>
</tr>
</tbody>
</table>

FAM Music History Course (choose one of the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 216</td>
<td>Medieval and Renaissance Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 217</td>
<td>Music of the Period Baroque</td>
<td>3</td>
</tr>
<tr>
<td>FAM 218</td>
<td>Music of the Classical Period</td>
<td>3</td>
</tr>
<tr>
<td>FAM 219</td>
<td>19th Century Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 220</td>
<td>Art Music from 1900 to the Present</td>
<td>3</td>
</tr>
</tbody>
</table>

Music Ensemble:
Majors must take the same ensemble for all eight semesters. A student may take a music ensemble for one (1) credit:

- FAM 181 Chorale
- FAM 182 Jazz Ensemble
- FAM 184 Chamber Orchestra
- FAM 185 Concert Band

or for zero (0) credit:

- FAM 171 Chorale
- FAM 172 Jazz Ensemble
- FAM 174 Chamber Orchestra
- FAM 175 Concert Band

Students may opt for zero credit to avoid exceeding 18 credits in a semester. 0 - 8 credits
Major Electives:
Students choose one of the following sequences (the Performance Sequence and Music Major with a Music Business Concentration are listed separately):

- History and Literature Sequence: 9 credits
  Three additional Music History Courses

- Music Technology Sequence: 9 credits
  DMA 309 Music Technology
  DMA 310 Digital Audio/Music Production, and
  One Music Elective

- Music Education Sequence: 9 credits
  FAM 250 Music for Children
  FAM 350 Basic Conducting, and
  One Music Elective

- Music Business Sequence: 9 credits
  FAM 360 Music Business I
  FAM 361 Music Business II
  choose either:
  DMA 309 Music Technology or
  DMA 310 Digital Audio/Music Production (see note below)

Additional Course Considerations:
Students following the History and Literature Sequence are strongly urged to take at least two semesters of French, German, or Italian.

Music History Courses include:
- FAM 216 Medieval and Renaissance Music (3)
- FAM 217 Music of the Baroque Period (3)
- FAM 218 Music of the Classical Period (3)
- FAM 219 19th Century Music (3)
- FAM 220 Art Music from 1900 to the Present (3)

Music Electives can be chosen from the following courses:
- Music History Courses (see above)
- FAM 112 The World of Opera (3)
- FAM 123 World Musics (3)
- FAM 124 America's Music (3)
- FAM 212 Canisius and the BPO Experience (3)
- FAM 213 Women in Music (3)
- FAM 214 Music in Film (3)
- FAM 221 Opera Workshop (3)
- FAM 222 Opera Workshop II (3)
- FAM 224 Afro-Centric Music (3)
- FAM 250 Music for Children (3)
- FAM 350 Basic Conducting (3)
- FAM 360 Music Business I (3)
- FAM 361 Music Business II (3)
- FAM 498 Internship (3)
- DMA 309 Music Technology (3)
- DMA 310 Digital Audio/Music Production (3)
- HON 323 Opera (3)
- HON 324 Symphony (3)

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>FAM 119 (3)</td>
<td>FAM 240/240L (4)</td>
</tr>
<tr>
<td></td>
<td>FAM 230/230L (4)</td>
<td>Music History Course</td>
</tr>
<tr>
<td></td>
<td>FAM 225 (2)</td>
<td>FAM 225 (2)</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble</td>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Sophomore</td>
<td>FAM 330/330L (4)</td>
<td>FAM 340/340L (4)</td>
</tr>
<tr>
<td></td>
<td>FAM 210 (3)</td>
<td>Music Sequence Course</td>
</tr>
<tr>
<td></td>
<td>FAM 225 (2)</td>
<td>FAM 225 (2)</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble</td>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Junior</td>
<td>Music Sequence Course</td>
<td>Music Sequence Course</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble</td>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Senior</td>
<td>FAM 450 (3)</td>
<td>Music Ensemble</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble</td>
<td>Music Ensemble</td>
</tr>
</tbody>
</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Some common dual majors with Music are with Communications, Digital Media Arts, English, Psychology, and Education.

School of Education Major with a Music Concentration:
Students may take music as a concentration in the School of Education Early Childhood, Childhood or Early Childhood Special Education or Childhood Special Education Programs. A music concentration enhances the skills of a classroom teacher but does not meet New York State requirements for certification in music education. Please see the following School of Education website for requirements. http://www.canisius.edu/education/teacher_concentrations.asp

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement. But in some cases additional course work may be required. Students must complete the appropriate minor request form.
MUSIC MINOR: The Music Minor enables students majoring in other academic departments to complement their studies with the study of music. The 18-credit program includes courses in theory, literature and the option of performance.

REQUIRED COURSES:
FAM 115 Fundamentals of Music (3)
(If the student has sufficient theory background as demonstrated by a placement test, another FAM course may be substituted for FAM 115.)
FAM 119 Masterpieces of Music (3)

TWO OF THE FOLLOWING COURSES:
FAM 123 World Musics (3)
FAM 124 America’s Music (3)
FAM 212 Canisius and the BPO Experience (3)
FAM 213 Women in Music (3)
FAM 214 Music in Film (3)
FAM 216 Medieval and Renaissance Music (3)
FAM 217 Music of the Baroque Period (3)
FAM 218 Music of the Classical Period (3)
FAM 219 19th Century Music (3)
FAM 220 Art Music from 1900 to the Present (3)
FAM 224 Afro-Centric Music (3)

Total of six credits consisting of any combination of FAM courses, music ensembles, music lessons, DMA 309 Music Technology (3), DMA 310 Digital Audio/Music Performance (3), HON 323 Opera (3) and HON 324 Symphony (3).

Note:
DMA 309 and DMA 310 are offered in alternate years.
Music Performance

Director: Jane Cary

Introduction:
The requirements for the Music Performance Program include extensive study of voice or an instrument with the performing faculty, many of whom are members of the Buffalo Philharmonic Orchestra. Students present two formal concerts to fulfill program requirements, one in the junior year and the other in the senior year (see below), in addition to regular participation in student recitals and ensembles.

Please see the following website for a more detailed description of the Music Program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/finearts/music/music.asp. The website also has links to video and audio clips of student ensembles and music major recitals.

Goals:
Please see the following website for the Music Program’s Student Learning Goals and Objectives:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
A vocal or instrumental performance audition is required prior to acceptance in the major. In order to successfully complete the major, students must have a minimum grade of C- in each course included in the major. Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Music. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All music majors should contact Dr. Richard Falkenstein for advisement. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. With the permission of the chair, music majors may take an additional 8 credits of lessons and/or ensembles for free elective credit.

Major Courses

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 119</td>
<td>Masterpieces of Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 210</td>
<td>Keyboard Musicianship</td>
<td>3</td>
</tr>
<tr>
<td>FAM 230/230L</td>
<td>Music Theory I and Lab</td>
<td>4</td>
</tr>
<tr>
<td>FAM 240/240L</td>
<td>Music Theory II and Lab</td>
<td>4</td>
</tr>
<tr>
<td>FAM 330/330L</td>
<td>Music Theory III and Lab</td>
<td>4</td>
</tr>
<tr>
<td>FAM 340/340L</td>
<td>Music Theory IV and Lab</td>
<td>4</td>
</tr>
<tr>
<td>FAM 450</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FAM 225</td>
<td>Music Performance: eight semesters</td>
<td>16</td>
</tr>
<tr>
<td>FAM 216</td>
<td>Medieval and Renaissance Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 217</td>
<td>Music of the Period Baroque</td>
<td>3</td>
</tr>
<tr>
<td>FAM 218</td>
<td>Music of the Classical Period</td>
<td>3</td>
</tr>
<tr>
<td>FAM 219</td>
<td>19th Century Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 220</td>
<td>Art Music from 1900 to the Present</td>
<td>3</td>
</tr>
</tbody>
</table>

Music Ensemble: Majors must take the same ensemble for all eight semesters. A student may take a music ensemble for one (1) credit:
- FAM 181 Chorale
- FAM 182 Jazz Ensemble
- FAM 184 Chamber Orchestra
- FAM 185 Concert Band

or for zero (0) credit:
- FAM 171 Chorale
- FAM 172 Jazz Ensemble
- FAM 174 Chamber Orchestra
- FAM 175 Concert Band

Students may opt for zero credit to avoid exceeding 18 credits in a semester. (0 - 8 credits)
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Some common dual majors with Music are Communications, Digital Media Arts, English, Psychology, and Education.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Music Electives can be chosen from the following courses (choose one):

- FAM 112 The World of Opera (3)
- FAM 123 World Musics (3)
- FAM 124 America's Music (3)
- FAM 212 Canisius and the BPO Experience (3)
- FAM 213 Women in Music (3)
- FAM 214 Music in Film (3)
- FAM 216 Medieval and Renaissance Music (3)
- FAM 217 Music of the Baroque Period (3)
- FAM 218 Music of the Classical Period (3)
- FAM 219 19th Century Music (3)
- FAM 220 Art Music from 1900 to the Present (3)
- FAM 221 Opera Workshop (3)
- FAM 222 Opera Workshop II (3)
- FAM 224 Afro-Centric Music (3)
- FAM 250 Music for Children (3)
- FAM 255 Diction for Singers (3)
- FAM 350 Basic Conducting (3)
- FAM 360 Music Business I (3)
- FAM 361 Music Business II (3)
- FAM 498 Internship (3)
- FAM 499 Independent Study in Music (3)
- DMA 309 Music Technology (3)
- DMA 310 Digital Audio/Music Production (3)
- HON 323 Opera (3)
- HON 324 Symphony (3)

Major Experiences:
Students in Music Performance present two recitals to complete the requirements for the degree: a junior year recital (25-30 minutes of music) and a senior recital (50-60 minutes with intermission).

Additional Course Considerations:

<table>
<thead>
<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Freshman</td>
</tr>
<tr>
<td>FAM 119 (3)</td>
</tr>
<tr>
<td>FAM 230/230L (4)</td>
</tr>
<tr>
<td>FAM 225 (2)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Sophomore</td>
</tr>
<tr>
<td>FAM 330/330L (4)</td>
</tr>
<tr>
<td>FAM 210 (3)</td>
</tr>
<tr>
<td>FAM 225 (2)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Junior</td>
</tr>
<tr>
<td>Music Elective</td>
</tr>
<tr>
<td>FAM 225 (2)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Senior</td>
</tr>
<tr>
<td>FAM 225 (2)</td>
</tr>
<tr>
<td>FAM 450 (3)</td>
</tr>
<tr>
<td>Music Ensemble</td>
</tr>
</tbody>
</table>
Music Business

Director: Jane Cary

Introduction:
The music major with a Music Business Concentration is an interdisciplinary opportunity for students to combine their passion for music with the marketing and business components of the music industry, all within the liberal arts tradition of the college. The concentration is a joint collaboration between the College of Arts and Sciences and the Wehle School of Business, combining the Bachelor of Arts Degree Music Major and the Business Minor with the addition of select music business courses and a music business internship.

Please see the following website for a more detailed description of the Music Program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/finearts/music/music.asp. The website also has links to video and audio clips of student ensembles and music major recitals.

Goals:
Please see the following website for the Music Program’s Student Learning Goals and Objectives:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
A vocal or instrumental performance audition is required prior to acceptance in the major. In order to successfully complete the major, students must have a minimum grade of C- in each course included in the major. Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Music. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All music majors should contact Dr. Richard Falkenstein for advisement. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours. With the permission of the chair, music majors may take an additional 8 credits of lessons and/or ensembles for free elective credit.

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<tbody>
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<td>FAM 119</td>
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<tr>
<td>FAM 210</td>
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<td>FAM 340/340L</td>
<td>Music Theory IV and Lab</td>
<td>4</td>
</tr>
<tr>
<td>FAM 360</td>
<td>Music Business I</td>
<td>3</td>
</tr>
<tr>
<td>FAM 361</td>
<td>Music Business II</td>
<td>3</td>
</tr>
<tr>
<td>FAM 450</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
<tr>
<td>FAM 498</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>FAM 225</td>
<td>Music Performance: four semesters</td>
<td>8</td>
</tr>
</tbody>
</table>

FAM Music History Course (choose one of the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 216</td>
<td>Medieval and Renaissance Music</td>
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<tr>
<td>FAM 217</td>
<td>Music of the Period Baroque</td>
<td>3</td>
</tr>
<tr>
<td>FAM 218</td>
<td>Music of the Classical Period</td>
<td>3</td>
</tr>
<tr>
<td>FAM 219</td>
<td>19th Century Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 220</td>
<td>Art Music from 1900 to the Present</td>
<td>3</td>
</tr>
</tbody>
</table>

DMA Course (choose one of the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMA 309</td>
<td>Music Technology</td>
<td>3</td>
</tr>
<tr>
<td>DMA 310</td>
<td>Digital Audio/Music Production</td>
<td>3</td>
</tr>
</tbody>
</table>

Music Ensemble:

Majors must take the same ensemble for all eight semesters. A student may take a music ensemble for one (1) credit:
- FAM 181 Chorale
- FAM 182 Jazz Ensemble
- FAM 184 Chamber Orchestra
- FAM 185 Concert Band

or for zero (0) credit:
- FAM 171 Chorale
- FAM 172 Jazz Ensemble
- FAM 174 Chamber Orchestra
- FAM 175 Concert Band

Students may opt for zero credit to avoid exceeding 18 credits in a semester. (0 - 8 credits)
Business Courses:
- ECO 101 Principles of Macroeconomics (3)
- ACC 201 Financial Accounting (3)
- ECO 255 Business Stats I (3)
- MGT 101 Introduction to Management (3)
- MKT 201 Principles of Marketing (3)
- FIN 201 Business Finance (3)

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Some common dual majors with Music are Communications, Digital Media Arts, English, Psychology, and Education.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Major Experiences:
Internship (FAM 498): The program requires an internship with a business or organization related to the student's primary interest, which gives the student hands-on experience in the field. A variety of settings are possible including music or arts management, recording studios, radio stations or music retailing. Prerequisites: FAM 360 and FAM 361.

Additional Course Considerations:

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
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<tbody>
<tr>
<td>Freshman</td>
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<tr>
<td>FAM 225</td>
<td>FAM 225 (2)</td>
<td>FAM 225 (2)</td>
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<tr>
<td>Music Ensemble</td>
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<tr>
<td>ECO 101</td>
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<tr>
<td>MGT 101</td>
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<tr>
<td>FAM 320/320L (4)</td>
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<tr>
<td>Music Ensemble</td>
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<tr>
<td>ACC 201 (3)</td>
<td>ACC 201 (3)</td>
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<tr>
<td>MKT 201 (3)</td>
<td>MKT 201 (3)</td>
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<tr>
<td>Junior</td>
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<tr>
<td>FAM 300 (3)</td>
<td>FAM 300 (3)</td>
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<tr>
<td>Music Ensemble</td>
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<tr>
<td>ECO 255 (3)</td>
<td>ECO 255 (3)</td>
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<tr>
<td>DMA 309 or 310 (3)</td>
<td>DMA 309 or 310</td>
<td>(see note below)</td>
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<td>FIN 201 (3)</td>
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<td>Senior</td>
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<td>FAM 450 (3)</td>
<td>FAM 450 (3)</td>
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<tr>
<td>Music Ensemble</td>
<td>Music Ensemble</td>
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<tr>
<td>Business Elective</td>
<td>Business Elective</td>
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</tr>
</tbody>
</table>

Note:
DMA 309 and 310 are offered in alternate years.
2011-2013 Course Descriptions

FAM 112 The World of Opera
This introductory course covers the many aspects, characteristics and forms of expression found in this dramatic art form. Classes include scene selections through lectures, CDs and DVDs. (Field 3)

FAM 115 Fundamentals of Music
Basic elements of music as perceived and notated, and the styles and forms of music derived from them. Practical theory applications include ear training, keyboard playing and composition. (Field 3)

FAM 119 Masterpieces of Music
A survey of Western art music from medieval Gregorian chant to the present, including the study of musical elements, historical background, musical style and masterworks of various periods. (Field 3)

FAM 123 World Musics
Survey course, including folk, traditional and art musics of Europe, Asia, Africa, Australia, North and South America. Classes include listening and videos, with the study of instruments, dances, songs and rhythms of these cultures. (Field 3) Spring

FAM 124 America's Music
Music made or continuously used by Americans from beginnings to present. Sacred congregational music, vernacular music, African-American music and cultivated traditions. Historical and sociological development of folk, jazz and popular music as uniquely American. (Field 3)

FAM 125 Music Performance
Half-hour private lessons, designed for all levels of experience, are offered in piano, organ, harp, guitar, voice, strings, woodwinds, brass, strings, percussion, and improvisation.

FAM 171 Chorale
A mixed-voice singing group that performs repertoire in both the classical and popular styles. (Same as FAM 181 except for "0" credit.)

FAM 172 Jazz Ensemble
Jazz ensemble that plays a wide range of music from Count Basie to Maynard Ferguson and everything in between. (Same as FAM 182 except for "0" credit)

FAM 174 Chamber Orchestra
String orchestra that performs a wide range of orchestral literature from the Baroque period through the 20th century. Concert programs provide students with wide experiences in the orchestral arts. (Same as FAM 184 except for "0" credit)

FAM 175 Concert Band
Campus-wide instrumental ensemble performing a wide variety of standard concert band literature. (Same as FAM 185 except for "0" credit)

FAM 181 Chorale
A mixed-voice singing group that performs repertoire in both the classical and popular styles. (Same as FAM 171 except for "1" credit)

FAM 182 Jazz Ensemble
Jazz ensemble that plays a wide range of music from Count Basie to Maynard Ferguson and everything in between. (Same as FAM 172 except for "1" credit)

FAM 184 Chamber Orchestra
String orchestra that performs a wide range of orchestral literature from the Baroque period through the 20th century. Concert programs provide students with wide experiences in the orchestral arts. (Same as FAM 174 except for "1" credit)

FAM 185 Concert Band
Campus-wide instrumental ensemble performing a wide variety of standard concert band literature. (Same as FAM 175 except for "1" credit.)

FAM 210 Keyboard Musicianship
Class instruction in practical keyboard applications including basic keyboard proficiency, harmonization of folk melodies and songs, and sight-reading.

FAM 212 Canisius and the BPO Experience
Classes meet at both Canisius College and Kleinhans Music Hall as students study music on stage, behind the scenes and in literature with Canisius College faculty, BPO conductors, soloists and managers. (Field 3)

FAM 213 Women in Music
Roles of women composers and performers in “art music” from the time of ancient Greece through the present as they struggle to break the confines of traditional gender roles to gain equal representation and recognition. (Field 3)

FAM 214 Music in Film
Functions of music in silent film, animation and the golden age of American cinema as an extension of European musical practices through the rise of the Hollywood studio system. (Field 3)

FAM 216 Medieval and Renaissance Music
Traces Western art music from its origins in Gregorian chant through the development and refinement of more complex compositions such as the mass setting and motet. (Field 3)

FAM 217 Music of the Baroque Period
A study of Western art music of the Baroque period (1600-1750) beginning with the early operatic works of Monteverdi and concluding with the mature masterpieces of Bach and Handel. Many different instrumental and vocal genres are covered in this course, including concerto, sonata, suite, opera, cantata and oratorio. (Field 3)

FAM 218 Music of the Classical Period
A study of European art music c.1750-1809 and the historical and cultural forces that helped to shape it. Focus on the lives and works of Haydn, Mozart, Beethoven, their contemporaries and immediate predecessors. (Field 3)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 219</td>
<td>19th Century Music</td>
<td></td>
<td>Great composers of the Romantic period, including their lives, selected works, musical style and influence. (Field 3)</td>
</tr>
<tr>
<td>FAM 221</td>
<td>Opera Workshop</td>
<td></td>
<td>The study and performance of scenes from operatic literature, including stage movement, acting and historical background of operas. Perfect for students who enjoy singing and acting. Prerequisite: Permission of instructor. (Field 3)</td>
</tr>
<tr>
<td>FAM 222</td>
<td>Opera Workshop II</td>
<td></td>
<td>The study and performance of scenes from operatic literature, including stage movement, acting and historical background of operas. Perfect for students who enjoy singing and acting. Prerequisite: Permission of instructor. (Field 3)</td>
</tr>
<tr>
<td>FAM 224</td>
<td>Afro-Centric Music</td>
<td></td>
<td>Music of West Africa and how, due to the African Diaspora, this music has come to influence both “Art” and “Pop” music on a worldwide basis. (Field 3 Fall, Summer)</td>
</tr>
<tr>
<td>FAM 225</td>
<td>Music Performance 2</td>
<td></td>
<td>Hour-length private lessons, designed for the experienced musician, are offered in piano, organ, guitar, voice, strings, woodwinds, brass, strings, percussion, and improvisation.</td>
</tr>
<tr>
<td>FAM 230</td>
<td>Theory I</td>
<td></td>
<td>A study of diatonic harmonic progressions typical of 18th and 19th century music. The course includes the analysis of melodic, harmonic, rhythmic and formal aspects of music by composers such as Bach, Mozart, Beethoven and Schubert. Prerequisite: FAM 115 or permission of instructor. Theory I Lab required. (Field 3 Fall)</td>
</tr>
<tr>
<td>FAM 230L</td>
<td>Theory I Lab</td>
<td></td>
<td>Weekly lab instruction in sight-singing and ear-training. Development of aural skills in melodic, harmonic and rhythmic dictation. Includes computer-assisted instruction. Course to be taken concurrently with FAM 230 Theory I. Fall</td>
</tr>
<tr>
<td>FAM 240</td>
<td>Theory II: Fundamentals of Four-Part Writing</td>
<td></td>
<td>A study of four-part composing as developed in Europe, particularly tonal music associated with Bach, Mozart and Beethoven, which also forms the basis of modern popular music. Prerequisite: FAM 230 or permission of instructor. Theory II Lab required. (Field 3 Spring)</td>
</tr>
<tr>
<td>FAM 240L</td>
<td>Theory II Lab</td>
<td></td>
<td>Weekly lab instruction in sight-singing and ear-training. Development of aural skills in melodic, harmonic and rhythmic dictation. Includes computer-assisted instruction. Course to be taken concurrently with FAM 240 Theory II. Spring</td>
</tr>
<tr>
<td>FAM 250</td>
<td>Music for Children</td>
<td></td>
<td>Course provides the backgrounds, models and skills necessary to create musical experiences for the pre-school and elementary-age child.</td>
</tr>
<tr>
<td>FAM 255</td>
<td>Diction for Singers</td>
<td></td>
<td>The study of correct pronunciation for singing in English and foreign languages using the International Phonetic Alphabet.</td>
</tr>
<tr>
<td>FAM 330</td>
<td>Theory III</td>
<td></td>
<td>19th century styles and analysis of chromatic harmony with the study of works by Beethoven, Schubert, Franck, Wagner and Mahler. Focus on counterpoint skills. Continuation of notation and sequencing software applications. Prerequisite: FAM 240. Theory III Lab required. Fall</td>
</tr>
<tr>
<td>FAM 330L</td>
<td>Theory III Lab</td>
<td></td>
<td>Weekly lab instruction in sight-singing and ear-training. Development of aural skills in melodic, harmonic and rhythmic dictation. Includes computer-assisted instruction. Course to be taken concurrently with FAM 330 Theory III. Fall</td>
</tr>
<tr>
<td>FAM 340</td>
<td>Theory IV</td>
<td></td>
<td>Musical styles, forms and techniques of the 20th century, including impressionism, atonality, serialism, minimalism and electronic applications. Study of selected works by Debussy, Ravel, Stravinsky, Schoenberg, Messiaen, Boulez, Glass and Varese. Prerequisite: FAM 330. Theory IV Lab required. Spring</td>
</tr>
<tr>
<td>FAM 340L</td>
<td>Theory IV Lab</td>
<td></td>
<td>Advanced lab instruction in sight-singing and ear-training. Includes computer-assisted instruction. Course to be taken concurrently with FAM 340 Theory IV. Spring</td>
</tr>
<tr>
<td>FAM 350</td>
<td>Basic Conducting</td>
<td></td>
<td>Development of students' basic conducting skills of beat, pattern and gesture, leadership of musical activities and musicianship including applied ear training and score analysis.</td>
</tr>
<tr>
<td>FAM 360</td>
<td>Music Business I</td>
<td></td>
<td>An overview of the many aspects of the music industry, including arts management, administration, promotion, marketing, financing through grant proposals, and legal issues as they apply to opportunities in a not-for-profit music business career.</td>
</tr>
<tr>
<td>FAM 361</td>
<td>Music Business II</td>
<td></td>
<td>Comprehensive discussion of artist management, promotion, marketing, contract negotiation, copyright and licensing laws, contract law and negotiation, media and public relations related to music business, and the role of agent/manager in the recording industry.</td>
</tr>
<tr>
<td>FAM 390</td>
<td>Sounding Society</td>
<td></td>
<td>This course explores how music represents, instills and challenges the values of ethics, justice, diversity and global awareness in different societies as represented in art music as well as popular and indigenous music. (Core Capstone)</td>
</tr>
<tr>
<td>FAM 450</td>
<td>Senior Seminar</td>
<td></td>
<td>An integration of the diverse areas of music into a coherent whole. Course includes supervised reading and research culminating in a writing and/or performance project. Prerequisite: Music majors or permission of program director.</td>
</tr>
</tbody>
</table>
FAM 498 Internship 3
Students taking music as a major or minor are matched in local professional settings including performing organizations and theaters. Prerequisite: Consent of the instructor and permission of the chair.

FAM 499 Independent Study in Music 3
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean.
Studio Art Minor

Director: Christine M. Walsh

Introduction:
Canisius College offers a minor in studio art. Studio classes are open to both minors and non-minors. Studio art courses introduce students to the fundamentals in art both technically and conceptually. The program is intended to provide students with an opportunity to explore options in studio art and to prepare students more serious about art for further undergraduate study at an art school or major degree program.

Studio art courses place emphasis on both technical and conceptual skills through lectures, demonstrations, practice and critique. Students are also exposed to lectures by contemporary artists on and off campus, to art exhibits at local galleries and museums, and are encouraged to attend seminars and workshops at local art venues that expose them to recent trends in contemporary art. Viewing, critiquing and writing about art give students a solid grounding for confidently and articulately speaking and writing about their own work and that of their peers.

Students are encouraged to exhibit their work both on and off campus in special events and in the Peter A. and Mary Lou Vogt Art Gallery located in Lyons Hall.

For studio art minors the FAS Capstone course provides an opportunity to work with faculty who are practicing artists on development of a final project or portfolio with which they are able to pursue further study in the visual arts.

For more information: http://www.canisius.edu/finearts/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Advisement:
All students should have an advisor in the minor and should contact the department directly to have an advisor assigned if they do not already have one. All minors should work closely with their advisor in discussing career expectations, choosing their minor electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Minor:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Minor Courses</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>FAS 110</td>
<td>Two-Dimensional Design</td>
<td>3</td>
<td></td>
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<tr>
<td>FAS 120</td>
<td>Drawing I</td>
<td>3</td>
<td></td>
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<tr>
<td>FAS 130</td>
<td>Three-Dimensional Design</td>
<td>3</td>
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<tr>
<td>FAS 131</td>
<td>Sculpture I</td>
<td>3</td>
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<tr>
<td>FAS 140</td>
<td>Introduction to Still Photography</td>
<td>3</td>
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<tr>
<td>FAS 141</td>
<td>Digital Photography</td>
<td>3</td>
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<tr>
<td>FAS 142</td>
<td>Travel Photography</td>
<td>3</td>
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<tr>
<td>FAS 150</td>
<td>Color</td>
<td>3</td>
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<tr>
<td>FAS 160</td>
<td>Printmaking I</td>
<td>3</td>
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<tr>
<td>FAS 161</td>
<td>Experimental Printmaking Techniques</td>
<td>3</td>
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<tr>
<td>FAS 162</td>
<td>Monotype Techniques</td>
<td>3</td>
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<tr>
<td>FAS 170</td>
<td>Painting I</td>
<td>3</td>
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<tr>
<td>FAS 220</td>
<td>Drawing II</td>
<td>3</td>
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<tr>
<td>FAS 222</td>
<td>Figure Drawing I</td>
<td>3</td>
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<tr>
<td>FAS 250</td>
<td>Studio Art Capstone</td>
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<tr>
<td>FAS 260</td>
<td>Printmaking II</td>
<td>3</td>
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<tr>
<td>FAS 270</td>
<td>Painting II</td>
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<tr>
<td>FAS 271</td>
<td>Landscape Painting</td>
<td>3</td>
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<tr>
<td>FAS 499</td>
<td>Independent Study in Studio Art</td>
<td>3</td>
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</tbody>
</table>
Studio Art Courses
2011-2013

FAS 110 Two-Dimensional Design
Investigation of the formal elements and principles of design in two dimensions. Hands-on studio environment with computer-based assignments will involve students in practical and creative solutions to design problems. (Field 3)

FAS 120 Drawing I
Investigation of the formal, material and historical fundamentals of drawing. Exercises with dry and wet media progress through perceptual rendering, collage, narrative and imaginative drawing. (Field 3)

FAS 130 Three-Dimensional Design
Investigation of the formal elements and principles of design in three dimensions and their relationship with the space they occupy. Particular emphasis is placed on material and presentation. (Field 3)

FAS 131 Sculpture I
Emphasis on traditional techniques. Assignments cover specific materials (plaster, wood, styrofoam, metal, paper) and particular techniques (armature construction, wood working, riveting, mold making, papier mache). (Field 3) Prerequisite: 3D Design or portfolio review by instructor.

FAS 140 Introduction to Still Photography
Basic techniques of photography explored through the use of 35mm cameras and film. Emphasis on the development of black and white film and the visualization process of taking pictures. Prerequisite: 35mm camera with manual controls. (Field 3)

FAS 141 Digital Photography
Review basic photo skills as they relate to the operation of digital cameras. Students are introduced to the digital workflow using Photoshop to develop a personal style that is reflected in a printed and digital portfolio. Prerequisites: No prior photo experience, students must have a D-SLR camera (digital single lens reflex camera) (Field 3)

FAS 142 Travel Photography
Learn how to navigate location shoots and capture the spirit of the specific culture in front of you. Find the right location shots, maximize the light situations regardless of climate or time of day and learn proper ethical behavior for photojournalists. Review basic camera operations for both film and digital picture taking. (Field 3)

FAS 150 Color
Combines in-depth color theory with actual design and composition making learned through traditional studio set-ups and contemporary computer applications. (Field 3)

FAS 160 Printmaking I
Introduction to the history and processes of basic printmaking including relief printing, monoprints, pronto plate lithography, "image-on" intaglio and other photo-sensitive and non-toxic processes. Prerequisite: Drawing I or permission of instructor. (Field 3)

FAS 161 Experimental Printmaking Techniques
Introduces students to the history of printmaking as an art form. Students will explore alternative methods of mark-making and hand-printing without the use of toxic chemicals, acids or presses. This process incorporates drawing and design skills while exploring color relationships via the intrinsic nature of printmaking. (Field 3)

FAS 162 Monotype Techniques
Introduction to and concentration on monotype, a combination of printmaking and painting. This process utilizes drawing, painting and design skills. Prerequisite: Drawing I or permission of instructor. (Field 3)

FAS 170 Painting I
Investigation of the formal, material and historical fundamentals of painting. Exercises in watercolor and acrylic paint progress through grisaille, monochromatic, limited palette and full palette treatments of subject matters. (Field 3)

FAS 220 Drawing II
Deals with conceptual and perceptual issues of representation. Emphasis is on finding a more personal and creative vision. Artwork, readings, gallery visits, critiques and discussions included. Prerequisites: Drawing I. (Field 3)

FAS 222 Figure Drawing I
In-depth work with human figure as primary subject matter. Students work from model for half the semester. Emphasis on anatomical structures and expressive use of figure in composition-making. Work in range of media. Students also work on independent, personal projects using figure. (Field 3)

FAS 231 Clay Studio
Course emphasizes the basic process of clay modeling and mold making in plaster. Beginning with hand-built sculptural forms, students progress to realistic clay modeling that will be completed by making a mold and casting in plaster. (Field 3)

FAS 240 Color Photography
Explores the basic concepts and techniques of color photography using both traditional silver-based media and the digital studio. Prerequisites: Intro Photo or approval of instructor, digital or 35 mm. camera w/ manual controls. (Field 3)

FAS 241 Intermediate Photography
In-depth study of advanced digital photographic workflow including color management, visual interpretation of the digital negative and the application of artificial light in the studio and field. Prerequisite: Intro Photo or portfolio review with instructor, 35mm digital single lens reflex camera with manual controls. (Field 3)

FAS 250 Studio Art Capstone
Studio art minor will culminate in a final project devised by each student individually to be presented as a portfolio or gallery exhibit. Critique will be a major focus, through presentation and written evaluation of peer work. Students will develop a project of their own choice based on individual necessity and be largely self-directed. Prerequisites: must be a studio art minor nearing graduation, have completed FAS 110, FAS 120 and FAS 130 and permission of instructor.
FAS 260 Printmaking II
A continuation of printmaking processes learned in Printmaking I. Students experience a more self-guided studio environment where they are expected to build upon the techniques and processes learned in Printmaking I and expand on them in the form of practice and experimentation. Personal style and conceptual direction begin to develop alongside process. Prerequisite: Printmaking I (Field 3)

FAS 270 Painting II
Students consider further technical and conceptual issues of representation and abstraction. Goal is a more personal and creative vision. Artwork, readings, gallery visits, critiques and discussions included. Prerequisites: 2D Design and Painting I (Field 3)

FAS 271 Landscape Painting
Photo-based and open air painting will be the focus of this course. Students will also consider critical issues and trends in landscape painting and representation. Issues will include urban vs. natural scenes, panoramic and close-up composition making, and imagined, abstracted and perceptually observed subject matter. Prerequisite: 2D Design, Drawing I or Painting I preferred (Field 3)

FAS 322 Figure Drawing II
Further work with human figure as primary subject matter. Students work from model for half the semester. Review anatomical structures and continue with expressive use of figure in composition-making. Work in range of media. Students also work on independent, personal projects using figure. Prerequisite: Figure Drawing I (Field 3)

FAS 499 Independent Study in Studio Art
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean.
Dance Minor

Director: Heidi Halt

Introduction:
The dance minor at Canisius College is open to students of all levels of experience, from beginner to advanced, and provides a solid foundation in dance through the development of technical and performance skills. Courses are offered in technique, performance, choreography and dance history. Please see the website for a more detailed description of the program at http://www.canisius.edu/finearts/dance.asp

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in the minor.

Advisement:
Students should consult Heidi Halt, Dance Program Director, for advisement.

Curricular Requirements for the Minor:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Minors:
The main focus of the minor is ballet, and studio classes are also offered in modern Dance and Pilates. Courses are taught by professional dance faculty from the acclaimed Neglia Conservatory of Ballet of Buffalo, which is recognized for its high level of classical training.

The following courses are required for the completion of the dance minor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FAD 101</td>
<td>Ballet 1</td>
<td>3</td>
</tr>
<tr>
<td>FAD 102</td>
<td>Ballet 2</td>
<td>3</td>
</tr>
<tr>
<td>FAD 201</td>
<td>Ballet 3</td>
<td>3</td>
</tr>
<tr>
<td>FAD 110</td>
<td>Modern 1</td>
<td>3</td>
</tr>
<tr>
<td>FAD 120</td>
<td>Dance Appreciation</td>
<td>3</td>
</tr>
</tbody>
</table>

One FAD Elective:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAD 105</td>
<td>Pilates</td>
<td>3</td>
</tr>
<tr>
<td>FAD 111</td>
<td>Modern 2</td>
<td>3</td>
</tr>
<tr>
<td>FAD 202</td>
<td>Ballet 4</td>
<td>3</td>
</tr>
<tr>
<td>FAD 210</td>
<td>Choreography 1</td>
<td>3</td>
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<td>or</td>
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<td></td>
</tr>
<tr>
<td>FAD 320</td>
<td>Ballet Repertory</td>
<td>3</td>
</tr>
</tbody>
</table>

With permission of the instructor, students with previous dance experience can test out of one or more required courses, substituting an equal number of FAD electives.

Note:
Studio training and performance take place at Neglia Ballet Studios in Buffalo and Canisius College provides shuttle service to the site as needed.

Audition opportunities are available for advanced students to participate in professional performances presented by Neglia Ballet Artists, the affiliated professional ballet company of the Neglia Conservatory of Ballet. Formed in 1994 by Sergio Neglia and Heidi Halt, the Neglia Conservatory of Ballet identifies and develops young ballet talent throughout the region. It is recognized for its high level of classical training, and many students go on to careers with such dance companies as the American Repertory Ballet, Colorado Ballet, North Carolina Dance Theatre, Pittsburgh Ballet Theatre and Richmond Ballet in Virginia. For more information on Neglia Ballet visit www.negliaballet.org.
Dance Courses
2011 -2013

FAD 101 Ballet 1
This class is a beginning level ballet technique course for students with little or no previous balletic experience. Emphasis will be on correct placement, body alignment and beginning principles of epaulement. The class will consist of barre work, center floor work and traveling through space; observing dance; and learning terminology.

FAD 102 Ballet 2
This class is a continuation of the beginning level ballet technique course for students with some previous balletic experience. The class will consist of barre work, center floor work and traveling through space; observing dance; and learning terminology. (Prerequisite: FAD 101 or permission of instructor)

FAD 105 Pilates®
This class is a beginning level course in the Pilates® method of body conditioning. It is a specialized exercise program that improves muscle control, flexibility, strength and conditioning, allowing for the body to move more efficiently.

FAD 110 Modern 1
This class is a beginning level modern dance class. It will consist of warm-up, center floor work and traveling through space; observing dance; learning vocabulary and terminology.

FAD 111 Modern 2
This class is a beginning/intermediate level modern dance class. It will consist of warm-up, center floor work and traveling through space; observing dance; learning vocabulary and terminology. (Prerequisite: FAD 110 or permission of instructor)

FAD 120 Dance Appreciation
This course is designed to acquaint the student with basic movement principles and historical aspects in the realm of western concert dance. Students will examine the different eras of ballet throughout history and have the opportunity to physically explore the established ballet vocabulary and other influential movement styles.

FAD 201 Ballet 3
This class is an intermediate level ballet course for students with previous training. Continued emphasis will be placed on correct placement, body alignment, epaulement and expanding movement vocabulary. The class will consist of barre work, center floor work and traveling through space; observing dance; and learning terminology. (Prerequisite: FAD 102 or permission of instructor)

FAD 202 Ballet 4
This class is a continuation of intermediate level ballet course. The class will consist of warm-up, center floor work and traveling through space; observing dance; and learning terminology. (Prerequisite: FAD 201)

FAD 210 Choreography 1
This class is a beginning level choreography course with an emphasis on combining movements and shaping movement phrases to develop solos and group pieces. Students will explore rhythm, musical phrasing, dynamics and the use of space. Basic types of theme and variation, repetition and canon will be introduced. (Prerequisite: FAD 102 or permission of instructor)

FAD 320 Ballet Repertory
This course is for students who have an advanced level of ballet technique. It emphasizes strong technique as well as artistry. Students perform roles in the Neglia Ballet Artists productions with professional dancers. Additional rehearsal hours required. (audition required)
Health and Wellness

Introduction:
The major will provide a bachelor of science degree that will allow graduates the opportunity to be employed in facilities offering personal health and fitness programs ranging from health clubs and corporate fitness/wellness to physician-based wellness programs. Student eligibility for certification through organizations such as the American College of Sports Medicine, National Academy of Sports Medicine, National Strength and Conditioning Association, and American Council on Exercise will be available following completion of the degree. Graduates of the program may also qualify for management positions within these facilities with an additional business background.

Many students in health and exercise-related fields go on to graduate school. Students in this major may take electives to meet competitive admissions requirements for graduate programs in related fields. Additionally, a minor in an area such as business could allow the student to pursue management positions in the fitness industry or lead them into areas related to sport administration. Through the use of guided electives, students will have the ability to complete pre-requisites for other health care professions. Examples include professions such as physical therapy, chiropractic, physicians assistant, and for an exceptional few medical school.

Admission to these programs is extremely competitive and requires a strong academic record and standardized test results and many also expect evidence of leadership, service/volunteerism, written and oral communication skills and a working knowledge of the health profession. Students must work closely with the Canisius College Pre-Med director for advisement and the professional school of interest to determine the curriculum electives needed to satisfy necessary prerequisites.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/hw/

Goals:
http://www.canisius.edu/hw/#courses

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Health and Wellness. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All Health and Wellness majors should have an advisor and should contact the Department of Kinesiology directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Students interested in graduate work in a pre-professional program (Physical Therapy, Chiropractic, Occupational Therapy, Physicians Assistant, etc) should seek advisement through the Canisius College Pre-Med director in addition to the major advisor.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Major Courses</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 114/L</td>
<td>Human Biology: An Introduction to Anatomy and Physiology</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIO 115/L</td>
<td>Musculoskeletal Anatomy and Physiology</td>
<td>4</td>
<td></td>
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<tr>
<td>ATH 170</td>
<td>Emergency Care (3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HED 205</td>
<td>Wellness and Fitness (3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HHP 235</td>
<td>Kinesiology (3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HED 115</td>
<td>Basic Nutrition (3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology I (3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY 102</td>
<td>Introduction to Psychology II (3)</td>
<td>3</td>
<td></td>
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<tr>
<td>HED 220</td>
<td>Healthy Behaviors (3)</td>
<td>3</td>
<td></td>
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<tr>
<td>HHP 336/L</td>
<td>Physiology of Exercise (4)</td>
<td>4</td>
<td></td>
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<tr>
<td>HED 337</td>
<td>Exercise Principles (3)</td>
<td>3</td>
<td></td>
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<tr>
<td>HED 425</td>
<td>Evolution of Disease and Illness (3)</td>
<td>3</td>
<td></td>
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<tr>
<td>ATH 398</td>
<td>Statistics and Research Design (3)</td>
<td>3</td>
<td></td>
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<tr>
<td>HHP 350</td>
<td>Organization and Administration of Health and Wellness (3)</td>
<td>3</td>
<td></td>
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<tr>
<td>HHP 420</td>
<td>Exercise Testing and Prescription (3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HHP 498</td>
<td>Internship in Health and Wellness (3)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Dual Majors:
Health and Wellness students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. The Health and Wellness major may be combined with another major, such as athletic training or marketing. A plan of study must be devised as early as possible with an academic advisor in the chosen majors.

Before Health and Wellness students declare dual majors, it is important to meet with their academic advisor. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Health and Wellness students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Note: Health and Wellness students cannot declare the Health and Human Performance minor.

## Additional Course Considerations:
Health and Wellness majors should consult their advisor for additional course considerations.

<table>
<thead>
<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR</td>
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<tr>
<td>------</td>
</tr>
<tr>
<td>Freshman</td>
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</tbody>
</table>

## COURSES 2011 - 2013

**ATH 170 Emergency Care and Introduction to Athletic Training**
Recognition and immediate care of common illnesses and injuries. Content meets National Safety Council requirements for Standard First Aid and CPR. Fall

**ATH 398 Statistics and Research Design for Athletic Trainers**
Review of statistical interpretation of literature and the development of research design techniques as related to evidence-based practice. Includes the use of statistical software, development of research skills to conduct a scientific study related to athletic training and the creation and presentation of a research poster. Prerequisite: HHP 235 with a grade of C or above. Spring

**HED 115 Basic Nutrition**
This course will address all aspects of proper nutrition. The class will address material such as macronutrients, micronutrients, daily caloric intake and portion sizes. Students will gain knowledge of nutrition through class lectures, interactive activities and peer presentations. Upon successful completion of the course, students will have a working knowledge of proper nutrition and appropriate dietary habits. Fall/Spring
HED 205 Wellness and Fitness
Lecture and laboratory. Skills, teaching methods, resource units, evaluative instruments, teaching aids, leading to an overall understanding of the principles of health and wellness. Focus on physical fitness testing for childhood, childhood obesity and the development of a personal fitness program. Fall/Spring

HED 220 Healthy Behaviors
Examines health determinants and the effects on all seven dimensions of health. Assessment of personal lifestyle behaviors and factors influencing current and relevant health issues. Emphasis on personal behavior modification to practice health-enhancing behaviors and to reduce health risks. Guidelines for healthy practices related to nutrition, mental health, cancer prevention, HIV/STDs, cardiovascular disease, stress management, sexuality, physical fitness, drugs and alcohol and relationships. Establishes foundation for living healthy and productive lives. Fall/Spring

HED 337 Exercise Principles and Applications
This course will address the many aspects of fitness and exercise. Students will experience classroom lecture as well as practical experience in the weight room and other alternative exercise facilities. Students will gain experience in the proper design of exercise programs and will understand the importance of periodization as it relates to exercise. Upon successful completion of this course, the student will have a vast knowledge of the principles surrounding strength and conditioning. Prerequisites: BIO 114/L with a grade of C or above. Fall/Spring

HED 425 Evolution of Disease and Illness
Overview of humanity's triumphs and failures in the ongoing fight against illness and disease. Explores history of disease, current health issues and trends to determine outlook for emerging health concerns of the future. Examines various models of disease to explain disease agents and route of transmission throughout the body's systems. Analysis of disease occurrence, predisposing factors, body's immune response, symptoms, prevention, treatment and control. Fall/Spring

HHP 235 Kinesiology
Scientific study of human movement, emphasizing the basic principles of musculoskeletal anatomy, neuromuscular physiology and biomechanics. Prerequisite: BIO 114 with a grade of C or above. Fall, Spring, Summer

HHP 336 Physiology of Exercise
Effects of physical activity upon the functioning human body. Restrictions on levels of physical activity by normal metabolic limitations. Lab required (HHP 336L) for Athletic Training majors. Prerequisite: BIO 108 with a minimum grade of C. Summer, Fall

HHP 336L Physiology of Exercise Lab
Laboratory experiences in physiology of exercise. Lab required (HHP 336L) for Athletic Training and Health and Wellness majors. Prerequisite: Concurrent registration in HHP 336. Summer, Fall

HHP 337 Research in Physiology of Exercise
Laboratory experiences in physiology of exercise. Lab required (HHP 336L) for Athletic Training and Health and Wellness majors. Prerequisite: Concurrent registration in HHP 336. Permission of instructor. Summer, Fall

HHP 350 Organization and Administration of Health and Wellness
Organization and administration of health and wellness programs. Basic theories and philosophies of administration, along with the duties, functions and processes as related to problems and practices in health and wellness facilities.

HHP 420 Exercise Testing and Prescription
Required for HHP minors. Instruction in the guidelines for exercise testing and prescription. Didactic instruction and practical training will be used to educate students in the various methodologies and competencies required to safely assess adult health and fitness. Practical experiences include the assessment of cardiovascular risk, coronary artery disease risk stratification, body composition assessment, functional capacity assessment and muscular fitness assessment. Prerequisite: HHP 337 with a grade of C or above or HHP 336 and HHP 336L with a grade of C or above. Summer, Fall

HHP 498 Internship in Health and Wellness
Field-based experience in a health and wellness related field. Requires 150 clock hours over twelve weeks. Prerequisites: HHP 350 with a grade of C or above or HHP 420 with a grade of C or above; Instructor Signature, application. Summer, Fall, Spring

HHP 336 Physiology of Exercise
Effects of physical activity upon the functioning human body. Restrictions upon levels of physical activity by normal metabolic limitations. Lab required (HHP 336L) for Athletic Training majors. Prerequisite: BIO 108 with a minimum grade of C. Summer, Fall

HHP 336L Physiology of Exercise Lab
Laboratory experiences in physiology of exercise. Lab required (HHP 336L) for Athletic Training and Health and Wellness majors. Prerequisite: Concurrent registration in HHP 336. Summer, Fall

HHP 337 Research in Physiology of Exercise
Required for HHP Minors. This course may be substituted for HHP 336L. Laboratory experiences in physiology of exercise culminating in a scientifically based research report. Prerequisite: Concurrent-registration in HHP 336. Permission of instructor. Summer, Fall

HHP 420 Exercise Testing and Prescription
Required for HHP minors. Instruction in the guidelines for exercise testing and prescription. Didactic instruction and practical training will be used to educate students in the various methodologies and competencies required to safely assess adult health and fitness. Practical experiences include the assessment of cardiovascular risk, coronary artery disease risk stratification, body composition assessment, functional capacity assessment and muscular fitness assessment. Prerequisite: HHP 337 with a grade of C or above or HHP 336 and HHP 336L with a grade of C or above. Summer, Fall
History
Chair: Julie S. Gibert

Introduction:
Students of history see the past as a fascinating and constantly changing place. They explore the past and develop understanding of the process of change over time by carefully examining evidence relevant to the specific cultures, periods, and geographic regions that excite their interest.

History students at Canisius pursue their interests through a wide variety of courses ranging from the ancient to the modern periods, focusing on various geographical regions, and incorporating diverse political, social, economic, cultural, and intellectual themes. They learn that the historian’s craft is multifaceted, incorporating not only knowledge of particular events and people, but also skills in critical thinking and both expository and argumentative writing. By emphasizing those skills the study of history provides excellent preparation for careers in law, communications, journalism, library science, government service, teaching, and business.

Please refer to our website for a more detailed description of our program, faculty, and academic and co-curricular opportunities: http://www.canisius.edu/history/

Major Courses:
The history major consists of twelve three-credit courses, which must include:
- At least one course focusing on the period before 1800
- At least two courses in American history
- At least two courses in European history
- At least two courses in the history of Africa, Asia, or Latin America
- A course designated “‘Historian’s Craft” (HIS 401 – Introduction to Historical Research may be substituted)
- A course designated as a major capstone
- The thirty-six credit hours in history may not include more than 12 credit hours in 100-level courses, and must include 12 credit hours in 300-level courses. Ideally, students will satisfy the “Historian’s Craft” requirement before the end of the sophomore year.

Major Electives:
Courses at the 100 and 200 level assume no prior college-level study. They are introductory courses for the major, and satisfy Field 4 requirements in the Core Curriculum. 100-level courses are broad surveys which furnish students with a general knowledge of the history and traditions of various regions and periods. 200-level courses are somewhat more specific in approach, focusing on individual nations outside the United States, specific populations, or particular themes. Both 100- and 200-level courses provide the student with an intellectual and chronological framework for further historical study and for work in other disciplines.

Courses at the 300 and 400 level deal with a wide variety of specialized areas of historical inquiry. Some courses focus on major national or geographic areas, while others emphasize period, topical, thematic, or methodological approaches. These upper-level courses provide students with an opportunity for further development of their historical understanding as well as their skills in writing and critical thinking. They are appropriate for history majors and minors and for non-majors who have completed the Field 4 requirement and wish to continue their study of history at a more advanced level.

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 overall average to graduate with a degree in history. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All history majors should have an advisor in the department and should contact the chair directly to have an advisor assigned if they do not already have one. Students should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education.
These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.
History majors interested in teaching at the secondary level often pursue a dual major in history and Adolescent Education/Social Studies. Those interested in this option should consult with faculty members in both departments to coordinate the dual major. Alternatively, history majors may enter the teaching profession by pursuing a master's in education. Those interested in this “five year plan” should consult with their advisor in the department.

Minors:
The history minor complements majors in other academic departments by providing students with exposure to the study of history that is both comprehensive and intensive. The minor is appropriate for any student who enjoys and wants to pursue an interest in history. Students in related disciplines such as English, communications, modern languages, psychology, political science, philosophy, and religious studies, as well as students interested in law, may be especially interested in the history minor.

The history minor consists of seven three-credit courses:
Two or three 100-level courses
Four or five courses above the 100-level.
The seven courses must include:
• At least one course focusing on the period before 1800
• At least one course in American history
• At least one course in European history
• At least one course in the history of Africa, Asia, or Latin America

With the permission of the department chair, transfer students and students with an exceptional secondary background in history may be allowed to substitute upper-level courses for the 100-level requirement.
### HISTORY COURSES: 2011 - 2013

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 103</td>
<td>Greek History</td>
<td>3</td>
<td>See CLS 103 for course description. Fall</td>
</tr>
<tr>
<td>HIS 104</td>
<td>Roman History</td>
<td>3</td>
<td>See CLS 104 for course description. Spring</td>
</tr>
<tr>
<td>HIS 106</td>
<td>The Medieval World</td>
<td>3</td>
<td>The development of a distinctive European civilization between 500 and 1500. Emphasis on Europe's contacts and conflicts with the &quot;competing&quot; cultures of Byzantium and Islam. (Field 4, Global attribute) Spring and/or Fall.</td>
</tr>
<tr>
<td>HIS 107</td>
<td>History of Modern Europe to 1815</td>
<td>3</td>
<td>The major political, economic, social and intellectual currents in Western Civilization from 1500 to 1815. (Field 4, Global attribute) Fall and/or Spring.</td>
</tr>
<tr>
<td>HIS 108</td>
<td>History of Modern Europe since 1815</td>
<td>3</td>
<td>The major political, economic, social and intellectual currents in Western Civilization from 1815 to the present. (Field 4 Global attribute) Spring and/or Fall.</td>
</tr>
<tr>
<td>PSC 111</td>
<td>Western Political Tradition II</td>
<td>3</td>
<td>See PSC 111 for course description.</td>
</tr>
<tr>
<td>HIS 109</td>
<td>History of Asia to 1800</td>
<td>3</td>
<td>Comparative study of civilizations, cultures, religions and institutions of the Far East, and South Asia. (Field 4, Global attribute) Fall.</td>
</tr>
<tr>
<td>HIS 110</td>
<td>History of Asia since 1800</td>
<td>3</td>
<td>The various independence and revolutionary movements and their evolution into the modern nation-states of Asia. (Field 4, Global attribute) Spring and/or Fall.</td>
</tr>
<tr>
<td>HIS 123</td>
<td>History of the United States: The Colonial Period to Reconstruction</td>
<td>3</td>
<td>Introduction to major themes of American history through the Civil War including: the Columbian Exchange and colonization, American Revolution, paradox of freedom and slavery, emergence of a market economy, secession and Reconstruction (Field 4, Diversity attribute) Fall and/or Spring.</td>
</tr>
<tr>
<td>HIS 124</td>
<td>History of the United States: 1877 to the Present</td>
<td>3</td>
<td>Industrialization and urbanization of the United States with the accompanying social, economic and political problems; America's emergence as a major power in world affairs. (Field 4, Diversity attribute) Spring and/or Fall.</td>
</tr>
<tr>
<td>HIS 131</td>
<td>Latin American History to 1830</td>
<td>3</td>
<td>Pre-Columbian Indian civilizations. Conquest and colonization. Economy, society, and the Church. Eighteenth century reforms and independence. (Field 4, Global attribute) Fall.</td>
</tr>
<tr>
<td>HIS 132</td>
<td>Latin American History since 1830</td>
<td>3</td>
<td>Overview of economy and society. Upheavals and revolutions in Argentina, Brazil, Colombia, Cuba, Chile and Mexico (Field 4, Global attribute) Fall.</td>
</tr>
<tr>
<td>HIS 211</td>
<td>Women in the Western World</td>
<td>3</td>
<td>Comparative history of women in Europe, Britain and America from Renaissance to present. Deals with changing role of women in society, politics and the economy and on the development of feminism as an intellectual and political force. (Field 4, Global attribute) Fall and/or Spring.</td>
</tr>
<tr>
<td>HIS 212</td>
<td>Men and Ideas in History</td>
<td>3</td>
<td>Role of ideas in historical change. Relationship between the ideas of a particular period and the social, political and economic forces that helped to shape them. (Field 4, Global attribute) Fall and/or Spring.</td>
</tr>
<tr>
<td>HIS 213</td>
<td>Twentieth Century Europe</td>
<td>3</td>
<td>Major political, economic, social and intellectual currents in Europe since 1900. (Field 4, Global attribute) Fall and/or Spring.</td>
</tr>
<tr>
<td>HIS 226</td>
<td>History of Ireland</td>
<td>3</td>
<td>Examines political, social and cultural developments from medieval origins through invasion, conquest, colonization and finally independence from Great Britain. Special emphasis on the development of Irish nationalism and on the emergence of Eire as a modern European state. (Field 4, Global attribute) Not open to students who have taken HIS 227. Spring.</td>
</tr>
<tr>
<td>HIS 227</td>
<td>The Irish Story</td>
<td>3</td>
<td>Examines the evolution of Ireland as a state, a culture, and a society. Emphasis will be placed on the role of oral culture in Ireland through discussion of such topics as the tradition of craic, the political use of nationalist songs, the parliamentary rhetoric of Charles Parnell and Ian Paisley, and the preservation of the gaelacht. Course is primarily discussion-based; includes in-class debates and oral presentations as well as significant reading assignments and written work including mid-term and final examinations. (Field 4, Global and Oral Communications attributes) Not open to students who have taken HIS 226. Spring.</td>
</tr>
<tr>
<td>HIS 228</td>
<td>World War II in Films</td>
<td>3</td>
<td>A survey history of World War II using films to examine military, political, cultural and psychological dimensions of the war. Summer 2012.</td>
</tr>
<tr>
<td>HIS 229</td>
<td>The Violent Century in Films</td>
<td>3</td>
<td>The major events of the 20th century, including World Wars I and II, the Russian Revolution, the Great Depression, the rise of Fascism and the Vietnam War. (Field 4) Summer 2013.</td>
</tr>
<tr>
<td>HIS 230</td>
<td>The Holocaust in Historical Perspective</td>
<td>3</td>
<td>A historical survey of the Holocaust that places Nazi Germany’s campaign to exterminate European Jewry during World War II (1939-45) in a broader historical context by tracing the history of anti-Semitism from its origins in late antiquity to the emergence of racial anti-Semitism in the nineteenth and twentieth centuries. (Field 4, Global attribute) Fall and/or Spring.</td>
</tr>
<tr>
<td>HIS 231</td>
<td>The Holocaust in History and Literature</td>
<td>3</td>
<td>Offered in conjunction with a Study Tour to Holocaust Sites in Germany, the Czech Republic, and Poland, this course explores the moral and theological implications of the Holocaust by visiting the sites where the genocide against European Jewry actually occurred. Open only to students.</td>
</tr>
</tbody>
</table>

Note: **Field 4** attributes are as follows: **Global** indicates a course that provides broad knowledge across cultures and eras; **Diversity** indicates a course that explores the experiences of different groups; **Oral Communications** indicates a course that emphasizes oral communication skills.
who have had previous coursework in either the history or literature of the Holocaust. (Field 4) Spring 2013

HIS 234 The Atlantic World: Contact, Colonization, and Commerce 3
Class examines the conflicts and cooperations of peoples living around the Atlantic Ocean between the 15th century and the 19th century, focusing especially on explorations and discoveries, colonization efforts and ideologies, the evolution of religious and racial identities, and the development of vast trade and commercial networks (including that of the slave trade). (Field 4)

HIS 235 From Jamestown to Yorktown: Making the United States 3
Explores the political, economic, social, and cultural stories of North America from the era of pre-European contact through the settlement of the English colonies in the seventeenth and eighteenth centuries to the “revolutions” of the late seventeenth century, including the period of the American Revolution. (Field 4, Diversity attribute)

Class focuses on the story of American history from the end of the Revolutionary War to the end of the American Civil War, especially examining political, economic, social, and cultural issues. (Field 4)

HIS 240 Women in American History, Colonial Times to 1880 3
This course explores the historical experiences of American women from colonial times through Reconstruction with attention to how the intersections of class, race and ethnicity affected women’s lives. It examines themes such as work, religion, family, law, slavery, citizenship, migration and immigration. (Field 4)

HIS 241 Women in American History, 1880 to the Present 3
This course explores the historical experiences of American women between 1880 and the present with attention to how the intersections of class, race, ethnicity, and sexuality affected women’s public and private lives. Special attention is paid to the themes of work, politics, citizenship and domestic life. (Field 4, Diversity attribute)

HIS 242 The Family in American History 3
This course explores the social history of American families from colonial times to the present. By looking at the experiences of a variety of families – colonial Puritan, slave, middle-class Victorian, frontier, immigrant, 20th century suburbanite — it examines themes such as work, childhood, marriage and gender roles. (Field 4, Diversity attribute)

HIS 248 The War of 1812 3
This course concentrates on the nature of American society before the War of 1812; the political, ideological, and social origins of the conflict; the course of the War of 1812; and its lasting political, economic, cultural and social consequences. (Field 4)

HIS 251 Sports in America 3
Investigates sporting endeavors from informal folk games to today’s multi-billion dollar entertainment industry. Looks at the decline of amateurism, use of steroids, and practice of stadium welfare, as well as how America’s sporting culture has shaped society and been influenced by industrialization, urbanization, and commercialization. (Field 4)

HIS 254 First Peoples 3
The story of the first peoples of the Americas from their initial appearance 20,000 years ago down to the present, with a special emphasis on native North America. Includes a survey of the histories and cultures of the indigenous peoples of the Americas, employing the latest findings from archaeology, anthropology, genetics, ethno botany as well as history. (Field 4, Diversity attribute)

HIS 259 Environmental History of the United States 3
The evolving relationship between humans and the natural world. Topics include the ecological implications of the arrival of African and European peoples, westward expansion, roots and impacts of industrialization, the industrialization of agriculture, the increasingly complex built environment, the effects of mass consumption, and the growth of ecological consciousness. (Field 4)

HIS 260 Canada and the World 3
A survey of Canada’s place in world history from the colonial period to the present. Among the topics examined are Native-Canadians, the British-French rivalry for North America, Canada’s emergence as a nation within the British empire, Canada-US relations and the modern multicultural Canadian state (Field 4)

HIS 263 Wars of Latin America 3
Wars of independence and major conflicts of the nineteenth century. Military history of Mexican, Cuban and Nicaraguan revolutions. Border clashes and guerilla insurgencies of the twentieth century. Argentina’s war with England. (Field 4, Global attribute)

HIS 280 The Making of Modern Africa 3
Development of modern Africa from the diverse societies of pre-colonial Africa through the impact of imperialism to an examination of the problems facing modern African states. (Field 4, Global attribute)

HIS 290-299: “Historian’s Craft” 3
These courses are designed to introduce students systematically to the analysis of historical texts, the standards of historical writing, and the methods of historical research while exploring specific topics of historical interest. Topics vary each semester; at least one course in this category will be offered each semester.

HIS 291 The Historian’s Craft: Irish Nationalism 3
Examines nationalism as a political and cultural force in modern Irish history. Topics include the emergence of nationalist groups and heroes, the role of myth and memory, the establishment of an independent Irish Republic, and consideration of how Irish identity has been shaped by relations with Britain, with Europe, and with Irish communities around the world. (Writing Intensive attribute)

HIS 293 Historian’s Craft: World War II in the USSR and China 3
Examines the major battles and how Soviet and Chinese citizens adapted to wartime situations. Students will investigate the imperialistic goals
and occupation policies of Nazi Germany and Imperial Japan. (Writing Intensive attribute)

**HIS 298 Historian’s Craft: Radicalism, Enthusiasm, and History in Early America** 3

Course introduces students to the analysis of historical texts, the standards of historical writing, and the methods of historical research through an exploration of the eighteenth-century religious movements often known as the “First Great Awakening.” (Writing Intensive attribute)

**HIS 299 Historian’s Craft: China and the Silk Road** 3

The globalization of Chinese civilization through the Silk Road, which connected Eurasia for over 2000 years. The course will encourage reading and writing from a variety of sources to broaden and deepen students’ understanding of the historical process and its analysis. (Writing Intensive attribute)

**HIS 300 Historical Geography** 3

Examines the interaction between the historical process and human, physical and cultural geography. Required for dual major in history and social studies education. Fall 2011, Spring 2013

**CLS 300 Roman Law and Society** 3

See CLS 300 for course description

**CLS 301 Age of Cicero** 3

See CLS 301 for course description

**CLS 308 Pagans and Christians** 3

See CLS 308 for course description

**CLS 311 Alexander the Great** 3

See CLS 311 for course description

**CLS 312 The Greek Enlightenment** 3

See CLS 312 for course description

**HIS 302 A Life in the Colonial Atlantic World** 3

Investigates the story of the colonial Atlantic world through the life and experiences of one of America’s founding fathers, such as the philosopher-theologian Jonathan Edwards, focusing on the early modern European context of which most colonists were heirs, the founding of the New England colonies in the 17th century, the transformation of these colonies in the expanding Atlantic world of the 18th. century, and legacies in the age of the American Revolution and the early 19th century. (Writing Intensive attribute)

**HIS 305 Race in Early America** 3

Class focuses on “race” in early America (from exploration and contact of the sixteenth and seventeenth centuries to the mid-nineteenth century), concentrating on the interactions of Americans of various ethnicities and colors, the social, economic, religious, and cultural implications of these actions, and the development and evolution of racial identities as a result of such contact.

**HIS 306 The American Religious Experience** 3

Overview of major thoughts, movements and personalities of American Religious History from colonial era to present. Catholicism used as a model, focusing on themes of immigration and Americanization as central to understanding religious landscape of the U.S. (Field 1)

**RST 325 Early Christianity** 3

See RST 325 for course description

**RST 327 Modern Global Christianity** 3

See RST 327 for course description

**HIS 309 World War I** 3

A study of the origins, conduct and aftermath of the Great War from a global perspective. Emphasis on the diplomatic, social and military aspects of the War.

**HIS 315 The Renaissance** 3

This course examines the intellectual and cultural ferment, court society, politics, commercial activity and daily experiences of Renaissance Europe. We will also consider how the Renaissance, which took root in the Italian states, found distinctive expression throughout Europe.

**HIS 316 Reformation Europe** 3

The Reformation from Luther to the 30 Years War. (Field 1)

**HIS 319 The Enlightenment** 3

Intellectual, cultural and social history of 18th century enlightenment with specific emphasis on Voltaire, Diderot, Montesquieu and Rousseau.

**HIS 320 The French Revolution and Napoleon** 3

The transformation of aristocratic Europe into a modern society controlled by a bourgeoisie and oriented toward scientific and industrial progress.

**HIS 331 Britain’s Monarchy** 3

The history of Britain’s monarchy from the end of the middle ages to the present. Emphasis on the transformation of the monarchy from the center of government in the sixteenth and seventeenth centuries to a largely symbolic, even vestigial constitutional mechanism in the twenty-first. (Oral Communication Attribute)

**HIS332 Medieval and Early Modern England** 3

Growth of English society and government from 1154 to 1688. Topics include the evolution of parliamentary government and the social effects of reformation and revolution.

**HIS 333 Britain in an Age of Revolution** 3

Social and political history of eighteenth century Britain. Emphasis on responses to the American, French and Industrial revolutions.

**HIS 334 Britain in the Age of Victoria** 3

Social and political history of 19th-century Britain. Topics include the transition from rural to urban society, the evolution from aristocratic to democratic politics, and the emergence of characteristically ‘Victorian’ social and cultural patterns.

**HIS 335 Britain in the Era of Total War** 3

Social and political history of Britain from 1901 to the present. Topics include the impact of two world wars, the loss of Empire and Britain’s changing relationship with Europe. Emphasis on Britain’s transition from a hierarchical society to a theoretically classless one, and from a
United Kingdom defined by “Englishness” to one which is multinational and multiethnic.

HIS 336 Modern Mexico 3

HIS 337 The History of Globalization 3
A survey of the cultural, institutional, economic and historical origins and nature of today's global economy. (Justice attribute)

HIS 338 Britain's Empire 3
The growth and character of the British Empire from 17th century throughout the 20th. Emphasis in social, cultural and political impact of colonization and decolonization in such regions as India, Africa, the Caribbean and Australia.

HIS 339 Nazi Germany, World War II and the Holocaust, 1933-45 3
An intensive study of the Third Reich from Hitler's appointment as chancellor in 1933 to the defeat of Nazi Germany in 1945. Course will focus on the political, diplomatic and military history of the Third Reich with special attention on the mass murder of European Jewry.

HIS 342 The Cold War: Views from the Other Side of the Iron Curtain 3
In 1946 Winston Churchill proclaimed that an "Iron Curtain" had fallen across Europe, dividing the world into two hostile camps – the "freedom-loving West," and the "Totalitarian East." This course examines the history of the Cold War from the Soviet-Dominated side of the Iron Curtain, focusing on events such as the arms race, the Cuban Missile Crisis, and the war in Afghanistan.

HIS 344 Imperial Russia 3
This course examines the history of the Russian Empire from the time of Ivan the Terrible to the fall of the Romanovs in 1917. It traces the political, social, and cultural history of Russia during this period, focusing on the expansion of empire, intellectual debates about Russia's place in the world, and the development of the Russian revolutionary movement.

HIS 345 Twentieth Century Russia 3
In October, 1917, the Bolsheviks led a Communist Revolution in Russia and created the world's first socialist state, which quickly developed into an industrial giant and world superpower. This course examines this development, focusing on Russia's revolutionary movement, Stalinism, the Cold War, and the fall of Communism (and the consequence of the fall) in the early 1990s.

HIS 346 The Age of European Fascism, 1919-1945 3
A comparative analysis of fascist movements and regimes in Europe between the two world wars with particular attention devoted to fascist Italy and Nazi Germany.

HIS 347 The History of Marxism 3
History of Marxism as an intellectual tradition, with emphasis on writings of Marx and Lenin, from the nineteenth to the twentieth century. (Field 2, Justice attribute)

HIS 348 Twentieth Century Marxism 3
Examines the history of Marxist thought from the beginning of the 20th century to the collapse of the Communist regimes in central and eastern Europe in the turmoil of the early 1990s. (Field 2, Ethics attribute)

HIS 350 Modern Eastern Europe 3
Examines the history of Central and Eastern Europe during the 19th and 20th centuries. Particular emphasis will be placed on the struggles for national independence leading up to WWI, the emergence of new nation-states during the interwar period, World War II in the East, the Stalinization of Eastern Europe after the war, and the fall of Communism in the late 1980s.

HIS 352 Cuban Revolution 3

HIS 355 Chinese Culture and Civilization before 1900 3
The course traces the roots of Chinese culture and civilization from the ancient period to the end of the Imperial era. Among the topics considered are Confucianism, the Dynastic cycle, and intellectual and scientific advances.

HIS 356 Twentieth Century China 3
Examines the evolution of Chinese society from the imperial era, through the world wars, the Communist Revolution and the re-emergence of China as a major economic and political power.

HIS 357 The Old South 3
Investigation of the American South from colonization to the Civil War. Special attention will be paid to those factors which seem to make the South a distinct region, especially the peculiar institution of slavery.

HIS 358 Traditional Japan 3
This course examines the roots of Japanese history and culture from ancient times. Among the topics studied are early Japanese religion and society, the court culture of the Heian era, Japanese feudalism and the transition to the modern world in the Tokugawa period.

HIS 359 History of Japan: 1868 – Present 3
Development of modern Japan from Restoration of 1868 to the present.

HIS 364 Technology in America 3
Exploring the history of technology in the United States from the nineteenth century until the rise of the popular Internet, this course examines technology development and use in the context of politics, culture, and social justice. (Justice attribute)

HIS 370 Murder & Madness in Modern America 3
Focuses on American murder cases and episodes of madness since 1900, including assassinations, ideological killings, serial killings, spree killings, contract murders, and garden variety household murders. Also looks
at how murderers have been punished and how murder stories have entertained American society.

HIS 371 Colonial America
Major themes, persons, developments, and issues of the history of early America, from approximately 1500 to 1763. The focus will be on the nature of North American and European societies before first contact; the settlement and nature of the English colonies in the Chesapeake, New England, the middle colonies, and the Carolinas; Indian and European contact and conflict in the seventeenth and eighteenth centuries; the "revolutions" of the late-seventeenth century; the growth and maturation of the colonial economy, society, and culture (including religion); and the eighteenth-century battle for empire.

HIS 372 American Revolution
Exploration of the political, social and constitutional issues in the era of American Independence. In particular we will try to answer the question, "Was the American Revolution truly revolutionary?"

HIS 382 New York State History
This course explores the history of New York State from the 18th through the 20th centuries. It examines the social, political, and cultural fabric of New York life in all its diversity and complexity.

HIS 383 The Gilded Age and the Progressive Era
This course explores American social, political and economic life from 1880 to 1920.

HIS 386 The Civil War Era
Covers the events leading up to the War, including abolitionism and Bleeding Kansas. There will also be an in-depth examination of the military strategies and tactics of the War as well as the process of modernization that War engendered. The course will conclude with an analysis of the successes and failures of Reconstruction.

HIS 387 Representations of the Holocaust in Film and Literature, Art and Music
A multi-disciplinary study of how the Holocaust has been represented in works of art, film, literature and music in Europe, America and Israel. Examines the literary works and first-person testimony of Holocaust survivors, as well as cinematic representations of the Holocaust from 1945 to the present. (Field 3, Ethics attribute)

HIS 390 Civil Rights Movement
Examines the African-American movement to end racial injustice. Focus is on dramatic events since World War II, black leaders and organizations, white allies, the Ku Klux Klan, and the federal government's response. The far-reaching impact and the legacy of the movement will be considered. (Justice attribute)

HIS 391 Immigration and Ethnicity in American History
This course explores the role that immigration has played in American social, political, economic, and cultural life from colonial times to the present. It examines the causes of mass immigration to the United States at different historical time and the formal and informal attempts to exclude/include immigrants in the fabric of American life.

HIS 394 Contemporary Middle East
History of Middle East from the last days of the Ottoman Empire through mandate system established by Versailles Peace Conference to struggle for independence during and after World War II.

HIS 401 Introduction to Historical Research
Methods of historical research and criticism, including consideration of basic bibliographical and reference works, note-taking, and evaluation of sources. Research paper required. Prerequisite: History honors students and others with permission of chair. Spring

HIS 402 Historiography
A study of the major historians of Western civilization, emphasizing the student's development of a meaningful personal philosophy of history. Prerequisite: History honors students and others with permission of chair. Fall

HIS 410 Senior Honors Colloquium
Reading course organized around central theme that varies from semester to semester. Deals with American and European history and occasionally with history of Third World. Satisfies requirement for graduation with departmental honors in history. Prerequisite: Consent of instructor or department chair. Spring

HIS 411 Seniors Honors Thesis
Research and writing of a thesis to satisfy requirements for graduation with Honors in History. Prerequisite: Consent of the instructor and/or permission of the chair. (Writing Intensive attribute) Fall

HIS 420 Food in History
Examines the always fundamental but constantly changing role of food in society from the medieval period to the present. Themes include changing relationships of power and class, the impact of trade and technology, and the process of economic and cultural globalization. (Core capstone) Fall 2012

HIS 421 Nature and the Arts of Angling, Restoration, and Contemplation
As an exercise in the genre of cultural history, this course is an introduction to the history, literary and cultural significance, and practice of fly fishing in America, as well as around the world. Students will also examine the religious themes and the “spiritualization” often attached to fly fishing, which have been expressed in some of the most loved writings in the English language. Students will additionally gain a basic knowledge of fly fishing and an understanding of the ecological, ethical, and justice-related issues surrounding the sport. (Core capstone) Spring 2012

HIS 440 The Holocaust in International Perspective
Explores the history of the Holocaust from the perspective of the international state system with specific emphasis on the place of the Holocaust in World War II and the responses of the international community, including the US and the Vatican, to Nazi genocide. (Core capstone)

HIS 450 America and the Holocaust
Explores the response of the United States to the Holocaust, the systematic extermination of an estimated ten to twelve million people, of whom six million were Jews, during World War II. It examines the implications of
the American response to the Holocaust for the inequities and prejudices
that remained at the core of American life in the mid-twentieth century.
(Core capstone) Fall 2011

HIS 460 The Life and Times of Theodore Roosevelt
Exploring the decades popularly known as the Gilded Age and Progressive
Era with special attention to Theodore Roosevelt, what he famously called
“the strenuous life,” and his efforts towards the achievement of a more just
economic and social order. Attention to Roosevelt's responses -- imperfect
as they were -- to domestic challenges including monopoly, labor unrest,
and conservation, and international crisis including the Spanish American
War and World War I. (Core capstone) Spring 2012

HIS 468 Reservation Experience
Students participate in cultural immersion programs on the Navajo, Hopi,
Crow, Northern Cheyenne, or Lakota Reservations, learning about native
history, culture, customs, and ceremonies. (Diversity attribute)

HIS 498 Internship
Internships may be arranged with a variety of organizations including
the Theodore Roosevelt Inaugural Site Foundation, the Buffalo and Erie
County Historical Society, and the Coloured Musicians Club museum.
Prerequisite: Consent of the instructor and permission of the chair and
associate dean.

HIS 499 Independent Study
Offers the opportunity to conduct a program of independent readings and/
or research on a topic of the student's choice under the supervision of a
member of the History Department. Prerequisite: Consent of instructor and
permission of chair and associate dean.
Humanities

The Humanities major includes those branches of learning that are concerned with human thought and experience in history, language and literature, philosophy, religious studies, fine arts and music. Its goal is to lead the student to appreciate those aspects of his or her own culture, as well as their relationship to the cultures of other times and places. Although the humanities major is not oriented toward a particular career, its emphasis on critical understanding and disciplined reflection prepares a student for later training in many fields of employment including law, government, journalism, teaching and human services.

HUMANITIES CURRICULUM:

Core Curriculum Requirements:
All students complete Core Curriculum requirements as part of their overall Canisius Education. These requirements can be found at: www.canisius.edu/academics/core/

<table>
<thead>
<tr>
<th>Major Courses</th>
<th>6</th>
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<tbody>
<tr>
<td>English:</td>
<td></td>
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<tr>
<td>Two 2 level courses plus</td>
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<tr>
<td>Two 300/400 level courses in a major literary genres</td>
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<tr>
<td>History:</td>
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<tr>
<td>Two 300/400 level courses</td>
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<tr>
<td>Philosophy:</td>
<td></td>
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<tr>
<td>Four 200/400 level courses</td>
<td>12</td>
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<tr>
<td>Religious Studies:</td>
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<tr>
<td>Two 300/400 level courses</td>
<td>6</td>
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<tr>
<td>Modern Language:</td>
<td></td>
</tr>
<tr>
<td>Two courses in Modern Language or Literature in Translation and/or Civilization</td>
<td>6</td>
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<tr>
<td>Humanities:</td>
<td></td>
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<tr>
<td>Two courses to be selected from Fine Arts, History, Music, Religious Studies, Philosophy 300 level</td>
<td>6</td>
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<tr>
<td>Concentration:</td>
<td></td>
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<tr>
<td>Three additional 300/400-level courses in one of the following departments: Fine Arts, English, History, Modern Language, Religious Studies, Philosophy</td>
<td>9</td>
</tr>
</tbody>
</table>

Free electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 60 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Associate of Arts Degree
The associate of arts degree in humanities program requires the completion of 60 credit hours of coursework. The program has two basic purposes: (1) It offers an immediate goal for students seeking a general introduction to the humanities (history, languages, literature, philosophy, religious studies, fine arts and music); and (2) It provides a basic foundation for those who wish to go on for a bachelor's degree.

The program contains a second track designed for the prospective business major. Students who plan baccalaureate studies in the future are encouraged to choose the track that fits their individual goals. If a student remains at Canisius College, all of the coursework in the associate degree program is transferable and applicable to the bachelor's program.

HUMANITIES CURRICULUM: (ASSOCIATE DEGREE):

Core Curriculum Requirements:
All students complete Core Curriculum requirements as part of their overall Canisius Education. These requirements can be found at: www.canisius.edu/academics/core/

<table>
<thead>
<tr>
<th>Major Courses</th>
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<tr>
<td>Major course requirements: (6 courses)</td>
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<tr>
<td>Humanities Track:</td>
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<tr>
<td>English: two 200 level courses</td>
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<tr>
<td>Religious Studies: two courses</td>
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<tr>
<td>Humanities: two courses to be selected from Fine Arts, English, History, Modern Language, Music, Religious Studies, Philosophy 300 level</td>
<td></td>
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<tr>
<td>Business Track:</td>
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<tr>
<td>Art and Literature: two courses</td>
<td></td>
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<tr>
<td>Religious Studies: two courses</td>
<td></td>
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<tr>
<td>Business Electives: two courses</td>
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</tbody>
</table>

Free electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 60 credit hours for graduation with an Associates degree.
Other Associate’s Degree Regulations
The basic residency requirements for A.A. degrees is 30 credit hours, at least 15 of which must be completed in traditional classroom situations. No more than 30 credits may be transferred from another institution. Not all courses at other institutions are applicable to the associate degree, and transfer students are required to have a transfer evaluation completed by the college registrar.

For more information contact the associate dean in the College of Arts and Sciences.
Information Systems

Chair: Gregory Wood

Introduction:
The information systems (IS) major provides students with a comprehensive perspective on the analysis, design and implementation of database management systems, Web-based applications and telecommunication and data networks. Students are well-trained in the design of information systems applications and networks, as well as in the functional areas of business which include accounting, marketing, management, finance and economics. The diverse curriculum gives students both management and technical skills they can apply in a variety of business environments.

Our graduates often assume entry level positions as systems analysts, telecommunications support specialists, network analysts, software engineers, security analysts, and technology consultants. In addition, many of our graduates find themselves in important management positions only a few years after graduation. Firms employing Canisius Information Systems graduates include The AIX Group, The Boston Consulting Group, Delaware North, FBI, GameStop, HSBC, M/E Engineering, M&T Bank, Rich Products, Synergy Global Solutions, Yahoo! and Ziphany. Some of our graduates are employed as high level managers with titles such as Director of Information Technology, VP of Information Technology, IS Manager, and Principle.

Canisius Information Systems graduates have received advanced degrees in such respected schools as Carnegie Mellon, George Washington, MIT, RIT, the State University of New York at Buffalo, and the University of Rochester.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/mcis/

Goals:
The Learning Goals for the Information Systems major can be found at: http://www.canisius.edu/assessment/wsb_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Information Systems. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one.

All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ISB 205</td>
<td>Management Software</td>
<td>3</td>
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<tr>
<td>ISB 211</td>
<td>Computer Programming for Business</td>
<td>3</td>
</tr>
<tr>
<td>ISB 340</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Telecommunications and Networking</td>
<td>3</td>
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<tr>
<td>ISB 455</td>
<td>E-Commerce and Website Design</td>
<td>3</td>
</tr>
<tr>
<td>ISB 475</td>
<td>Systems Analysis and Design</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td>ISB 302</td>
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<td>ISB 460</td>
<td>Computer Forensics</td>
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<td>ISB 470</td>
<td>Cyber Security</td>
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<td>ISB 471</td>
<td>Information Systems Topics</td>
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<tr>
<td>ISB 480</td>
<td>IT Project Management</td>
<td>3</td>
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Major Experiences:
Information Systems students take one or two courses as IS electives. Students also have at least one free elective. It is recommended that students use one elective as an IS Internship (ISB 496) since an internship is helpful to receive real-world experience and helps with career job placement.

Additional Course Considerations:
Students should take ISB 475 Systems Analysis and Design, the capstone course, in the Spring semester of their senior year.

Recommended Semester Schedule for Major Course Requirements

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<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<tr>
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<td>Sophomore</td>
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<td>ISB 205 (3)</td>
<td>ISB 211 (3)</td>
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<td>ECO 256 Stats 2 (3)</td>
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<tr>
<td>Field of Knowledge</td>
<td>ISB Elective</td>
<td></td>
</tr>
<tr>
<td>A and S Elective</td>
<td>ISB 475 (3) (Systems Capstone)</td>
<td></td>
</tr>
<tr>
<td>A and S Elective</td>
<td>Free Elective</td>
<td></td>
</tr>
<tr>
<td>A and S Elective</td>
<td>A and S Elective</td>
<td></td>
</tr>
</tbody>
</table>

1 Two semesters of language or approved regional studies HIS 107-108 History of Modern Europe to 1815 (3), History of Modern Europe Since 1815 (3), HIS 109-110 Western Political Traditions I (3), Western Political Traditions II (3), HIS 131-132 Latin American History to 1830 (3), Latin American History since 1830 (3).

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

### Minors 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 205</td>
<td>Management Software</td>
<td>3</td>
</tr>
<tr>
<td>ISB 211</td>
<td>Computer Programming for Business</td>
<td>3</td>
</tr>
<tr>
<td>ISB 340</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>ISB 302</td>
<td>System Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Telecommunications and Networking</td>
<td>3</td>
</tr>
<tr>
<td>ISB 455</td>
<td>E-Commerce and Web Design</td>
<td>3</td>
</tr>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 470</td>
<td>Cyber Security</td>
<td>3</td>
</tr>
<tr>
<td>ISB 480</td>
<td>IT Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**The IS Minor consists of five courses as follows:**

**Two Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 205</td>
<td>Management Software</td>
<td>3</td>
</tr>
<tr>
<td>ISB 211</td>
<td>Computer Programming for Business</td>
<td>3</td>
</tr>
<tr>
<td>ISB 340</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
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**Select 3 of the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 302</td>
<td>System Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Telecommunications and Networking</td>
<td>3</td>
</tr>
<tr>
<td>ISB 455</td>
<td>E-Commerce and Web Design</td>
<td>3</td>
</tr>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 470</td>
<td>Cyber Security</td>
<td>3</td>
</tr>
<tr>
<td>ISB 480</td>
<td>IT Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**The Inter-Disciplinary Minor in Computer Forensics consists of six courses:**

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 227</td>
<td>Criminal Justice I</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 228</td>
<td>Criminal Justice II</td>
<td>3</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Telecommunications and Networking</td>
<td>3</td>
</tr>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 470</td>
<td>Cyber Security</td>
<td>3</td>
</tr>
</tbody>
</table>

**An ethics course:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 370</td>
<td>Managerial Environment</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 482</td>
<td>Criminal Justice Ethics (SOC 482)</td>
<td>3</td>
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</tbody>
</table>
## INFORMATION SYSTEMS COURSES: 2011 - 2013

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ISB 101</td>
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<td>3</td>
</tr>
<tr>
<td>ISB 205</td>
<td>Management Software</td>
<td>3</td>
</tr>
<tr>
<td>ISB 211</td>
<td>Computer Programming for Business</td>
<td>3</td>
</tr>
<tr>
<td>ISB 302</td>
<td>System Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 340</td>
<td>Database Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Telecommunications and Networking</td>
<td>3</td>
</tr>
<tr>
<td>ISB 455</td>
<td>E-Commerce and Web Design</td>
<td>3</td>
</tr>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 470</td>
<td>Cyber Security</td>
<td>3</td>
</tr>
<tr>
<td>ISB 471</td>
<td>Information Systems Topics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 475</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>ISB 480</td>
<td>IT Project Management</td>
<td>3</td>
</tr>
<tr>
<td>ISB 496</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>ISB 499</td>
<td>Independent Study</td>
<td>3</td>
</tr>
</tbody>
</table>

**ISB 101 Management Technology**
Introduction to information systems, hardware and software; information systems concepts in business; telecommunications; Ecommerce; enterprise systems; ethics, crime and security. Hands-on development of business applications. **Fall and Spring**

**ISB 205 Management Software**
Project management using MS Project.; advanced data analysis and graphics with MS Access, database concepts and design, presentation graphics. **Fall**

**ISB 211 Computer Programming for Business**
Introduction to the Visual Basic programming language and fundamentals of software design. Database programming, interface design and general problem solving with an emphasis on business applications. Prerequisite: ISB 101. **Spring**

**ISB 302 System Dynamics**
An introduction to systems thinking and system dynamics. Uses tools and computer models to help solve interdisciplinary problems. Using computer-based models or virtual worlds, one can then test the consequences of actions before making actual decisions. Field 5 of Core Curriculum. **Spring**

**ISB 340 Database Management Systems**
Design and application of database management systems. Topics include structured query language (SQL), data structures, querying and report writing, database design and administration, data mining and security. Prerequisite: ISB 101 or equivalent. **Fall**

**ISB 350 Telecommunications and Networking**
Digital (data) and voice networks; network hardware, software and protocols. Wired and wireless communication. Prerequisite: ISB 101 or equivalent. **Fall**

**ISB 455 E-Commerce and Web Design**
Fundamentals of E-commerce applications and technologies. Interactive website and or consumer shopping e-commerce design and development. Prerequisite: ISB 340. **Spring**

**ISB 460 Computer Forensics**
Introducing forensics tools to investigate computers, networks, Internet activities, Email, cell phones and other digital media devices to recover electronic evidence, even if deleted. Skills to investigate crimes involving computers or Internet. Prerequisite: ISB 101 or equivalent. **Spring**

**ISB 470 Cyber Security**
Technical, legal and policy defenses to protect databases and information systems. Topics considered include intrusion detection, malware, host- and network-based vulnerabilities and countermeasures, database security, identity theft and privacy. Prerequisite: ISB 451. **Spring**

**ISB 471 Information Systems Topics**
The specific course coverage changes from semester to semester as new developments in IS arise. Timely and important topics in the Information Systems field that have been covered include Enterprise design, Java programming and IS security. **Spring**

**ISB 475 Systems Analysis and Design**
In-depth coverage of information systems development. Topics include the systems development life cycle, analysis methods, data flow diagramming, design tools, and project management techniques and concepts. Prerequisite: ISB 340, ISB 350, and senior standing. **Spring**

**ISB 480 IT Project Management**
Lab course using MS Project. Topics include managing risk, cost overruns, schedule delays and resource allocation of IT projects; meeting customer requirements; budgeting; successful teamwork; and political issues. **Spring**

**ISB 496 Internship**
**Fall and Spring**

**ISB 499 Independent Study**
**Fall and Spring**
International Business

Introduction:
Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/international-business/

Goals:
The Student Learning Goals and Objectives for the International Business Major can be found at this link: http://www.canisius.edu/assessment/wsb_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in International Business. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Students will also work with their advisor, the Program Director and the Associate Dean in designing their study abroad experience and transferring the courses back to Canisius. Revisions to the required course schedule will be made accordingly.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

| Recommended Semester Schedule for Major Course Requirements |
|--------------------|-------------------|-----------------|
| YEAR               | FALL SEMESTER     | SPRING SEMESTER |
| Freshman           |                   |                 |
| FY S 101 (3)       | ENG 101 (3)       |
| MAT 105 (3) OR MAT 115 (4) OR MAT 111 (4) | MAT 106 (3) or free elective if MAT 111 115/111 |
| ECO 101 MACRO (Social Sciences Field) (3) | MGT 101 (3) |
| Modern Language 215 | ECO 102 MICRO (3) |
| Field 4 History | Modern Language 216 |
| Sophomore          |                   |                 |
| PHI 101 (3)        | RST 101 (3)       |
| MKT 201 (3)        | FIN 201 (3)       |
| ACC 201 (3)        | ACC 202 (3)       |
| ISB 101 (3)        | Field of Knowledge |
| Field 6 Natural Sciences | ECO 255 STATS I (Mathematics Field) (3) |
| Junior             |                   |                 |
| IBUS 301 (3)       | MGT 472 (3)       |
| FIN 460 (3)        | MKT 475 (3)       |
| MGT 325 (3)        | MGT 370 (3)       |
| ECO 256 STATS II (3) | Field 1 Religious Studies |
| A and S Elective | A and S Elective |
| Senior             |                   |                 |
| IB Elective        | MGT 446 (3)       |
| IB Elective        | IB Elective       |
| Field 2 Philosophy | Core Capstone     |
| A and S Elective   | Free Elective     |
| Free Elective      | A and S Elective  |

MajorElectives:
Three additional approved International Business electives are required.

Major Experiences:
Study Abroad Requirement: all students are required to complete a study abroad experience. This usually takes the form of a semester abroad during the second semester of the junior year. Alternative programs during the summer are also available.

AdditionalCourseConsiderations:
Language Requirement: all students are required to complete a modern language sequence through the 216 level. It is not necessary that this language be the one spoken in the country in which the student studies abroad.

Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 301</td>
<td>Fundamentals of International Business</td>
<td>3</td>
</tr>
<tr>
<td>FIN 460</td>
<td>International Finance</td>
<td>3</td>
</tr>
<tr>
<td>MGT 472</td>
<td>Comparative Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>MKT 475</td>
<td>International Marketing</td>
<td>3</td>
</tr>
</tbody>
</table>
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

2011-2013 Courses

IBUS Core:
IBUS 301 Fundamentals of International Business 3
Study of the international dimensions of the basic functional areas of business. The course begins with a study of the comparative advantage of nations; progresses through the functional areas of accounting, finance, management and marketing; ending with the design of strategies for success in international markets.

MGT 472 Comparative Management Systems 3
International business emphasizing differences in systems. Context and traditions in different countries and regions: social, political, governmental, business, labor, ethical, and cultural analysis. Different management and business practices. Managing and doing business within and across many countries.

MKT 475 International Marketing 3
Issues involved in marketing products in global markets. The focus is on identifying opportunities in world markets and adapting strategies to fit specific national market needs.

FIN 460 International Finance 3
Basic understanding, with illustrations, of how to apply elements of international finance to managerial policies and decision-making. Exchange rates and exchange risk.

Approved IBUS Electives include the following:
MGT 473 (SPA 473) Culture, Language, and Management 3
MGT 474 (MKT 474) Doing Business in Canada 3
MGT 475 International Management 3
MGT 476 Doing Business in Mexico 3
MGT 440 Global Supply Chain Management 3
MKT 478 Global Logistics 3
MGT 477 Transnational Management in Gateway Regions 3
MGT 480 International Law in Business Transactions 3
ENT 312 International Entrepreneurship 3
MGT 380 International Business Seminar 3
ECO 360 International Trade 3
Introduction:
The International Relations program at Canisius College is a multidisciplinary program that is anchored in the Departments of History, Modern Languages and Political Science but also includes courses in international business, economics, religious studies, philosophy and other academic disciplines. The goals of the program are to provide the International Relations major with a basic understanding of the issues, functions and theories of the international system and to cultivate skills in research, writing, critical thinking and oral presentation that are necessary for success in a career in the fields of international affairs, international business, law, education and academia. Students majoring in International Relations must also satisfy a requirement for an International Educational Experience. Each student's program is structured to maximize options after graduation. Completion of the major program will lead to a bachelor of arts degree in International Relations.

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
The International Relations major and minor are open to any student who has completed PSC 140 (Introduction to International Relations) with a minimum grade of C. A minimum overall average of 2.00 in all courses taken to complete the major or the minor is required for program completion.

Advisement:
Advisement is the responsibility of the Director of the International Relations Program, who may share this responsibility with other members of the International Relations Advisory Council. All International Relations majors and minors are expected to consult with their advisor in the program at least once each semester.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:
All International Relations majors must take a core of nine courses in history, political science and economics, including an upper-level course in international business, and seven electives that have been approved by the International Relations Program Advisory Council for major credit. In addition, all International Relations majors must demonstrate proficiency in a modern foreign language through the Intermediate High level according to guidelines established by the American Council of Teachers of Foreign Languages and take at least one 300-level foreign language course beyond the Intermediate High level. All International Relations majors must also satisfy an international experience requirement that includes but is not limited to study abroad in a foreign university or an approved short-term program. Major course requirements: (17 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 107</td>
<td>History of Modern Europe to 1815</td>
<td>3</td>
</tr>
<tr>
<td>HIS 108</td>
<td>History of Modern Europe since 1811</td>
<td>3</td>
</tr>
<tr>
<td>HIS 109</td>
<td>History of Asia to 1800</td>
<td>3</td>
</tr>
<tr>
<td>HIS 110</td>
<td>History of Asia since 1800</td>
<td>3</td>
</tr>
<tr>
<td>HIS 131</td>
<td>Latin American History to 1830</td>
<td>3</td>
</tr>
<tr>
<td>HIS 132</td>
<td>Latin American History since 1830</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 140</td>
<td>Introduction to International Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 150</td>
<td>Introduction to Comparative Politics and Government</td>
<td>3</td>
</tr>
<tr>
<td>HIS 300</td>
<td>Historical Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIS 399 or PSC 245</td>
<td>History of U.S. Foreign Relations or American Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSC 442</td>
<td>Seminar in International Relations</td>
<td>3</td>
</tr>
<tr>
<td>Business: one 300 or 400-level international business course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Major electives: seven courses chosen from approved list in Economics, Finance, History, International Business, Modern Languages, Political Science, and Religious Studies. (21 credits)
Modern language training through the Intermediate-High level (ML 215-216) (6 credits)

300-level course in a Modern Foreign Language (3)

The modern foreign language requirement in the International Relations major is not a course but a proficiency requirement that at Canisius is normally satisfied by successfully completing ML 215-216. If students are not placed at the 215-216 level when they enroll at Canisius, it will take them two extra semesters in the foreign language to meet this requirement. In other cases students may already have taken the equivalent of these courses in high school and therefore do not have to take them at Canisius but should continue their language preparation with a 300-level course in the language they have studied in high school. Students who study abroad in a country where the spoken language is a language other than English and take courses in that language as part of their study abroad experience may use this to satisfy the modern language requirement in the International Relations major.

Major Electives:

All International Relations majors must take seven Major Electives in addition to a 300 or 400-level course in a modern foreign language. Courses that have been approved as International Relations Major Electives are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 360</td>
<td>International Economics</td>
<td>3</td>
</tr>
<tr>
<td>ENT 312</td>
<td>International Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>FIN 460</td>
<td>International Finance</td>
<td>3</td>
</tr>
<tr>
<td>HIS 213</td>
<td>Twentieth-Century Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIS 230</td>
<td>Holocaust in Historical Perspective</td>
<td>3</td>
</tr>
<tr>
<td>HIS 260</td>
<td>Canada and the World</td>
<td>3</td>
</tr>
<tr>
<td>HIS 280</td>
<td>Wars of Latin America</td>
<td>3</td>
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<tr>
<td>HIS 309</td>
<td>World War I</td>
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<tr>
<td>HIS 335</td>
<td>Britain in the Era of Total War</td>
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<tr>
<td>HIS 336</td>
<td>Modern Mexico</td>
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</tr>
<tr>
<td>HIS 338</td>
<td>Britain’s Empire</td>
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</tr>
<tr>
<td>HIS 339</td>
<td>Nazi Germany, World War II, and the Holocaust</td>
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<tr>
<td>HIS 345</td>
<td>20th-Century Russia</td>
<td>3</td>
</tr>
<tr>
<td>HIS 346</td>
<td>Age of European Fascism, 1919-45</td>
<td>3</td>
</tr>
<tr>
<td>HIS 347</td>
<td>History of Marxism</td>
<td>3</td>
</tr>
<tr>
<td>HIS 348</td>
<td>Twentieth-Century Marxism</td>
<td>3</td>
</tr>
<tr>
<td>HIS 350</td>
<td>20th-Century Eastern Europe</td>
<td>3</td>
</tr>
<tr>
<td>HIS 351</td>
<td>Cold War in Global Perspective</td>
<td>3</td>
</tr>
<tr>
<td>HIS 352</td>
<td>The Cuban Revolution</td>
<td>3</td>
</tr>
<tr>
<td>HIS 354</td>
<td>Post-War Europe 1945 to the Present</td>
<td>3</td>
</tr>
</tbody>
</table>
Major Experiences:
All students majoring in International Relations must satisfy a requirement for International Education Experience. The most popular, but by no means the only way in which this requirement is satisfied, is by studying abroad. The International Relations Program strongly encourages its majors to fulfill the international experience requirement by spending at least one semester abroad at a foreign university. The director of the International Relations Program works closely with the director of International Student Programs at Canisius College to set up and monitor study abroad programs for Canisius students at a wide range of universities throughout the world. Canisius students may study at the following institutions under articulation agreements that have been approved by Canisius College and the host university abroad: the University of the Sunshine Coast, Queensland, Australia; the University of Antwerp in Belgium; the Beijing Center in Beijing, China; La Casa in San Salvador, El Salvador; the Catholic University of Lille in France; the University of Dortmund and the Catholic University of Eichstaett in Germany; the National University of Ireland in Galway, Lorenzo DeMedici in Florence and Rome in Italy, Sophia University in Japan; the University of Oviedo and the Universidad Pontificia Comillas in Madrid, Spain; and London Metropolitan University in the United Kingdom. Students may also study at an accredited university abroad other than those listed above. Students doing this have recently studied at universities in Egypt, New Zealand, Poland, Senegal, and the Ukraine.

Students who spend a semester abroad at a foreign university may count up to three courses as International Relations major electives as long as these courses have been pre-approved by the director of the International Relations Program. Students who spend a year studying at a foreign university may be able to count more than three courses as International Relations major electives, but this will require special permission from the director of the International Relations Program. As a general rule, students must complete the International Relations Core of eight courses at Canisius College. Exceptions to this rule may be approved by the International Relations Program Advisory Council.

Additional Course Considerations:
Within the International Relations major a student may pursue one of four distinct tracks in International Business, International History, International Politics, and Language and World Culture. A student may also opt to pursue none of these tracks but fulfill the program major requirements listed above without concentrating in any particular area of the program. If a student chooses to pursue one of these four tracks, this will affect his or her choice of major electives. A student pursuing one of these tracks would still be required to take a modern foreign language through the Intermediate High level and one 300-level course in that language and to satisfy the international experience requirement. For further information, contact the director of the International Relations Program. For further information on each of these tracks, consult http://www.canisius.edu/international-relations/program.asp

| Recommended Semester Schedule for Major Course Requirements |
|---------------------------------|----------------|
| YEAR                  | FALL SEMESTER | SPRING SEMESTER |
| Freshman              | PSC 140       | PSC 150         |
|                      | HIS 107 or    | HIS 108 or      |
|                      | HIS 109 or    | HIS 110 or      |
|                      | HIS 131       | HIS 132         |
| Modern Language at   | Modern Language | Modern Language |
| appropriate level     | 300 level     | at appropriate level |
|                      | PHI 101       | IR Major Elective |
| Sophomore            | Modern Language | IR Major Elective |
|                      | 300 level     | IR Major Elective |
|                      | HIS 399 or    | IR Major elective |
|                      | PSC 245       | IR Major elective or |
| Junior               | HIS 300       | 300-400 level Business |
|                      | IR Major elective | IR Major elective or |
|                      | 300-400 level Business | |

Dual Majors:
Double majors have been developed between the International Relations Program and the Departments of History, Modern Languages, and Political Science as well as with the programs in European Studies and International Business. It is also possible to pursue a double major with other academic programs such as Communication Studies, Criminal Justice, Economics, Sociology/Anthropology, and Women’s Studies. For further information on double majors, contact the director of the International Relations Program.

Students pursuing a double major in International Relations and another major may double count as many courses as possible toward the satisfaction of International Relations major requirements.

Minors:
A minor in International Relations consists of nine courses, of which two may be used to satisfy requirements in Fields 4 and 5 of the Canisius College core curriculum. A student pursuing a minor in International Relations must also demonstrate competence in a modern foreign language through the Intermediate Mid-Level (ML 115-116) according to guidelines established by the American Council of Teachers of Foreign Languages.
Minor electives: three courses chosen from approved list in economics, finance, history, international business, modern languages, political science, and religious studies (9 credits)

Course in International Business (3 credits)

Note:
International Relations Majors are encouraged to satisfy their Core Curriculum requirements in Fields 1, 2, and 3 by taking courses that provide a cultural dimension to the study of international relations. Under the current IR major curriculum students may take one or two of these courses – depending upon the particular track they may be following – as IR major electives. Courses recommended for this purpose are:

<table>
<thead>
<tr>
<th>Major Courses needed for IR Minor</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Choose one of the three course groupings</td>
<td>6</td>
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<tr>
<td>Group 1</td>
<td>HIS 107</td>
<td>History of Modern Europe to 1815</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HIS 108</td>
<td>History of Modern Europe since 1815</td>
<td>3</td>
</tr>
<tr>
<td>Group 2</td>
<td>HIS 109</td>
<td>History of Asia to 1800</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HIS 110</td>
<td>History of Asia since 1800</td>
<td>3</td>
</tr>
<tr>
<td>Group 3</td>
<td>HIS 131</td>
<td>Latin American History to 1830</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HIS 132</td>
<td>Latin American History since 1830</td>
<td>3</td>
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<tr>
<td></td>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td></td>
<td>PSC 140</td>
<td>Introduction to International Relations</td>
<td>3</td>
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<tr>
<td></td>
<td>PSC 150</td>
<td>Introduction to Comparative Politics and Government</td>
<td>3</td>
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<tr>
<td></td>
<td>HIS 300</td>
<td>Historical Geography</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>2011-2013 Courses</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>FRC 333</td>
<td>Survey of French and Francophone Literature I (In French)</td>
<td>3</td>
<td></td>
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<tr>
<td>FRC 334</td>
<td>Survey of French and Francophone Literature II (In French)</td>
<td>3</td>
<td></td>
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<tr>
<td>FRC 337</td>
<td>Francophone History and Culture in Film I (In French)</td>
<td>3</td>
<td></td>
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<tr>
<td>FRC 339</td>
<td>Francophone History and Culture in Film II (In French)</td>
<td>3</td>
<td></td>
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<tr>
<td>GER 353</td>
<td>German Literature since 1945 (In German)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GER 361</td>
<td>Germany Before Unification (In German)</td>
<td>3</td>
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<tr>
<td>GER 362</td>
<td>Germany Today (In German)</td>
<td>3</td>
<td></td>
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<tr>
<td>GER 472</td>
<td>Contemporary German Film (In German)</td>
<td>3</td>
<td></td>
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<tr>
<td>GER 473</td>
<td>Literature and Film (In German)</td>
<td>3</td>
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<tr>
<td>HIS 226</td>
<td>History of Ireland</td>
<td>3</td>
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<td>HIS 331</td>
<td>The British Monarchy</td>
<td>3</td>
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<tr>
<td>HIS 344</td>
<td>Imperial Russia</td>
<td>3</td>
<td></td>
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<tr>
<td>HIS 355</td>
<td>Chinese Culture and Civilization before 1900</td>
<td>3</td>
<td></td>
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<tr>
<td>HIS 358</td>
<td>Traditional Japan</td>
<td>3</td>
<td></td>
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<tr>
<td>HIS 387</td>
<td>Representations of the Holocaust in Literature, Film, Music, and Art</td>
<td>3</td>
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<tr>
<td>HON 130</td>
<td>Religious Experience of the East</td>
<td>3</td>
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<tr>
<td>RST 220</td>
<td>Introduction to Eastern Religions</td>
<td>3</td>
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<tr>
<td>RST 222</td>
<td>African Religions</td>
<td>3</td>
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<tr>
<td>RST 228</td>
<td>Introduction to Mayahana Buddhism</td>
<td>3</td>
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<td>RST 327</td>
<td>Modern Global Christianity</td>
<td>3</td>
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<tr>
<td>RST 331</td>
<td>Religions of China</td>
<td>3</td>
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<tr>
<td>RST 362</td>
<td>Fundamentalism</td>
<td>3</td>
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<td>RST 421</td>
<td>Hinduism</td>
<td>3</td>
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<tr>
<td>SPA 333</td>
<td>Survey of Peninsular and Latin American Literature I (In Spanish)</td>
<td>3</td>
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<tr>
<td>SPA 334</td>
<td>Survey of Peninsular and Latin American Literature II (In Spanish)</td>
<td>3</td>
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<tr>
<td>SPA 351</td>
<td>Junior Spanish Seminar (In Spanish)</td>
<td>3</td>
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<tr>
<td>SPA 451</td>
<td>Senior Spanish Seminar (In Spanish)</td>
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Journalism
Director: Robert Kaiser

Introduction:
The Communication Studies Department's new major in journalism features socially responsible reporting and writing integrated with multimedia. The new Bachelor of Science degree seeks to prepare students to become multimedia journalists in the print, broadcast, online and mobile world. In the era of convergence journalism, the new major includes both Communication Studies and Digital Media Arts courses.

The program seeks to develop skills that will allow journalists to tell stories for multiple platforms, to think visually and graphically, to use Facebook and Twitter as reporting tools, to tell the story in text as well as video, to direct traffic to pages of the news organization's web sites and to design multimedia publications for news readers and viewers.

For additional information on the journalism major, please see the website: http://www.canisius.edu/journalism

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Journalism majors must have a cumulative G.P.A. of at least 2.0, a minimum grade of C- in all journalism courses, and a minimum overall average of 2.0 in all journalism coursework. The performance of all majors is subject to review relative to their continuance in the program. Journalism majors need at least 39 hours of journalism courses (or 36 hours for dual majors) but are limited to a maximum of 54 hours in journalism.

Advisement:
A journalism major is assigned an advisor at the beginning of the freshman year. Those who transfer into the journalism major should contact the Communication Studies office at 888-2115 to be assigned an advisor. Each student should have an advisor and meet with him or her regularly. Canisius College requires all students to meet with their advisors to obtain an alternate PIN number that allows the student to register for courses.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

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<thead>
<tr>
<th>Major Courses</th>
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<tbody>
<tr>
<td>Course</td>
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<td>JRN 200</td>
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<td>COM 203</td>
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<td>JRN 310</td>
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<td>JRN 311</td>
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<tr>
<td>COM 351</td>
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<td>JRN 490</td>
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<table>
<thead>
<tr>
<th>Major Electives</th>
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<tbody>
<tr>
<td>Course</td>
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<tr>
<td>JRN 302</td>
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<td>JRN 322</td>
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<td>JRN 336</td>
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<td>JRN 342</td>
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<td>JRN 363</td>
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<td>JRN 369</td>
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<td>JRN 380</td>
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<td>JRN 450</td>
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<td>JRN 491/492/493/494</td>
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<td>COM 205</td>
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<td>COM 325</td>
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<td>COM 361</td>
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<td>DMA 205</td>
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<td>DMA 342</td>
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<td>DMA 363</td>
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<td>DMA 370</td>
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<tr>
<td>DMA 442</td>
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<tr>
<td>FAS 141</td>
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</tbody>
</table>
Internships and Independent Study:
Internships (JRN 488, JRN 498), awarding up to a maximum of 12 credit hours, may be earned by qualified journalism majors at approved Buffalo or other locations. The internships are individually arranged, require department approval and are available only to junior or senior candidates with a cumulative G.P.A. of at least 2.5 and a journalism average of at least 2.7. Internships are taken on a pass/fail basis and are counted toward free elective credit. Students are encouraged to plan early to do an internship during their junior or senior year.

Independent Study (JRN 499) provides the opportunity for a student to work under the supervision of a faculty member to complete an academic research project culminating in a scholarly product or news and feature stories, construction of a news web site, etc. The opportunity for independent study (three credits) is open only to junior or senior majors in good standing, with consent of the instructor and chair. Independent study, it should be noted, is granted only in very specific circumstances. Please see the department chair for more information.

<table>
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<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
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<tbody>
<tr>
<td>YEAR</td>
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<tr>
<td>Freshman</td>
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<tr>
<td>Sophomore</td>
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<tr>
<td>Junior</td>
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<tr>
<td>Senior</td>
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Dual Majors:
Dual majors with journalism are available with the permission and guidance of both chairs. Students complete a minimum of 36 credit hours of journalism courses. Students may wish to consider developing a foreign language competency, as well as a specialty in a field such as political science, economics, science, or religion.

Each journalism major and dual major is assigned a department faculty advisor to plan an individual program that will satisfy the department’s requirements and the student’s personal goals. Course selections develop from the journalism requirements, prerequisites and electives.

Journalism students who are dual majors and successfully complete 3 or more credit hours in Independent Study or Internships (JRN 488, JRN 498 or JRN 499) are required to complete 33 hours of in-class credit in order to complete the journalism major.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Note:
To gain valuable experience, journalism majors are advised to participate in clubs such as the student newspaper, television station, radio station, and digital media arts clubs.
Journalism Courses 2011-2013

Journalism Major Required Courses:

JRN 200 Multimedia Storytelling I 3
Introduces the fundamentals of digital systems and technologies as they apply to journalism. Through class lecture and hands-on approaches, students will learn software and hardware used for journalistic applications of web design, multimedia, video production, graphics and audio production.

JRN 201 Multimedia Storytelling II 3
Students will explore multimedia storytelling through class lecture and hand-on experience of the digital systems and technologies used in journalism. The student will develop a better understanding of the nature of multimedia journalism using audio, video, graphics, animation and writing to tell news stories. Prerequisites: JRN 200 or permission of instructor.

COM 203 Writing for the Public Media 3
Intensive writing assignments employing message-design principles provide opportunities to prepare news, features, press releases, advertising copy and opinion pieces. (Writing Intensive Attribute)

DMA 204 Digital Media Law 3
Introduces a wide range of legal issues in today's evolving and emerging media, including the First Amendment, copyright, fair use, libel, hate speech, pornography/obscenity, privacy, commercial speech and national security.

JRN 301 News Gathering/Reporting I 3
Grounded in the social responsibility theory of the press, this course covers both traditional methods (e.g., observing, interviewing, listening) and newer methods (e.g., Twitter, Facebook, crowdsourcing) to gather and verify material for news and feature stories, to be distributed via print, broadcast, web and mobile media. Prerequisites: JRN 200, JRN 201 and COM 203 or permission of instructor.

JRN 310 Journalism I 3
Focuses on writing news and features for print and on-line media, using a variety of storytelling designs (e.g., the narrative, the inverted pyramid, the focus approach) combined with a variety of multimedia presentation methods (e.g., video, audio, slideshows). Prerequisites: JRN 200, JRN 201, COM 203 and JRN 301 or permission of instructor.

JRN 311 Journalism II 3
Learn what it is like to step inside the daily inner-workings of a TV newsroom. Act as the assignment editor, reporter, producer, director. Encounter ethical dilemmas. Learn the principles and skills to make resourceful broadcast decisions and how to translate broadcast stories for multiple platforms.

COM 351 Media Ethics 3
Explores ethics across mass media disciplines through the work of professional communicators—journalists, broadcasters, advertising and public relations practitioners, as well as cyber-communicators. Develop practices of making crucial media decisions based on principles and idealism. (Ethics Attribute)

JRN 490 Capstone 3
Culminating experience for Journalism majors in which they synthesize what they have learned in their program of study. Students work as part of a reporting/writing/editing team to produce a publishable multimedia community journalism project.

Elective Courses:

JRN 302 News Gathering/Reporting II 3
Advanced study and practice of all aspects of journalism addressed in News Gathering/Reporting I. Prerequisite: JRN 301

JRN 322 Feature/Magazine Writing 3
Profiles and other human-interest features developed for newspapers, magazines, broadcast. Free-lance writing is introduced.

JRN 336 Sports Journalism 3
Instruction on covering sports in the 21st century, including exposure to cross-platform journalism and the influence of social media. Students will learn practices and theories commonly encountered in locker rooms and press boxes from those in the business. COM elective.

JRN 342 Narrative Journalism 3
The advanced study and practice of long-form, literary-influenced journalism, from magazines and nonfiction books to cross-platform, online media outlets. Students explore methods of conceptualizing, researching and writing long-form journalism while working on a literary nonfiction project of their own. Prerequisites: JRN 200, JRN 201, COM 203, JRN 301 or permission of instructor.

JRN 363 Journalistic Editing 3
Cultivate the skills and sensibilities necessary for shepherding multimedia news and feature stories from conceptualization to publication. Explore how to shape and sharpen journalism across a variety of media platforms. Develop an eye for reporting deficiencies, inaccuracies and potential legal problems. Explore journalism theory and ethics. Edit for content and style. Write headlines. Design and lay out pages using pagination software.

JRN 369 Television Features 3
Design, write and produce special feature reports, multiple-part series, investigative stories and mini-documentaries. Emphasis on field work.

JRN 380 Special Topics in Journalism 3
Course focus will vary and is designed to provide in-depth study of journalism as it applies to specialized topics and content areas that may include legal, business, health and science, environmental, international, and/or investigative journalism.

JRN 450 Entrepreneurial Journalism 3
The purpose of this course is to prepare students to launch their own news site or develop such content for a media company. Students will plan and develop a multimedia journalism project, including analyzing market need and competition, writing a basic business plan, creating a prototype, and presenting it for critique by professionals in the field.
COM 205 Mass Communication and Society
Survey of mass communication processes and the mass media in terms of development, structures, functions, effects and interactive relationships with American society.

COM 325 Media Literacy
Focuses on theoretical approaches and practical skills enabling students to analyze, think critically and produce effective mediated messages in a variety of formats and specialized content areas.

COM 361 Introduction to Television Production
Studio techniques, lighting, sound recording, set design, electronic graphics and editing, and production of live and edited programs in studio.

COM 491/492/493/494 Video Institute I, II, III, IV
Students develop individual, original video projects in service to Canisius College and community/humanitarian agencies. Travel may be involved for some projects.

DMA 205 Digital Graphics
This course will familiarize students with digital graphics techniques, file formats and applications. Students will develop digital image creation skills along with effective workflow habits.

DMA 206 Interactive Multimedia
This course will examine the types, processes and applications of Adobe Flash needed to create multimedia content. Emphasis will be on the critical analysis, interface design, organization of content and manipulation of video, sound and animation elements to create interactive computer presentations. Prerequisite: DMA 201 or permission of instructor.

DMA 340 Writing for Digital Media
Intensive writing assignments employing message-design principles/style guidelines for writing for the web, CDs, DVDs, etc.

DMA 342 Introduction to Web Design
Introduction to the state of the art in on-line multimedia publishing. Working individually and in teams, students learn to publish well-designed World Wide Web documents that communicate effectively.

DMA 363 Print Design
Focuses on critical topics in layout, folding, binding and printing, as well as critical/creative issues in magazine, publication and high-end corporate design. Prerequisites: DMA 203 or DMA 205

DMA 370 Designing for Mobile Devices
Students will learn design strategies to deliver content for mobile devices. The target device for this course will be iPhone/iPod Touch and students will develop websites and applications utilizing javascript and css libraries as well as Adobe Flash.

DMA 442 Advanced Web Design
Concentrates on effective website design, practical web programming skills and the understanding of Flash for web development.

FAS 141 Digital Photography
Review basic photo skills as they relate to the operation of digital cameras. Students are introduced to the digital workflow using Photoshop to develop a personal style that is reflected in a printed and digital portfolio. Prerequisites: No prior photo experience, students must have a D-SLR camera (digital single lens reflex camera).
Latin American Studies
Director: M. Fernanda Astiz

Introduction:
The Latin American Studies Program (LAS) is a multi-disciplinary program that students will adopt as a second or third major. Its primary focus is to promote intellectual discussion, teaching and research on Latin America and the Caribbean. The program also includes the study of Latinos in the United States. Moreover, LAS engages in a wide array of community outreach activities and programming, such as colloquia, K-12 collaboration, student conferences, and visits by renowned speakers. This complements the program’s academic offerings and provides students, faculty and the local community with timely and relevant opportunities to learn about and become actively involved in issues relevant to Latin American Studies. LAS also serves to provide career opportunities for students interested in this geographical region and helps to establish stronger linkages with the Latin American and Latino communities in Western New York.

Learning Goals:
STUDENT LEARNING GOAL 1:
Majors will apply knowledge of Latin American government, politics, business, and public policy to contemporary issues and themes in writing projects and presentations.

Students will:

Objective A: Demonstrate knowledge of important political figures, movements and events, as well as current governmental institutions and other political organizations in Latin America;

Objective B: Demonstrate knowledge of how business is conducted in Latin America;

Objective C: Demonstrate knowledge of educational policy in Latin America; and

Objective D: Demonstrate knowledge of both US Foreign Policy toward Latin America and US policy toward the Latino population in the US.

STUDENT LEARNING GOAL 2:
Majors will apply knowledge of history regarding Latin America to contemporary issues and themes in writing projects and presentations.

Students will:

Objective A: Understand how contemporary society in Latin America has been shaped and influenced by its history; and

Objective B: Understand the contemporary significance of key historical figures and events.

STUDENT LEARNING GOAL 3:
Majors will communicate at the intermediate level in Spanish (comparable to Canisius College course level 216). Student will:

Objective A: Speaking: Be able to create with language by combining and recombining learned elements; initiate and minimally sustain basic communicative tasks;

Objective B: Listening: Be able to understand sentence-length utterances in a limited number of content areas (basic personal background, needs, interests and activities, social conventions, routine and some complex tasks such as lodging, transportation and shopping);

Objective C: Reading: Be able to read consistently simple connected texts dealing with basic personal and social needs;

Objective D: Writing: Be able to meet a number of practical writing needs involving short letters, personal preferences, daily routine, everyday events, and other topics grounded in personal experience.

STUDENT LEARNING GOAL 4:
Majors will apply knowledge of Latin American and Latino literature and culture to contemporary issues and themes in writing projects and presentations.

Students will:

Objective A: Recognize the key beliefs, values, norms and cultural artifacts that comprise societal culture in Latin America, including its religions and various sub-cultures;

Objective B: Appreciate the contributions made to culture in Latin America by some of its key cultural figures from literature, fine arts, philosophy, and religion; and

Objective C: Understand the significance of key contributions to literature, fine arts, philosophy, and religion in Latin America and by Latinos in the United States.
Curricular Requirements for the Major:

A. The Major
General Requirements:
- All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [www.canisius.edu/core_curriculum/default.asp](http://www.canisius.edu/core_curriculum/default.asp);
- The Latin American Studies major must be combined with another major at Canisius;
- There are no limits on the number of courses that count for this major that also apply to another major;
- Modern Language Requirement: At least a C in SPA 216 or its equivalent;
  - the Program Director can decide to allow students to pursue French on an exceptional basis (to take into account the French-speaking parts of “Latin America”);
  - the Program Director can also decide to allow a lower level of coursework in Portuguese to fulfill this requirement (e.g., if combined with study abroad in Brazil).
- Study Abroad Requirement: an approved short term or semester-long program;
  - includes existing trips offered through faculty and Campus Ministry or those that will be developed

Ten Required Courses:
Social Science and History – 3 courses
- all three courses must be taken at Canisius (rather than abroad);
- must be taken from at least two academic departments/disciplines;
- Business, Education, History, Political Science and Honors.

Language, Literature, and Culture – 3 courses
- Must be taken at Canisius;
- MLLC, RST, PHI, FAH, FAM, and Honors.

Major Electives – 3 courses
- may be taken in any discipline and may be taken abroad;
- could include a service-learning course at Canisius involving the Latino community in Western New York.

Senior capstone – 1 course
- Interdisciplinary in nature and will be offered on a rotating basis among the academic departments most involved in the program at Canisius;
- Will be used for assessment of student learning in the major;
- May be designed to qualify as a core capstone;
- Will not be offered until spring of 2013 at the earliest.

B. The Minor
General Requirement:

Six Required Courses:
Social Science & History – 3 courses
- must be taken from at least two academic departments/disciplines;
- Language, Literature, and Culture – 3 courses.

This flexible structure of the major and minor enables students to appreciate the social, economic, political, cultural, and historical context of the subject matter, encouraging them to develop critical interdisciplinary skills. While the LAS program will include attention to the Latino communities in Western New York and the United States, its coursework and extracurricular experiences will move beyond these boundaries to view these communities as being embedded within global processes.
Management

Chair: Gordon W. Meyer

Introduction:
Every organization includes individuals whose job it is to coordinate and integrate the activities of the employees, manage operations and lead the organization successfully into the future. These individuals are managers.

Management is the art and science of getting things done through people. Good management is necessary for the success of any company or organization. It is aimed at accomplishing organizational objectives through the coordination of people and other resources, and involves such functions as planning, organizing, leading, controlling, motivating and general problem solving and decision making.

Managers today face the task of leading their companies as they compete in the global marketplace by designing and managing processes that create goods and/or services and add value for customers. They do this in multiple ways. Effective managers empower the workforce to face the challenges of the changing environment. They also manage an organization’s operational and technological systems to satisfy customers. Such processes are critical in all firms from the smallest entrepreneurial company to the largest multinational corporation.

The management major at Canisius prepares students to perform a variety of roles in business and not-for-profit organizations. The management major and management courses are designed to give students insight into human behavior, to develop students’ understanding of organizational issues, and to teach students how to analyze information, make decisions and implement solutions.

The Management Department:
The Management program is one of three majors offered by the Department of Management. The department also offers majors in Entrepreneurship and International Business along with a variety of academic minors. With 14 full-time faculty, the department is the largest in the Richard J. Wehle School of Business. The department also offers a wide variety of co-curricular programs including student professional, internship and research opportunities.

Management Major:
The task of the manager is to coordinate the activities of people and resources in order to accomplish organizational objectives. The Management major provides students with a balanced education to prepare them for this important organizational role. The curriculum contains basic coursework in quantitative methods, operations management, behavioral principles and strategic management. Students may take additional specialized courses and electives to add depth in one of four management minors: Global Logistics and Supply Chain Management, Human Resource Management, International Management, or Management of Technology. Alternatively, they can work with an advisor in the department to choose their electives to fit their individual interests or needs.

Goals:
http://www.canisius.edu/assessment/wsb_goals.asp

As part of a process of continuous quality improvement, management faculty annually conduct assessments to determine how well the program is achieving these learning goals.

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in management. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements necessary to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.
Major Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105</td>
<td>Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 106</td>
<td>Calculus for the Non-Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MAT 111</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 115</td>
<td>Calculus for Business I</td>
<td>4</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 255</td>
<td>Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 256</td>
<td>Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>FIN 201</td>
<td>Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>ISB 101</td>
<td>Management Technology</td>
<td>3</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 370</td>
<td>Managerial Environment</td>
<td>3</td>
</tr>
<tr>
<td>MGT 446</td>
<td>Managerial Policy/Strategy</td>
<td>3</td>
</tr>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MGT 335</td>
<td>Management Science</td>
<td>3</td>
</tr>
<tr>
<td>MGT 336</td>
<td>Production/Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 360</td>
<td>Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MGT 364</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives:
Management majors are required to take three (3) courses that are approved as Management electives. Some courses offered by other programs may be used as management electives. Please consult your academic advisor or the advisement guide that is published each semester.

Restricted Electives (must be liberal arts): Four courses

Free Electives: Three or Four courses

Major Experiences:
The management major is designed to give students a breadth of knowledge in a variety of business functions as well as a depth of understanding in operations management and organizational behavior and human resource management. Management electives can be used by students to pursue specific topics based on their interests or career aspirations.

Management majors are strongly encouraged to become actively involved in one of the Canisius College student chapters of professional organizations that are associated with the major: APICS - the Operations Management Society and SHRM - the Society for Human Resource Management. Students pursuing Management minors are expected to be involved in the student organization associated with their minor. The student organizations provide excellent opportunities for leadership development and professional networking through such activities as touring local organizations, attending professional meetings and seminars, and hosting local professionals at campus meetings. Participation in such organizations is an important part of preparation for professional life.

Management majors are also strongly encouraged to complete internships (either for credit or noncredit).

Other Programs of Interest:
ENTREPRENEURSHIP MAJOR
The Management department also offers a major in Entrepreneurship. Complete details are listed elsewhere in the catalog under Entrepreneurship.

INTERNATIONAL BUSINESS MAJOR
The Management department also offers a major in International Business. Complete details are listed elsewhere in the catalog under International Business.

MINOR IN INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY
This interdisciplinary program, which is open to management majors, combines management and psychology courses. See your advisor for details.
Additional Information:

Internships

Internships qualifying for three hours of academic credits are available to upper-division students majoring in management. These opportunities involve a work-and-study situation with faculty supervision. Many are paid. Students wanting internships for credit must meet certain departmental requirements. For further information, contact the department chair or your departmental advisor. Non-credit internships are also available and can be an important part of a student’s development and career preparation.

Career Preparation:

All management majors are expected to register with the Career Center during their senior year, if not before. Registration includes preparation of a formal resume and an interview with the Career Center staff. In addition, majors are encouraged to actively utilize the office’s other career-oriented services. Students should contact the Career Center in Old Main 016.

| Recommended Semester Schedule for Major Course Requirements |
|-------------------|-------------------|-------------------|
| YEAR | FALL SEMESTER | SPRING SEMESTER |
| Freshman | | |
| FYS 101 (3) | ENG 101 (3) | |
| MAT 105 (3) | MAT 106 (3) | |
| or MAT 111 (4) | or Free Elective if MAT 115/111 | |
| or MAT 115 (4) | | |
| RST 101 (3) | PHI 101 (3) | |
| ECO 101 (3) (Field of Knowledge Social Science) | ECO 102 MICRO (3) | |
| ISB 101 (3) | MGT 101 (3) | |
| Sophomore | | |
| MKT 201 (3) | FIN 201 (3) | |
| ACC 201 (3) | ACC 202 (3) | |
| Field of Knowledge | Field of Knowledge | |
| ECO 255 (3) (Field of Knowledge Math) | ECO 256 STATS 2 (3) | |
| Business International Requirement | Business International Requirement (Two semester sequence required) | |
| Junior | | |
| MGT 335 (3) | MGT Elective | |
| MGT 360 (3) (Fall only) | MGT 364 Human Resources (3) (Spring only) | |
| MGT 336 (3) | A and S Elective | |
| Field of Knowledge | Field of Knowledge | |
| Field of Knowledge (PHL, ethics) | A and S Elective | |
| Senior | | |
| MGT 370 (3) | MGT 446 (3) | |
| MGT Elective | MGT Elective | |
| Free Elective | Free Elective | |
| A and S Elective | A and S Elective | |
| Core Capstone | Free Elective | |

*Two semesters of language or approved regional studies HIS 107 History of Modern Europe to 1815 (3), HIS 108 History of Modern Europe Since 1815 (3); HIS 109 Western Political Traditions I (3), HIS 110 Western Political Traditions II (3); HIS 131 Latin American History to 1830 (3), HIS 132 Latin American History Since 1830 (3) (when taken is flexible)

* Minors available within the management major are: Human Resource Management, International Management, Management of Technology, Global Logistics and Supply Chain Management.

Dual Majors:

Highly motivated students may choose to enhance their career potential and enrich their business and/or academic background by completing a dual major. Students can major in Management and another field of interest to the student including Marketing, International Business, Finance, Modern Languages, Economics, Psychology, etc. These dual majors usually require some additional courses to complete beyond the normal 120 credit hours.

To declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:

A listing of all available minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Management Minors:

Management students may choose a minor in their junior or senior year and notify the registrar and their department advisor of this decision. Alternatively, they can consult with an advisor in the department to select management electives that meet their individual interests or needs. Students who are not business majors may pursue one of the minors in business management to complement their major in another field.

MGT 325 or MGT 336 are prerequisites for most of the elective courses and should be completed by the end of the junior year.

Non-business majors must take MGT 101 Introduction to Management and ECO 255 Business Statistics prior to beginning the program.
Global Logistics and Supply Chain Management Minor
Supply Chain Management addresses the integrated management of the set of value-added activities from product development, through material procurement from vendors, through manufacturing and distribution of the good to the final customer. Practitioners have expressed strong views that students should develop their skills in Global Logistics and Supply Chain Management to be adequately prepared for this competition. Global Logistics is one of the sectors designated by the State of New York as critical to the economic development of Western New York.

REQUIREMENTS:
The program requires a minimum of five courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MGT 336</td>
<td>Production/Operations Management (Management Majors)</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MGT 325</td>
<td>Operations Analysis for Business (Non-management Majors)</td>
</tr>
<tr>
<td>MGT 440</td>
<td>Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MKT 478</td>
<td>Global Logistics/Transportation</td>
</tr>
</tbody>
</table>

MINOR ELECTIVES: Two additional courses are required from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 334/ MKT 334</td>
<td>Procurement (Purchasing)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 442</td>
<td>Packaging</td>
<td>3</td>
</tr>
<tr>
<td>MGT 474/ MKT 474</td>
<td>Doing Business in Canada</td>
<td>3</td>
</tr>
<tr>
<td>MGT 475/ MKT 475</td>
<td>Doing Business in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>MGT 476/ MKT 476</td>
<td>Doing Business in Mexico</td>
<td>3</td>
</tr>
<tr>
<td>MGT 479</td>
<td>Current Topics in Global Logistics and Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 492</td>
<td>Internship in Global Logistics and Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>ACC 307</td>
<td>Management Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACC 452</td>
<td>Enterprise Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Students in this minor are encouraged to seriously consider taking advantage of one of the college's study-abroad opportunities.
Students in the GLSCM minor are expected to become members of the Canisius Chapter of APICS – The Association of Operations Management.

1 Students intending to complete an internship for credit of a minor must consult with a department advisor for guidance and approval. 10/18/11

Management of Technology Minor

In a time of constant technological change, managers will be increasingly called upon to manage new products, processes and systems. In addition to providing a fundamental understanding of the field, this track helps students prepare for the six professional certification examinations of the Association of Operational Management (APICS). APICS certification should significantly improve a student’s employment prospects.

The MGT 335 Management Science-MGT 336 Production/Operations Management sequence is a prerequisite for most of these courses and should be completed by the end of the junior year. These two courses can be taken simultaneously. Students in the Management of Technology minor are expected to become student members of the Canisius Chapter of APICS - The Association for Operations Management.

Non-business majors must take MGT 101 Introduction to Management and ECO 255 Business Statistics I prior to beginning the program.

Business Management Minor

(for students in majors outside the Wehle School of Business)

The Business Management minor provides a basic understanding of what it takes to organize and manage complex organizations in the for-profit and not-for-profit sectors. The coursework focuses on achieving results through proper management and leadership. Students have an opportunity to work with instructors who have professional background in business and to experience a project-team environment. To complete the business management minor, students must complete:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 101</td>
<td>Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>ECO 255</td>
<td>Business Statistics I (or equivalent)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 335</td>
<td>Management Science</td>
<td>3</td>
</tr>
<tr>
<td>MGT 336 or MGT 325</td>
<td>Production/Operations Management (Management Majors)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Operations Analysis for Business (Non-Management Majors)</td>
<td>3</td>
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</tbody>
</table>

All requirements and any three of the following as management electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 434</td>
<td>Technology Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 436</td>
<td>Quality Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 437</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 439</td>
<td>Operations Planning and Control</td>
<td>3</td>
</tr>
<tr>
<td>MGT 440</td>
<td>Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 494</td>
<td>Internship in Technology/Operations Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Business Management electives: two courses (MGT 360 Organizational Behavior, MGT 364 Human Resources Management, MGT 475 International Management, MKT 320 Consumer Behavior, MKT 351 Sales Management, MKT 352 Professional Sales, MKT 475 International Marketing, or other Business courses approved by department chair) (6 credits)

TOTAL (6 courses) (18 credits)

COURSES: 2011-2013

REQUIRED COURSES FOR MANAGEMENT OR BUSINESS MAJORS

MGT 101 Introduction to Management 3
Organization design and management, including traditional and modern theories. The managerial functions and processes, including planning, organizing, leading and controlling, decision-making, behavioral factors/ issues and production function. Fall and Spring

MGT 325 Operations Analysis for Business 3
Production/operations management and management science. Decision areas include Operations strategy, process management, quality management, facilities layout, inventory management, aggregate planning and just-in-time systems. Problem-solving techniques include forecasting, linear programming and decision analysis. Prerequisites: MAT 105 and MAT 106 or MAT 115, or other acceptable mathematics courses. This is NOT a MGT elective. Fall and Spring

MGT 335 Management Science 3
Introduction to a variety of management science tools and applications including linear programming, forecasting, decision analysis and project management. Quantitative modeling of decision-making problems, with an emphasis on interpretation of results. Prerequisites: ECO 255. Fall and Spring
MGT 336 Production/Operations Management
How firms manage processes that create goods and/or services and add value for the customer. Decision areas include operations strategy, types of processes, product/service design, facilities layout, inventory management, aggregate planning, just-in-time systems and supply chain management. Prerequisites: MGT 335 or concurrent registration. Fall and Spring

MGT 360 Organizational Behavior
Organizational functioning at the individual, group, and system levels. Topics include social perception, communications, leadership and motivation, organization design and change. Course includes experiential practice of related managerial skills. Prerequisites: MGT 101, sophomore standing. Fall only

MGT 364 Human Resources Management
Focuses on a firm's human-resources management activities. Topics include contemporary approaches to staffing, performance evaluation, compensation and union-management relations. Prerequisites: MGT 101, junior standing. Spring only

MGT 370 Managerial Environment
Managing interplay between business and society, including political, economic, social, legal, international, and ethical environments. Role of market, law, self in control of business, cases, and issues. Prerequisite: MGT 101. Fall and Spring

MGT 446 Managerial Policy/Strategy
Business students’ capstone course. Integration of all business disciplines into discussion of goals, strategies, policies, planning, and evaluation. Cases provide decision-making experience. Prerequisite: Taken in the last semester of the senior year. Fall and Spring

ELECTIVE COURSES IN MANAGEMENT
Note: Additional or different management electives may be offered. Students should consult the semester-specific Registration and Advisement Guide and/or their academic advisor.

MGT 307 U.S. Business History
This course will provide students with an overview of business organizations in American history since the mid-19th century. Some of the major topics to be covered will be: small business and entrepreneurs in American life, the rise of big business, labor and employees relations, business-government relations, marketing and advertising history, the consumer culture, and other notable changes in the business system over the period covered. Prerequisite: MGT 101. Fall or Spring

MGT 334 Procurement
The objective of this course is to expose students to the demands placed on purchasing and supply chain managers, the competitive impact purchasing has on the success and profitability of the organization, the strategic nature of purchasing, and its cross-functional interactions. Topics include the purchasing process, policies organization and procedures, supplier evaluation and selection, supplier quality management, worldwide sourcing, negotiations and contract management. In addition, purchasing law ethics, the purchasing of services and future trends are addressed. Elective. Fall or Spring.

MGT 350 Strategic Sustainable Development
Sustainable development has moved from ‘doing good’ to ‘good business.’ Organizations are realizing that sustainable development can have a positive strategic impact on their performance and that a strong business case can be made for such initiatives. This course will examine current issues and trends in sustainable development and their impact on strategy. Fall or Spring

MGT 367 Employee and Labor Relations
Understanding power relationships in the world of work. Formal relationships between management and unions representing employees. Topics include labor history, negotiating, labor-management relations including adversarial as well as labor-management collaboration and managing grievances. Some emphasis on skill development. Prerequisites: MGT 360, junior standing. Elective. Spring only

MGT 380 International Business Seminar
Three weeks of travel in Europe, either between Fall/Spring semesters or in summer. Gives exposure to international business environment and to business practices outside U.S.A. Readings, discussions, paper required after return to U.S. Prerequisite: Open to all Business majors and to others by approval. Application to Dr. Vego or Dr. Rivas. Elective.

MGT 430 Sustainability and Supply Chains
(may be used as a MGT elective)
Key approaches and issues relating to environmental and sustainable operations and supply chain management including the triple bottom line, lean operations, closed loop supply chains, design for the environment (DFE), remanufacturing, reverse logistics, and "green buildings" initiatives. Elective. Prerequisites: MGT 101. Fall or Spring

MGT 434 Technology Management
Management of new product development in organizations with focus on the technology and innovation process. Both theoretical and practical aspects of managing this process are considered. Prerequisites: MKT 201, MGT 360. Elective. Fall or Spring

MGT 436 Quality Management
Tools, techniques, and strategies used in quality management. Application of current ideas in the field to problem-solving and case analysis. Emphasis on quality issues relating to technological innovation and implementation. Prerequisite: MGT 336. Elective. Fall or Spring

MGT 437 Project Management
Introduction to the principles and techniques employed by project managers. Focus on entire project life cycle. Critical issues such as time, cost and performance parameters analyzed from organizational and resource management perspectives. Prerequisite: MGT 335 or MGT 325 Elective. Fall or Spring

MGT 439 Operations Planning and Control
Series of topics designed to target the professional certification examinations in supply chain management conducted by APICS – The Association of Operations Management. Prerequisite: MGT 336. Elective. Fall or Spring
MGT 440 Global Supply Chain Management
This course examines procurement and outsourcing strategies, network configuration, inventory management, supply chain integration, strategic alliances, international issues, coordinated product and supply chain design, demand forecasting, ERP systems, quality and JIT issues and performance measurement in a global supply chain. Prerequisite: MGT 336 or MGT 325. Elective. Fall or Spring

MGT 464 Current Topics in Human Resource Management
Seminar on selected topics with focus on emerging practices and contemporary examples. Topics may include work teams, strategic HRM, labor-management collaboration, managing workplace diversity, emotional intelligence and leadership, etc. Prerequisites: MGT 101, MGT 364. Elective. Fall only

MGT 472 Comparative Management Systems (International)
International business emphasizing differences in systems. Context and traditions in different countries and regions: social, political, governmental, business, labor, ethical, cultural analysis. Different management and business practices. Managing and doing business within and across many countries. Prerequisite: MGT 101 or permission of instructor. Elective. Spring only

MGT 473 Culture, Language and Management
This course explores the relationship between culture and language and how they impact the practice of management in the international marketplace. Students will explore how to find a business edge by knowing the language and culture of a market they are working in. Students will participate in a project designed to demonstrate how this is done. Elective. Fall only

MGT 474 Doing Business in Canada
This course is an introduction to managing a business in Canada. The commercial aspects of the Canadian marketplace are explored as well as in-depth analyses of individual Canadian businesses are central to this course. Prerequisites: MKT 201. Elective

MGT 475 Doing Business in Latin America
This course is designed to provide an introduction into the Latin American business environment and its impact on management practices. Latin America is a region of resource-rich, with rapidly developing economies with enormous potential for business. Some Latin American countries have experienced, and still are undergoing, drastic political and economic transformation. This course will help students understand the opportunities and business potential as well as risks and barriers of doing business in Latin American countries. This course uses cases that focus on managerial aspects relevant to investment, risk management, and Latin America cultural issues. Fall or Spring

MGT 476 Doing Business in Mexico
This course is designed to stimulate curiosity about management practices of companies seeking market opportunities in Mexico and to raise students’ consciousness about the importance of viewing international marketing/management strategies from a global perspective. Prerequisite: MGT 101 or permission of instructor. Elective. Fall only

MGT 477 Transnational Management in Gateway Regions
Transnational Management in Gateway Regions: This course explores the commercial, cultural and political dimensions of managing an organization in a bi-national cross-border region. Fall or Spring

MGT 479 Current Topics in Global Logistics and Supply Chain Management
Seminar on selected topics with focus on emerging practices and contemporary examples in Global Logistics and Supply Chain Management. Course may be cross-listed with courses in Information Systems & Supply Chain Management, International Accounting and Law, E-Commerce, and finance courses focusing on Global Logistics & Supply Chain Management as they are developed. Pre-requisites: MGT325 or MGT336. Elective. Fall or Spring

MGT 480 International Law in Business Transactions
Course Description: This course will cover a range of legal topics and issues concerning international business. Topics may include, but not necessarily be restricted to, World Trade Organization dispute resolution, letters of credit, regional trade agreements (i.e., NAFTA, the European Union), and trade finance. Fall or Spring

Course requirements: None, but Fundamentals of International Business (IBUS301) recommended. Restricted to Juniors and Seniors only.

MGT 492 Internship in Global Supply Chain Management
Elective. Fall and Spring

MGT 493 Internship in Human Resource Management
Elective. Fall and Spring

MGT 494 Internship in Technology/Operations Management
Elective. Fall and Spring

MGT 495 Internship in International Management
Non-routine job experiences that link specific management topics with practical experience. Topic-specific course numbers should be taken for internships meeting requirements for a minor. Require supervision by faculty and student demonstration of academic value through papers and reports. Enrollment subject to meeting minimum GPA requirement. Elective. Fall and Spring.

MGT 496 Management Internship
Non-routine job experience that links academic concepts with practical experience. Requires supervision by faculty, and student demonstration of academic value through papers and reports. Enrollment subject to meeting minimum GPA requirement. Elective. Fall and Spring

COURSES IN OTHER MAJORS GRANTED MANAGEMENT ELECTIVE CREDIT
Students should consult the semester-specific Registration and Advisement Guide, their academic advisor, or the department chair to see if there are other courses which are acceptable for management elective credits.

ENT 311 Entrepreneurship and Family Business

ENT 401 Small Business Management and Entrepreneurship

Fall only
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENT 402</td>
<td>New Venture Creation</td>
<td>3</td>
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<tr>
<td></td>
<td><em>Spring only</em></td>
<td></td>
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<tr>
<td>ENT 411</td>
<td>Entrepreneurial and Managerial Leadership Skills Development</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><em>Fall only</em></td>
<td></td>
</tr>
<tr>
<td>ENT 414</td>
<td>Franchising and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MKT 351</td>
<td>Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 471</td>
<td>Doing Business in Emerging Markets</td>
<td>3</td>
</tr>
<tr>
<td>MKT 472</td>
<td>Doing Business in Asia</td>
<td>3</td>
</tr>
<tr>
<td>MKT 474</td>
<td>Doing Business in Canada</td>
<td>3</td>
</tr>
<tr>
<td>MKT 478</td>
<td>Global Logistics</td>
<td>3</td>
</tr>
</tbody>
</table>
Marketing
Chair: Gregory Wood

Introduction:
Marketing is a thrilling and dynamic discipline that helps organizations and individuals become successful by building relationships with customers and other stakeholders and creating products and services that are valued by customers. Every year excitement comes from new product launches, popular advertising campaigns, social media and innovative approaches to doing business in traditional industries. Marketing is global, fast-paced and rewarding. Marketing offers students the opportunity for an exciting career anywhere in the world. Marketing positions are available in all types of global industries ranging from financial services and health care to high technology and telecommunications. The marketing major is designed for students who want a balanced career that rewards both creativity and the ability to achieve strategic objectives.

Marketing positions are available in a variety of consumer, industrial and institutional market areas, including such non-business fields as health care, government administration and cultural development. The marketing program is designed for those who wish to pursue careers in international marketing, brand and product management, global retailing, e-tailing and distribution, marketing research, fashion merchandising, electronic and internet marketing, sales and sales management.

The marketing curriculum is designed to help students achieve a number of important learning goals (see Learning Goal section below). The faculty annually conduct assessments to determine how well students are progressing toward the achievement of these goals. A process of continuous quality improvement based on these assessments is used to make decisions about curriculum, instructional methods, and the expected goals and objectives. This process is responsible for helping Canisius College maintain a marketing program worthy of national recognition and accreditation by the most well respected professional and academic accrediting organizations in the world.

Goals:
http://www.canisius.edu/assessment/wsb_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Marketing. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These Requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:

<table>
<thead>
<tr>
<th>Major courses requirements: (21 or 20 courses)</th>
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</thead>
<tbody>
<tr>
<td>Course</td>
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<tr>
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</tr>
<tr>
<td>A. Common body of business knowledge:</td>
</tr>
<tr>
<td>MAT 105</td>
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<tr>
<td>and</td>
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<tr>
<td>MAT 106</td>
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<td>or</td>
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<td>MAT 111</td>
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<td>or</td>
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<tr>
<td>MAT 115</td>
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<td>and</td>
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<tr>
<td>Free Elective</td>
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<tr>
<td>ACC 201</td>
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<tr>
<td>ACC 202</td>
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<td>MGT 101</td>
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<td>MGT 370</td>
</tr>
<tr>
<td>MGT 446</td>
</tr>
<tr>
<td>MKT 201</td>
</tr>
</tbody>
</table>
Major Electives:
Marketing majors are required to take two (2) elective courses (6 credit hours) in marketing. Some courses offered by other programs may be used as marketing electives. Please consult your academic advisor for details.

Additional Course Considerations:
Internships qualifying for three hours of academic credit are available to upper-division students majoring in management and marketing. These involve a work-and-study situation with faculty supervision. Many are paid. Students wanting internships for credit must meet certain departmental requirements. For further information, contact the department chair.

Dual Majors:
Highly motivated students may choose to enhance their career potential and enrich their business background by completing a dual major. Students are encouraged to major in both marketing and a related field of interest, including majors such as Management, International Business, Finance, Modern Languages, Economics, Psychology, etc. These dual majors require some additional courses to complete beyond the normal curriculum.

Fashion Institute of Technology: This program combines professional fashion-related education with marketing courses to provide a concentration for students interested in a career in the fashion industry. Students accepted into the program spend either their junior or senior year in New York City at the Fashion Institute.
of Technology, completing practical coursework in fashion design, manufacturing and retailing. Students interested in this program must apply to the program coordinator during their sophomore year. For further information, contact the department chair.

**Minors:**

**Global Supply Chain Management Minor:** Global Supply Chain Management is concerned with the integrated management of the set of value-added activities from product development, through material procurement from vendors, to manufacturing and distribution of the good to the final customer. In today’s environment, competition is no longer primarily a matter of one company versus another, but rather one supply chain versus another. In the Global Supply Chain Management concentration, students learn theory and skills for managing this competition.

**Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 335</td>
<td>Management Science</td>
<td>3</td>
</tr>
<tr>
<td>MGT 336 or MGT 325</td>
<td>Production/Operations Management (Management Majors)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 440</td>
<td>Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 478</td>
<td>Global Logistics</td>
<td>3</td>
</tr>
</tbody>
</table>

And an elective from the following list:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 334</td>
<td>Procurement</td>
<td>3</td>
</tr>
<tr>
<td>MGT 475</td>
<td>International Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 476</td>
<td>Doing Business in Mexico</td>
<td>3</td>
</tr>
<tr>
<td>MGT 479</td>
<td>Current Topics in Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 492</td>
<td>Internship in Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 499</td>
<td>Independent Study</td>
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</tr>
<tr>
<td>MKT 390</td>
<td>New Product Development</td>
<td>3</td>
</tr>
<tr>
<td>MKT 474</td>
<td>Doing Business in Canada</td>
<td>3</td>
</tr>
</tbody>
</table>

MKT 201 Principles of Marketing  
Introduction to the concepts, issues and opportunities associated with marketing management. Marketing strategy, buyer behavior, new product development, product management, price, promotion and channel decisions within context of overall environment and the cornerstones of this course. *Fall and Spring*

MKT 320 Consumer Behavior  
Application of concepts drawn from the behavioral sciences (i.e., anthropology, sociology and psychology) to provide insight into consumer decision-making and buyer behavior. Prerequisite: MKT 201 or permission of instructor. *Fall*

MKT 331 Fundamentals of Marketing Research  
Analyzes various techniques for obtaining marketing intelligence for top-level decision-making. Emphasizes marketing research methodologies and evaluation of data from primary and secondary sources. Prerequisites: MKT 201, ISB 201, ECO 255 and ECO 256. *Spring*

MKT 475 International Marketing  
Issues involved in marketing products in global markets. The focus is on identifying opportunities in world markets and adapting strategies to fit specific national market needs. Prerequisite: MKT 201 or permission of instructor. *Spring*

MKT 401 Cases in Marketing Management  
Case analysis is used to apply advanced practices and policies concerning product, price, promotion and supply chain marketing to marketing decision making. Prerequisites: FIN 201, ACC 201 and ACC 202, MGT 325 (or MGT 335, MGT 336), MKT 201, MKT 320. *Fall*

**ELECTIVE COURSES IN MARKETING**

Note: Additional or different marketing electives may be offered. Students should consult the department.

**MARKETING COURSES: 2011 - 2013**

**REQUIRED COURSES FOR MARKETING MAJORS**

<table>
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<tr>
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<td>Operations Analysis for Business (Non-Management Majors)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 440</td>
<td>Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 478</td>
<td>Global Logistics</td>
<td>3</td>
</tr>
</tbody>
</table>

MKT 335 and MGT 336 are prerequisites for most of the elective courses and should be completed by the end of the junior year. These two courses can be taken simultaneously. MGT 325 may be substituted for MGT 336. In the alternative, students who take both MGT 335 and MGT 336 are not required to take MGT 325.

Non-business majors must take MGT 101 (Introduction to Management) and ECO 255 (Business Statistics) prior to beginning the program.

MKT 351 Sales Management  
Sales policies and planning; sales organization; selection, training and compensation of salespersons; control of sales performance, sales budgets and cost control. Case materials used. Prerequisite: MKT 201. Elective

MKT 352 Professional Sales  
The more significant aspects and techniques of sales and practical issues pertaining to a career in sales. Prerequisite: MKT 201. Elective
MKT 390 New Product Development
Examines marketing’s role in bringing the “voice of the customer” into the new product (and new service) development process. Application of a variety of analytical, conceptual and statistical techniques are combined in marketing’s role in the development process. Prerequisites: MKT 201, ECO 255 and ECO 256, MKT 320 and MKT 331. Elective

MKT 392 Social Media Marketing
This course surveys a number of tools and marketing strategies associated with social media. Students will learn how business organizations use social networks, blogs, micro-blogging and other Web 2.0 technologies to build relationships with and engage consumers. Prerequisites: MKT 201 and MKT 320. Elective

MKT 396 Promotion / Advertising
Applies the theoretical bases from the consumer behavior course to promotional planning and implementation. Student project involves using the mix of promotional components to design an integrated marketing communication campaign. Prerequisites: MKT 201, ECO 255 and ECO 256, MKT 320 and MKT 331. Elective

MKT 445 Marketing Strategy Game
Student-run firms compete in a simulated business environment and use marketing concepts to make pricing, distribution, promotion and channels of distribution. Prerequisites: MKT 201, MKT 331. Elective

MKT 471 Doing Business in Emerging Markets
An introduction to international marketing in two emerging markets: China and India. The commercial aspects of the Indian and Chinese marketplaces are explored. In-depth analyses of individual companies in these markets are central to this course. Prerequisites: MKT 201 or permission of the instructor. Elective

MKT 472 Doing Business in Asia
This course in an introduction to international marketing in Asia. The commercial aspects of the Asian marketplace are explored. In-depth analyses of individual Asian countries and individual Asian businesses are central to this course. Prerequisites: MKT 201 or permission of the instructor. Elective

MKT 474 Doing Business in Canada
This course is an introduction to managing a business in Canada. The commercial aspects of the Canadian marketplace are explored as well as in-depth analyses of individual Canadian businesses are central to this course. Prerequisites: MKT 201, MKT 475. Elective

MKT 478 Global Logistics
This course is an introduction to logistics and transportation aspects of the distribution of goods in North America. The advantages and disadvantages of the different modes of transportation and their impact on business decisions are explored in detail. Prerequisites: MKT 201, MKT 331. Elective

MKT 496 (MGT 496) Marketing Internship
See MGT 496 for description.

MKT 497 FIT Internship
For students in the Fashion Institute of Technology program. Prerequisite: Approval of chair or FIT coordinator.
Major Courses:

Option A (Mathematics Major):

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</thead>
<tbody>
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<td>Calculus I</td>
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<td>Linear Algebra</td>
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<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 230</td>
<td>Logic, Set Theory, and Proofs</td>
<td>4</td>
</tr>
<tr>
<td>MAT 311</td>
<td>Abstract Algebra I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 321</td>
<td>Real Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 380-381-480</td>
<td>Mathematics Seminar</td>
<td>1-1-1</td>
</tr>
<tr>
<td></td>
<td>4 additional 300 or 400-level mathematics courses</td>
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</table>

ONE OF THE FOLLOWING

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MAT 312</td>
<td>Abstract Algebra II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 313</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td>MAT 322</td>
<td>Real Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 411</td>
<td>Topology</td>
<td>3</td>
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<tr>
<td>MAT 416</td>
<td>Differential Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT 421</td>
<td>Complex Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Introduction:

The Department of Mathematics and Statistics strives to transmit an understanding and appreciation of mathematics: its substance, its applicability, its literature, its current directions and problems, its historical development, its human worth and values; and to promote the development of skill in the practice of mathematics.

Goals:

http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:

Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Mathematics and Statistics. Students must have a minimum grade of C- in all courses in the major. All students must complete a minimum of 120 credit hours to graduate.

Advisement:

All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:

Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:

Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.
Option B (Mathematics with a concentration in another area):

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<tbody>
<tr>
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</tr>
<tr>
<td>MAT 380-</td>
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<td>381-480</td>
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2 additional 300 or 400-level mathematics courses

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Option C (Statistics):

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<tr>
<td>MAT 354</td>
<td>Experimental Design and Statistical Computing</td>
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</tr>
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<td>MAT 365</td>
<td>Logistic Regression</td>
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</tr>
<tr>
<td>MAT 370</td>
<td>Topics in Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives:

Option A: PHY 223-224 General Physics (4-4) or two economics courses

Option B: PHY 223-224 General Physics (4-4) or two economics courses, four courses in another area approved by the Department of Mathematics and Statistics

Option C: PHY 223-224 General Physics (4-4) or two economics courses

Additional Course Considerations:

Option A is designed to prepare the student for positions in which mathematical competence is sought, as well as for advanced study in graduate school.

Option B allows the student to develop expertise in another area besides mathematics. Many students combine this option with a major or minor in another department. Students interested in education can get a dual major to give them a strong background in mathematics while fulfilling the requirements of the School of Education.

Option C prepares the student for advanced work or graduate study and the many careers which utilize statistical thinking. This option, together with appropriate courses in business, constitutes a good preparation for a career in actuarial science.

Recommended Semester Schedule for Major Course Requirements:

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<tr>
<td>MAT 370</td>
<td>Topics in Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>
Minors:
Students must complete the appropriate minor request form.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 111</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MAT 115</td>
<td>4</td>
</tr>
<tr>
<td>MAT 112</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 211</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MAT 219</td>
<td>Linear Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MAT 230</td>
<td>Logic, Set Theory, and Proofs</td>
<td>4</td>
</tr>
</tbody>
</table>

AND TWO COURSES FROM ANY ONE OF THE FOLLOWING TRACKS:

Probability and Statistics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 351</td>
<td>Probability and Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 352</td>
<td>Probability and Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 353</td>
<td>Regression Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 354</td>
<td>Experimental Design and Statistical Computing</td>
<td>3</td>
</tr>
<tr>
<td>MAT 365</td>
<td>Logistic Regression</td>
<td>3</td>
</tr>
<tr>
<td>MAT 370</td>
<td>Topics in Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Applied Mathematics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 222</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>MAT 335</td>
<td>Mathematical Analysis for Physicists I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 336</td>
<td>Mathematical Analysis for Physicists II</td>
<td>4</td>
</tr>
<tr>
<td>MAT 341</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Theoretical Mathematics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 311</td>
<td>Abstract Algebra I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 312</td>
<td>Abstract Algebra II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 313</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td>MAT 321</td>
<td>Real Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 322</td>
<td>Real Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 411</td>
<td>Topology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 416</td>
<td>Differential Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT 421</td>
<td>Complex Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

Mathematics and Culture:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 301</td>
<td>History of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 331</td>
<td>Introduction to Modern Geometry</td>
<td>3</td>
</tr>
</tbody>
</table>
MATHMATICS AND STATISTICS
courses: 2011 - 2013

MAT 002 Pre-College Mathematics II
Intermediate Algebra II: Simplifying and solving rational equations, conic sections, relations and functions, exponential and logarithmic functions. Word problems. Fall

MAT 105 Finite Mathematics
Introduction to finite (non-calculus) mathematics and its applications: linear, quadratic, exponential and logarithmic functions and equations; systems of linear equations and linear programming; compound interest problems and annuities. (Field 7). Fall and Spring

MAT 106 Calculus for the Non-Sciences I
Fundamentals of calculus for students in business, or social or behavioral sciences. Credit not allowed if student already has credit for MAT 111 or 115. (Field 7). Fall

MAT 107 Calculus for the Non-Sciences II
Continuation of MAT 106. Integral calculus and calculus of several variables with applications. (Field 7). On demand

MAT 109-110 Calculus with Review I and II
For science and mathematics majors. Calculus, with topics from pre-calculus. Logarithms, exponentials, trigonometric functions, limits, differentiation, related rates, max-min problems, anti-differentiation, definite integral. No credit allowed if student has credit for MAT 111 or 115. (Field 7). MAT 109 Fall, MAT 110 Spring

MAT 111 Calculus I
For science and mathematics majors. Functions of a single variable. Functions, limits, differentiation, continuity, graphing, logarithm, exponential and inverse trigonometric functions, related rates, max-min problems, mean value theorem, l'Hospital's rule, anti-differentiation, definite integral. (Field 7). Fall and Spring

MAT 112 Calculus II
Applications of integration. Integration techniques, improper integrals, sequences, series, convergence tests, Taylor's theorem, applications; parametric and polar curves. (Field 7). Prerequisite: MAT 111 or 115 with minimum grade C-. Fall and Spring

MAT 115 Calculus for Business
Calculus for business students. Differentiation and integration of functions of one variable. Applications: concepts, examples and problems in economics and business. (Field 7). Prerequisite: 3 1/2 years of high school mathematics. Fall

MAT 121 Mathematics through History
Liberal arts mathematics course. Tracing the development of mathematical ideas globally and through history, with emphasis on problem solving techniques, quantitative thinking, and deductive reasoning. (Field 7) (Global Awareness Attribute). Prerequisite: 3 years of high school math or equivalent, sophomore standing or higher. Spring

MAT 131 Statistics and Computers
A first course for majors in social or health sciences. Descriptive statistics, calculators, computer programs and introduction to inferential statistics. (Field 7). Prerequisite: High school intermediate algebra. Fall and Spring

MAT 141 Inferential Statistics and Computers for Science
Elementary probability theory, descriptive statistics, hypothesis testing, estimation, correlation and regression. The computer will be used with one of the standard statistical packages. (Field 7). Prerequisite: 3 1/2 years of high school mathematics. Spring

MAT 150 Mathematics and Politics
Liberal arts course emphasizing applications of math in the social sciences. Covers topics such as voting theory, decisions made by groups, measurement of political power. (Field 7) (Justice Attribute). Prerequisite: 3 years of high school mathematics or equivalent. Spring

MAT 181 Symmetry
Liberal arts course exploring the mathematical world of geometry and symmetry. Measurement, billiards, polygons and polyhedra, tilings and wallpaper patterns, spirals and natural growth. (Field 7). Prerequisite: 3 years of high school mathematics or equivalent. Fall

MAT 191 Introduction to Discrete Mathematics
Fundamental topics with computer science applications. Sets and logic, propositional and predicate calculus, elements of combinatorics and counting, elementary discrete probability, functions and relations, graphs. Prerequisite: Sophomore standing or instructor's permission. Spring

MAT 211 Calculus III
Continuation of MAT 111-112. Analytic geometry of 3-space and calculus of functions of several variables. Prerequisite: MAT 112 with minimum grade of C-. Fall and Spring

MAT 219 Linear Algebra
Vector spaces and inner product spaces. Linear transformations and matrices. Eigenvectors, eigenvalues, and applications. Orthogonal transformations. Quadratic forms and quadric surfaces. Prerequisite: MAT 112 or consent of the instructor. Fall and Spring

MAT 222 Differential Equations
Introduction to the theory and applications of ordinary differential equations. Prerequisite: MAT 211 with minimum grade of C-. Fall

MAT 230 Logic, Set Theory, and Proofs
Transition from calculus to upper division courses: logic and methods of proof; set theory; relations, orders and functions; number systems; cardinality. Prerequisite: MAT 112 with minimum grade of C - or consent of the instructor. Fall and Spring

MAT 301 History of Mathematics
Development and interrelations of major areas of mathematics, from ancient to modern times. Emphasis on both historical context and mathematical content. Mathematics as cultural heritage. Prerequisite: MAT 111-112. Fall
MAT 311 Abstract Algebra I
Introduction to the basic structures of abstract algebra; groups, rings, fields. Prerequisites: MA T 230 and MA T 219 with minimum grades of C-. Fall

MAT 312 Abstract Algebra II
Continuation of MAT 311. Selected topics from rings, integral domains, field extensions and Galois theory. Prerequisite: MAT 311. Spring 2013

MAT 313 Number Theory
Divisibility, prime numbers, numerical functions, congruencies, quadratic reciprocity, Diophantine equations. Prerequisite: MAT 311 or permission of instructor. Spring 2012

MAT 321 Real Analysis I
Advanced study of differentiation and integration of functions. Prerequisites: MAT 211, 230, 219 with minimum grades of C-; or MAT 211, 230 and consent of instructor. Fall

MAT 322 Real Analysis II
Continuation of MAT 321. Selected topics from functions of one or several variables. Prerequisite: MAT 321 with minimum grade of C-. Spring 2012

MAT 331 Introduction to Modern Geometry
Axioms for geometry and their consequences: independence of the parallel postulate. Rudiments of hyperbolic geometry. Geometric transformations. Prerequisite: MAT 230. Fall

MAT 335-336 Mathematical Analysis for Physicists
Theory and applications of infinite series. Fourier series, Green’s functions. Fourier integrals, vector calculus, linear algebra, partial differential equations and complex variables. Prerequisite: MAT 222 or consent of instructor. On demand

MAT 341 Numerical Analysis
The methods used to obtain numerical solutions of functional, integral and differential equations. Prerequisites: An elementary knowledge of computer programming and MAT 219. On demand

MAT 342 (CSC 342) Introduction to Graph Theory
This course covers basic constructions on graphs. Complete graphs, bipartite graphs, trees, cycles, and more general graphs are studied along with their combinatorial properties. Euler circuits, Hamilton circuits, spanning trees. Applications of graphs to optimization problems such as the Traveling Salesperson Problem and Construction of the Minimal Spanning Trees. Prerequisite: one semester of Calculus. On demand

MAT 351-352 Probability and Statistics
Introduction to the mathematical aspects of modern probability theory and the theory of statistics. Prerequisite: MAT 211. MAT 351 Spring; MAT 352 Fall

MAT 353 Regression Analysis
Linear regression and correlation. Covariance, residual sum of squares, residual variance, correlation coefficient, tests of significance for correlation coefficient and for regression coefficients. Non-linear regression. Prerequisites: MAT 351-352 or consent of instructor. Spring 2012 and every third semester

MAT 354 Experimental Design and Statistical Computing
Analyzing data; one-way/two-way blocking; chi-square, goodness of fit. Statistical computing package; Monte-Carlo simulation-subset selection, central limit theorem; residual plots. Prerequisites: MAT 351-352 or permission of instructor. Fall 2011 and every third semester

MAT 365 Logistic Regression
Statistical analysis of dichotomous data. Univariate and multivariate cases are covered. Applied problems solved on the computer. Prerequisite: MAT 352 or ECO 256. On demand

MAT 370 Topics in Statistics
Prerequisite: MAT 352 or permission of instructor. On demand

MAT 380-381-480 Mathematics Seminar
Mathematics seminar for majors. To be taken for three semesters. (Oral Communication Attribute). Prerequisite: Junior standing.

MAT 411 Topology
An introduction to topology, stressing concrete examples including surfaces. Point-set, geometric and algebraic topology with interconnections and applications. Prerequisite: MAT 230 or permission of instructor. Fall 2013

MAT 416 Differential Geometry
Curves in the plane and 3 space: Frenet formulas, isoperimetric inequalities. Basic elements of surface theory. Curvature and mean curvature. Gauss’s Theorema Egregium. Rigidity questions. Prerequisite: MAT 321. On demand

MAT 421 Complex Analysis
Complex numbers, analytic functions and mappings. Cauchy-Riemann equations, harmonic functions, Cauchy’s theorem, integral formula and inequalities. Power series, residues, singularities and zeros, Rouche’s Theorem. Prerequisite: MAT 321 or permission of the instructor. Spring 2013

MAT 498 Internship in Mathematics
Internship involving non-routine tasks linking academic concepts to practical experience. May be used for free elective credit only. Prerequisite: Consent of chair. On demand

MAT 499 Independent Study
Prerequisite: Consent of instructor and chair. On demand
Medical Laboratory Science

Director: Marjorie Shanks

Introduction:
The interdisciplinary curriculum of the Medical Laboratory Science major is concentrated in the natural sciences with special emphasis on biology and chemistry. Students stay on campus for the first three years of the program and spend their senior year in a hospital based clinical internship.

At Canisius, this learning experience is one of quality and value enhanced by small class sizes. The full-time professors you will encounter are trained professionals who hold doctoral degrees in their areas of expertise. During the clinical internship, the faculty will consist of PhDs, pathologists, clinical laboratory scientists, and others recognized for their experience in the various sub-specialties of laboratory medicine.

Our program prepares graduates to analyze human blood and body fluids which aid in the diagnosis, treatment and prevention of diseases. Medical Laboratory Scientists conduct such tests as typing and crossmatching of blood and blood components, drug monitoring (for therapeutic and illegal drugs), identifying infectious microorganisms and their susceptibility to specific treatments, determining a patient’s genetic predisposition to a variety of inherited diseases, and identifying anemias, leukemias and other blood disorders.

Learning Goals:
Goal 1: Medical Laboratory Science majors will possess the skills necessary to be competent and contributing members of the health-care delivery system. Students will:

A. Demonstrate thorough understanding of structure and function of human body systems;
B. Possess a thorough understanding of the components of the diagnostic process and the role of the clinical laboratory;
C. Demonstrate professional attitude and conduct;
D. Maintain and comprehend the interrelationships of health care professionals with regard to patient care.

Goal 2: Medical Laboratory Science majors will demonstrate proficiency in analytical skills (technical competency). Students will:

A. Obtain scientific data through a multitude of analytical methods;
B. Evaluate scientific data with respect to diagnosis of disease and maintenance of health;
C. Design and implement new analytical methods;
D. Critically analyze and apply methods from external sources.

Goal 3: Medical Laboratory Science majors will effectively communicate medical and scientific information. Students will:

A. Effectively prepare scientific reports and procedures;
B. Deliver critical data sets to health care team members;
C. Effectively assemble and present results of scientific research to the medical community;
D. Demonstrate ethical regard and respect for the privacy of patients and their health information.

Curricular Requirements for the Major:

Core Curriculum Requirements:
Go to http://www.canisius.edu/core_curriculum/default.asp for the Core Curriculum requirements. All students complete these requirements as part of their overall Canisius education.

<table>
<thead>
<tr>
<th>Major course requirements: (20 courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
</tr>
<tr>
<td>BIO 107-108</td>
</tr>
<tr>
<td>BIO 111-111L</td>
</tr>
<tr>
<td>BIO 112-112L</td>
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<tr>
<td>BIO 211</td>
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<tr>
<td>BIO 212</td>
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<tr>
<td>BIO 307-307L</td>
</tr>
<tr>
<td>BIO 426</td>
</tr>
<tr>
<td>CHM 111-112</td>
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<tr>
<td>CHM 227-228</td>
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<tr>
<td>MAT 141</td>
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<tr>
<td>MDT 280-281</td>
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<tr>
<td>MDT 380-381</td>
</tr>
<tr>
<td>MDT 400-401</td>
</tr>
</tbody>
</table>

Free electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.
Military Science

Full-Time Faculty: Lieutenant Colonel Paul M. Baker, Chair; Lieutenant Colonel (Ret.) Rebecca M. Sparacino, Major Timothy J. Simmons, Captain Sarah E. McMahon, Captain, Robert Morris, and Master Sergeant Gene G. Bass

The Military Science and Leadership Program is designed to augment the college learning experience. The cornerstone of the program is to identify and develop future leaders. The primary goals are to identify, assess and develop the leadership potential of young men and women and commission them as officers in the United States Army, Army Reserve or Army National Guard.

Intermediate goals include providing students with leadership and managerial skills that will prepare them to serve the nation in public service, business, military and community organizations. This program is open to students of all majors.

The traditional Military science program is four years: a two-year Basic Course (six credit hours/year), for which no military obligation is incurred and a two-year Advanced Course (six credit hours/year) for which there is a military obligation.

The Basic Course refers to the first and second year of the Military Science curriculum. It is designed as a classroom and lab course that stresses the fundamentals of leadership. A freshman student would enroll in MLS 101 and MLS 111L in the fall and MLS 102 and MLS 112L in the spring. A sophomore would enroll in MLS 201 and 211L in the fall and MLS 202, 212L in the spring. These courses are designed for students who are interested in exploring opportunities within the military and learning basic leadership fundamentals. A number of popular and challenging extra-curricular activities are available to students who take these courses. Students may take up to twelve Basic Course credits without any contractual or military obligation.

The basic course sequence is required for all students that want to qualify for entry into the Advanced Course. A student may also qualify for acceptance into the Advanced Course by completing the Leaders Training Course (MLS 210) at Ft. Knox, KY. Some students, with prior military service may also receive placement credit for the Basic Course.

For more information students should contact the Military Science Department located on the first floor in the Health Science Building.

The following sequence of Military Science 100 and 200 level courses can each be counted as a 3.0 credit free elective:

- MLS 101 (1 credit) and MLS 111L (2 credits)
- MLS 102 (1 credit) and MLS 112L (2 credits)
- MLS 201 (1 credit) and MLS 211L (2 credits)
- MLS 202 (1 credit) and MLS 212L (2 credits)

The Course must be taken in these sequences during the same semester. Students may count up to two such sequences of 3 each for a total of two free electives (6 credits) in their college career.

MSL 201 and 211L taken together fulfill the “Oral” Attribute of Canisius College’s core curriculum.

The Advance Course is comprised of MLS 301/311L, MLS 302/312L, MLS 401/411L and MLS 403/412L. Upon completion of this sequence and successful completion of The Leadership Development Assessment Course (LDAC) students are commissioned as Second lieutenants in the Army, Army National Guard or Army Reserve. Based on the students’ area of study, Military Science 300 and 400 level courses continue to bear free elective credit.

The following sequence of Military Science 300 and 400 level courses may be counted as a 3.0 credit elective:

- MSL 301 3 and MSL 311L (0 credits)
- MSL 302 3 and MSL 312L (0 credits)
- MSL 401 3 and MSL 411L (0 credits)
- MSL 402 3 and MSL 412L (0 credits)

Students are required to sign up and participate in Lab during the Advance Course even though they do not receive academic credit for the lab.

Note: Successful completion of the ROTC program also requires a one-semester course in military history that is offered through the History Department. Students should contact the Military Science Department for the approved Military History Courses.

Military Science Summer Credit

During the summer, students may receive 3.0 credits for completing MLS 210 (Leader Training Course (LTC) at Ft. Knox, KY. LTC is a 5-week program that allows a student to meet the prerequisite (100-200 level courses, basic course) in order to begin the junior year in the program. For example, a second semester sophomore who has not taken MLS 100-200 level courses can go to Ft. Knox over the summer and then take 300-400 level courses during his/her junior and senior years and be commissioned upon graduation. For more information on this program, contact the Military Science Department.

All juniors receive credit for MLS 310 - Leader Development and Assessment Course (LDAC) at Ft. Lewis, WA during the summer between their junior and senior year. This is a demanding 32-day course designed to develop and evaluate leadership ability and is required for all Advanced Course ROTC cadets. Further details are available through the Canisius College Department of Military Science.
### MILITARY SCIENCE COURSES: 2011-2013

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MSL 101 Introduction to Leadership I</strong></td>
<td>1</td>
</tr>
<tr>
<td>Course focuses on individual leadership skills and functioning as an</td>
<td></td>
</tr>
<tr>
<td>effective member of a team. Optional: Leadership Lab; three one-hour</td>
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</tr>
<tr>
<td>physical fitness sessions; weekend military exercises. 50 minutes</td>
<td></td>
</tr>
<tr>
<td>once a week.</td>
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<tr>
<td><strong>MSL 102 Introduction to Leadership II</strong></td>
<td>1</td>
</tr>
<tr>
<td>Course continues leadership development through an introduction to</td>
<td></td>
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<tr>
<td>problem solving and effective decision-making techniques. Optional:</td>
<td></td>
</tr>
<tr>
<td>Leadership Lab; three one-hour physical fitness sessions; weekend</td>
<td></td>
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<tr>
<td>military exercises. 50 minutes once a week.</td>
<td></td>
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<tr>
<td><strong>MLS 201 Leadership and Teamwork I</strong></td>
<td>1</td>
</tr>
<tr>
<td>Course focuses principally on leadership, providing an extensive</td>
<td></td>
</tr>
<tr>
<td>examination of the unique purpose, roles and obligations of leaders.</td>
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<tr>
<td>This course involves small group exercises in communication; goal</td>
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<tr>
<td>setting, and public speaking. Optional: leadership labs, three one-</td>
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</tr>
<tr>
<td>hour physical fitness sessions, weekend military exercises. 50</td>
<td></td>
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<tr>
<td>minutes once a week.</td>
<td></td>
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<tr>
<td><strong>MLS 202 Leadership and Teamwork II</strong></td>
<td>1</td>
</tr>
<tr>
<td>Course focus is on motivational techniques, organizational ethics,</td>
<td></td>
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<tr>
<td>values and counseling as part of a team. The course involves basic</td>
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<tr>
<td>military tactics, small unit operations planning and map reading.</td>
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<tr>
<td>Optional: leadership labs, three one-hour physical fitness sessions,</td>
<td></td>
</tr>
<tr>
<td>weekend military exercises. 50 minutes once a week.</td>
<td></td>
</tr>
<tr>
<td><strong>MLS 111L/112L/211L/212L Basic Course Leadership Laboratory</strong></td>
<td>2</td>
</tr>
<tr>
<td>Students are given opportunities to lead their peers in hands-on</td>
<td></td>
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<tr>
<td>training in basic military skills such as land navigation, rappelling,</td>
<td></td>
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<tr>
<td>tactics, drill and ceremony, first aid training and survival</td>
<td></td>
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<tr>
<td>swimming. Prerequisite: Concurrent enrollment in MSL 101, 102, 201 or</td>
<td></td>
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<tr>
<td>202.</td>
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<tr>
<td><strong>MSL 210 – Summer Course - Leader’s Training Course</strong></td>
<td>3</td>
</tr>
<tr>
<td>A summer leadership internship held at Fort Knox, Kentucky. Students</td>
<td></td>
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<tr>
<td>are paid and expenses are covered. Completion allows a student to</td>
<td></td>
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<tr>
<td>compete for a Two Year Army ROTC scholarship and entrance into the</td>
<td></td>
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<tr>
<td>Advance Course. Five weeks</td>
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</tr>
<tr>
<td><strong>MSL 301 – Unit Organization and Tactical Operations I</strong></td>
<td>3</td>
</tr>
<tr>
<td>Small unit operations and advanced tactics. Extensive use of</td>
<td></td>
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<tr>
<td>situational leadership exercises and group problem solving. Forming</td>
<td></td>
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<tr>
<td>and communicating of oral and written operational plans and orders.</td>
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</tr>
<tr>
<td>Understanding and applying military geography terms and symbols</td>
<td></td>
</tr>
<tr>
<td>and orienteering during labs. Three hours per week. Prerequisite:</td>
<td></td>
</tr>
<tr>
<td>Approval of department chair; concurrent registration in MLS 311L.</td>
<td></td>
</tr>
<tr>
<td><strong>MSL 302 Unit Organization and Tactical Operations II</strong></td>
<td>3</td>
</tr>
<tr>
<td>Course focus is on application of military leadership theory.</td>
<td></td>
</tr>
<tr>
<td>Instruction includes delivering briefings and issuing operation</td>
<td></td>
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<tr>
<td>orders; advanced military skill training and small unit operations</td>
<td></td>
</tr>
<tr>
<td>are emphasized. Prerequisite: Approval of department chair; concurrent</td>
<td></td>
</tr>
<tr>
<td>registration in MLS 312L.</td>
<td></td>
</tr>
<tr>
<td><strong>MSL 310 Leader Development and Assessment Course</strong></td>
<td>3</td>
</tr>
<tr>
<td>A five week training experience at Fort Lewis, WA designed to develop</td>
<td></td>
</tr>
<tr>
<td>and evaluate leadership ability. The challenges are demanding, both</td>
<td></td>
</tr>
<tr>
<td>mentally and physically. In addition to proving their leadership</td>
<td></td>
</tr>
<tr>
<td>ability, cadets must meet established standards in physical fitness</td>
<td></td>
</tr>
<tr>
<td>and demonstrate proficiency in military skills.</td>
<td></td>
</tr>
<tr>
<td><strong>MLS 311L/312L Advanced Leadership Lab</strong></td>
<td>0</td>
</tr>
<tr>
<td>Cadets apply basic military skills in small peer learning exercises</td>
<td></td>
</tr>
<tr>
<td>and small unit training operations. Leadership positions are rotated</td>
<td></td>
</tr>
<tr>
<td>to solve problems in tactics, land navigation, logistics and crisis</td>
<td></td>
</tr>
<tr>
<td>reaction. Required for MSL 301/302 students.</td>
<td></td>
</tr>
<tr>
<td><strong>MSL 401 Advanced Leadership Studies</strong></td>
<td>3</td>
</tr>
<tr>
<td>This course studies leadership skills required of Army Officers and</td>
<td></td>
</tr>
<tr>
<td>prepares cadets to lead the cadet battalion during the school year.</td>
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</tr>
<tr>
<td>Emphasis on staff organization and function, the Army's training</td>
<td></td>
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<tr>
<td>management system, counseling methods and leadership, and oral</td>
<td></td>
</tr>
<tr>
<td>communication. Prerequisites: MSL 301, MLS 302 and MSL 310; concurrent</td>
<td></td>
</tr>
<tr>
<td>registration in MLS 411L or approval from the department chair.</td>
<td></td>
</tr>
<tr>
<td><strong>MSL 402 Military Law, Ethics and the Military Profession</strong></td>
<td>3</td>
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<tr>
<td>Final preparation for commissioning as a US Army Officer. Course</td>
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<tr>
<td>emphasis is on establishing command climates, the military legal</td>
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<tr>
<td>system, laws of war, administrative and logistical management and</td>
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<tr>
<td>transition from cadet to lieutenant. Prerequisite: MSL 401; concurrent</td>
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<tr>
<td>registration in MLS 412L or approval from the department chair.</td>
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<tr>
<td><strong>MSL 411L/412L Senior Leadership Laboratory</strong></td>
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<tr>
<td>Under cadre supervision, seniors plan, conduct and evaluate training</td>
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<tr>
<td>for the underclass leadership labs. Seniors provide instruction,</td>
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<tr>
<td>coaching and mentoring to underclass cadets, and conduct command and</td>
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<tr>
<td>staff activities needed to run the cadet battalion. Required for MSL</td>
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<tr>
<td>401/402.</td>
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<tr>
<td><strong>MLS 199/299/399/499 Independent Study</strong></td>
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<tr>
<td>These courses are offered to facilitate progression of ROTC courses</td>
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<tr>
<td>when there are scheduling conflicts with courses in a student's major.</td>
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<tr>
<td>They are also used in some cases to support ROTC Cadets who</td>
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<tr>
<td>participate in study aboard programs. Students study selected</td>
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<tr>
<td>military topics and materials under the supervision of a cadre</td>
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<tr>
<td>member designed to meet the course objectives of MSL 101, 102, 201,</td>
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<tr>
<td>202, 301, 302, 401 and 402. Prerequisite: Permission of the Professor</td>
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<tr>
<td>of Military Science.</td>
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<tr>
<td><strong>MLS 480 Military Leadership History</strong></td>
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<tr>
<td>This course teaches leadership. It focuses on the historical leaders</td>
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<td>of the Army and their leadership characteristics. Students discover</td>
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<tr>
<td>how historical leaders have led successful and unsuccessful military</td>
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<tr>
<td>campaigns throughout our nation's history. The objective is for each</td>
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<tr>
<td>student to understand our military history in order to better apply</td>
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<td>leadership to subordinates today.</td>
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Modern Languages, Literatures and Cultures
Chair: Margaret K. Stefanski

Introduction:
Language connotes cultural dimensions that extend well beyond their immediate meaning. Our primary mission is to instill an awareness of language as an essential element of a human being’s thought processes, perceptions, and self-expressions. As recent world events have demonstrated, deep cultural knowledge and linguistic competence are equally necessary if one wishes to understand people and their communities. We seek to provide students with the skills and intellectual breadth needed to communicate effectively and to play an active role in today’s world. Courses offered in the Department of Modern Languages, Literatures and Cultures are aligned with the National Standards for Foreign Language Learning: Communication (Communicate in Languages Other Than English); Cultures (Gain Knowledge and Understanding of Other Cultures); Connections (Reinforce and Further Knowledge of Other Disciplines); Comparisons (Develop Insight into the Nature of Language and Culture); and Communities (Participate in Multilingual Communities at Home and Around the World).

The Department of Modern Languages, Literatures and Cultures offers majors and minors in French, German, and Spanish, as well as instruction in Arabic, Chinese, Italian, Polish, and American Sign Language. Language study combines uniquely with virtually any major; but of particular interest and practicality are dual majors with international business, international relations, communications, economics, education, marketing, management, philosophy, history, English, political science, biology, and art history. Skills in a foreign language are often the deciding factor in an employer’s choice between our graduates and equally qualified but monolingual peers. Language majors pursue rewarding careers in social work, international business (sales, management, banking, export), government service (customs and immigration, foreign service, intelligence agencies), teaching, interpreting, and scientific research, to mention but a few of the many exciting possibilities.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/modern-languages-literatures-cultures/overview.asp

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Each language course applied to a French, German and Spanish language major or minor must be completed with a grade of C or better. Any course with a grade of C- or below must be repeated.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. In the case of dual and triple majors, students must have an advisor in each department. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses:
Single language majors are required to complete six courses in a primary language and four courses in a second language. The required courses are Intermediate I and II FRC/GER/SPA 215-216, Topics in Conversation I and II FRC/GER/SPA 323-324, and Substance and Style I and II FRC/GER/SPA 331-332.

Major Electives:
In addition, language majors are required to complete six French, German or Spanish electives if beginning at 215-216 level or its equivalent. If starting at 300 level or its equivalent, two additional electives must be completed. Of those electives, one may be a Senior Capstone.

Major Experiences:
STUDY ABROAD REQUIREMENTS
Modern Languages, Literatures and Cultures majors are required to study abroad for a minimum of four consecutive weeks in a formal pre-approved program in the target language.

Language majors who choose to spend a semester abroad at a foreign university may count up to three courses as a Modern Language core or elective as long as these courses are taught in the target language and have been pre-approved by the chair of the department of Modern Languages, Literatures and Cultures.
Students who spend more than one semester studying at a foreign university may count an additional two courses as a Modern Language core or elective. Credits for short programs abroad are determined by the number of contact hours.

As a general rule, students complete the 215-216 sequence or the equivalent and one 300 level course at Canisius College prior to studying at a foreign university. Consultation with a department of Modern Languages, Literatures and Cultures academic advisor is required prior to study abroad. It is expected that students will complete at least one course in the major upon return to Canisius College.

Please see the website for a more detailed description of the programs and opportunities: http://www.canisius.edu/studyabroad/default.asp

Cultural Requirement

Over the course of the semester, each student in the Department of Modern Languages, Literatures and Cultures will participate in or attend two cultural events or activities outside of regular class time.

Please see the website for a more detailed description of the programs, opportunities and requirements: http://www.canisius.edu/modern-languages-literatures-cultures/outside.asp

Native Speaker

Native speakers of languages other than English receive a language requirement waiver if they are able to provide documentation of their native speaker status. Examples of documents include, but are not limited to, a school diploma received from a country where the language of instruction is not English or an internationally recognized examination certifying language abilities.

Additional Course Considerations:

<table>
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<tr>
<th>Recommended Semester Schedule for Major Course Requirements</th>
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<tr>
<td>YEAR</td>
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<tr>
<td>Freshman</td>
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<tr>
<td>Sophomore</td>
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<td>Junior</td>
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<td>Senior</td>
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Dual Majors:

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean. For information on program details: http://www.canisius.edu/modern-languages-literatures-cultures/overview.asp

Dual majors in two languages are required to complete 18 courses with 10 courses in the primary language and 8 courses in the secondary language at 200-level and above.

Dual majors in languages and other departments are required to complete 10 language courses at 200-level and above.

Dual majors in languages and EDU are required to complete 12 language courses at 200-level and above. For information on concentration in language: http://www.canisius.edu/education/undergrad.asp

The required courses are Intermediate I and II FRC/GER/SPA 215-216, Topics in Conversation I and II FRC/GER/SPA 323-324, Substance and Style I and II FRC/GER/SPA 331-332, and four language electives (six electives for EDU majors).

Minors:

Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

The language minor is an interdisciplinary program aimed at developing Intermediate language skills and broad cultural understanding. It is designed with flexibility in order to accommodate students’ personal and professional interests. Language and cultural studies minors prove to be important assets when seeking employment or applying to graduate schools. It also provides an incentive for students to study in upper division language and literature courses. Students who reach the intermediate level of French, German or Spanish have the opportunity of studying in France, Germany, Spain, Argentina, and El Salvador.
Students must complete six courses for Language and Culture Minor programs in French, German and Spanish. The required courses are Intermediate I and II FRC/GER/SPA 215-216, Topics in Conversation I and II FRC/GER/SPA 323-324, and/or Substance and Style I and II FRC/GER/SPA 331-332 or any combination of 300-level language courses. Up to two of these courses can be replaced by two FRC/GER/SPA electives or two approved courses from other departments or two approved courses from study abroad. Pre-approved Internships and Campus Ministry service trips may count toward a minor. All electives from other departments are subject to DMLLC approval. All content from courses taken outside DMLLC should be included in student portfolios (syllabus, term papers, reports, final projects, etc.).

Please see the website for a more detailed description of the programs: http://www.canisius.edu/modlang/minors.asp

MODERN LANGUAGES, LITERATURES AND CULTURES

COURSES: 2011 – 2013

ARBC 103-104 Introductory Arabic
Reading, writing, listening and speaking. Introduction to Arabic culture. Course aim is for almost exclusive use of Arabic in class. Supplemented by required aural-oral practice in Language Laboratory (ARBC 299). Prerequisite for ARBC 104: C or better in ARBC 103 or permission of chair. ARBC 103 Fall, ARBC 104 Spring

ARBC 115-116 Advanced-Introductory Arabic
Continued development in writing, listening, speaking and especially reading Arabic literary and cultural material. Comprehensive grammar review. Continued aim of almost exclusive use of Arabic in class. Lab required. Prerequisites for ARBC 115: C or better in ARBC 104. ARBC 115 Fall, ARBC 116 Spring

ARBC 215-216 Intermediate Arabic
This course is an intermediate level course for all students who have completed 12 credits of Arabic language or an equivalent of 12 credits from another institution. The focus of the course is on grammar, structure, listening, reading and writing. Also emphasized is the cultural component. Each lesson in this course will address at least one cultural component framed in the context of the lesson. Cultural components include, but are not limited to, Middle Eastern cultures, North African cultures, and the influence of three religions—namely Islam, Judaism and Christianity—on cultures in the Arab World regions. Exclusive use of Standard Arabic in class. Prerequisite for Arabic 216 or better is Arabic 215 or permission of Chair. Arabic 215 Fall, and Arabic 216 Spring

ASL 103 American Sign Language I
Introduction to American Sign Language (ASL), its structure, major grammatical features and language functions. Vocabulary acquisition. Captioning and telecommunication devices. Deaf cultural information. Deaf co-teacher and deaf consultants. Language lab required (ASL 299) Fall

ASL 104 American Sign Language II
Builds on basic American Sign Language (ASL) grammar and conversational skills. Increases expressive/receptive fluency. Linguistic and cultural ASL concepts are expanded and deaf traditions studied. Deaf co-teacher and deaf consultants. Language lab required (ASL 299). Prerequisite: ASL 103 Spring

ASL 115 American Sign Language
In-depth history of American Sign Language. Cultural behaviors of deaf persons. Enhance sign language vocabulary. Ongoing development of language skills needed to explain ideas or concepts. Expand the ability to translate written text into American Sign Language. Broaden the use of classifiers. Develop greater fluency in expressive and receptive skills. (No lab)

ASL 116 American Sign Language
Continue to develop conversational fluency with deaf persons. Basic ASL story telling techniques. Role shifting and spatial agreement. Sequencing the use of appropriate classifiers. Presentation of specific narratives. Attend activities at the School for the Deaf. Contributions/roles of deaf individuals. (No lab)

FRC 103-104 Introductory French
Reading, writing, listening and speaking. Introduction to French culture. Almost exclusive use of French in class. Prerequisite for 104: Grade of C of better in FRC 103 or permission of chair. FRC 103 Fall, FRC 104 Spring

FRC 115-116 Advanced-Introductory French
Continued development in writing, listening, speaking and especially reading French literary and cultural material. Comprehensive grammar review. Almost exclusive use of French in class. Prerequisites for FRC 115: C or better in FRC 104 or one year of high school French. Prerequisite for FRC 116: C or better in FRC 115 or permission of chair. FRC 115 Fall, FRC 116 Spring

FRC 215-216 Intermediate French
This course is designed as a thorough review of grammatical structures. Also emphasized is the building of vocabulary, increasing competence in the four skills (reading, writing, listening and speaking) and gaining an overview of Francophone cultures. Exclusive use of French in class. Prerequisites for FRC 215: C or better in FRC 116 or two or three years of high school French. Prerequisite for FRC 216: C or better in FRC 215 or permission of chair. FRC 215 Fall, FRC 216 Spring

FRC 300 Intermediate Internship in France
Comparative study of a designated aspect of popular culture in France. For students who have not yet completed FRC 331. Prerequisite: Permission of chair.

FRC 323 Topics in Conversation I
Contemporary communication skills emphasized in general exploration of contemporary culture of the Francophone world. Exclusive use of French in class. Phonetics included. Language lab required. Prerequisite: C or better in FRC 216. Oral Communication Attribute. Fall
FRC 324 Topics in Conversation II
A continuation of FRC 323. Exclusive use of French in class. Prerequisite: C or better in FRC 323 or permission of chair. Oral Communication Attribute. Spring

FRC 331 Substance and Style: Effective Writing in French I
Distinguishing and producing effective writing of different types: essay, correspondence, description, self-portrait, report, curriculum vitae. Exclusive use of French in class. Prerequisite: C or better in FRC 216. Fall

FRC 332 Substance and Style: Effective Writing in French II
A continuation of FRC 331. Exclusive use of French in class. Prerequisite: C or better in FRC 331 or permission of chair. Spring

FRC 351 Junior French Seminar and Special Topics
Intensive analysis of selected literary works. Research paper required. Exclusive use of French in class. Prerequisite: C or better in FRC 324 and 332 or permission of chair. Field 3-Arts

FRC 400 Advanced Internship in France
Comparative study of a designated aspect of culture in France. For students who have already completed FRC 331/332. Prerequisite: Permission of chair.

FRC 433-434 Survey of French and Francophone Literature I/II
Selected readings of literary works from France and the Francophone world. Exclusive use of French in class. Prerequisite for FRC 433: C or better in FRC 324 and 332 or permission of chair. Prerequisite for FRC 434: C or better in FRC 433 or permission of chair. FRC 433 Fall, FRC 434 Spring. Field 3-Arts, Global Awareness Attribute.

FRC 437 French and Francophone History Through Film I
Via feature-length films and documentaries, the history and culture of France and the Francophone world are explored. An emphasis is placed on how France's and the Francophone world's history and culture impact its current policies on international relations. Exclusive use of French in class. Prerequisite for FRC 437: C or better in FRC 324 and 332 or permission of chair. Field 3-Arts, Global Awareness Attribute. Fall

FRC 439 French and Francophone History and Culture Through Film II
A continuation of FRC 437. Via feature-length films and documentaries, selected topics in contemporary issues of French and Francophone societies are explored. Exclusive use of French in class. Prerequisite for FRC 439: C or better in FRC 437 or permission of chair. Field 3-Arts, Global Awareness Attribute. Spring

FRC 441-442 Advanced French for Business I/II
Advanced aural/oral and writing skills needed for working in a French-speaking environment. Via the case-study method, practical situations, technical vocabulary and correspondence are highlighted. Exclusive use of French in class. Preparation for the Chambre de Commerce et d'Industrie de Paris Examination. Prerequisite for FRC 441: C or better in FRC 324 and 332 or permission of chair. Prerequisite for FRC 442: C or better in FRC 441 or permission of chair. FRC 441 Fall, FRC 442 Spring. Global Awareness Attribute.

FRC 449 Nos Voisins du Nord: Exploring the Francophone Regions of Canada
Exploration of the history, culture, and literature of the varied Francoophone groups of Canada, extending from the Maritime provinces (home to the Acadian populations) to Quebec and to as far west as Manitoba and Saskatchewan. Connections between these Francophone regions of Canada with the Francophone groups of New England and Louisiana will also be explored. Prerequisite for FRC 449: C or better in FRC 324 and 332 or permission of chair.

FRC 451 French Seminar and Special Topics
Intensive analysis of culture and/or selected literary themes. Research paper required. Exclusive use of French in class. Discipline specific topics according to course instructor. Prerequisite: C or better in FRC 323-324 and FRC 332 or permission of chair. Field 3-Arts

FRC 452 Tour de l’Amérique du Nord: Following the French in North America
Exploration of the rich history of the French in North America from the time of Nouvelle France (the era of Samuel de Champlain, the Huron-Wendat, les coureurs des bois, Marguerite Bourgeoys, Jeanne Mance, and les Filles du Roy), La Guerre de Conquête (England defeats France and gains control of Quebec), and Le Grand Dérangement (the uprooting of the Acadian People) to the present day reemergence of language reacquisition among the multiple Franco-American communities in the United States. Prerequisite for FRC 452: C or better in FRC 323-324 and 332 or permission of chair. Field 3-Arts, Global Awareness Attribute.

FRC 453 War and Memory
The primary objective of this course is to show how the impact of the events of World War II and the Occupation of France still play a major role in the cultural and economic forces at work in contemporary France. Students will discuss particularly the mentality and demeanor of the French, the permanent and evolving traits of French society and the grounding of French culture. Novels, memoirs, autobiographies, documentaries, feature-length films, and historical readings will form the basis for class discussions. Prerequisite for FRC 453: C or better in FRC 323-324 and 332 or permission of chair. Global Awareness Attribute.

FRC 499 Independent Study
Prerequisite: Permission of chair.

GER 103-104 Introductory German
Reading, writing, listening, and speaking. Introduction to German culture. Almost exclusive use of German in class. Prerequisite for GER 104: C or better in GER 103 or permission of chair. GER 103 Fall, GER 104 Spring

GER 115-116 Advanced Introductory German
Continued development in writing, listening, speaking and especially reading German literary and cultural material. Comprehensive grammar review. Prerequisites for GER 115: C or better in GER 104 or one year of high school German. Prerequisite for GER 116: C or better in GER 115 or permission of chair. GER 115 Fall, GER 116 Spring
GER 215-216 Intermediate German
This course is designed as a thorough review of grammatical structures. Also emphasized is the building of vocabulary, increasing competence in the four skills (reading, writing, listening and speaking) and gaining an overview of German culture. Exclusive use of German in class. Prerequisites for GER 215: C or better in GER 116 or two or three years of high school German. Prerequisite for GER 216: C or better in GER 215 or permission of chair. GER 215 Fall, GER 216 Spring

GER 323 Topics in Conversation I
Contemporary communication skills emphasized in general exploration of contemporary culture of the German-speaking world. Exclusive use of German in class. Phonetics may be included. Prerequisite for German 323: C or better in GER 216 or four years of high school German. Oral Communication Attribute. Fall

GER 324 Topics in Conversation II
A continuation of GER 323. Exclusive use of German in class. Language lab required. Prerequisite: C or better in GER 323 or permission of chair. Oral Communication Attribute. Spring

GER 331 Substance and Style: Effective Writing in German I
Distinguishing and producing effective writing of different types: essay, correspondence, description, report. Exclusive use of German in class. Prerequisite: C or better in GER 216. Fall

GER 332 Substance and Style: Effective Writing in German II
A continuation of GER 331. Exclusive use of German in class. Prerequisite: C or better in GER 331 or permission of chair. Spring

GER 341-342 Advanced German for Business I/II
Advanced aural/oral and writing skills needed for working in a German-speaking environment. Practical situations, technical vocabulary, and correspondence highlighted. Preparation for Wirtschaftsdeutsch International Examination. Exclusive use of German in class. Prerequisite for GER 341: C or better in GER 324 and 332 or permission of chair. Prerequisite for GER 342: C or better in GER 341 or permission of chair. GER 341 Fall, GER 342 Spring

GER 400 German Internship
Qualified students are placed in jobs or service programs where they will use and perfect language skills. Prerequisite: Permission of chair.

GER 453 German Literature since 1945
A thorough inquiry into aspects of literary life in both parts of Germany before and after 1990. Reflection on the attempts by East and West German authors to distance themselves from and cope with the experience of the literature of the Nazi era. Prerequisite: C or better in GER 324 and GER 332 or permission of chair. Field 3-Arts

GER 461 Germany before Re-Unification
An examination of dissimilar political, economic, and social issues in East and West-Germany before 1989. Assessment of values and attitudes in the two German societies. Culture and cultural politics in the East and the West. Prerequisite: C or better in GER 324 and GER 332 or permission of chair.

GER 462 Germany Today
The “new” political system in post-1989 unified Germany, the country’s cultural development, her economic structure, as well as her particular styles of life. Voices from West-German and East-German authors are heard as well as assessments of foreign critics and supporters of Germany’s re-unification. Prerequisite: C or better in GER 324 and GER 332 or permission of chair.

GER 463 1989-The Fall of the Berlin Wall in the European Context
An examination of the events which led to the demise of communism in Eastern Central Europe during the late 1980’s, culminating in the fall of the Berlin Wall on November 9, 1989. Movements in Poland, Hungary, Czechoslovakia, and the German Democratic Republic will be studied. Prerequisite: C or better in GER 324 and GER 332 or permission of chair.

GER 472 Contemporary German Film
Concentration on the period of Autorenfilm and highlighting some of its most prominent directors: Rainer Werner Fassbinder, Werner Herzog, Alexander Kluge, Edgar Reitz, Völker Schlöndorff, Jean-Marie Straub, Hans-Jürgen Syberberg, Rolf Thiele, Margarethe von Trotta, and Wim Wenders. Prerequisite: C or better in GER 324 and GER 332 or permission of chair. Field 3-Arts

GER 473 Literature and Film
Study of six literary epochs through literature and film, stretching from the 18th to the 20th centuries. Comparison and critical analysis of prose and its adaptation in German and foreign film. Prerequisite: C or better in GER 324 and GER 332 or permission of chair. Field 3-Arts

ITA 103-104 Introductory Italian
Reading, writing, listening and speaking. Introduction to Italian culture. Course aim is for almost exclusive use of Italian in class. Supplemented by required aural-oral practice in Language Laboratory (ITA 299). Prerequisite for ITA 104: C or better in ITA 103 or permission of chair. ITA 103 Fall, ITA 104 Spring

ITA 115-116 Advanced-Introductory Italian
Continued development in writing, listening, speaking and especially reading Italian literary and cultural material. Comprehensive grammar review. Continued aim of almost exclusive use of Italian in class. Lab required. Prerequisites for ITA 115: C or better in ITA 104. ITA 115 Fall, ITA 116 Spring

POL 103-104 Introductory Polish
Reading, writing, listening and speaking. Introduction to Polish culture. Course aim is for almost exclusive use of Polish in class. Prerequisite for POL 104: C or better in POL 103 or permission of chair. POL 103 Fall, POL 104 Spring

POL 115-116 Advanced-Introductory Polish
Continued development in writing, listening, speaking and especially reading Polish literary and cultural material. Comprehensive grammar review. Continued aim of almost exclusive use of Polish in class. Prerequisites for POL 115: C or better in POL 104. POL 115 Fall, POL 116 Spring
SPA 103-104 Introductory Spanish
Reading, writing, listening and speaking. Introduction to Hispanic culture. Almost exclusive use of Spanish in class. Prerequisite for SPA 104: C or better in SPA 103 or permission of chair. SPA 103 Fall, SPA 104 Spring

SPA 115-116 Advanced-Introductory Spanish
Continued development in writing, listening, speaking and especially reading Hispanic literary and cultural material. Comprehensive grammar review. Almost exclusive use of Spanish in class. Prerequisites for SPA 115: C or better in SPA 104 or two years of high school Spanish. Prerequisite for SPA 116: C or better in SPA 115 or permission of chair. SPA 115 Fall, SPA 116 Spring. Global Awareness Attribute (SPA 116 only)

SPA 215-216 Intermediate Spanish
These two courses are designed as a thorough review of grammatical structures. Also emphasized is the building of vocabulary, increasing competence in the four skills (reading, writing, listening and speaking) and gaining an overview of Hispanic cultures. Exclusive use of Spanish in class. Prerequisite for SPA 215: C or better in SPA 116 or two or three years of high school Spanish. Prerequisite for SPA 216: C or better in SPA 215 or permission of chair. SPA 215 Fall, SPA 216 Spring

SPA 218 Intensive Intermediate Spanish
This fast paced one-semester course covers two semesters of course work at the 200-level. Thorough review of grammatical structures, building vocabulary, increasing competence in the four skills (reading, writing, listening and speaking) and gaining an overview of Hispanic cultures. Prerequisites: SPA 116 or its equivalent, Sophomore standing or higher, at least a B+ average in the Spanish courses already taken, signature of the DMLLC Chair.

SPA 323 Topics in Conversation I
Contemporary communication skills emphasized in general exploration of contemporary culture of the Hispanic world. Exclusive use of Spanish in class. Phonetics may be included. Prerequisite: C or better in SPA 216. Oral Communication Attribute. Fall

SPA 324 Topics in Conversation II
A continuation of SPA 323. Exclusive use of Spanish in class. Prerequisite: C or better in SPA 216. Oral Communication Attribute. Spring

SPA 331 Substance and Style: Effective Writing in Spanish I
Distinguishing and producing effective writing of different types: essay, correspondence, description, report. Exclusive use of Spanish in class. Prerequisite: C or better in SPA 216. Fall

SPA 332 Substance and Style: Effective Writing in Spanish II
A continuation of SPA 331. Exclusive use of Spanish in class. Prerequisite: C or better in SPA 216. Spring

SPA 400 Spanish Internship
Qualified students are placed in jobs or service programs where they will use and perfect language skills. Prerequisite: Permission of chair.

SPA 402 Spanish for Business
Advanced aural/oral and writing skills needed for working in a Spanish-speaking environment. Practical situations, technical vocabulary and correspondence highlighted. Exclusive use of Spanish in class. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 404 Issues in the Spanish-speaking world
A cross-global study of issues historically significant in Spanish-speaking countries in both hemispheres as depicted in film. Types of issues to be studied: statehood in Puerto Rico, the Civil War in Spain, indigenous rights in Mexico, drug issues in Colombia. Conducted in Spanish. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 405 Spanish Literary Myths: Don Quixote, Don Juan and Carmen
A focus on the construction of three Spanish and French literary myths: Don Quixote, Don Juan and Carmen. Students will study its original sources, development, transformation, and historic interpretation, as well as its contemporary versions based on literature, visual arts and music. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair. Field 3-Arts, Global Awareness Attribute.

SPA 420 Spanish Contemporary Essay
An examination of cultural themes (identities, stereotypes, customs and traditions, daily life) in the essayist work of the best contemporary Spanish writers: Lucía Estebarcha, Javier Marías, Juan José Millás, Rosa Montero, Soledad Puértolas, Rosa Regás, and Manuel Vincent. Emphasis on vocabulary building and idiomatic structure of the language. Exclusive use of Spanish in class. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair. Field 3-Arts

SPA 433 La Telenovela: The Soap Opera in Latin America
An exploration of the history of Soap Operas/Telenovelas in Latin America and their importance beyond mere entertainment. By watching one in its entirety, and supplementing that with examples from other blockbuster soaps, documentaries, and essays, we will discover how telenovelas function as public service announcements about health and civil rights, and how the narratives tackle issues of gender equality, sexuality, classism, and racism. Exclusive use of Spanish in class. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 436 Detective Fiction Murderseduction
We will explore the detective novel in Latin American interpretations of the genre with García Márquez, Vargas Llosa, and Canetti, among others. By focusing on the socio-political and cultural contexts, we will be able to come to some general understandings of the characteristics of detective fiction, the motivations for writing/reading such fiction, and the classification of this fiction as low/high brow. The course will also explore the literary aspects of the genre, the influence of film, and the role these narratives play in interpreting particular socio-historic contexts. We will also explore the deconstruction of the genre and the detective novel as self-parody. Exclusive use of Spanish in class. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.
SPA 439 The Plantation Islands
A study of 20th Century novels, films, and essays from the Caribbean which depict the experience of the plantation. We will discuss the socio-political questions of identity in a post-colonial world in terms of social role, religious practice, labor relations, gender and sexuality. We will also discuss how the individual (male/female, white/black) redefines the self in the process of coming to terms with the radically new and different realities that follow the cultural upheaval of the abolition of slavery and the transformation of the plantation. Exclusive use of Spanish in class. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 450 Mexican Crafts and Culture
Meets once a week with MGT 473, in English, for discussion of crafts of Michoacán/importation and sale. Meets once a week independently in Spanish, for study of general Mexican culture. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 453 Who’s Afraid of Franco? Almodóvar and La Movida: The Films of Pedro Almodóvar and After
An exploration of the transgressive, revolutionary, titillating films of Pedro Almodóvar and the birth of a new Spain after the death of Franco, tracing the trajectory and development of his cinematic narrative technique from his earliest films to his more recent films. We will examine the socio-political messages and the exploration and excoriation of class, gender, sexuality, politics, and identity in general in his oeuvre. We will conclude with an exploration of how he has impacted Spanish cinema through homage pieces (such as Queens) which incorporate actresses whom he made famous in his earlier films. Exclusive use of Spanish in class. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 454 Camino de Santiago
A virtual trip “walking” one of the most important of all pilgrimage routes in history, heading to Santiago de Compostela. Along the way we will study historical, artistic, and literary transformations leading to the formation of what is now called Spain. Conducted in Spanish. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair. Optional actual one-week walk along the Camino to be offered in the spring.

SPA 455 Spanish Short Fiction
A study of Spanish short-short literary fiction, Almodóvar's cinematography and graffiti art as expressions of Postmodern high and low cultures. Exclusive use of Spanish in class. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair. Field 3-Arts, Global Awareness Attribute.

SPA 456: Cuban Cinema of the Revolution: The Films of Tomás Gutiérrez Alea and Juan Carlos Tabío
This course explores how the personal narrative of film is politically changed in Cuba, which is in a constant state of revolution, and how Cuban filmography fits into Castro’s dictate that art should be politically compromised in support of the Revolution. We explore the themes, techniques, and messages in the films of Cuba’s greatest director, Gutiérrez Alea, and his protégé Tabío and how they work around and within the Cuban government’s censorship to critique the Revolution as well as how they balance that critique with a love for the country and its people. The course will also address how the countryside and the city of Havana are not just architecture or geography, but function in these films as characters in their own right. Exclusive use of Spanish in class. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 459 The Body Erotic/The Body Politic: Sexuality as Political Discourse in Latin America and Spain
The course will explore how “deviant” sexuality (homosexuality, lesbianism, incest, and miscegenation) are used as political discourse, particularly in contexts where political dialogue is restricted. We will examine a variety of writers, cineastes, and artists from Latin America and Spain whose writing deals directly with the issues of the sexual body in terms of the political body. The course will explore the political uses of the body as well as the sexualization of the political. The idea that political discourse has made the sexual political will inform how we read these textual responses to political oppression of the sexual body and how the sexual body is used as a political retort. These texts will be read in terms of racial, class, and political “identities.” We will explore the usefulness of sex as protest, as political discourse, and as free speech. Exclusive use of Spanish in class. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 460 Lorca and his époque
An examination of Spain’s Generation of ’27 as a cultural vanguard of the 20th century. Emphasis on multidisciplinary oeuvre by Federico García Lorca and his closest circle of friends: Salvador Dalí, Luis Buñuel and Manuel de Falla. Exclusive use of Spanish in class. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair. Field 3-Arts

SPA 463 Magic Realism: Latin America and the Boom
The course will explore the origins of magic realism, attempt to define it, and consider the function of magic realism as political protest. We will also explore what makes magic real by examining the issue of perspective, faith, and marginalization in relation to the texts. Magic realism attempts to manipulate western forms of narrative to articulate a non-Western reality, in order, in Gabriel García Márquez words, to “render our reality believable.” The novels all deal with strategies of definition and resistance, which will be one of the main areas of concern in the course. Other issues of primary importance include the socio-political impact colonialism/post-colonialism (including revolution) has had on literature since 1949 and the use of the novel to define ethnic, racial, or even national identity in the post-colonial environment of the last half of the 20th century. Exclusive use of Spanish in class. Prerequisite: C or better in three of the following courses: SPA 323, SPA 324, SPA 331, SPA 332 or permission of chair.

SPA 499 Independent Study
Prerequisite: Permission of chair.
Philosophy

Chair: George Boger

Introduction:
Philosophy is concerned with fundamental questions about the nature of reality, the foundations of the natural and social sciences, normative principles of ethics and art, the scope of human knowledge, distinguishing truth from falsity, and what constitutes human happiness and fulfillment. Because of its power to objectify principles, philosophy has been considered the science of the sciences.

A Cornerstone of Jesuit education:
Philosophy has been a cornerstone of Jesuit education since the founding of the first Jesuit universities in 17th century Europe. Educators at Jesuit colleges and universities in the United States continue to recognize the special province of philosophy to

- embrace our human powers to think abstractly and thus to cultivate models of mental discipline and to broaden our capacities to understand and to enjoy living,
- raise critical questions and use reasoned argumentation to develop normative standards for guiding a person’s relationship to his/her community,
- promote reasoning about human nature and human values to help provide bridges between religious belief and contemporary intellectual directions,
- value integrity, commitment to truth, excellence and understanding with an aim to enhance our expressive powers, our knowledge, foresight and sense of direction.

Philosophy is an especially ennobling discipline since it elevates what is common in being human while also nurturing individuality and self-esteem. Studying philosophy helps to cultivate responsible citizenship by promoting thoughtful reflection on contemporary cultural and intellectual currents, by critically assessing the discourse of public officials, and by identifying unfounded assertions and biased opinions with an aim to replace them with responsibly reasoned argumentation. Consequently, philosophy holds a special place in a liberal arts curriculum at a Jesuit university just in its capacity to objectify the human condition and to contribute to our becoming more fully human.

Department Mission:
To fulfill its Ignatian mission, the Philosophy faculty provides programs of instruction to cultivate an abiding sense of responsibility as men and women for and with others by focusing on the service of faith and the promotion of justice. The faculty considers it crucially important that a good education addressing such concerns has a firm foundation in the history of philosophy and its principal branches, and the issues of moral philosophy, together with special attention to examining argumentation. Equally important is the Philosophy faculty’s interest cultivating discussion about the notions of the common good and social justice.

Student Learning Goals:
Upon successfully completing a program of philosophy instruction, each philosophy graduate will have

- acquired a broad knowledge of canonical and non-canonical traditions in philosophy — figures, branches, traditions.
- acquired an enhanced capacity for communicating ideas specific to philosophy by both oral and written means.
- developed a sharpened capacity for thinking critically and effectively assessing argumentational discourse.
- become information literate as this applies to philosophical study and research.
- developed an ability to apply philosophy to contemporary life in an increasingly globalized world.
- cultivated value for good citizenship by considering the service of faith and the promotion of justice in a meaningful life.

Qualifications:
Students must maintain an overall 2.0 GPA in their undergraduate studies and a 2.0 average in their philosophy programs to graduate with a degree in Philosophy. All students must complete a minimum of 120 credit hours to graduate, 36 of which are philosophy courses.

Advisement:
All philosophy students have a philosophy professor as an adviser. Each philosophy student should contact the department directly to consult with his/her department adviser. All philosophy majors should work closely with their advisers in choosing major courses, developing their entire academic program, discussing career expectations, and planning co-curricular or supplemental academic experiences.

Curricular Components of a Philosophy Major:
Students desiring to major in philosophy might have scholarly interests to pursue graduate study in philosophy or to acquire competence in philosophy for a diversity of reasons including advanced study in other disciplines. To help students satisfy these interests, the Philosophy faculty offers two major programs that maintain intellectual and academic rigor while promoting the mission to educate for others with attention to the principle of cura personalis. Each major curriculum consists of 12 courses (36 credit hours) beyond PHI 101 Introduction to Philosophy. Each curriculum com-
bines a historical, a topic, and a fields approach to construct a unified program of instruction. Since our mission emphasizes concern with critical examination of values and principles of ethics and justice, each major curriculum requires one course in study and analysis of argumentation and two courses in the study of ethics, one of which is theoretical.

**Ignatian Scholars Philosophy Curriculum**

This curriculum prepares scholars specifically for advanced study in philosophy and consists of 12 courses (36 cr hrs) beyond PHI 101.

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<th>Course</th>
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<td>PHI 225</td>
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<td>PHI 301</td>
<td>Ancient Philosophy</td>
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<td>PHI 302</td>
<td>Medieval Philosophy</td>
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<td>PHI 303</td>
<td>Early Modern Philosophy</td>
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<td>PHI 451</td>
<td>Senior Thesis</td>
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<td>One Theory of Ethics course*</td>
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<td>One Applied Ethics course**</td>
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* Chose among PHI 240, PHI 241, PHI 251, PHI 252, PHI 261

** Chose among PHI 242, PHI 243, PHI 244, PHI 245, PHI 246, PHI 247, PHI 379

**Hypatian Scholars Philosophy Curriculum**

This curriculum prepares scholars for advanced study in disciplines other than philosophy and consists of 12 courses (36 cr hrs) beyond PHI 101.

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<th>Course</th>
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<td>One Theory of Ethics course*</td>
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<td>One Applied Ethics course**</td>
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<td>Any one course of PHI 304, 305, 306</td>
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* Chose among PHI 240, PHI 241, PHI 251, PHI 252, PHI 261

** Chose among PHI 242, PHI 243, PHI 244, PHI 245, PHI 246, PHI 247, PHI 379

Ignatian and Hypatian Scholars may wish to concentrate their selections of philosophy electives according to a theme. Below are some possible concentrations that are provided as suggestions. This usually consists of five PHI courses (or 15 credit hours). Students are free to concentrate their philosophy electives according to their interests and course availability.

- **Opt 1** — Catholic Social Thought
- **Opt 2** — Modern Moral Challenges
- **Opt 3** — Metaphysics/Epistemology
- **Opt 4** — History of Philosophy
- **Opt 5** — Identity, Race & Gender
- **Opt 6** — A combination to student interest

**Curricular Components of a Philosophy Minor**

**Philosophic Associates**

A minor in philosophy consists of six (6) courses at middle and upper levels of study that might complement another major or provide personal intellectual satisfaction.

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<td>One course from among PHI 301, PHI 302, PHI 303</td>
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<td>One course from among PHI 304, PHI 305, PHI 306</td>
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**Co-Curricular Activities:**

The Philosophy faculty encourages majors and minors to participate in the on-going activities of the Department. Students are invited to the regular colloquia at which faculty present their current research. Students are invited to make presentations to try out the results of their research. In addition there are the Philosophy Club and the Philosophy Honors Society, Phi Sigma Tau. All philosophy majors and minors are members of the Undergraduate Philosophy Association. Membership enables philosophy students to participate in department activities, such as reviewing semester course offerings and considering department policies that affect their undergraduate careers.

**Recommended Semester Schedule for Major Course Requirements:**

The following four-year schedule maps out a course of study that a philosophy major may pursue. However, this schedule is provided only to suggest one way among many that a student might design his/her program of undergraduate philosophy study.
PHILOSOPHY COURSES 2011-2013

PHI 101: Introduction to Philosophy
Core Curriculum Foundation Course. This course aims to develop a capacity to interpret common experience in a philosophic way by becoming familiar with principal branches of philosophy — metaphysics, epistemology, ethics — being able to identify the elements of good argumentation, and recognizing the value of reason in a meaningful personal life. PHI 101 is a prerequisite for PHI 200 courses.

PHI 200 Courses — Conversing with Philosophers
PHI 200 level courses are Core Curriculum Field 2 courses that cover a wide range of topics to enrich a sense of the importance and relevance of philosophy. Each course broadens exposure to issues and deepens appreciation of philosophic analysis. Many PHI 200 courses have an attribute attached — Ethics, Justice, Diversity, or Global Awareness. At least one PHI 200 level course is prerequisite for upper level PHI courses.

PHI 201 — Philosophy of the Person
A study of various notions of person, human nature, and the relationship between persons and their natural and social environments.

PHI 205 — Philosophy of Nature and Reality
A study of philosophical notions of nature, treating such topics as substance and universals, change and causality, space, time and infinity, freedom of the will and determinism, and materialism and idealism.

PHI 211 — Philosophy of Religion
A study of principal contemporary and classical discussions about the existence and nature of God, God’s relationship to the world, the individual and society.

PHI 221 — Critical Thinking
A study and exercise of forming good judgments for making decisions and for solving problems, considering evidence, context, relevant criteria and theories of argument.

PHI 225 — Logic
An introductory study of logic treating such topics as: deduction, and demonstrate techniques for evaluating reasoning, language and meaning, and various formal and informal fallacies, and the notion of implication.

PHI 231 — Thinking, Knowing, and Believing
A study of epistemology, treating concepts and problems of such topics as sense perception, distinguishing knowledge and belief, the roles of necessity, universality, contradiction, and truth in knowing.

PHI 240 - Justice
A study of enduring questions, such as, (What does it take to be a just person and to create a just society?) Includes investigations of theories of justice and various contemporary problems of justice relating to matters such as race, class and gender.
PHI 241 — Ethics: Traditions in Moral Reasoning
A survey of principal traditions in moral reasoning with attention to moral principles inclusive of utilitarian, deontological and virtue, and their applications to contemporary social realities.

PHI 242 — Ethical Issues in Business
A study of important concerns in business and market realities with special concern to applying moral principles in decision making.

PHI 243 — Bio-Medical Ethics
A study of important moral issues in relation to current concerns in medicine, medical technology, and the life sciences.

PHI 244 — Environmental Ethics
A study of classical and contemporary moral theories concerning the relationship of human beings to the manifold of their natural surroundings.

PHI 245 — Animal Ethics
An examination of the traditional notion that animals are things, machines, commodities, or resources, and whether sentient beings have intrinsic value and should be respected.

PHI 246 — Ethics of Technology
A study of how prominent technologies such as television, cellular phones, and medical breakthroughs affect individual persons and our society, and in what ways technological innovations make us better or worse.

PHI 247 — Food and Agricultural Ethics
A study of the moral implications of the current food system in connection with the production, distribution, and consumption of food and aims to examine what might constitute a reasonable position regarding the ethics of what we eat and what each of us can do to help bring about a more just food system.

PHI 248 — Love, Friendship and Moral Life
A philosophical study of the relationships among love, friendship and a moral life that treats individuals in families and society.

PHI 249 — Happiness, Virtue and the Good Life
A study of the role of virtue and vice in the moral life, how they emerge from developments of personal character and relate to meaningful human happiness, fulfillment, and the good life.

PHI 250 — Philosophy of Law
A study of the nature, sources and sanctions of law and legal theory, treating concerns of legal positivism, natural law theory, rights and justice, and the relationship between law and morality.

PHI 251 — Philosophy of International Law
An examination of both conceptual and normative issues relevant to the philosophical study of international law. Topics treated include issues of self-determination and minority rights, international economic law, humanitarian intervention, the laws of war, international environmental law, and international criminal law.

PHI 252 — Philosophy of the Family
A study of traditional and modern notions of the family with attention to challenges to the family in contemporary society.

PHI 253 — Catholic Social Thought
A study of the legacy of Catholic social teaching from official papal encyclicals of Leo XIII to the present, from unofficial vehicles of independent social thinkers, and from social forces such as labor unions, journals, political parties, and spiritual social justice movements.

PHI 254 — Catholic and Jewish Bioethics
A study of Catholic and Jewish thinkers working with shared values in addressing challenges in clinical medicine such as reproductive technology, beginning and end of life decisions, access to health care and rationing.

PHI 255 — Philosophy of Human Rights
A study of various issues of human rights in global perspective to ask if human rights transcend political orders, whether they are universally applicable to all human beings, or determined to be culturally relative.

PHI 256 — Gender and Philosophy
A study of feminist theories that analyzes the role that gender plays in society and in the formation of the masculine and feminine subjects; an examination of notions of power, structure and work; and gender as performance and representation.

PHI 257 — Race and Philosophy
A study of philosophical assumptions underlying concepts of race that treats designations of racial identities, the political effects of racial classification, the ethics of race and the metaphysical legitimacy and social reality of racial designations.

PHI 258 — Social and Political Philosophy
A study of foundational philosophical theories on how to organize the collective and social life of individual human beings, examining justifications for state authority, establishing citizen's rights and allocating resources for human well-being.

PHI 259 — World Wisdom: Global Traditions
A comparative study of philosophical traditions ranging from locations such as ancient Greece, Africa, Asia and the Americas.

PHI 260 — African American Philosophy
A study of philosophical trends within the American experience with attention to the contributions of prominent African American philosophers and social activists.

PHI 261 — Latin American Philosophy
A study of the various philosophical movements in Latin America with a focus on the way of practicing philosophy that is rooted in the lived reality of Latin American peoples.

PHI 262 — Philosophy of Art and Beauty
A study of various approaches to thinking philosophically about art and beauty, with special emphasis on the historical variety of aesthetic theories.
PHI 300 Courses—Philosophical Challenges
PHI 300 level courses treat issues with greater attention to philosophic analysis and argumentation and expect students to demonstrate deeper capacity to compare and contrast the reasoning of different philosophers on a topic or theme. These courses are consistently more specialized and focus examination on primary texts with special attention to identify and extract the principles and premises underlying a philosopher’s argumentation and then to reconstruct its chain of reasoning. At least two PHI 300 level courses are prerequisite for PHI 400 courses and senior theses experiences.

SERIES IN HISTORY OF PHILOSOPHY

Series I

PHI 301 — Ancient Philosophy  3
An examination of principal trends in ancient philosophy in the West from the Preplatonic Greeks through Plato and Aristotle to the beginning of the Medieval period.

PHI 302 — Medieval Philosophy  3
An examination of principal trends in Medieval philosophy from St. Augustine in the fifth century to Renaissance philosophical explorations.

PHI 303 — Early Modern Philosophy  3
An in-depth examination of major thinkers in the modern western philosophical tradition from Descartes to Kant, from the Renaissance to the Enlightenment.

Series II

PHI 304 — Nineteenth Century Philosophy  3
A study of principal trends of 19th century European philosophy beginning with Kant and leading up to developments in early 20th century thinking.

PHI 305 — Contemporary Continental Philosophy  3
An examination of principle philosophic trends emerging in Europe after the 19th century, treating such traditions as phenomenology, critical theory, structuralism, post-structuralism, deconstruction, and postmodemism.

PHI 306 — Contemporary Analytic Philosophy  3
An examination of principal philosophic trends in the Anglo-American world including logical positivism, linguistic analysis and ordinary language philosophy.

Additional PHI 300 Courses

PHI 311 — God and the World  3
Philosophical exploration of the ways in which belief in divine or spiritual entities influences relations between humans, animals and the environment.

PHI 312 — Time and Human Experience  3
What is time? How is it experienced? How does an appreciation of time affect self understanding? This course explores the nature of time consciousness.

PHI 316 — Philosophy of Mind  3
A study of the nature of mental phenomena and their connection to behavior, artificial intelligence, personal identity, the mind-body problem, the unity of consciousness, the problem of other minds, action, intention and the will.

PHI 317 — Chinese Philosophy  3
An exploration of classical Chinese philosophical traditions with special emphasis on the Confucian and Daoist traditions.

PHI 318 — Indian Philosophy  3
An examination of different schools of Indian philosophy, including Indian views about dualistic and non-dualistic views of absolute reality relating to materialism and idealism, different moral systems, systems of logic and knowledge.

PHI 319 — Buddhism and Philosophy  3
A study of the core values and beliefs of Buddhism, making theoretical and practical comparisons between Buddhist ideas and Western ideas.

PHI 321 — Knowledge and Reality  3
An examination of principal philosophies of nature and being and various philosophic approaches to knowledge and understanding.

PHI 322 — Philosophy of Science  3
A study of the nature of scientific explanation, scientific method and scientific knowledge, confirmation of hypotheses, distinction between science and metaphysics, the structure and status of observation statements and the “unity of science” thesis.

PHI 325 — Mathematical Logic  3
Advanced study of formal systems of logic, constructing artificial languages with a syntax, semantics and deduction system.

PHI 345 — Justice and the Environment  3
A study of various theories of justice as they relate to questions and problems that arise from the human use of and relationship to our natural environment.

PHI 361 — The Individual and the State  3
Examines different conceptions of the relationship between the individual and the state. Topics addressed will include the nature of power, freedom, justice and citizenship.

PHI 363 — Catholic Philosophical Traditions  3
An introduction to Catholic philosophical traditions in metaphysics, epistemology and/or ethics through readings and discussion of figures and movements that span multiple historical periods – the Patristic era, the medieval era, the modern era and the 20th Century.

PHI 367 — Advanced Topics in Catholic Philosophy  3
An examination of the philosophical principles underlying modern Catholic philosophy in dialog with contemporary political philosophies such as communitarianism, neo-liberalism, and Marxism.

PHI 371 — Concepts of Race and Post Colonial Theory  3
Explores the ways in which concepts of race influence the construction of identity, foster rationales for the distribution of resources, and contribute to American and international social movements.

PHI 372 — Philosophy of Identity and Difference  3
Explores metaphysical, ethical, political and social issues concerning sex/gender identity.
PHI 376 — Marx and Marxism 3
A study of classic texts of Marx, Engels, and Lenin and their influences on later 19th century and contemporary philosophy.

PHI 378 — Jewish Philosophers of German Ancestry 3
A study of prominent Jewish philosophers who played an important role in the intellectual life of Germany from the 18th century until the beginning of the Nazi era.

PHI 379 — Contemporary Women Philosophers 3
A study of the thinking of important women philosophers of the 20th century with special concern to address their responses to the enduring questions of ethics, especially for modern times.

PHI 387 — Phenomenology and Existentialism 3
A study of existential and phenomenological thought including views of the self, relationships to world, other people and God, responsibility, intentionality and phenomenological method.

PHI 388 — Diasporic Philosophy 3
Investigates the philosophical heritage expressed in diasporic intellectual and social movements, treating thinkers in Latin America, Caribbean and Africana traditions.

PHI 389 — Philosophy and Psychoanalysis 3
A study of the confrontation of the phenomenological and psychoanalytical notions of the development and structure of the subject and its desires, ethics, traumas, and confrontation with society.

PHI 392 — American Philosophy 3
A study of principal trends in American thinking with special focus on the pragmatic philosophers.

PHI 395 — Problems in Aesthetics 3
A critical examination of select problems in contemporary controversies in aesthetics treating the intersections of personal and social values and the production of art.

PHI 396 — Philosophy and Literature 3
A study of philosophical themes as expressed in literary texts to examine the propriety of literature as a medium for expressing philosophical ideas, and textual interpretation.

PHI 397 — Philosophy and Film 3
An examination of the basic issues in the philosophy of film, including its nature and social function as well as film’s relation to authors, aesthetics, narratives, emotions and theories.

PHI 399 — Capstone Philosophy Thesis 3
Ethics, Justice, and the Problem of Poverty. This is a Core Capstone course. The first half of the course focuses on ethics, justice, and diversity. The second half of the course is focused on global awareness vis-à-vis the problem of poverty.

PHI 400 Courses — Philosophical Synthesis 3
PHI 400 level courses engage students in using their analytic skills to synthesize, evaluate and critique philosophic discourse; especially to grasp the logico-philosophic consequences of foundational principles of human nature, being, nature and society. Students demonstrate mature understanding of philosophic analysis in scholarly papers, theses or other appropriate projects.

PHI 401 — Seminar on Ancient Philosophy 3

PHI 402 — Seminar on Medieval Philosophy 3

PHI 403 — Seminar on Modern Philosophy 3

PHI 404 — Seminar on Contemporary Philosophy 3

PHI 405 — Seminar on Topics in Metaphysics 3

PHI 406 — Seminar on Topics in Epistemology 3

PHI 407 — Seminar on Topics in Ethics 3

PHI 408 — Seminar on Topics in Aesthetics 3

PHI 409 — Seminar on Topics in Social and Political Philosophy 3

PHI 451 — Senior Thesis — A Philosophy capstone experience 3
An Ignatian Scholar successfully completes a senior thesis. This is a culminating experience in which a student expresses mature habits of self-directed study and critical analysis, with an ability to integrate knowledge beyond the expectations of a seminar paper. A senior thesis addresses a select philosophic topic and is especially concerned with philosophic argumentation. An Ignatian Scholar demonstrates ability to exercise appropriate research methods, to provide critical assessment of issues, to assess theoretical presuppositions underlying a discourse and to advance well-constructed argumentation. A senior thesis ought to exhibit the values of the department mission.

PHI 499 — Directed Readings in Philosophy 3
Personally designed with a member of the Philosophy Department. Topics and terms mutually determined by student and mentor. Tutorial.
Physical Education
Chair: Jeffrey R. Lindauer

Introduction:
The Physical Education major is a teacher certification program in physical education (K-grade 12). The department recommends that candidates interested in teaching obtain dual certification in physical education and health, but this major may be of interest for candidates only interested in teaching physical education.

Teacher Certification Options
The teacher preparation program strives to develop a liberally educated individual who has special knowledge and skills in the areas of movement and sport and their interrelated disciplines. Major emphasis is placed on the development of educational and performance foundations which will prepare an individual to teach in kindergarten through grade 12 or to pursue professional growth through further study and/or graduate work.

Candidates enjoy a continuous and extensive program of clinical and laboratory experiences at the college and through our collaboration with our professional development schools which provide opportunities for in-school observations, micro-teaching, tutoring, and large-group instruction. These experiences help to insure that the program remains responsive to the needs of the candidates, students and the profession. Candidates pursuing the Physical Education Teacher Certification Option complete a total of 100 hours of practicum experiences in two different courses (PED 311 and PED 441).

This program of instruction incorporates the standards established for physical education at the local school district level, the New York State learning standards for physical education, and the guidelines set forth by the National Association for Sport and Physical Education (NASPE). The teacher certification option culminates with a fourteen-week student teaching experience in the K-12 schools. Each student teacher is given the opportunity to experience the privileges and responsibilities of a full-time teacher on both the elementary and secondary levels. An individual choosing to graduate without completing student teaching must fulfill this credit requirement in consultation with his/her advisor.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/physed/courses.asp

Goals:
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Qualifications:
Academic Criteria for Endorsement and Completion of Program:
• Cumulative GPA of 2.5 or higher-Grade of C or higher in major courses
• Satisfactory performance in field placements
• Successful portfolio review

Please see the School of Education page for information about transition points in the programs and portfolio requirements. http://www.canisius.edu/education/undergrad_cert.asp

Advisement:
All Physical Education majors should have an advisor and should contact the Department of Kinesiology directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.
**Major Courses**

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
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</tr>
<tr>
<td>PED 203</td>
<td>Net, Target, and Fitness Activities</td>
<td>3</td>
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<td>PED 204</td>
<td>Invasion Games</td>
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<td>PED 207</td>
<td>Dance and Gymnastics</td>
<td>3</td>
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<td>PED 305</td>
<td>Outdoor Curriculum and Cooperative Activities</td>
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<td>PED 311</td>
<td>Movement Education and Elementary Activities</td>
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<td>PED 351</td>
<td>Coaching Theory and Techniques</td>
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<td>PED 354</td>
<td>Adapted Physical Education</td>
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<tr>
<td>PED 360</td>
<td>Human Growth and Motor Development</td>
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<td>PED 371</td>
<td>Assessment in Physical Education</td>
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<td>HHP 235</td>
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<td>Exercise Principles and Applications</td>
<td>3</td>
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<td>HED 461</td>
<td>Psychology of Sport and Mental Health</td>
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<td>Concepts in Teaching Sport Skills</td>
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<tr>
<td>EDU 496</td>
<td>Violence Prevention Workshop</td>
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</table>

**Major Electives:**

Physical Education majors should consult their advisor for major electives.

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**Additional Course Considerations:**

PED 150, PED 371, and HED 321 require special course fees that are related to certification and assessment requirements. PED 150, PED 351, and PED 354 have required service learning hours. PED 441 must be taken in the last semester before student teaching. PED 311 and PED 441 require 50 hour field experiences. Transportation needed. Physical Education majors should consult their advisor for additional course considerations.

**Recommended Semester Schedule for Major Course Requirements**

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<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<td>BIO 115 and Lab (4)</td>
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<td>PED/HED Elective (3)</td>
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<tr>
<td>Sophomore</td>
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<td>RST 101 (3) or PHI 101 (3)</td>
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<tr>
<td>Fields of Knowledge Course (3)</td>
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<td>PED 203 (3)</td>
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<td>PED 204 (3)</td>
<td>HED 337 (3) or HHP 235 (3)</td>
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<td>PED 305 (3) or EDU 250 (3)</td>
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<td>HHP 235 (3) or HED 337 (3)</td>
<td>HED 205 (3) or PED 354 (3)</td>
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<td>Elective (3)</td>
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<td>PED 371 (3) or PED 380 (3)</td>
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<tr>
<td>PED 372 (3) or PED 360 (3)</td>
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</tbody>
</table>
Dual Majors:
Physical Education students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Physical Education students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement. But in some cases additional course work may be required. Students must complete the appropriate minor request form.

Note: Mr. Clancy Seymour serves as the coordinator of the Physical Education program.

COURSES: 2011 - 2013
HED for Health Education, PED for Physical Education

HED 115 Basic Nutrition 3
This course will address all aspects of proper nutrition. The class will address material such as macronutrients, micronutrients, daily caloric intake and portion sizes. Students will gain knowledge of nutrition through class lectures, interactive activities and peer presentations. Upon successful completion of the course, students will have a working knowledge of proper nutrition and appropriate dietary habits. Fall/Spring

HED 205 Wellness and Fitness 3
Lecture and laboratory. Skills, teaching methods, resource units, evaluative instruments, teaching aids, leading to an overall understanding of the principles of health and wellness. Focus on physical fitness testing for childhood, childhood obesity and the development of a personal fitness program. Fall/Spring

HED 220 Healthy Behaviors 3
Examines health determinants and the effects on all seven dimensions of health. Assessment of personal lifestyle behaviors and factors influencing current and relevant health issues. Emphasis on personal behavior modification to practice health-enhancing behaviors and to reduce health risks. Guidelines for healthy practices related to nutrition, mental health, cancer prevention, HIV/STDs, cardiovascular disease, stress management, sexuality, physical fitness, drugs and alcohol and relationships. Establishes foundation for living healthy and productive lives. Fall/Spring

HED 321 Lifeguard, C.P.R., First Aid, WSI 3
Knowledge, skill techniques and appreciations necessary to meet certification requirements of the American Red Cross. Certification fee required for this course. Prerequisite: Department swimming test and completion of departmental recommendation. Fall/Spring

HED 325 School Health 3
Explores the most prevalent health and safety issues of school-aged children and youth. Risk factors and resiliency related are examined at individual, classroom, school, family and community levels. At-risk issues such as substance abuse, teen pregnancy, delinquency, violence, dropping out of school, child and teen suicide, and child abuse are addressed. Prospective teachers learn strategies for a safe and healthy classroom and school environment. 50-hour field experience required. Fall/Spring

HED 337 Exercise Principles and Applications 3
This course will address the many aspects of fitness and exercise. Students will experience classroom lecture as well as practical experience in the weight room and other alternative exercise facilities. Students will gain experience in the proper design of exercise programs and will understand the importance of periodization as it relates to exercise. Upon successful completion of this course, the student will have a vast knowledge of the principles surrounding strength and conditioning. Prerequisites: BIO 114/L with a grade of C or above. Fall/Spring

HED 425 Evolution of Disease and Illness 3
Overview of humanity’s triumphs and failures in the ongoing fight against illness and disease. Explores history of disease, current health issues and trends to determine outlook for emerging health concerns of the future. Examines various models of disease to explain disease agents and route of transmission throughout the body’s systems. Analysis of disease occurrence, predisposing factors, body’s immune response, symptoms, prevention, treatment and control. Fall/Spring

HED 461 Psychology of Sport and Mental Health 3
Psychological aspects of healthy living related to sports, exercise and lifestyle. Stress and relaxation techniques, controlled breathing and holistic benefits of health are discussed, leading to an improved quality of life for athletes. Meets Field Knowledge V. Fall/Spring

PED 150 Introduction to Physical Education/Health 3
Organization and administration of school programs, beginning teacher standards in physical education, INTASC standards, appropriate practices in health and physical education, and professional development activities. Development of electronic candidate portfolio. Taskstream course fee. 10 hours of Service Learning required. Fall/Spring

PED 203 Net, Target and Fitness Activities 3
Participation in selected net, target, and fitness activities. Students will develop a sub-skill analysis of the major skills within each sport, teaching progressions, lead-up games, informal/formal assessments of selected activities. Fall/Spring
PED 204 Invasion Games
Participation in selected games which invade a territory. Students will develop a sub-skill analysis of the major skills within each sport, teaching progressions, lead-up games, informal/formal assessments of selected activities. Fall/Spring

PED 207 Dance and Gymnastics
Participation in selected dance and gymnastics forms. Students will learn appropriate organization and teaching progressions for various forms of dance and gymnastics taught in the P-12 curricula. Fall/Spring

PED 305 Outdoor Curriculum and Cooperative Activities
Philosophy, teaching methods, programming and safety management. Activities may include initiatives, new games, problem solving, trust activities, ropes course, cycling, mountain biking, rock climbing, rappelling, cross-country skiing and others. Fall/Spring

PED 311 Movement Education and Elementary Activities
Conceptual bases, perceptual-motor development and practical applications of movement education. Development, implementation and integration of a physical education program; teaching strategies geared to the elementary level classroom with emphasis on New York and national learning standards in Physical Education. 50 hour field experience required. Fall/Spring

PED 351 Coaching Theory and Techniques
Principles of effective coaching, including the role of the coach, practice planning, leadership theory, sports psychology and teaching motor skills. Service Learning hours may be earned in this course. Fall/Spring

PED 354 Adapted Physical Education
Field-centered approach to development of physical-education programs for students with disabilities. Concurrent observation and participation in program for the disabled. Includes 10 hour non-credit lab working with special populations. Service Learning hours may be earned in this course. Fall/Spring

PED 360 Human Growth and Motor Development
Examination of principles of growth and developmental theory with an emphasis on factors affecting changes in movement potential of individuals. (On-line for distance learning). Fall/Spring

PED 371 Assessment in Physical Education
Lectures, laboratory, and field experience in the Physical Best Fitness program, Fitnessgram, and integrating the NYS Profile. Focus on the evaluation of the State standards and authentic assessments and NASPE guidelines. Certification fee required for this course. 10 hour field experience required. Fall/Spring

PED 372 Seminar in Teaching Physical Education/Health
Current issues in P-12 Physical Education, Health, and Athletics as well as certification requirements. Fall/Spring

PED 380 Concepts of Teaching Sport Skills
Normal developmental patterns of motor skills. How the human organism acquires movement proficiency in those skills. Fall/Spring

PED 441 Teaching Methods in Physical Education
Development, implementation and integration of a physical education program; teaching strategies for K-12 physical education with emphasis on New York and national learning standards in Physical Education. 50 hour field experience required. Prerequisites: PED 311 and HED 325. Fall/Spring

PED 493 Student Teaching Physical Education/Health: Childhood and Adolescence
Seven-week student teaching experience in an elementary school, Grades 1-6, and in a high school, Grades 7-12, culminating in preparation for teacher certification. Grade: Pass/Fail. Prerequisites: Completion of all other course requirements and department approval, 2.5 G.P.A. in all major courses. Fall/Spring

PED 494 Capstone Seminar for Teachers
A reflective course that accompanies student teaching for education majors. Teacher candidates reflect on their student teaching and observations, complete readings, engage in classroom discussions and complete reflections and other projects related to issues of diversity, ethics, global awareness and social justice and how these pertain to their own development as teachers. Fall/Spring

EDU 495 Child Abuse Seminar
Held during the Student Teaching Seminar. Required for NYS Teacher Certification. Fall/Spring

EDU 496 Prevention of School Violence Seminar
Held during the Student Teaching Seminar. Required for NYS Teacher Certification. Fall/Spring

NOTE: PED 493, PED 494, EDU 495, EDU 496 must be registered together during the student teaching semester. This will count as a full semester of four courses, 15 credit hours.

PED 498 Internship
Field-based experience in selected areas of physical education. Requires 120 clock hours. Prerequisite: Permission of instructor. Fall/Spring

PED 499 Independent Study
Prerequisite: Permission of instructor. Fall/Spring
Physical Education/Health Education

Chair: Jeffrey R. Lindauer

Introduction:
The teacher preparation program strives to develop a liberally educated individual who has special knowledge and skills in the areas of movement and sport and their interrelated disciplines. Major emphasis is placed on the development of educational and performance foundations which will prepare an individual to teach in kindergarten through grade 12 or to pursue professional growth through further study and/or graduate work.

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<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
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*Note: Mr. Clancy Seymour serves as the coordinator for the Physical Education/Health Program.*

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<tr>
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<th>FALL SEMESTER</th>
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Physical Education/Sport Studies

Chair: Jeffrey R. Lindauer

Introduction:
The physical education major may wish to pursue a career other than teaching. Several options are available to prepare students for professional careers or graduate training. Students may obtain a bachelor of science degree in physical education, a bachelor of science degree in physical education with a minor in sport psychology, or a concentration in sport administration. In each program the candidate must combine the elected minor or concentration with the required major courses. The Physical Education Sport Studies degree does not lead to teacher certification.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/physed/courses.asp

Goals:
http://www.canisius.edu/physed/courses.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Physical Education Sport Studies. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
Physical Education Sport Studies students should have an advisor in the major and should contact the Department of Kinesiology directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPMT 150</td>
<td>Introduction to Sport Management</td>
<td>3</td>
</tr>
<tr>
<td>HED 205</td>
<td>Wellness and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>HED 220</td>
<td>Healthy Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 230</td>
<td>Sport and Recreation Law</td>
<td>3</td>
</tr>
<tr>
<td>HHP 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles and Applications</td>
<td>3</td>
</tr>
<tr>
<td>PED 351</td>
<td>Coaching Theory and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>HED 425</td>
<td>Disease and Illness</td>
<td>3</td>
</tr>
<tr>
<td>HED 461</td>
<td>Psychology of Sport and Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>BIO 114/L</td>
<td>Human Biology: An Introduction to Anatomy</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>and Physiology</td>
<td></td>
</tr>
<tr>
<td>BIO 115/L</td>
<td>Musculoskeletal Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PE or Health Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PE or Health Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PE or Health Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives:
Physical Education Sport Studies majors should consult their advisor for major electives.

Additional Course Considerations:
Physical Education Sport Studies majors should consult their advisor for additional course considerations.
The sports psychology minor provides students interested in psychology and physical education with an interdisciplinary approach to the study of sport, physical activity, health psychology, exercise psychology or coaching. The minor ideally prepares the student for careers in coaching or sport psychology. Students may seek advisement from the Psychology Department or the Department of Kinesiology.

### Sports Psychology Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 102</td>
<td>Introduction to Psychology II</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>Basic Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSY 202</td>
<td>Experimental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 318</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 329</td>
<td>Leadership and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>PSY 373</td>
<td>Behavior Modification</td>
<td>3</td>
</tr>
<tr>
<td>PED 498</td>
<td>Internship (Recommended but not required)</td>
<td>3</td>
</tr>
</tbody>
</table>

Students may also obtain a sport administration concentration with the Physical Education Sport Studies major by completing the sport administration courses listed below. An internship is highly recommended. Students may seek advisement from the Department of Kinesiology.

### Physical Education/Sport Administration Concentration:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MAT 131</td>
<td>Statistics and Computers</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Management of Organizations</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ISB 101</td>
<td>Management Technology</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Dr. Gregory Reeds serves as the coordinator of the Physical Education Sport Studies program.

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPMT 150 (3)</td>
<td>HED 220 (3)</td>
<td></td>
</tr>
<tr>
<td>BIO 114 and Lab (4)</td>
<td>BIO 115 and Lab (4)</td>
<td></td>
</tr>
<tr>
<td>RST 101 (3)</td>
<td>PHI 101 (3)</td>
<td></td>
</tr>
<tr>
<td>FYS 101 (3)</td>
<td>ENG 101 (3)</td>
<td>Elective (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HHIP 235 (3)</td>
<td>SPMT 230 (3)</td>
<td></td>
</tr>
<tr>
<td>HED 205 (3)</td>
<td>Field 1 (3)</td>
<td>Field 7 (3)</td>
</tr>
<tr>
<td>Field 7 (3)</td>
<td>Electives (9)</td>
<td></td>
</tr>
<tr>
<td>Electives (6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HED 337 (3)</td>
<td>HED 461 (3)</td>
<td></td>
</tr>
<tr>
<td>PED 351 (3)</td>
<td>Field 3 (3)</td>
<td>Field 2 (3)</td>
</tr>
<tr>
<td>Field 2 (3)</td>
<td>Electives (9)</td>
<td></td>
</tr>
<tr>
<td>Electives (9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HED 425 (3)</td>
<td>Core Capstone (3)</td>
<td></td>
</tr>
<tr>
<td>Field 4 (3)</td>
<td>Electives (12)</td>
<td></td>
</tr>
<tr>
<td>Electives (9)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Dual Majors:

Physical Education Sport Studies students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

### Minors:

Physical Education Sport Studies students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement. But in some cases additional course work may be required. Students must complete the appropriate minor request form.
Physics
Chair: Kenneth Scherkoske, PhD

Introduction:
The Canisius College Physics major provides a strong background in the scientific skills of analysis and experimentation and gives students a broad choice of career opportunities. The Physics major is a preparation for further study in graduate physics and related areas such as oceanography, geophysics, patent law, medicine, engineering and astronomy and entry into research and development employment. The specific goal for majors is a thorough knowledge of basic physical science and the mathematical and experimental application of this basis to the study of natural phenomena. Other offerings are intended to give non-majors an appreciation of the relation between science and the world within which they live.

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Physics. All students must complete a minimum of 120 credit hours to graduate. For admission to the advanced program (Jr/Sr level), a student should have completed, with a grade of at least C, General Physics (PHY 223, 224, 225) and Mathematics through Differential Equations (MAT 222). Students are expected to be prepared to take Calculus 1 (MAT 111) their first semester at Canisius.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Advising is particularly important for Physics majors due to the highly structured curriculum and numerous course pre-requisites.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 223 - 224</td>
<td>General Physics for Physical Science Majors</td>
<td>4-4</td>
</tr>
<tr>
<td>PHY 225</td>
<td>General Physics III</td>
<td>4</td>
</tr>
<tr>
<td>PHY 226</td>
<td>Basic Electronics</td>
<td>4</td>
</tr>
<tr>
<td>PHY 330</td>
<td>Electromagnetism I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 331</td>
<td>Electromagnetism II</td>
<td>3</td>
</tr>
<tr>
<td>PHY 332</td>
<td>Statistical and Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 350-351</td>
<td>Advanced Laboratory (1-1)</td>
<td>1-1</td>
</tr>
<tr>
<td>PHY 443</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 447</td>
<td>Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 449</td>
<td>Nuclear Physics Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHY 498</td>
<td>Senior Project</td>
<td>1-3</td>
</tr>
<tr>
<td>CHM 111-112</td>
<td>General Chemistry</td>
<td>4-4</td>
</tr>
<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
<td>4</td>
</tr>
<tr>
<td>MAT 111-112</td>
<td>Calculus I and II</td>
<td>4-4</td>
</tr>
<tr>
<td>MAT 211</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MAT 222</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>MAT 335-336</td>
<td>Mathematical Analysis for Physicists</td>
<td>4-4</td>
</tr>
</tbody>
</table>

Major Electives:
Computer Science and Mathematics courses are highly recommended, as are PHY 301, 400 and 450, but are not required.

Major Experiences:
Physics majors use high resolution spectroscopy equipment, lasers, fiber optics, high vacuum apparatus, low temperature apparatus, a multi-channel nuclear spectrometer and an X-ray spectrometer. They have access to departmental computers and the college’s main computer system. In addition, a large supply of other equipment is available for students to use as early as their first semester.

In addition to the standard physics major, students may also wish to consider the Dual Degree Engineering Program, which offers students the option of completing a Physics Degree at Canisius and an Engineering degree at a second institution. For those interested in Physics teaching, a Physics Education program is offered in conjunction with the education department.

The Society of Physics Students offers opportunities for social activities, technical tours, lectures and other activities.
Additional Course Considerations:
Courses in the Junior and Senior years rotate on a two year basis. Please consult your advisor about which set of courses is available in any given year.

Note: Course availability may be a factor in determining time to degree completion for transfer students. Discussion with department faculty is highly recommended for transfer students.

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>CHM 111</td>
<td>CHM 112</td>
</tr>
<tr>
<td></td>
<td>CSC 107</td>
<td>MAT 112</td>
</tr>
<tr>
<td></td>
<td>MAT 111</td>
<td>PHY 223</td>
</tr>
<tr>
<td>Sophomore</td>
<td>MAT 211</td>
<td>MAT 222</td>
</tr>
<tr>
<td></td>
<td>PHY 224</td>
<td>PHY 225</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHY 226</td>
</tr>
<tr>
<td>Junior</td>
<td>PHY 330</td>
<td>PHY 331</td>
</tr>
<tr>
<td></td>
<td>PHY 350 (1)</td>
<td>PHY 351 (1)</td>
</tr>
<tr>
<td></td>
<td>MAT 335</td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>MAT 336</td>
<td>PHY 447</td>
</tr>
<tr>
<td></td>
<td>PHY 332</td>
<td>PHY 499</td>
</tr>
<tr>
<td></td>
<td>PHY 443</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHY 449 (1)</td>
<td></td>
</tr>
</tbody>
</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional coursework may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate dean.

Dual majors in Physics and Computer Science, or Physics and Mathematics are common and offer interesting career options. Newly developed majors at Canisius including Computational Science and Operations Research may also prove to be interesting options.

Minors:
Physics Minor: The physics minor requires seven courses, which are to be distributed as follows.

### Four Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 223</td>
<td>General Physics I</td>
</tr>
<tr>
<td>PHY 224</td>
<td>General Physics II (8)</td>
</tr>
<tr>
<td>PHY 225</td>
<td>General Physics III</td>
</tr>
<tr>
<td>MAT 211</td>
<td>Calculus III</td>
</tr>
</tbody>
</table>

Three courses selected from the following two groups. At least one of these three must be selected from Group I.

#### Group I:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 330</td>
<td>Electromagnetism I</td>
</tr>
<tr>
<td>PHY 331</td>
<td>Electromagnetism II</td>
</tr>
<tr>
<td>PHY 332</td>
<td>Statistical and Thermal Physics</td>
</tr>
<tr>
<td>PHY 443</td>
<td>Classical Mechanics</td>
</tr>
<tr>
<td>PHY 447</td>
<td>Quantum Mechanics</td>
</tr>
</tbody>
</table>

Note: (i) PHY 331 requires PHY 330 as a prerequisite.
(ii) MAT 336 is required for PHY 447.

#### Group II:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 226</td>
<td>Basic Electronics</td>
</tr>
<tr>
<td>PHY 360</td>
<td>Scientific Modeling</td>
</tr>
<tr>
<td>Two of PHY 350, 351, 449 Advanced Lab (2)</td>
<td></td>
</tr>
<tr>
<td>MAT 222</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>MAT 335</td>
<td>Mathematical Analysis for Physicists I</td>
</tr>
<tr>
<td>MAT 336</td>
<td>Mathematical Analysis for Physicists II</td>
</tr>
<tr>
<td>CHM 301</td>
<td>Classical Physical Chemistry</td>
</tr>
</tbody>
</table>

Note: If CHM 301 is used for Group II, PHY 332 cannot be used for Group I.

Note that MAT 111 and MAT 112 are pre-requisites for one or more of the courses listed above. The Physics minor is particularly popular when combined with majors in Mathematics, Computer Science or Chemistry.
PHYSICS COURSES: 2011 - 2013

PHY 131 Earthquakes: Seismology and Society
The science behind earthquakes: causes, locations, frequency and measurement; affects on geography, human structures and society. (Field 6, Global Awareness). Fall

PHY 133 Dinosaurs
An introduction to dinosaurs and their world through an examination of their anatomy, evolution, phylegony, behavior, metabolism and the cause of their extinction. Exploration of geological concepts such as uniformitarianism, stratigraphy, sedimentation, fossilization and taphonomy will help to explain how this knowledge was extracted from the rocks. (Field 6). Spring

PHY 201-202 General Physics
For biological-science students. Newtonian mechanics, electricity and magnetism, optics and atomic physics. Some calculus. Lecture, recitation and laboratory. Prerequisites: MAT 109 or equivalent. A grade of C- or higher in PHY 201 is required to continue in PHY 202. Lab required. PHY 201 Fall, PHY 202 Spring

PHY 223-224 General Physics for Physical Science Majors
Calculus-based physics course and related laboratory. PHY 223: Newtonian mechanics with applications. PHY 224: electricity and magnetism. Prerequisites: MAT 111. A grade of C- or higher in PHY 223 is necessary to continue in PHY 224. Lab required. PHY 223 Spring, PHY 224 Fall

PHY 225 General Physics III
Calculus-based physics course and related laboratory. Fluids, mechanical waves and sound, heat and thermodynamics, geometric and physical optics, relativity and introductory quantum physics. Prerequisite: A grade of C- or higher in PHY 224 is required to continue in PHY 225. Lab required. Spring

PHY 226 Basic Electronics
Circuit analysis, power supplies, semiconductor physics, operational amplifiers, digital electronics. Integrated circuit techniques. Includes laboratory work each week. Prerequisite: A grade of C- or higher in PHY 224 is required. Lab required. Spring

PHY 301 Optics
Geometric optics, interference, diffraction, fiber optics, laser system design, holographic metrology and non-linear optical phenomena. Prerequisites: MAT 222 and PHY 224. Offered irregularly, 2 year cycle, Fall 2011

PHY 330 Electromagnetism I
Static and time-varying classical electric and magnetic fields in free-space and matter. Prerequisite: PHY 224. Prior completion of or concurrent registration for MAT 335 is strongly encouraged. Fall 2011 only, 2 year cycle

PHY 331 Electromagnetism II
Primary topic: electromagnetic waves in free-space and matter, beginning with the Maxwell equations. Additional topics: radiation and special relativity. Prerequisite: PHY 330. Spring 2012 only, 2 year cycle

PHY 332 Statistical and Thermal Physics
Develops statistical concepts and methods used to relate macroscopic to microscopic descriptions of many particle systems. Prerequisite: PHY 225. Fall 2012 only, 2 year cycle

PHY 350-351 Advanced Laboratory
Advanced experiments such as experimental instrumentation, holography, spatial filtering, atomic spectroscopy, x-ray diffraction, low-temperature measurements, magnetic resonance. Prerequisite: PHY 225. Fall and Spring

PHY 443 Classical Mechanics
One, two, and three dimensional motion of a particle, non-inertial systems, classical scattering, rigid-body motion. Lagrange and Hamilton equations, calculus of variations, oscillations. Prerequisites: PHY 224, MAT 222. Fall 2012 only, 2 year cycle

PHY 447 Quantum Mechanics
Experimental basis of quantum mechanics, state functions, operators. Schrodinger's equation and applications, parity, Dirac notation. Prerequisite: MAT 336. Spring 2013 only, 2 year cycle

PHY 449 Nuclear Physics Lab
One-semester lab meeting once per week. Experiments study nuclear instrumentation, characteristics of radiation and nuclear spectra. Prerequisite: PHY 225. 2 year cycle

PHY 498 Senior Project
A one-semester research project done under the supervision of a faculty member. Prerequisite: Senior standing in physics and permission of department chair. Spring

PHY 499 Independent Study
Prerequisite: Permission of department chair. Spring and Fall

PHYSICS COURSES: 2011 - 2013

PHY 131 Earthquakes: Seismology and Society
The science behind earthquakes: causes, locations, frequency and measurement; affects on geography, human structures and society. (Field 6, Global Awareness). Fall

PHY 133 Dinosaurs
An introduction to dinosaurs and their world through an examination of their anatomy, evolution, phylegony, behavior, metabolism and the cause of their extinction. Exploration of geological concepts such as uniformitarianism, stratigraphy, sedimentation, fossilization and taphonomy will help to explain how this knowledge was extracted from the rocks. (Field 6). Spring

PHY 201-202 General Physics
For biological-science students. Newtonian mechanics, electricity and magnetism, optics and atomic physics. Some calculus. Lecture, recitation and laboratory. Prerequisites: MAT 109 or equivalent. A grade of C- or higher in PHY 201 is required to continue in PHY 202. Lab required. PHY 201 Fall, PHY 202 Spring

PHY 223-224 General Physics for Physical Science Majors
Calculus-based physics course and related laboratory. PHY 223: Newtonian mechanics with applications. PHY 224: electricity and magnetism. Prerequisites: MAT 111. A grade of C- or higher in PHY 223 is necessary to continue in PHY 224. Lab required. PHY 223 Spring, PHY 224 Fall

PHY 225 General Physics III
Calculus-based physics course and related laboratory. Fluids, mechanical waves and sound, heat and thermodynamics, geometric and physical optics, relativity and introductory quantum physics. Prerequisite: A grade of C- or higher in PHY 224 is required to continue in PHY 225. Lab required. Spring

PHY 226 Basic Electronics
Circuit analysis, power supplies, semiconductor physics, operational amplifiers, digital electronics. Integrated circuit techniques. Includes laboratory work each week. Prerequisite: A grade of C- or higher in PHY 224 is required. Lab required. Spring

PHY 301 Optics
Geometric optics, interference, diffraction, fiber optics, laser system design, holographic metrology and non-linear optical phenomena. Prerequisites: MAT 222 and PHY 224. Offered irregularly, 2 year cycle, Fall 2011

PHY 330 Electromagnetism I
Static and time-varying classical electric and magnetic fields in free-space and matter. Prerequisite: PHY 224. Prior completion of or concurrent registration for MAT 335 is strongly encouraged. Fall 2011 only, 2 year cycle

PHY 331 Electromagnetism II
Primary topic: electromagnetic waves in free-space and matter, beginning with the Maxwell equations. Additional topics: radiation and special relativity. Prerequisite: PHY 330. Spring 2012 only, 2 year cycle

PHY 332 Statistical and Thermal Physics
Develops statistical concepts and methods used to relate macroscopic to microscopic descriptions of many particle systems. Prerequisite: PHY 225. Fall 2012 only, 2 year cycle

PHY 350-351 Advanced Laboratory
Advanced experiments such as experimental instrumentation, holography, spatial filtering, atomic spectroscopy, x-ray diffraction, low-temperature measurements, magnetic resonance. Prerequisite: PHY 225. Fall and Spring

PHY 443 Classical Mechanics
One, two, and three dimensional motion of a particle, non-inertial systems, classical scattering, rigid-body motion. Lagrange and Hamilton equations, calculus of variations, oscillations. Prerequisites: PHY 224, MAT 222. Fall 2012 only, 2 year cycle

PHY 447 Quantum Mechanics
Experimental basis of quantum mechanics, state functions, operators. Schrodinger's equation and applications, parity, Dirac notation. Prerequisite: MAT 336. Spring 2013 only, 2 year cycle

PHY 449 Nuclear Physics Lab
One-semester lab meeting once per week. Experiments study nuclear instrumentation, characteristics of radiation and nuclear spectra. Prerequisite: PHY 225. 2 year cycle

PHY 498 Senior Project
A one-semester research project done under the supervision of a faculty member. Prerequisite: Senior standing in physics and permission of department chair. Spring

PHY 499 Independent Study
Prerequisite: Permission of department chair. Spring and Fall
Political Science

Chair: John D. Occhipinti

Introduction:
This major provides students with a comprehensive understanding of Political Science, including American Government, International Relations, Comparative Politics, and Political Philosophy. Political Science supplies students with an ideal academic background for careers in public administration, politics, the law, national security, business, education or academia. The Political Science major also gives students a strong foundation for teaching social studies and can be combined with a major in secondary education. In addition, the Political Science major provides a good basis for graduate study in public policy, international relations, business administration and journalism. Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities.

Students are encouraged to participate in the following experiences that are available through the Political Science Department:

• Visits to Congress and the Supreme Court
• Travel to Europe for EuroSim, an international inter-collegiate simulation of the European Union
• Internships in Buffalo, Albany and Washington, D.C.
• Experiential learning in the form of simulations of the National Security Council (PSC 346), Political campaigns (PSC 236) and the European Union (PSC 355)
• Opportunities for students to present their research papers at student conferences
• Several student clubs connected with American politics, world politics and the law
• Membership in Pi Sigma Alpha, the National Political Science Honor Society
• Awards for outstanding senior majors
• Departmental Honors Program http://www.canisius.edu/polisci/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
To complete the Political Science major, students must earn a minimum grade of C in each of the following courses: PSC 103, PSC 104, PSC 111, PSC 140, PSC 150 and PSC 217. Students must also maintain a 2.0 overall average to graduate with a degree in Political Science. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, additional majors or minors, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and any major or minor requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 103</td>
<td>The American Constitution</td>
<td>3</td>
</tr>
<tr>
<td>PSC 104</td>
<td>American Political Process</td>
<td>3</td>
</tr>
<tr>
<td>PSC 111</td>
<td>Western Political Tradition</td>
<td>3</td>
</tr>
<tr>
<td>PSC 140</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 150</td>
<td>Comparative Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 217</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSC 400/401</td>
<td>Capstone (see course descriptions for details)</td>
<td>3/1</td>
</tr>
</tbody>
</table>

Major Electives:
Five Political Science courses, including at least two at the 300/400 level. With prior approval, up to two major electives (below the 300 level) may be taken in approved study abroad programs. With
Most of the best majors in Political Science decide to build their resumes and enhance their post-graduate opportunities by earning dual or triple degrees with other programs. The most popular combinations are with Criminal Justice, European Studies, International Relations and Urban Studies. Other common dual degrees combine Political Science with Communication Studies, Economics, English, History, Modern Language and Sociology. In some cases, additional course work is required beyond the 120 credits needed for graduating. Students planning dual or triple degrees should consult with their academic advisor in the Political Science Department and the chair or director of each department or program involved.

In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
The Political Science minor, for non-majors only, provides an introduction to and overview of the discipline.

### 7 Courses – 21 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 103</td>
<td>American Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 104</td>
<td>American Political Process</td>
<td>3</td>
</tr>
<tr>
<td>PSC 111</td>
<td>Political Theory</td>
<td>3</td>
</tr>
<tr>
<td>PSC 140</td>
<td>International Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 150</td>
<td>Comparative Government</td>
<td>3</td>
</tr>
<tr>
<td>PSC 215, 237 or 334</td>
<td>Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSC 224, 225, 325 or 335</td>
<td>Political Institutions and Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>

### 8 Courses – 24 Credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 103</td>
<td>American Constitution</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 215</td>
<td>National Issues and Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSC 245</td>
<td>American Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSC 345</td>
<td>International Crime after 9/11</td>
<td>3</td>
</tr>
<tr>
<td>ECO 401</td>
<td>Public Finance or approved substitute</td>
<td>3</td>
</tr>
<tr>
<td>PSC 320</td>
<td>American Constitutional Law I</td>
<td>3</td>
</tr>
<tr>
<td>PSC 321 or</td>
<td>American Constitutional Law II</td>
<td>3</td>
</tr>
<tr>
<td>PSC 420</td>
<td>Constitution, War on Terror and Civil Liberties</td>
<td>3</td>
</tr>
</tbody>
</table>

The Law and Public Policy minor, for both majors and non-majors, focuses on the relationship between the legal system and public policy (8 courses - 24 credits):
Political Science and Law
The Political Science Department is the home for the college’s pre-law center, and the Political Science major is the most common academic major for prospective law students. The college offers a recommended curriculum for pre-law studies, which can be easily combined with the Political Science major. For further information, students should consult with the chair of the Political Science Department and the director of the Pre-Law Center.

http://www.canisius.edu/pre_law/

Political Science and Business
For Political Science majors considering a career in business and/or a master of business administration (MBA) degree, preparation can be obtained by taking a concentration in Business consisting of seven courses: ECO 101-102, ACC 201-202, MGT 101, MKT 201 and MAT 131 or MGT 340. There is also a minor in Business Management for non-business majors.

Note:
Department Honors Program
The Political Science Honors Program provides an opportunity for outstanding students in the major to go beyond the usual course offerings. Majors who take part in the program will engage in original research under the close supervision of a faculty member. The research project provides the opportunity for students to do independent study on a topic of their own choosing. Participants in the All-College Honors Program may use their senior thesis to fulfill this requirement, provided that this project is prepared under the direction of a member of the Political Science Department.

Taking part in the Honors program can also make students more competitive after graduation, whether for further schooling or employment. For example, students applying for graduate school or law school in their senior year can refer to the research paper in their application. At the same time, participation on the Departmental Honors Program will enable students’ faculty advisors to write more detailed and enthusiastic letters of recommendation for these applications.

Requirements:
• Students may apply in the spring of their junior year or in their senior year
• Grade point average overall (to apply for the program and upon graduation): 3.30
• Grade point average for major courses (to apply for the program and upon graduation): 3.50
• Honors Research: a lengthy paper involving original research in the field of Political Science under the direction of a member of the Political Science Department

POLITICAL SCIENCE COURSES 2011-2013

PSC 103 The American Constitution
Provides a thorough grounding in the U.S. Constitution, which is America’s founding document, and serves as the basis for its political system. (Field 5) Spring and Fall

PSC 104 American Political Process
An introduction to American politics including political socialization, public opinion and ideologies, political participation in electoral systems and mass movements, political parties and interest groups. (Field 5) Spring and Fall

PSC 111 Western Political Tradition
Development of Western political tradition from Machiavelli to present, emphasizing development of liberal, conservative and socialist traditions. (Field 4, Justice Attribute) Fall

PSC 140 International Relations
Introduces paradigms of world politics. International security, political economy and globalization. Power politics and international organizations. (Field 5, Global Awareness attribute) Spring and Fall

PSC 150 Comparative Government and Politics
Comparative analysis of foreign countries. Governments, ideologies, parties, elections, political culture, civil society and democracy in industrialized and developing countries. (Field 5, Global Awareness attribute) Spring and Fall

PSC 210 American Political Humor
History, significance and impact of humor on the political process. A wide ranging variety of humorous forms will be used including editorial cartoons, comic strips, radio broadcasts, television programs, movies and more. Fall

PSC 215 National Issues and Public Policy
Selected policy issues and their relationship to the political process including health care, homeland security, welfare and housing. Fall

PSC 217 Research Methods
Basic, non-statistical treatment of current techniques and methodologies which characterize political science research. Fall

PSC 224 Congress and the Legislative Process
Survey of Congressional procedures and practices. Emphasis on recent changes within Congress, and the position of Congress in the U.S. political and governmental system. (Field 5, Oral Communication Attribute) Spring

PSC 225 U.S. Presidency
Survey of the U.S. executive branch of government, including President, Vice President, White House staff, Executive office and the bureaucracy. Fall

CRJ 227 Criminal Justice I
See CRJ 227 for course description. Fall

CRJ 228 Criminal Justice II
See CRJ 228 for course description. Spring
PSC 233 Interest Groups and Public Opinion in America
Development of the notions of opinion and interest, their transmission and their influence on decision-making. Fall

PSC 236 Political Campaigning
Campaigning resources, techniques, strategies and goals. Practical and theoretical treatment. Field research. Spring

PSC 237 State and Local Politics
The institutions and policies of state and local governments, with focus on New York State. State and local elections, gubernatorial politics, state legislatures, community politics. Spring

PSC 241 Human Rights and Globalization
Development of international human rights laws and the challenges for their consolidation. Explaining human rights violations, challenges for enforcing human rights and prosecuting abuses. Effects of various actors on human rights conditions in different world regions.

PSC 242 International Organizations
International and transnational. Intergovernmental and non-governmental. Regional and global. Content areas: political, economic and humanitarian. (Field 5, Global Awareness & Writing Intensive Attributes) Fall

PSC 244 War: Causes and Consequences
Investigates the conditions, processes, and events which lead to the outbreak of war, and explores the political, strategic, and human consequences of wars. In-depth analysis of selected wars in history and in contemporary global politics. Spring

PSC 245 American Foreign Policy
US diplomatic history since 1945. Structure, process and issues in contemporary American foreign relations. Fall

PSC 250 Politics in Latin America
Introduction to the region by examining its political, economic, and social transformations on its path toward democracy. Case studies of countries. Economic and political challenges facing the region in a globalized world.

HIS 280 The Making of Modern Africa
See HIS 280 for course description. Spring

PSC 320 American Constitutional Law I
Development of constitutional law in the U.S. from the founding of the Republic to present. Case-study method in selected areas of constitutional jurisdiction. (Field 5, Justice Attribute) Fall

PSC 321 American Constitutional Law II: Civil Liberties
Role of modern and contemporary Supreme Court in controversial areas of civil liberties and related questions. Current interpretations of the Bill of Rights and the Fourteenth Amendment. (Field 5, Justice Attribute) Spring

PSC 325 Elections and Voting Behavior
The various types of elections and electoral procedures and their relationship to voter turnout and voter choice. Fall

PSC 334 Public Administration
The Federal Bureaucracy: its relationship to the executive and the public. Elements and issues of public-sector management. Prerequisite: PSC 103 or 104 or permission of instructor. Spring

PSC 335 Political Parties
Development and present conditions of political parties. What they do and why they do it. Parties' past and present roles, as well as their future prospects. Spring

PSC 336 Urban Government and Politics
Structure, function, operation and politics of local government. Machine and reform models, power and participation. Significant policy issues to be addressed include schools, finances, land use, planning and crime. (Field 5) Fall

PSC 343 Aid and Development
Causes of poverty and international efforts to address this. Poverty in the developing world, the global institutions responsible for development programs, and the role of Non-Governmental Organizations (NGOs) working to eliminate poverty.

PSC 345 International Crime After 9/11
Cross-border organized crime and responses, especially in North America and Europe. Emphasis on drug trafficking, terrorism and illegal immigration. Crime-fighting, counter-terrorism, border management and international police cooperation. Guest speakers and video. Prerequisites: PSC 140-150 or CRJ 227-228 or permission of instructor. Spring

PSC 346 National Security Council
Role-play simulation of the National Security Council. Student “policy-makers” conduct briefings, develop initiatives and debate policy positions and proposals concerning U.S. national security. Emphasizes strategic, ethical and moral dilemmas in foreign policy decision-making. Prerequisite: Permission of instructor. Fall

PSC 355 European Union
History of European integration. Structure, process and politics of EU policies. Optional EuroSim: international, intercollegiate simulation of the EU and travel. (Field 5, Global Awareness & Oral Communication Attribute) Fall

PSC 360 Political Economy of Developing World
Introduction to development and poverty and explaining these according to domestic and international variables. Relationship between politics and development. Socio-political factors influencing poverty as economic factors shaping political institutions of developing countries. Spring

PSC 370 Domestic Conflicts & Peace
Civil wars and peace in global perspective. Why civil wars start and how they end. Consequences of peace processes for the local and global communities and how to prevent future civil wars. Fall

HIS 394 Contemporary Middle East
See HIS 394 for course description. Spring
ECO 401 Public Finance
See ECO 401 for course description. Fall

PSC 400 Capstone
Integrative experience for senior majors. Project demonstrating a sense of public service or leadership and knowledge gained in the major and its sub-fields. Topics and requirements vary by instructor. Applies only to class of 2013 and later graduating classes. Spring

PSC 401 Capstone
Integrative experience for senior majors. Allows students to demonstrate their proficiency in the discipline and prepares them for post-graduate education or employment. Required for classes of 2011 and 2012. Spring

PSC 420 The Constitution, The War on Terror and Civil Liberties
Constitutional and civil liberties issues in the war on terrorism. USA Patriot Act, ethnic and racial profiling, enhanced interrogation, data collection, Foreign Intelligence Surveillance Act and Fourth Amendment. U.S. citizens as enemy combatants and the military detention and trial of terrorist suspects. Spring

PSC 430 The American Founding
The story of the founding of the American Republic focusing on debates at the constitutional convention, ratification and their relevance to contemporary America. Fall

PSC 436 Seminar in Presidential Campaigning and Advance Work
Political advance work in the context of contemporary American presidential campaigns. Prerequisite: Permission of instructor. Spring

PSC 442 Seminar in International Relations
Theoretically-informed perspectives on global affairs explored through selected topics and issues unified by a central theme, such as leaders and leadership in international politics. Prerequisite: International Relations majors or permission of instructor. Spring

PSC 455 Seminar in European Politics
Contemporary issues in Eastern and Western Europe. Concepts and theories of comparative politics and European integration and governance. Spring

PSC 498 Internship
A variety of opportunities are available locally, as well as in Washington, D.C. and Albany. Internships arranged by faculty members in government, law offices and non-profit organizations. Prerequisite: Permission of chair of the Political Science department. Pass-Fail. Does not apply as a major elective. Spring and Fall

PSC 499 Independent Study
Research and/or directed reading under direction of faculty members associated with the Political Science department. Prerequisite: Permission of chair of the Political Science Department. Spring and Fall
Pre-Engineering 2 + 2

Introduction:
The Pre-Engineering program covers the first two years of a four-year engineering major and is staffed by faculty from the Physics Department. Students transfer to an Engineering School after two or three years at Canisius to complete the degree. Two options are available in Pre-Engineering, including the new Dual Degree Engineering+Physics program which allows a student to complete a BS in Physics at Canisius, in addition to the engineering degree. The 2+2 program covers the science, mathematics and computer programming that form the basis of study for the first two years of most engineering school curricula. The Dual-Degree 3+2 program allows students to complete a physics major from Canisius, providing an extensive grounding in both science and engineering that can open the doors to advanced engineering and technology studies in a wide range of fields. The 2+2 program is perhaps better suited to students closely focused on a specific engineering field or career path. The 3+2 program is particularly suited to students who are strongly interested in demanding scientific or industrial research and development careers, particularly in an interdisciplinary area. The Dual-Degree program includes an articulation agreement for students interested in pursuing Mechanical Engineering at the Pennsylvania State University at Erie, The Behrend College. Many students also pursue their engineering degree at SUNY at Buffalo (UB), and Canisius maintains close contact with UB.

Students who successfully complete one of these programs transfer to an engineering school to complete the requirements for an engineering degree. The completion of the engineering degree normally takes an additional two years of study after finishing the two or three year program at Canisius. Transfer students generally receive full junior or third year standing at an engineering school. Recently, most of the successful transfer students have enrolled at SUNY Buffalo, but transfer students have completed engineering degrees at a wide variety of schools, including Cornell, Clarkson, RPI and RIT. Canisius maintains an articulation agreement in engineering with the University of Detroit Mercy.

Students interested in advanced scientific or engineering study may be best served by Dual-Degree Engineering and Physics program, while students clearly focused on a specific engineering discipline are encouraged to pursue the 2+2 program. Those students who are not focused on a specific engineering discipline, or who want more time to explore other options may be better suited to one of the 3+2 programs. It is possible to switch between the three programs easily in the first year of study. Some students choose to remain at Canisius after completing the program to pursue other majors such as physics, mathematics, chemistry or computer science, and the transfer into these other majors is simple and straightforward.

Qualifications:
Transfer and completion of the engineering degree at the second institution requires an admissions process at the second institution and satisfaction of the degree requirements, including core and/or general education requirements, of that institution. Entering students should be prepared to take Calculus 1 (MAT 111) their first semester.

Advisement:
All students must have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Careful consultation with an advisor is particularly important due to the tremendous number of pre-requisites in most engineering courses and the varied requirements of different engineering majors.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Note: Students in this program (The Pre-Engineering 2+2 program) do not complete a degree at Canisius, but transfer to an engineering institution. Instead of completing the core curriculum at Canisius, students complete the general studies requirements at the engineering institution. Students considering the Engineering 2+2 or 3+2 Dual Degree program, or other options at Canisius, should take the first two years of the Core Curriculum material. Discussion of course selection with a Physics or Engineering faculty member is strongly encouraged.
Additional Course Considerations:
Additional courses in some engineering majors may require cross-registration at SUNY at Buffalo.

Dual Majors:
Dual majors in the Engineering 2+2 program would be subject to the regulations of the engineering institution.

Minors:
Minors would also be subject to the regulations of the engineering institution in which the degree is completed. Students in this program cannot do minors at Canisius, as no degree from Canisius is completed in this program.
Introduction:
The Pre-Engineering program covers the first two years of a four-year engineering major and is staffed by faculty from the Physics Department. Students transfer to an Engineering School after two or three years at Canisius to complete the degree. Two options are available in Pre-Engineering, including the new Dual Degree Engineering+Physics program which allows a student to complete a BS in Physics at Canisius, in addition to the engineering degree. The 2+2 program covers the science, mathematics and computer programming that form the basis of study for the first two years of most engineering school curricula. The Dual-Degree 3+2 program allows students to complete a physics major at Canisius, providing an extensive grounding in both science and engineering that can open the doors to advanced engineering and technology studies in a wide range of fields. The 2+2 program is perhaps better suited to students closely focused on a specific engineering field or career path. The 3+2 program is particularly suited to students who are strongly interested in demanding scientific or industrial research and development careers, particularly in an interdisciplinary area.

The Dual-Degree program includes an articulation agreement for students interested in pursuing Mechanical Engineering at the Pennsylvania State University at Erie, The Behrend College. Many students also pursue their engineering degree at SUNY at Buffalo (UB), and Canisius maintains close contact with UB. Students who successfully complete one of these programs transfer to an engineering school to complete the requirements for an engineering degree. The completion of the engineering degree normally takes an additional two years of study after finishing the two or three year program at Canisius. Transfer students generally receive full junior or third year standing at an engineering school. Recently, most of the successful transfer students have enrolled at SUNY Buffalo, but transfer students have completed engineering degrees at a wide variety of schools including Cornell, Clarkson, RPI and RIT. Canisius maintains an articulation agreement in engineering with the University of Detroit Mercy.

Students interested in advanced scientific or engineering study may be best served by Dual-Degree Engineering and Physics program, while students clearly focused on a specific engineering discipline are encouraged to pursue the 2+2 program. Those students who are not focused on a specific engineering discipline or who want more time to explore other options may be better suited to one of the 3+2 programs. It is possible to switch between the three programs easily in the first year of study. Some students choose to remain at Canisius after completing the program to pursue other majors such as physics, mathematics, chemistry or computer science, and the transfer into these other majors is simple and straightforward.

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Physics at Canisius. All students must complete a minimum of 120 credit hours to graduate from Canisius. Students in the Dual-Degree program must also complete all degree requirements at the Partnering Engineering Institution. Entering students should be prepared to take Calculus 1 (MAT 111) in their first semester of the program.

Advisement:
All students must have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. The highly structured nature of engineering degree programs and the numerous course pre-requisites require careful course planning. Differences in schedules also arise due to the need to fulfill different requirements in various engineering degree programs.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Students should consult with an advisor in Physics or Engineering to discuss their elective course choices to ensure timely completion of both degrees. Careful advising is a must in this program.

Linear Algebra (MAT 219) (4), Organic Chemistry (CHM 227-228) (4-4) or additional computer science courses (CSC 111, CSC 212, CSC 213 or CSE 101) (4-4-4-3) may be valuable electives.
requirements in the Physics Major while at the partnering Engineering school. Prior to completion of the third year at Canisius, students will meet with their advisor to plan out the courses to be completed in the Physics major. Course selection may vary somewhat depending on engineering major and partner institution.

### Dual Majors:
The Dual-Degree 3+2 program is a dual degree program, with a BS in Physics from Canisius and a BS in Engineering from an Engineering school. An additional major at Canisius in this program would prove difficult to complete, due to the already demanding nature of this program; however, students are urged to discuss this with an academic advisor.

### Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form. Careful advising will be required for students in the 3+2 program wishing to complete a minor in addition to both degrees.

### Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY 223-224</td>
<td>General Physics for Physical Science Majors</td>
<td>4-4</td>
</tr>
<tr>
<td>PHY 225</td>
<td>General Physics III</td>
<td>4</td>
</tr>
<tr>
<td>PHY 226</td>
<td>Basic Electronics</td>
<td>4</td>
</tr>
<tr>
<td>PHY 330</td>
<td>Electricity and Electromagnetism I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 331</td>
<td>Electricity and Electromagnetism II</td>
<td>3</td>
</tr>
<tr>
<td>PHY 332</td>
<td>Statistical and Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 350-351</td>
<td>Advanced Laboratory (1-1)</td>
<td>1-1</td>
</tr>
<tr>
<td>PHY 443</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 447</td>
<td>Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 449</td>
<td>Nuclear Physics Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHY 498</td>
<td>Senior Project</td>
<td>1-3</td>
</tr>
<tr>
<td>CHM 111-112</td>
<td>General Chemistry</td>
<td>4-4</td>
</tr>
<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
<td>4</td>
</tr>
<tr>
<td>MAT 111-112</td>
<td>Calculus I and II</td>
<td>4-4</td>
</tr>
<tr>
<td>MAT 211</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MAT 222</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>MAT 335-336</td>
<td>Mathematical Analysis for Physicists</td>
<td>4-4</td>
</tr>
</tbody>
</table>

Also, depending on Engineering major:
EGR 111, Introduction to Engineering Design (3); EGR 207, Engineering Statics (3); EGR 208, Engineering Dynamics (3); EGR 211, Engineering Thermodynamics (3); EGR 214, Strength of Materials (3). In some cases, cross registration for additional courses at SUNY at Buffalo may be advisable.

### Major Electives:
Linear Algebra (MAT 219) is advisable, and required by some engineering programs.

### Major Experiences:
Physics majors use high resolution spectroscopy equipment, lasers, fiber optics, high vacuum apparatus, low temperature apparatus, a multi-channel nuclear spectrometer and an X-ray spectrometer. They have access to departmental computers and the college’s main computer system. In addition, a large supply of other equipment is available for students to use as early as their first semester.

In addition to the standard physics major, students may also wish to consider the Dual Degree Engineering Program, which offers students the option of completing a Physics Degree at Canisius and an Engineering degree at a second institution. For those interested in Physics Teaching, a Physics Education program is offered in conjunction with the education department.

### Additional Course Considerations:
Junior/Senior level courses are offered on a rotating two year basis. Students will take either the course listed Junior or Senior year, depending on availability. Students will complete the missing

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### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>CHM 111 (4)</td>
<td>CHM 112 (4)</td>
</tr>
<tr>
<td></td>
<td>EGR 111 (3)</td>
<td>MAT 112 (4)</td>
</tr>
<tr>
<td></td>
<td>CSC 107 (4)</td>
<td>PHY 223 (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 111 (4)</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>MAT 211 (4)</td>
<td>MAT 222 (4)</td>
</tr>
<tr>
<td></td>
<td>PHY 224 (4)</td>
<td>PHY 225 (4)</td>
</tr>
<tr>
<td></td>
<td>EGR 207 (3)</td>
<td>PHY 226 (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EGR 208 (3)</td>
</tr>
<tr>
<td>Junior</td>
<td>PHY 330 (3)</td>
<td>PHY 331 (3)</td>
</tr>
<tr>
<td></td>
<td>EGR 211 (3)</td>
<td>MAT 219 (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 335 (4)</td>
<td>PHY 351 or</td>
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<tr>
<td></td>
<td>PHY 350 (2)</td>
<td>PHY 449 (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EGR 214 (3)</td>
</tr>
<tr>
<td>Senior</td>
<td>PHY 332 (3)</td>
<td>PHY 447 (3)</td>
</tr>
<tr>
<td></td>
<td>PHY 443 (3)</td>
<td>MAT 219 (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 336 (4)</td>
<td>EGR 214 (3)</td>
</tr>
<tr>
<td></td>
<td>PHY 350 (2)</td>
<td>PHY 351/PHY 449 (1)</td>
</tr>
<tr>
<td></td>
<td>EGR 211 (3)</td>
<td></td>
</tr>
</tbody>
</table>
COURSES: 2011 - 2013

EGR 111 Introduction to Engineering Design
Introduction to the subject of robotics as well as some of the quantitative tools engineers use to solve problems, including model classification, optimization methods and deterministic, probabilistic and economic models. Fall

EGR 211 Thermodynamics
Fundamental concepts and laws of thermodynamics, equilibrium. Applications to physical and chemical systems. Prerequisite: PHY 223. Fall

EGR 207 Engineering Statics
Forces and torques on rigid bodies, couples, moments, centroids and moments of inertia. Equilibrium conditions, friction, free body diagrams. Applications to beams, trusses, frames and other structures. Prerequisites: PHY 223, MAT 112. Fall

EGR 208 Engineering Dynamics
Kinematics of particles and rigid objects, D’Alembert’s Principle, moving reference frames, work-energy methods, impulse and momentum, vibration. Applications to engineering problems. Prerequisite: EGR 207. Spring

EGR 214 Strength of Materials
Behavior of materials under mechanical loading. Stress and strain relationships, shear, bending moments, torsion and deflection. Beams, columns, energy methods and failure criteria. Prerequisite: EGR 207. Spring
Professional/Technical Studies

Chair: Khalid W. Bibi

Introduction
The Professional and Technical Studies (PTS) degree supplements eligible professional and technical training programs with a core of liberal arts courses that lead to a bachelor of science degree in professional studies.

This degree is specifically designed for graduates with A.A.S. degrees from approved programs from accredited community or technical colleges. With full-time study students can complete this program in two years and qualify for competitive, affordable tuition.

Please see the website for a more detailed description of the program and tuition fee structure: www.canisius.edu/pts

Goals
http://www.canisius.edu/pts/

Qualifications
Canisius will accept up to 60 credits from approved professional or technical programs. Students must complete a minimum of 60 additional credits to include the Canisius core curriculum.

Students must maintain a 2.0 GPA in their major and a 2.0 overall average to fulfill requirements for graduation.

Advisement
All students will have access to full advisement services. Students should work closely with their advisors in discussing career expectations, choosing their electives, and developing their academic program.

Curricular Requirements for the Major
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives
Free electives are courses in addition to the Core Curriculum and may be used to complete a minor, to satisfy prerequisites for advanced study, or to design a course of study to achieve their professional goals. The decision may be based on career goals or planned graduate studies. Minors generally range from 6-8 required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

1 And electives with a minimum of 36 credit hours at the 300-400 level.
Psychology

Chair: Dewey J. Bayer

Introduction:
Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities:
http://www.canisius.edu/canpsych/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in the major and a 2.0 overall average to graduate with a degree in Psychology. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department administrative associate, Sharon Lotterer, at 888-2510 to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:

Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 101</td>
<td>Introduction to Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>PSY 102</td>
<td>Introduction to Psychology II</td>
<td>3</td>
</tr>
<tr>
<td>PSY 201</td>
<td>Basic Statistics for Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSY 202</td>
<td>Experimental Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Core I: Neuroscience & Cognition
(one course to be chosen from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 324</td>
<td>Learning &amp; Cognition</td>
<td>3</td>
</tr>
<tr>
<td>PSY 326</td>
<td>Psychology of Memory</td>
<td>3</td>
</tr>
<tr>
<td>PSY 391</td>
<td>Biopsychology of Stress</td>
<td>3</td>
</tr>
<tr>
<td>PSY 397</td>
<td>Neurobiology of Mental Disorders</td>
<td>3</td>
</tr>
<tr>
<td>PSY 398</td>
<td>Neurobiology of Childhood Mental Disorders</td>
<td>3</td>
</tr>
<tr>
<td>PSY 410</td>
<td>Fundamentals of Human Neuropsychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 431</td>
<td>Sensation and Perception</td>
<td>3</td>
</tr>
</tbody>
</table>

Core II: Developmental & Psychosocial
(one course to be chosen from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 203</td>
<td>Lifespan Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 302</td>
<td>Personality Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 303</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 318</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 323</td>
<td>Motivation and Emotion</td>
<td>3</td>
</tr>
<tr>
<td>PSY 384</td>
<td>Child &amp; Adolescent Psychopathology</td>
<td>3</td>
</tr>
</tbody>
</table>

Core III: Outcomes & Applications
(one course to be chosen from the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 229</td>
<td>Industrial/Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 329</td>
<td>Leadership and Motivation</td>
<td>3</td>
</tr>
<tr>
<td>PSY 334</td>
<td>Child, Family, &amp; Community Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 373</td>
<td>Behavior Modification</td>
<td>3</td>
</tr>
<tr>
<td>PSY 395</td>
<td>Assessment in the Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>PSY 452</td>
<td>Techniques of Counseling Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>
Major Electives:
Psychology electives: any three courses listed in the catalog or substitutions approved by the department chairperson.

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>PSY 101 (3)</td>
<td>PSY 102 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>PSY 201 (3)</td>
<td>PSY 202 (3)</td>
</tr>
<tr>
<td>Junior</td>
<td>Psychology core</td>
<td>Psychology core</td>
</tr>
<tr>
<td>Senior</td>
<td>Psychology elective</td>
<td>Psychology elective</td>
</tr>
</tbody>
</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Minors 2:
The Psychology Department allows students to choose course concentrations in several areas. These include Industrial/Organizational Psychology, School Psychology, Clinical Psychology (and subareas), Forensic Psychology, and Sports Psychology. Students should consult with their advisor before selecting a concentration.

PSYCHOLOGY COURSES: 2011 - 2013

PSY 101 Introduction to Psychology
The study of behavior from a psychological perspective. Topics include methods of psychological inquiry, motivation and emotion, thinking and language, learning, memory and physiological basis of behavior. Students taking PSY 101 are expected to be available for participation in research studies or equivalent activity. Fall

PSY 102 Introduction to Psychology
The study of behavior from a psychological perspective. Topics include methods of psychological inquiry, human development, social behavior, psychological testing, personality, psychopathology and psychotherapy. May be taken before PSY 101. Students taking PSY 102 are expected to be available for participation in research studies or equivalent activity. Spring

PSY 201 Basic Statistics for Behavioral Sciences
Descriptive statistics, probability, sampling distributions, hypothesis testing and inferential statistics. SPSS for Windows. Fall and Spring

PSY 202 Experimental Psychology
Philosophical measurement and statistical concepts of common methods of experimental and non-experimental research. Design and execution of project required. Prerequisite: PSY 201. Fall and Spring

PSY 203 Lifespan Developmental Psychology
Important factors in the psychological development of the child. Social, biological and historical antecedents of behavior from birth through puberty. Fall and Spring

PSY 229 Industrial/Organizational Psychology
Selection, evaluation and training of personnel, facilitation of group dynamics on the job, leadership, worker motivation and effects of workplace environment on performance and morale. Emphasis on student career development. Fall

PSY 235 Health Psychology
Psychology of health-related behaviors, including coping with stress and ill health, physician-patient relationships, compliance with medication and psychological influences on specific disorders. Students conduct personal stress assessments and design interventions. Spring

PSY 302 Personality
Covers modern theories on what personality is, different ways of approaching and assessing personality, how personality develops across the lifespan, causes of individual differences in personality, and the many important things personality influences such as physical and psychological health. Fall

PSY 303 Abnormal Psychology
Overview of psychopathology: history, assessment, causes, DSM-IV, clinical symptoms and treatment. Review of major DSM-IV disorders with an emphasis on adults. Fall and Spring
PSY 307 Adolescent Psychology
Physiological, psychological and emotional factors in achieving maturity. Focuses on time frame from prepuberty to emerging adulthood. Extension of theoretical orientation to adolescent problems. Emphasis on real world problems and solutions. Spring

PSY 310 Applied Behavior Analysis
This course focuses on the principles of applied behavior analysis and their application in classroom and home environments. Students receive in-depth instruction in functional behavioral assessments as well as the application of ABA principles to intervention, skill acquisition, and data management. Spring

PSY 312 Autism Spectrum Disorders
This course provides an overview of the comprehensive needs and characteristics of and treatments for individuals with autism spectrum disorders (ASDs). Fall

PSY 318 Social Psychology
The self in social interaction: social perception and cognition, development and maintenance of relationships, attitudes, prejudice, social influence, group dynamics and related gender issues. (This course also counts for WST credit.) Fall

PSY 323 Motivation and Emotion
Covers behavioral, cognitive and physiological theories of motivation and emotion with special focus on humanistic motivational theories. Through course activities and assignments, students will apply the theories learned in class to their own behaviors, examine the nature and progress made on their personal goals during the semester and understand the dynamic interplay between goal-directed behavior and emotion.

PSY 320 Cultural Psychology
Humans learn from our cultures in all aspects of our lives. Choosing a mate, political attitudes, prejudices, and even basic perceptions all depend on cultural learning. In all our actions we rely on ideas, values, strategies, feelings, and goals that have been shaped by our cultures. We cover both the psychological universals and the variations across cultures. Fall and Spring

PSY 324 Cognitive Psychology
The psychological processes that enable us to acquire, store, retrieve and use knowledge. Topics include perception, attention, memory, language, thinking, and decision making. Applications in education, psychopathology. Fall

PSY 326 Psychology of Memory
Examines the findings from laboratory research to gain a better understanding of the structure and organization of memory. Topics include working memory, encoding and retrieval processes, implicit memory and multiple memory systems, reconstructive processes in memory, eyewitness memory, developmental changes in memory, neuropsychological correlates of memory and memory disorders, source memory, memory improvement, and the repressed/recovered memory controversy. Spring

PSY 329 Leadership and Motivation
Determinants of leadership effectiveness, factors influencing effectiveness in maintaining leadership position, influencing followers and accomplishing group objectives. Emphasis on communication competencies, group interaction, experiential learning. Prerequisite: PSY 101 or PSY 102, junior or senior status. Spring

PSY 334 Child, Family and Community Psychology
Effects of social and non-social environments on emotions, thoughts and behaviors. Psychological reactions and adjustments to the nature of community life. Deals with social problems such as AIDS, alcoholism and child and elder abuse. (Also counts for CRJ credit.) Fall

PSY 369 Forensic Psychology
Psychology’s role in the legal system: criminal behavior, trial process (competency evaluation, psychologists as expert witnesses, jury selection, jury deliberation, insanity defense), law enforcement and corrections, family law (divorce, domestic violence, child custody). (Also counts for CRJ credit.) Spring

PSY 373 Behavior Modification
Application of conditioning principles to changing human behavior and cognitions, emphasis on practical problems. Fall

PSY 384 Child Psychopathology
This course will introduce students to the signs and symptoms of various psychiatric disorders of childhood and adolescence (e.g., conduct disorder, ADHD). Spring and Fall

PSY 391 Biopsychology of Stress
Examines the physiological and psychological components and effects of stress, including the involvement of the nervous, immune and endocrine systems. Fall

PSY 395 Assessment in the Behavioral Sciences
Addresses fundamentals of classic test theory, scaling, reliability, and validity and provides an overview of measures of intelligence, achievement, and personality for clinical, educational, and research use. Prerequisite: PSY 201 Fall

PSY 397 Neurobiology of Mental Disorders
Examines the role of the central nervous system and other biological factors underlying the symptoms, etiology and treatment of various mental disorders. Spring

PSY 398 Neurobiology of Childhood Mental Disorders
A sequel to the Neurobiology of Mental Disorders course that is currently being offered. This course will focus on the neurobiological underpinnings of several developmental and other mental disorders affecting children today. PSY 397 or Behavioral Neuroscience/Neuropsychology course is a prerequisite. Spring
PSY 401 Advanced Statistics Seminar
Topics include bivariate and multiple regression, least-squares estimation, model-building techniques, assumptions and diagnostics, mediation and moderation, the logistic model and exploratory factor analytic techniques. SPSS will be used throughout. Students will conduct a final research project through secondary analysis of a large national data set. Spring

PSY 406 Selected Topics in Psychology
Current and advanced topics which may vary from semester to semester will be covered in this seminar. Spring

PSY 406 Positive Psychology
Seminar course focusing on topics such as happiness, optimism, resilience and courage. Considers what makes a life meaningful and ways to achieve a positive life. Spring

PSY 410 Fundamentals of Human Neuropsychology
An advanced course that provides students with a perspective on the neural mechanisms underlying behavior. Material covered in the course will include (but not be limited to) structure and function of the brain from the cellular to the structural levels, brain imaging techniques, and brain development, plasticity and neurological disorders. Spring

PSY 431 Sensation and Perception
This course is an introduction to sensory systems and perceptual processes. Course focuses on each of the major sensory systems, beginning with the anatomy and physiology of the sense organ, and builds up to how we represent that information in the mind. Spring

PSY 452 Techniques of Counseling
Foundations of counseling and psychotherapy with an emphasis on the mastery of technique and practical applications. Assessment and treatment planning to facilitate cognitive, emotional and behavioral change for a variety of patient populations. Spring and Fall

PSY 453 Theories of Counseling
The theoretical background of selected counseling techniques. (Psycho-dynamic, behavioral, family systems) Students will form their own personal theories. Spring

PSY 480 History and Systems of Psychology
A study of the historical and philosophical development of psychological thinking from Descartes to the present. Fall

PSY 495 Research Seminar in Psychology
Opportunity for students interested in designing and conducting empirical research to collaborate with faculty in research activities leading to undergraduate or professional conference presentations and possible publication. Prerequisites: PSY 101-102, PSY 201-202, junior or senior status and permission of instructor. Summer, Spring and Fall

PSY 497 Advanced Experimental Research
Intended for advanced students with the interest, prerequisites and commitment to experimental research. Involves students in hands-on data collection and statistical analysis. Prerequisites: PSY 101-102, PSY 201-202, PSY 401, junior or senior status, OR permission of instructor. Summer, Spring and Fall

PSY 498 A-G Psychology Practicum
Internships are available in animal behavior, clinical counseling psychology, forensic psychology, industrial/organizational psychology, counseling, school psychology, sports psychology, and leadership mentoring. Joint supervision by staff members and agency personnel. Registration requirements vary, six credit maximum. Prerequisite: Permission of chair or supervising faculty member. Summer, Spring and Fall

PSY 499 Independent Study
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean.
Religious Studies and Theology

Chair: Patrick J. Lynch

Introduction:
Religion plays an important role in human life and history. A liberal education would be seriously incomplete if it did not provide some of the intellectual tools necessary for dealing with this important dimension of human life.

The department expresses the religious dimension of the college's founding in the Jesuit and Catholic tradition. Its orientation is to serve the community that shares the values of that tradition.

A major in religious studies and theology provides a broad intellectual context for those who wish to study religion in greater depth. The major program offers courses in five different areas: World Religions, Jewish and Christian Origins, History of Christianity, Religion in the Modern World, and Systematic Theology.

In its courses the department offers a scientific and theological study and appreciation of Roman Catholicism, other confessional Christian churches, Jewish religious thought, and other religions. This approach involves the ecumenical and comparative study of religions and a positive approach to the varieties of non-religion, such as atheism. The department provides the opportunity for a critical appraisal of religious faith through the study of primary source materials — scriptural, historical, and theological — and the use of interdisciplinary methodologies, such as anthropology, sociology, and psychology.

Please see the website for a more detailed description of the program, faculty, facilities, and academic and co-curricular opportunities: www.canisius.edu/rst

Goals:
www.canisius.edu/rst/courses.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Religious Studies and Theology. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned, if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program, and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Major Courses (5 Courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RST 200</td>
<td>Introduction to the Hebrew Bible</td>
<td>3</td>
</tr>
<tr>
<td>RST 201</td>
<td>Introduction to the New Testament</td>
<td>3</td>
</tr>
<tr>
<td>RST 400</td>
<td>Religious Studies and Theology Seminar</td>
<td>3</td>
</tr>
<tr>
<td>RST 489</td>
<td>Project for Majors</td>
<td>3</td>
</tr>
</tbody>
</table>

Major Electives:
(5 courses) Electives should be concentrated in three of the five areas offered in the Religious Studies program. RST 101 may not be included. See listing at http://www.canisius.edu/rst/courses.asp

Additional Course Considerations:
The Department has no required foreign language course(s) for its majors, but it strongly encourages all majors, if they are considering seminary or graduate study in theology or religion, to take a foreign language that is especially relevant to a student’s interest in the discipline, such as Biblical Hebrew, Greek, Latin, or a modern foreign language.

Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>RST 101 (3)</td>
<td>RST 200 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>RST 201 (3)</td>
<td>RST non-Christian contemporary religion (3)</td>
</tr>
<tr>
<td></td>
<td>RST Elective (3)</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>RST 400 (3)</td>
<td>RST Elective (3)</td>
</tr>
<tr>
<td></td>
<td>RST Elective (3)</td>
<td>RST Elective (3)</td>
</tr>
<tr>
<td>Senior</td>
<td>RST 489 (3)</td>
<td>RST Elective (3)</td>
</tr>
</tbody>
</table>
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean. Religious Studies and Theology majors have also majored in Communications, Education, History, Philosophy, and Psychology.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Minors 2:
The Religious Studies and Theology Department offers a minor in the general area of religious studies for those seeking an overview of the field, as well as minor tracks in three specialty areas: Biblical Studies; Christian History, Thought, and Ethics; Religions of the World.

Notes:
INTERDISCIPLINARY MINOR IN CATHOLIC STUDIES
The Religious Studies and Theology department is the administrative center for an Interdisciplinary Minor in Catholic Studies. This minor has six required courses: RST 231 Introduction to Catholic Studies (3), CTH 400 Research in Catholic Studies (3) and four other courses. These are taken in each of four areas: Catholic Theology and Life; Catholic History and Politics; Catholic Social Thought and Philosophy; and Catholic Culture: Literature, Art, Music and Science. For further information, see http://www.canisius.edu/catholic/

RELIGIOUS STUDIES AND THEOLOGY COURSES 2011-2013

INTRODUCTORY LEVEL
RST 101 Introduction to Religious Studies and Theology 3
An academic introduction to the nature and role of religion in human life and society, including the Jesuit and Catholic traditions as well as other world religions. (Foundation) Fall, Spring

INTERMEDIATE LEVEL
200 level courses generally introduce a student to a religion or a particular method of study of religion; 300 level courses generally explore a particular topic or aspect of religion in greater depth.

All courses listed have RST 101 as a prerequisite.
RST 200 Introduction to the Hebrew Bible 3
Introduction to the literature of the Hebrew Bible within its ancient Near Eastern setting. Particular attention paid to historical, literary, cultural, and theological questions. Field 1, Global Awareness
RST 201 Introduction to the New Testament 3
Introduction to the literature and background of the New Testament. Field 1
RST 205 Reading the Bible: Literary and Theoretical Approaches 3
Study of the Jewish and Christian Bibles from the standpoint of literary and critical theory. Field 1
RST 218 Introduction to Western Religious Traditions 3
Introduction to and survey of the Western religious tradition, including the ancient Near East, Greece and the great traditions of Judaism, Islam, and Christianity. Field 1
RST 219 History of Eastern Orthodox Christianity 3
Historical study of Eastern Christian Churches. Field 1, Global Awareness
RST 220 Introduction to Eastern Religions 3
History, meaning and practice of living religions such as Hinduism, Buddhism, and Islam. Field 1, Global Awareness
RST 221 Native American Religions 3
The nature of indigenous religions in Native American societies and the effect of cultural change through contact with other cultures. [Also accepted for Anthropology major and minor credit] Field 1, Diversity
RST 222 African Religions 3
Thematic study of religion in tribal societies. Primary emphasis on African, American Indian, and Pacific Island traditions. [Also accepted for Anthropology major and minor credit] Field 1, Global Awareness
RST 224 Islam: Tradition and Revival 3
From pre-Islamic Arabia to Muslim reform in the modern world. Islamic cult, institutions, and faith. Islam in Africa, Asia, and the Middle East today. [Also accepted for Anthropology major and minor credit] Field 1, Global Awareness
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RST 226</td>
<td>Hinduism</td>
<td>3</td>
<td>Development of classical and contemporary styles of Hindu religious thought and practice, from the Vedas to Hare Krishna, from Patanjali to TM. [Also accepted for Anthropology major and minor credit] Field 1</td>
</tr>
<tr>
<td>RST 228</td>
<td>Introduction to Mahayana Buddhism</td>
<td>3</td>
<td>An introduction to the Mahayana Buddhist tradition and some of its permutations, e.g., Zen, through an exploration of its key doctrines, theologies, ethics, and spiritual practices. Field 1, Global Awareness</td>
</tr>
<tr>
<td>RST 229</td>
<td>Religious Perspectives on Animals</td>
<td>3</td>
<td>This course will focus on the historical and cultural relationship between the world's religions and the animal realm. Field 1</td>
</tr>
<tr>
<td>RST 230</td>
<td>Catholic Belief Today</td>
<td>3</td>
<td>Scripture and tradition. The Trinity, incarnation, grace, sacramental life, worship. The Church as community and structure. Field 1</td>
</tr>
<tr>
<td>RST 231</td>
<td>Introduction to Catholic Studies</td>
<td>3</td>
<td>Major movements and personalities in Catholic theology, history, culture, and spirituality. The Catholic worldview and its relation to modern society. Field 1</td>
</tr>
<tr>
<td>RST 235</td>
<td>Religion and Politics</td>
<td>3</td>
<td>Interaction of religion and politics in the United States and other cultures. Field 1, Justice, Oral Communication</td>
</tr>
<tr>
<td>RST 236</td>
<td>Theology and Foreign Film</td>
<td>3</td>
<td>Analysis of a selection of foreign films to understand the artists' positions regarding the nature of humanity, of God, and of other theological themes. Field 1</td>
</tr>
<tr>
<td>RST 237</td>
<td>Images of Jesus in Film and Art</td>
<td>3</td>
<td>Development of artistic representations of Jesus and other Biblical persons along with Christian concepts and themes. Selection of European and American films as well as pertinent art from Western Christianity. Field 1</td>
</tr>
<tr>
<td>RST 240</td>
<td>Development of Jewish Religious Thought and Practice</td>
<td>3</td>
<td>Jewish religious thought from biblical times to the present: Hebraism and Judaism in pre-Christian times, Jesus and Jewish thought and modern trends in Judaism. Field 1, Diversity</td>
</tr>
<tr>
<td>RST 251</td>
<td>Greek Exegesis</td>
<td>3</td>
<td>Biblical Greek on an intermediate level. Nuances of grammar and syntax and their effect on translation and interpretation of the text of the New Testament. Taught as a private study. Prerequisite: Permission of instructor.</td>
</tr>
<tr>
<td>RST 252</td>
<td>Biblical Hebrew</td>
<td>3</td>
<td>Introductory course for students with no prior Hebrew language experience. Study of the Torah text. Taught as a private study. Prerequisite: Permission of instructor.</td>
</tr>
<tr>
<td>HIS 306</td>
<td>History of Religion in America</td>
<td>3</td>
<td>See HIS 306 for course description. Field 1</td>
</tr>
<tr>
<td>CLS 308</td>
<td>Pagans and Christians</td>
<td>3</td>
<td>See CLS 308 for course description. Field 1</td>
</tr>
<tr>
<td>CLS 309</td>
<td>Greek and Roman Religion</td>
<td>3</td>
<td>See CLS 309 for course description. Field 1</td>
</tr>
<tr>
<td>RST 311</td>
<td>Paul's New Testament Epistles and His Churches</td>
<td>3</td>
<td>Survey of St. Paul's theology and mission, the variety and controversies of the early church. Field 1</td>
</tr>
<tr>
<td>RST 314</td>
<td>New Testament in Literature and Art</td>
<td>3</td>
<td>New Testament themes and personalities analyzed from a scriptural perspective and compared with expressions in the arts. Relationship of religion and art, scriptural roots of Christian art. [Also accepted for Art History major and minor credit] Field 1, Global Awareness</td>
</tr>
<tr>
<td>RST 322</td>
<td>Women Reading the Bible: Feminist Approaches to the Scripture</td>
<td>3</td>
<td>Examination of the varieties of feminist, scholarly approaches to the Jewish and Christian Bibles. Field 1</td>
</tr>
<tr>
<td>RST 325</td>
<td>Early Christianity</td>
<td>3</td>
<td>Historical study of the development of Christianity from its first century roots to its rise as the dominant religion of the Roman Empire. Field 1</td>
</tr>
<tr>
<td>RST 326</td>
<td>Medieval, Renaissance, and Reformation Christianity</td>
<td>3</td>
<td>Historical study of life, thought, and worship of the Christians during the medieval, renaissance, and reformation periods. Field 1</td>
</tr>
<tr>
<td>RST 327</td>
<td>Modern Global Christianity</td>
<td>3</td>
<td>Historical study of the life, thought, and worship of Christians, both Protestant and Catholic, from the Reformation to the present. Field 1</td>
</tr>
<tr>
<td>RST 340</td>
<td>Moral Issues Today</td>
<td>3</td>
<td>An inquiry into religious and secular approaches to morality and the issues raised by specific moral problems. Field 1, Ethics</td>
</tr>
<tr>
<td>RST 341</td>
<td>Catholic Social Ethics: Theological Perspectives</td>
<td>3</td>
<td>Study of the principles of Catholic Social Teachings articulated in papal and episcopal documents with contemporary applications. Field 1, Justice, Writing</td>
</tr>
<tr>
<td>RST 342</td>
<td>Theological Ethics and Environmental Justice</td>
<td>3</td>
<td>Investigation of the models of theological ethics and the ways in which ethics informs human interaction with the environment. Field 1, Oral Communication, Ethics</td>
</tr>
<tr>
<td>RST 343</td>
<td>Religion and the Challenge of Science</td>
<td>3</td>
<td>Traces the emergence of science as independent from and a challenge to the religious world view. Field 1</td>
</tr>
<tr>
<td>RST 345</td>
<td>Bio-Moral Problems</td>
<td>3</td>
<td>Considers a number of problem areas such as genetic intervention, medical experimentation, behavior control, organ transplants, and resource allocation, and death and dying. Field 1, Ethics</td>
</tr>
<tr>
<td>RST 350</td>
<td>Christian Concept of God</td>
<td>3</td>
<td>Concept of God in light of Biblical faith. Historical development and modern approaches to the Christian doctrine of God. Field 1</td>
</tr>
</tbody>
</table>
RST 351 Freedom, Sin and Grace 3
What is humankind? What are our possibilities, radical problems, resources? What Christian faith has to offer as answers to these and other universal human questions. Field 1

RST 352 The Church in the Modern World 3
Study of the Church, its mission, and structure. Field 1

RST 353 Seven Signs of Love 3
The presence of God in the midst of the human community, as symbolized by the sacraments. Their history, interpretation, and anthropology. Field 1

RST 354 Jesus Christ and Modern Culture 3
An historical-theological inquiry into the person of Jesus of Nazareth. Field 1

RST 355 The Problem of Suffering 3
Suffering confronts each individual in illness, broken relationships, failures, drug abuse and death. The course addresses how God is active even in suffering. Field 1

RST 359 Revelation and Faith 3
Exploration into the meaning of revelation and its correlative faith in light of modern challenges to these foundational concepts. Field 1

RST 360 Magic, Science, and Religion 3
Scholarly approaches used to understand how diverse peoples of the world conceive, make use of, and tap into the realm of the extra human. Focus on “exotic” societies and peoples, exploration of the meanings of magic, science, and religion in the more familiar contemporary United States and Europe. [Also accepted for Anthropology major and minor credit] Field 1, Global Awareness

RST 361 Psychology of Religion 3
Interaction of Psychology and Religion: Freud, Jung, Erikson, Kohlberg, Kohut, Winnicott. Themes: character types, God image, religious psychobiography, narcissism, object relations, sin, and love. Field 1

RST 362 Fundamentalism 3
Critical study of religious fundamentalism in a variety of religious traditions and cultural and geographical contexts. Historical, anthropological, and sociological methodologies applied to the academic study of religion. Field 1

RST 363 Women, Gender, and Religion 3
Survey of some of the major issues that affect the role of women in Western religious traditions. How religion has influenced gender expectations and the role of women in each tradition historically and presently. Field 1

RST 365 Christian Spirituality 3
Historical, analytical, and appreciative study of the fundamental principles and development of Christian ascetical theology. Field 1

RST 366 Theology of Death 3

RST 399A Christian Marriage 3
Concentrated investigation of Christian and Catholic marriage. Examination of the history, ideas, ideals, and practices about marriage. Relevant questions from perspectives of justice, ethics, diversity, and global awareness. Core Capstone

RST 399B Religious Diversity in Buffalo 3
Exploration of religious diversity in Buffalo, the United States, and the world. Visits to congregations to observe worship and interviews to learn about religious beliefs, practices, and experiences of interactions with other religious communities. Core Capstone.

RST 399C Liberation Theologies 3
Study of the origins and development of Liberation Theology in Latin America and the ways in which it evolved among other racial, ethnic, and gender groups in the United States and elsewhere. Special attention to issues of ethics and social justice. Core Capstone.

ADVANCED LEVEL

400 level courses are reserved for majors, minors, or with special permission of the instructor and require RST 101 as a prerequisite.

RST 400 Religious Studies and Theology Seminar 3
A seminar for RST majors and minors, focusing on the history of the theory and method in the academic study of religion. Fall 2011, Fall 2013

RST 406 Special Topics in Religious Studies and Theology 3
Critical examination of selected topics in Religious Studies and Theology with a focus on a particular period, religious tradition, author, or topic. Subject matter determined by the instructor. Prerequisites: RST 101 and at least one 200-level RST course. For RST majors or minors, and others with permission of instructor.

RST 489 Projects for Majors 3
Concentrated investigation of a topic of particular interest to the student, under supervision of faculty advisor. Prerequisite: Departmental approval. Fall, Spring

RST 496 Internship 3
Combination of teaching or religious work with special readings and theological reflection, under the guidance of department faculty. Prerequisite: Consent of chair. Fall, Spring

RST 499 Independent Study 3
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisites: Permission of the instructor, department chair, and associate dean.
The social science major deals with mankind's political, social, economic and psychological interrelatedness as studied in the fields of sociology, anthropology, history, political science, communication studies, economics and psychology. Students in this program develop and refine their insights into human behavior through a wide range of social observation, inquiry and study. By allowing a considerable degree of freedom in choosing electives, the program permits a meaningful flexibility not found in more restrictive curricula.

SOCIAL SCIENCES CURRICULUM:

1. Core Curriculum Requirements:
All students complete Core Curriculum requirements as part of their overall Canisius Education. These requirements can be found at: www.canisius.edu/core_curriculum/default.asp

2. Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 121</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ANT 122</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plus two 300/400 level courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

3. Communication Studies – Two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 201</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COM 202</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COM 203</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COM 204</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COM 205</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COM 206</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plus two 300/400 level courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

4. Economics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 101</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plus two 300/400 level courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

5. History:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 123</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIS 124</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plus two 300/400 level courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

6. Political Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 103</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PSC 104</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plus two 300/400 level courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

7. Psychology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 101</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PSY 102</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plus two 300/400 level courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

8. Sociology:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 110</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SOC 111</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Plus two 300/400 level courses</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

9. Three additional 300/400 level courses in one of the chosen departments: Interdisciplinary courses may be substituted for one or more department courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 131</td>
<td>Statistics and Computers</td>
<td>3</td>
</tr>
</tbody>
</table>

3. Free electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours

Associate of Arts Degree
The associate of arts degree program in social sciences requires the completion of 60 credits of coursework. This program has two basic purposes: (1) It offers an immediate degree goal for students seeking a general introduction to the social sciences (psychology, sociology, political science, economics, and anthropology); and (2) It provides a basic foundation for those who wish to go on for a bachelor's degree.

The program contains a second track designed for the prospective business major. Students who plan baccalaureate studies in the future are encouraged to choose the track which is more appropriate for them. If a student remains at Canisius College, all of the coursework in the associate degree program is transferable and applicable to the bachelor's program.
SOCIAL SCIENCES CURRICULUM (ASSOCIATE DEGREE):

1. Core Curriculum Requirements:
All students complete Core Curriculum requirements as part of their overall Canisius Education. These requirements can be found at: www.canisius.edu/core_curriculum/default.asp

<table>
<thead>
<tr>
<th>Major Courses</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major course requirements:</strong> (8 courses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Social Sciences Track:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 106</td>
<td>Calculus for the Non-Sciences I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 131</td>
<td>Statistics and Computers</td>
<td>3</td>
</tr>
<tr>
<td><strong>Social Sciences electives: two courses from each of three areas:</strong> (18 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 101-102</td>
<td>Economics</td>
<td></td>
</tr>
<tr>
<td>PSC 101-102</td>
<td>Political Science</td>
<td></td>
</tr>
<tr>
<td>PSY 101-102</td>
<td>Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 110-111 or ANT 121-122</td>
<td>Sociology</td>
<td></td>
</tr>
<tr>
<td><strong>Business Track</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QNT 101</td>
<td>Quantitative Methods for Business</td>
<td>3</td>
</tr>
<tr>
<td>MAT 106</td>
<td>Calculus for the Non-Sciences I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives (2 courses from the business core)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Free electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 60 credit hours for graduation. Students may graduate with more but not less than 60 credit hours.

Other Associate’s Degree Regulations
The basic residency requirement for A.A. degrees is 30 credit hours, at least 15 of which must be completed in traditional classroom situations. No more than 30 credits may be transferred from another institution. Not all courses at other institutions are applicable to the associate degree, and transfer students are required to have a transfer evaluation completed by the college.

For more information contact the associate dean in the College of Arts and Sciences.
Sociology

Chair: Patricia B. Christian

Introduction:
Sociology is the study of human behavior and the social structures and cultural forces that influence human life. The sociologist looks beyond individual psychology and unique events to the broad patterns and regular occurrences of social life that influence our individual behavior and attitudes. The sociology major prepares students for a wide variety of careers and graduate fields, including sociology, social work, planning, public administration, education, business, and law.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/sociology/major.asp

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must have a minimum grade of C in all required courses and maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in sociology. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Students are advised to be familiar with their Griff Audit and should make arrangements each semester to receive their registration PIN.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 341</td>
<td>Race and Ethnic Relations</td>
<td>3</td>
</tr>
<tr>
<td>SOC 390</td>
<td>Marriage and Families</td>
<td>3</td>
</tr>
<tr>
<td>SOC 498</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>SOC 499</td>
<td>Individual Reading and Research</td>
<td>3</td>
</tr>
</tbody>
</table>

The following courses in other departments count as electives for the sociology major:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 122</td>
<td>Sociocultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 351</td>
<td>Qualitative Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>ANT 355</td>
<td>Sociolinguistics</td>
<td>3</td>
</tr>
<tr>
<td>ANT 360</td>
<td>African American English</td>
<td>3</td>
</tr>
<tr>
<td>ANT 365</td>
<td>Gender Issues in Language</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 320</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 354</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
</tbody>
</table>
Minors:

Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

Sociology Minor:

Sociology has a great deal to offer students from other disciplines who do not have room in their curriculum for a dual major. Pre-med students, business majors and education majors can all benefit from the insights into human behavior that come from a familiarity with sociological analysis.

The Department supports the interdisciplinary minor in Peace and Justice Studies. Specific information on the minor can be found at: http://www.canisius.edu/sociology/peacejustice.asp

Social Sciences Minor in Child, Family and Community Studies:

The social science interdisciplinary minor is co-sponsored by the Department of Psychology and the Department of Sociology, Anthropology and Criminal Justice. It is intended for students seeking a deeper understanding of the dynamics of family relations and the interaction of the family with society. Its mission is to prepare undergraduate students for careers and future graduate studies in the fields of education, social work and social services. Embedded within the interdisciplinary focus of the minor is an emphasis on creating reflective and compassionate practitioners who are committed to the Jesuit ideal of men and women for others.

Additional Course Considerations:

The department encourages sociology majors to study a foreign language of their choice and to participate in the college study abroad program. Students considering study abroad should consult with their advisor regarding course sequencing.

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>SOC 110 (3)</td>
<td>SOC 111 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>MAT 131 (3)</td>
<td>SOC elective (3)</td>
</tr>
<tr>
<td></td>
<td>SOC elective (3)</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>SOC 342 (3)</td>
<td>SOC elective (3)</td>
</tr>
<tr>
<td></td>
<td>SOC elective (3)</td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>SOC 432 (3)</td>
<td>SOC 450 (3)</td>
</tr>
<tr>
<td></td>
<td>SOC elective (3)</td>
<td>SOC elective (3)</td>
</tr>
</tbody>
</table>

**Dual Majors:**

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.
SOCIOLOGY COURSES: 2011-2013

SOC 110 Introduction to Sociology 3
Topics include theory, methods, culture, socialization, race and ethnicity, groups and organizations, and social inequality; analysis of everyday events, using sociological imagination. (Field 5) Fall

SOC 111 Contemporary Social Problems 3
Exploration of selected social problems from various sociological points of view, emphasizing some of the sociological concepts and methods employed in analyzing these problems. (Field 5, Diversity Attribute) Spring

SOC 234 Environment and Society 3
Explores connections between environmental issues and their social causes. Topics of analysis include environmental racism, environmental health, risk and uncertainty, political economy, globalization and sustainability. (Field 5)

SOC 273 Social Movements and Social Change 3
Explores the development of social movements as a force of social change in society. Focus is on theoretical developments in movement theory, as well as explorations of social movements through history. (Field 5, Justice Attribute)

SOC 291 Gender and Society 3
Exploration of origin of gender roles; socialization into masculine and feminine roles; intersection of gender and social institutions such as family, work and education. (Field 5)

SOC 299 Immersion Reflection 1
Critical reflection of immersion experience. Permission of instructor required. Spring and Fall

SOC 300 Special Topics in Sociology 3
Critical examination of a selected topic in sociology. Subject matter determined by the instructor. Fall and Spring

SOC 324 Visual Sociology 3
Emphasizes a visual approach to analyzing social concepts. Analysis of visual media forms to explore core ideas in sociology such as gender, race, environment, social class, family and global diversity.

SOC 330 Health and Wellness 3
The social aspects of health, wellness and health care. Epidemiology, the experience of illness, the evolving health care industry, and a comparison of alternative and traditional medicine.

SOC 340 Sociology of the City 3
Exploration of how people experience and understand city life, how cities grow and develop, and various issues affecting cities today such as suburbanization and urban sprawl.

SOC 341 Race and Ethnic Relations 3
Focus is on issues surrounding race and ethnicity in the United States, including the social construction of race and ethnicity, prejudice and discrimination, unequal opportunity structures, and the racial/ethnic makeup of the US population.

SOC 342 Research Methods 3
Overview of the major steps in constructing social science research, from developing a research question, operationalization and measurement through data collection and analysis. Prerequisite: MAT 131 with minimum grade of C. Fall

SOC 390 Marriage and Families 3
Covers family development from relationship formation through marriage, divorce and remarriage. Includes sexuality, sexual orientation, cohabitation, parenting and the intersection between the family and major social institutions.

SOC 432 Theories in Sociology 3
Course emphasizes theory development as a tool to understand society. Focuses on major social theorists and their contributions as well as classical and modern theoretical schools in sociology. Prerequisite: Senior Status, majors or minors only. Fall

SOC 450 Senior Capstone: Community and Diversity (3)
The culminating experience for the major, in which students synthesize the knowledge they have acquired in their course work and the core, integrate cross-disciplinary knowledge, and connect theory and application in preparation for graduate school or entry into a career. Prerequisite: Senior status. Spring

SOC 498 Internship 3
Opportunity for students to participate in the daily work of an agency or organization. Prerequisite: Instructor's signature, G.P.A. of at least 2.75. Fall and Spring

SOC 499 Individual Reading and Research 3
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean. Fall and Spring

The following courses offered by other departments or programs count as satisfying the requirements for the sociology major or minor:

- ANT 122 Sociocultural Anthropology (3)
- ANT 351 Qualitative Research Methods (3)
- ANT 355 Sociolinguistics (3)
- ANT 360 African American English (3)
- ANT 365 Gender Issues in Language (3)
- CRJ 320 Criminology (3)
- CRJ 354 Juvenile Delinquency (3)
Anthropology

Chair: Patricia B. Christian; Director: H. James Birx

Introduction:
Anthropology is the study of people and how they interact with each other and their environments. It is concerned with all institutions of all societies and is distinguished from other social science disciplines by its emphasis on differences in and between cultures. Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/anthropology/default.asp

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must have a minimum grade of C in all required courses and maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Anthropology. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Students should consult with Dr. Birx, Director of Anthropology, for current advisement information. Students are advised to be familiar with their Griff Audit and should make arrangements each semester to receive their registration PIN.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

Additional Course Considerations:
Foreign language and study abroad—the department encourages anthropology majors to study a foreign language of their choice and to participate in the college study abroad program.

<table>
<thead>
<tr>
<th>Major Courses</th>
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<tbody>
<tr>
<td>Course</td>
</tr>
<tr>
<td>ANT 121</td>
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<td>ANT 201 or ANT 250</td>
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<td>ANT 230</td>
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<tr>
<td>ANT 351</td>
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<td>ANT 451</td>
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<table>
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<tr>
<th>Major Electives</th>
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<tbody>
<tr>
<td>Course</td>
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<tr>
<td>ANT 300</td>
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<td>ANT 310</td>
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<td>ANT 333</td>
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<td>ANT 365</td>
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<td>ANT 370</td>
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<tr>
<td>ANT 399</td>
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<td>ANT 499</td>
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</tbody>
</table>

The following courses offered by other departments count as electives for the anthropology major and minor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 312</td>
<td>Primatology</td>
<td>3</td>
</tr>
<tr>
<td>RST 221</td>
<td>Native American Religions</td>
<td>3</td>
</tr>
<tr>
<td>RST 222</td>
<td>African Tribal Religions</td>
<td>3</td>
</tr>
<tr>
<td>RST 224</td>
<td>Islam</td>
<td>3</td>
</tr>
<tr>
<td>RST 226</td>
<td>Hinduism</td>
<td>3</td>
</tr>
<tr>
<td>RST 360</td>
<td>Magic, Science and Religion</td>
<td>3</td>
</tr>
</tbody>
</table>
### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>ANT 121 (3)</td>
<td>ANT 122 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ANT 230 (3)</td>
<td>ANT 201 (3) or ANT 250 (3)</td>
</tr>
<tr>
<td></td>
<td>ANT elective (3)</td>
<td>ANT elective (3)</td>
</tr>
<tr>
<td>Junior</td>
<td>ANT 351 (3)</td>
<td>ANT elective (3)</td>
</tr>
<tr>
<td></td>
<td>ANT elective (3)</td>
<td>ANT 451 (3) when offered</td>
</tr>
<tr>
<td>Senior</td>
<td>ANT elective (3)</td>
<td>ANT 451 (3) when offered</td>
</tr>
</tbody>
</table>

### ANTHROPOLOGY COURSES: 2011-2013

**ANT 121 Biological Anthropology**

Our species in nature: evolutionary theory, principles of heredity, population genetics, human variations, fossil hominids, primate classification and behavior studies. (Field 6) *Fall and Spring*

**ANT 122 Sociocultural Anthropology**

Explores importance of culture in explaining diversity in human behavior and beliefs, looking at variety of societies inhabiting the world. Details the development of the field and the methods and theories employed by socio-cultural anthropologists to better understand Humanity. (Field 5, Diversity Attribute) *Spring*

**ANT 201 The Science of Linguistics**

Introduces the study of language as a uniquely human behavior, exploring the relationship between linguistic theory and scientific inquiry. Recommended for science majors and social science majors. (Field 5) *Spring*

**ANT 230 Introduction to Archaeology**

Examines the field methods and theories employed by archaeologists to gain insight into the development and adaptations of societies. Includes a survey of archaeological sites from around the world such as Cuzco, Clovis, Egyptian Pyramids, Pompeii, Stonehenge, the Titanic, and Troy. (Field 5, Global Awareness Attribute) *Fall*

**ANT 250 Contemporary Linguistics**

Conveys an understanding of fundamentals of linguistic theory, developing a broader perception of the complexity of language for specialists in such neighboring fields as communication, education, ESL, composition, reading, foreign language, literature and social sciences. (Field 5) *Spring*

**ANT 251 Anthropology and Evolution**

Concept of evolution in the five major areas of anthropology: biological, archaeology, sociocultural, linguistics, and applied anthropology. This course stresses the value of empirical evidence and critical thinking. (Field 5) *Spring*

**ANT 300 Special Topics in Anthropology**

Critical examination of a selected topic in anthropology. Subject matter determined by the instructor. *Spring*

**ANT 310 Codebreaking**

The evolution of codes and the relevance of codes to contemporary society. Covers the history of codes and the achievements of code breakers who deciphered ancient texts. Students will acquire and practice skills needed to identify structural components of codes. *Spring*

**ANT 333 Forensic Anthropology**

Anthropological methods and information used to survey the origin and history of crime science. Emphasis on the use of well-known case studies in order to understand and appreciate the value of forensic investigation. *Spring*

### Dual Majors:

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Many students who major in anthropology find it desirable to combine it with a major in another department such as biology, history, psychology, political science, modern languages or communication studies. The sequence of courses for dual majors is the same as for regular majors. To provide for maximum flexibility of scheduling, students interested in dual majors should consult with a member of the department to arrange their individual schedules.

### Minors:

The anthropology minor consists of 5 courses: ANT 121 Biological Anthropology (3), ANT 122 Sociocultural Anthropology (3), ANT 230 Introduction to Archaeology (3), ANT 250 Contemporary Linguistics (3), and one ANT elective. Students must complete the minor request form.
ANT 351 Qualitative Research Methods
Survey of research designs from a qualitative perspective, including field research, participant observation, content analysis, ethnomethodology, and focus groups. Analysis and reporting of qualitative data. Fall

ANT 355 Sociolinguistics
Investigates the nature of the relationship between social behavior and language change within linguistic communities.

ANT 360 African American English
Explores the development and the structure of dialects of African American English, identifying phonological, morphological, syntactic, semantic and lexical differences that contribute to the richness and vitality of the language.

ANT 365 Gender Issues in Language
Explores the intersection of language and gender, examining gender-related stylistic variation in conversation and communication between and among women and men as cross-cultural communication.

ANT 370 Origin and Evolution of Language
Surveys theories of the origin and development of language, exploring early perspectives drawn from mythology, religion and philosophy as well as current views emerging from the social and natural sciences.

ANT 399 Field Work
Offers practical experience in a variety of social situations and cultural settings. Observations and research logs are used to provide a basis for analysis. Prerequisite: Permission of department chair. Fall and Spring

ANT 451 Capstone: Theories in Anthropology
Survey of the major theories in anthropology that have played a leading role in shaping how we look at the history and diversity of our biological species, as well as other human societies with different cultures. Examines evolutionism, structuralism, functionalism, diffusionism, configurationalism and modern social or applied anthropology. For juniors and seniors. Spring 2012, Spring 2014

ANT 499 Individual Reading and Research
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean. Fall and Spring

The following courses offered by other departments satisfy the requirements for the anthropology major and minor:
BIO 312 Primatology (3)
RST 221 Native American Religions (3)
RST 222 African Tribal Religions (3)
RST 224 Islam (3)
RST 226 Hinduism (3)
RST 360 Magic, Science and Religion (3)
Criminal Justice

Chair: Patricia B. Christian; Director: Patricia E. Erickson

Introduction:
Criminal justice is the study of criminal law, criminal procedure, and the enforcement of criminal law. It includes understanding the social context of criminal behavior and the way society upholds social control and sanctions those who violate the criminal law. The major is grounded in a liberal arts curriculum; it emphasizes not only how the criminal justice system has developed in its present form, but also how changes in the system affect other parts of society. The major prepares students for a broad spectrum of occupations, including law enforcement, corrections, and allied mental health. Finally, students who wish to pursue careers as lawyers can major in criminal justice and also take advantage of the college’s Pre-Law program.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/crim_just/

Goals:
http://www.canisius.edu/assessment/cas_goals.asp.

Qualifications:
Students must have a minimum grade of C in all required courses and maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Criminal Justice. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences. Students should consult with Dr. Erickson, Director of Criminal Justice, for current advisement information. Students are advised to be familiar with their Griff Audit and should make arrangements each semester to receive their registration PIN.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Major Courses</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 131</td>
<td>Statistics and Computers</td>
<td>3</td>
</tr>
<tr>
<td>SOC 110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 342 or ANT 351</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 227</td>
<td>Introduction to Criminal Justice I</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 228</td>
<td>Introduction to Criminal Justice II</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 320</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 382</td>
<td>Criminal Justice Ethics</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 449</td>
<td>Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 450</td>
<td>Criminal Procedure</td>
<td>3</td>
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</tbody>
</table>

<table>
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<tr>
<th>Major Electives</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 280</td>
<td>Language for Legal Professions</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 300</td>
<td>Special Topics in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 337</td>
<td>Violence and the Family</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 344</td>
<td>Violent Crime in American Society</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 345</td>
<td>Gangs in American Society</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 351</td>
<td>Police and the Community</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 354</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 356</td>
<td>Treatment of Offenders</td>
<td>3</td>
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<tr>
<td>CRJ 358</td>
<td>White Collar Crime</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 359</td>
<td>Women and Crime</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 498</td>
<td>Criminal Justice Internship</td>
<td>3</td>
</tr>
<tr>
<td>CRJ 499</td>
<td>Individual Reading and Research</td>
<td>3</td>
</tr>
</tbody>
</table>
The following courses offered by other departments or programs count as electives for the criminal justice major and minor:

- **ANT 310** Codebreaking 3
- **ANT 333** Forensic Anthropology 3
- **BIO 299** Forensic Science 3
- **ISB 460** Computer Forensics 3
- **PSC 103** Constitutional Foundation of American Government 3
- **PSC 220** American Constitutional Law I 3
- **PSC 321** American Constitutional Law II 3
- **PSC 345** International Crime after 9/11 3
- **PSC 420** Constitution, War on Terror and Civil Liberties 3

The following psychology courses will count as electives for dual psychology/criminal justice majors:

- **PSY 303** Abnormal Psychology 3
- **PSY 360** Law & Psychology 3
- **PSY 369** Forensic Psychology 3

Dual psychology/criminal justice majors may satisfy the statistics and methods requirements with the following courses:

- **PSY 201** Basic Statistics for Behavioral Science 3
- **PSY 202** Experimental Psychology 3

Internships:
Many internship opportunities are available to qualified juniors and seniors. As an urban center situated on the Niagara Frontier, Buffalo offers numerous internship experiences where students can explore careers and get valuable real life experience.

Foreign language and study abroad:
The department encourages criminal justice majors to study a foreign language of their choice and to participate in the college study abroad program.

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td><strong>SOC 110 (3)</strong></td>
<td><strong>MAT 131 (3)</strong></td>
</tr>
<tr>
<td>Sophomore</td>
<td><strong>CRJ 227 (3)</strong></td>
<td><strong>CRJ 228 (3)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>CRJ elective</strong></td>
<td><strong>CRJ elective</strong></td>
</tr>
<tr>
<td>Junior</td>
<td><strong>CRJ 320 (3)</strong></td>
<td><strong>CRJ 382 (3)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>SOC 342 (3)</strong> or <strong>ANT 351 (3)</strong></td>
<td><strong>CRJ elective</strong></td>
</tr>
<tr>
<td>Senior</td>
<td><strong>CRJ 449 (3)</strong></td>
<td><strong>CRJ 450 (3)</strong></td>
</tr>
</tbody>
</table>

**Dual Majors:**
Many of the department’s majors combine criminal justice with a second major in another discipline, such as sociology, psychology, political science, history, modern languages or communication studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

**Minors:**
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form. The Criminal Justice minor is designed for students who have chosen another academic major (e.g. Psychology, Political Science) but who may have an academic and/or career interest in the area of criminal justice. Three courses are required. The two CRJ electives can be chosen from any of the criminal justice offerings, with at least one course at the 300 or 400 level.

The following courses are required for the Criminal Justice minor:
- **SOC 110** Introduction to Sociology (3)
- **CRJ 227** Introduction to Criminal Justice I (3)
- **CRJ 228** Introduction to Criminal Justice II (3)
- **CRJ elective (2 courses)**
  TOTAL (5 courses)

**Inter-Disciplinary Minor in Computer Forensics:**
Computer forensics is the science of acquiring, preserving, retrieving and presenting data that has been processed electronically and stored on electronic media. Computer forensics refers to E-mail and instant message (IM) forensics, cellular phone and digital camera forensics, PDA and iPOD forensics, GPS and Internet forensics.

Computer forensics is appropriate for students interested in a career in information security, criminal justice, forensic accounting, law enforcement, or federal investigations, as well as computer forensics investigations for defense and plaintiff lawyers.

This is a multi-disciplinary minor designed for students who have chosen any academic major in either the School of Arts and Sciences or the School of Business, but who may have an academic or career interest in computer forensics.

**Required courses:**
- **CRJ 227** Criminal Justice I (3)
- **CRJ 228** Criminal Justice II (3)
• ISB 350 Telecommunications and Networking (3)
• ISB 460 Computer Forensics (3)
• ISB 470 Cyber Security (3)

CRIMINAL JUSTICE COURSES: 2011-2013

CRJ 227 Criminal Justice I 3
Criminal justice system; justification for punishment, the police, constitutional rights, the prosecuting and defense attorney. Fall

CRJ 228 Criminal Justice II 3
Trial, guilty pleas, sentencing, corrections; the extent and causes of crime, and proposals for change and reform. Spring

CRJ 280 Language for Legal Professions 3
Explores the use of language in the administration of law, including ways to read and brief cases and to read statutes. (Field 5) Spring

CRJ 300 Special Topics in Criminal Justice 3
Critical examination of a selected topic in criminal justice. Subject matter determined by the instructor.

CRJ 320 Criminology 3
Classical and contemporary theories of criminal behavior. Spring

CRJ 337 Violence and the Family 3
How family dynamics can contain elements that give rise to violence, including “battered women” and abused children. Fall

CRJ 344 Violent Crime in American Society 3
The nature of violence as a social act and problems in obtaining data on violence. Family violence, effects of the media and collective violence.

CRJ 345 Gangs in American Society 3
Examines the causes in growth of violent and criminal gangs. Topics include the extent of the problem and solutions offered.

CRJ 351 Police and the Community 3
How changes in community standards affect the business of policing. Topics include use of force and private policing.

CRJ 354 Juvenile Delinquency 3
Legal processes in delinquency field. Suggested programs for rehabilitation and prevention of delinquency. Fall

CRJ 356 Treatment of Offenders 3
Correction theory, offender typologies, and nature and diagnosis of offenders and future trends in dealing with criminal offenders.

CRJ 358 White Collar Crime 3
Crimes committed by “respectable people” in positions of responsibility in private or public sector. Nature of these crimes, how regulatory bodies and legal systems treat these criminals and how they seek to avoid detection and prosecution.

CRJ 359 Women and Crime 3
Classical and contemporary accounts of the etiology of female crime, patterns of female criminal behavior, and the role and treatment of women in the criminal justice system.

CRJ 382 Criminal Justice Ethics 3
The personal, social and criminal justice contexts for understanding justice, crime and ethics. Skills necessary to deal effectively with ethical issues in criminal justice systems. Problems and case studies for active exploration of social issues. Prerequisite: CRJ 227, CRJ 228. Spring

CRJ 449 Criminal Law 3
The substantive criminal law, including offences against persons, property and public morality with emphasis on New York State Penal Law. Criminal responsibility and defenses. Prerequisite: CRJ 227, CRJ 228. Fall

CRJ 450 Criminal Procedure 3
Key Supreme Court decisions on search and seizure, arrest, interrogation and identification of criminal suspects. Sentencing and punishment, appeal and post-conviction relief. Prerequisite: CRJ 227, CRJ 228. Spring

CRJ 498 Criminal Justice Internship 3
Opportunity for selected students to participate in daily work in a law enforcement agency. Students must apply the semester before they take the internship. Prerequisite: G.P.A. of at least 2.75, junior or senior status, signature of major advisor. Fall and Spring

CRJ 499 Individual Reading and Research 3
Independent studies allow in-depth study of a specific topic and are most often reserved for seniors who cannot otherwise fulfill a graduation requirement. Prerequisite: Permission of the instructor, department chair and associate dean. Fall and Spring

The following courses offered by other departments or programs count as electives for the criminal justice major and minor:

• ANT 310 Codebreaking 3
• ANT 333 Forensic Anthropology 3
• BIO 299 Forensic Science 3
• ISB 460 Computer Forensics 3
• PSC 103 Constitutional Foundations of American Government 3
• PSC 320 American Constitutional Law I 3
• PSC 321 American Constitutional Law II 3
• PSC 345 International Crime after 9/11 3
• PSC 420 Constitution, War on Terror and Civil Liberties 3

The following psychology courses will count as electives for criminal justice majors pursuing a dual major with psychology:

• PSY 201 Basic Statistics for Behavioral Sciences 3
• PSY 202 Experimental Psychology 3
• PSY 303 Abnormal Psychology 3
• PSY 307 Adolescent Psychology 3
• PSY 369 Forensic Psychology 3
Specialized Studies

**Director:** Dr. David Ewing

**Introduction:**
Specialized Studies enables students to develop their own majors and degree plans by combining courses from different departments to create a unique outcome. Students who find that Canisius does not offer majors that match their interests, talents, future goals and employment niches may propose their own plans of study based on existing coursework. A student does this by seeking the assistance of the student advisement center and two faculty members to assist with creating a plan of study and goal counseling.

**Student Learning Goals:**
These are developed as part of the proposal for majoring in Specialized Studies. See Approval Criteria below.

**Curricular Requirements for the Major:**
All approved Specialized Studies majors must include the college Core Curriculum:
- **Foundations:** FYS 101, ENG 101, PHI 101, & RST 101 (12 credits). Students in the All College Honors Program will follow honors requirements.
- **Breath of Knowledge:** Seven fields (21 credits)
- **Core Capstone:** one course (3 Credits)
- **Cross-disciplinary Knowledge and Skills Requirements (six designated courses):** Courses designated for Field or courses that satisfy major or elective credit may carry these designations. Some courses may carry more than one designation. Students must take as many courses as necessary to achieve all six requirements.

**Specialized Studies Courses:**
36 minimum credits:
- 21 credits must be upper level courses (300-400 level - graduate courses may also be considered).
- 3 credits: Senior Project (see below for details).

**Free electives - 48 or fewer.**
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation.

**Note:** if a chosen course requires a pre-requisite the student must include this in the plan. No pre-requisite courses are to be waived.

**Senior Project:**
Under the direction of a faculty member, the student must undertake an independent scholarly or creative senior project that is submitted, exhibited, completed, or performed no later than the last day of classes. The project will be subject to peer and professional review in methods appropriate for the fields of endeavor as required by the advisor and faculty member. The student should work with the faculty member to develop a project proposal no later than week six of the semester prior to degree completion.

**Approval Criteria**
This program is available to any Canisius student who wishes to create her/his own field of study, has a cumulative GPA of 2.5 or better, and have secured the approval of at least two faculty members who will support their plans. Incoming students who plan to create a specialized major should matriculate as undeclared and may begin working with an academic advisor and/or a faculty member after the completion of their first semester to start the proposal process. Creating a sound proposal will require:
- An in-depth explanation of future and career goals as well as learning objectives as they relate to the proposed specialized studies major.
- An exact list of proposed courses including a detailed narrative outlining the rational regarding their relation to each other and the student's future goals.
- Two letters of support from Canisius faculty members. The letters should state why this specialized plan makes sense for this student and why the college should have confidence that the student can complete the plan.
- One of the above faculty members must, in writing, agree to advise and work with the student to develop a senior project that is relevant to the course work and intended learning goals.
- A detailed timeline for completion. Prerequisites, sequencing and course offerings must be taken into consideration.

Students shall submit the proposal to their designated faculty advisor, who will submit it and letters of support (see above) for final approval by the appropriate dean(s). If it becomes necessary to adjust the plan, changes must be discussed with and agreed upon by the faculty advisor.

**Time to Completion**
As with any major, Specialized Studies requires a minimum of 120 credit hours for graduation.
Sport Management

Director: Shawn O’Rourke

Introduction:
Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/sports-management/

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Sport Management. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SPMT 150</td>
<td>Introduction to Sport Management</td>
<td>3</td>
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<tr>
<td>SPMT 230</td>
<td>Sport and Recreation Law</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 241</td>
<td>Practicum in Sport Management</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 245</td>
<td>Technology in Sport</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 302</td>
<td>Sport and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 304</td>
<td>Sport, Culture, and Society</td>
<td>3</td>
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<tr>
<td>SPMT 320</td>
<td>Psychology of Sport</td>
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<tr>
<td>SPMT 355</td>
<td>Sport Operation and Planning</td>
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<tr>
<td>PED 351</td>
<td>Coaching Theory and Techniques</td>
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<tr>
<td>SPMT 412</td>
<td>Sport Marketing</td>
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<tr>
<td>SPMT 455</td>
<td>Governance and Policy in Sport Organizations</td>
<td>3</td>
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<tr>
<td>SPMT 430</td>
<td>Sport Communications</td>
<td>3</td>
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<tr>
<td>SPMT 440</td>
<td>Global Perspective in Sport</td>
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<tr>
<td>SPMT 420</td>
<td>Economics and Finance in Sport industry</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 475</td>
<td>Sport Management Professional Development Seminar</td>
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<tr>
<td>SPMT 480</td>
<td>Research Methods</td>
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<tr>
<td>SPMT 490</td>
<td>Internship</td>
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</table>

Major Experiences:
SPMT 241 Practicum, 3
SPMT 490 Internship, 6

Additional Course Considerations:
FYS 101 Exploration in Academic Writing, 3
RST 101 Introduction to Religious Studies and Theology, 3
ENG 101 Writing About Literature, 3
PHI 101 Introduction to Philosophy, 3
ECO 101 Principles of Macroeconomics, 3
MGT 101 Introduction to Management, 3
ECO 102 Principles of Microeconomics, 3
ISB 101 Management Technology, 3
ACC 201 Principles of Financial Accounting, 3
ACC 202 Principles of Accounting II, 3
Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

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<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td>Freshman</td>
<td>SPMT 150 (3)</td>
<td>SPMT 230 (3)</td>
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<td>Sophomore</td>
<td>SPMT 241 (3)</td>
<td>SPMT 245 (3)</td>
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<tr>
<td>Junior</td>
<td>SPMT 302 (3)</td>
<td>SPMT 320 (3)</td>
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<td>SPMT 304 (3)</td>
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<td>SPMT 355 (3)</td>
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<td>Senior</td>
<td>SPMT 412 (3)</td>
<td>SPMT 420 (3)</td>
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<td>SPMT 455 (3)</td>
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<td>SPMT 430 (3)</td>
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<tr>
<td></td>
<td>SPMT 440 (3)</td>
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</table>

Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.
COURSES: 2011 - 2013

SPMT 150 Introduction to Sport Management 3
Introduces the sport management profession. Primary focus is on the sport industry, including professional sport entertainment, amateur sport entertainment, for-profit sport participation, sport goods and sport services. Fall

SPMT 230 Sport and Recreation Law 3
The class will focus on the general principles of law as they apply to the today’s world of sport. Class discussions will be geared toward practical application and real life examples. Spring

SPMT 241 Practicum in Sport Management 3
A directed practicum experience in sport industry setting. Opportunities provide for students to develop knowledge, values and beginning practice skills appropriate for entry-level positions. Spring

SPMT 245 Technology in Sport 3
This course is an introduction to technology in sport. The course is designed to provide students with experience in integrating technology into sport. Spring

SPMT 302 Sport and Ethics 3
Will assist you in establishing a fundamental philosophy for sport in your life (both personal as well as professional). Questions that will be addressed in class are why you are/want to be involved in sports in a professional capacity; what values drive your actions/decisions. Fall

SPMT 304 Sport, Culture and Society 3
This course will focus upon important, enduring issues within the sociology of sport in addition to a few controversial issues currently under debate. Fall

SPMT 320 Psychology of Sport 3
This course will review the major social/psychological theories utilized in current sport psychology research. Spring

SPMT 355 Sport Operation and Planning 3
This course is designed to provide learning experiences in the administrative tasks of planning new athletic facilities, renovating older facilities and maintaining existing sport facilities. Management principles and concepts as they affect facilities will also be examined. Spring

SPMT 412 Sport Marketing 3
This course investigates principles and processes in sport marketing and sales. Focuses on research and development, sport promotion, sport sponsorship, advertising, merchandising, and distribution of sporting goods. Fall

SPMT 455 Governance and Policy in Sport Organizations 3
This course is an examination of sport organizations focused on both professional and amateur governance structures and processes. The study of policy in educational, non-profit, professional and international sport venues will also be addressed. Fall

SPMT 430 Sport Communications 3
This course provides a senior-level exploration of the role of sport communication in contemporary cultures. Fall

SPMT 440 Global Perspective in Sport 3
An interdisciplinary examination of sport as a global phenomenon. Historical, cultural, economic, and governance perspectives are considered. Examines the global sporting experience from the 19th century to the present. Fall

SPMT 420 Economics and Finance in Sport Industry 3
This course is a survey examination of principles of economics, budgeting, and finance as it applies to the sport industry. Spring

SPMT 475 Sport Management Professional Development Seminar 3
To prepare the student for the process of seeking a job as well as being successful in a job in the sports management field. This is a seminar format in which students synthesize and apply theories, concepts, and practices in the leadership and management of sport organizations. Spring

SPMT 480 Research Methods 3
Covers the development of empirical research designs for both practical and theoretical problems in sport management. Includes literature review of hypothesized relationships, and formulation of research proposals. Spring

SPMT 490 Internship 6
This supervised professional experience provides a continuous and structured opportunity to apply principles and skills developed in the classroom to the solution of practical problems in a sport industry setting. Spring
Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

<table>
<thead>
<tr>
<th>Major Courses</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 114/L</td>
<td>Human Biology: An Introduction to Anatomy and Physiology</td>
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<tr>
<td>BIO 115/L</td>
<td>Musculoskeletal Anatomy and Physiology</td>
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<tr>
<td>ATH 170</td>
<td>Emergency Care and Introduction to Athletic Training</td>
<td>3</td>
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<td>HEID 205</td>
<td>Wellness and Fitness</td>
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<td>HHP 235</td>
<td>Kinesiology</td>
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<td>HHP 336/L</td>
<td>Physiology of Exercise and Lab</td>
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<td>Practicum in Athletic Training</td>
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<td>ATH 261</td>
<td>Diagnosis of Injuries/Illnesses I (Lab)</td>
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<td>ATH 262</td>
<td>Assessment of Injuries/Illnesses II (Lab)</td>
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<td>ATH 309</td>
<td>Pathophysiology and Pharmacology in A.T.</td>
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<td>ATH 331</td>
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<tr>
<td>ATH 332</td>
<td>Practicum in Athletic Training</td>
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<tr>
<td>ATH 342</td>
<td>Therapeutic Modalities (Lab)</td>
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<tr>
<td>ATH 343</td>
<td>Therapeutic Exercise (Lab)</td>
<td>3</td>
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<tr>
<td>ATH 361</td>
<td>Sports Psychology</td>
<td>3</td>
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<tr>
<td>ATH 372</td>
<td>Health Issues for Athletic Trainers</td>
<td>3</td>
<td></td>
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<tr>
<td>ATH 373</td>
<td>Nutritional Issues for Athletic Trainers</td>
<td>3</td>
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<tr>
<td>ATH 398</td>
<td>Statistics and Research Design</td>
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<tr>
<td>ATH 431</td>
<td>Practicum in Athletic Training</td>
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<tr>
<td>ATH 482</td>
<td>Administration of Athletic Training</td>
<td>3</td>
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<tr>
<td>ATH 498</td>
<td>Internship in Athletic Training</td>
<td>3</td>
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</tbody>
</table>
### Major Electives:
Athletic Training majors should consult their advisor for major electives.

### Major Experiences:
All applicants and students in the athletic training major must meet and continue to meet the professional standards of the program. No one who jeopardizes the health or well-being of a patient, classmate or him or herself will be accepted into the program or continue as a student in the program. All applicants and students must possess the necessary physical attributes and exhibit qualities of good judgment, mental strength and emotional stability.

All applicants to the professional phase of the program are required to submit a written acknowledgment indicating that they have read and understood the technical standards related to the professional duties of the discipline. These documents are available on the program website. The athletic training program website also provides additional information for program applicants. The program faculty will be responsible for applying the standards for their students and prospective students.

The health care professional’s self-presentation is a vital part of the complex relationship among the patient, the health care provider and the health care delivery site. The athletic training program reserves the right to limit attire and adornments (such as clothing, jewelry, piercing, tattooing) of the body, hands, face and oral cavity. The program handbook outlines the enforcement of this policy. In all cases, the final appeal may be made to the Dean of the School of Education and Human Services.

### Additional Course Considerations:
Athletic Training majors should consult their advisor for additional course considerations.

| Recommended Semester Schedule for Major Course Requirements |
|-----------------|-----------------|-----------------|
| **YEAR**        | **FALL SEMESTER** | **SPRING SEMESTER** |
| Freshman        | BIO 114 and Lab (4) | BIO 115 and Lab (4) |
|                 | ATH 170 (3)        | ATH 132 (2)       |
|                 | FYS 101 (3)        | ENG 101 (3)       |
|                 | PHI 101 (3)        | RST 101 (3)       |
|                 | Core (3)           | Core (3)          |
| Sophomore       | ATH 231 (3)        | ATH 232 (1)       |
|                 | ATH 261/Lab (3)    | ATH 262/Lab (3)   |
|                 | ATH 342/Lab (3)    | ATH 343/Lab (3)   |
|                 | HHHP 235 (3)       | Core (3)          |
|                 | Core (3)           | Core (3)          |
|                 | Core (3)           | Core (3)          |

### Dual Majors:
Athletic Training students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before Athletic Training students declare dual majors, it is important to meet with their academic advisor. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

### Minors:
Athletic Training students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

The Health and Human Performance Minor is a common minor for many athletic training students. The minor provides students with preparation for the fields of exercise physiology and wellness, and other related health professions and graduate work. It also helps students prepare for health and fitness specialty certifications through the American College of Sports Medicine and/or the National Strength and Conditioning Association. Health and Human Performance courses have specific pre-requisites, which are stated in the course descriptions.
Admission to the health and human performance minor is competitive due to a limited number of student slots available and is based on skills and knowledge competencies acquired in BIO 114, BIO 115, and HHP 235. Each course must be completed with a grade of C (2.0) or higher. The applicant must attain a minimum C (2.0) cumulative G.P.A. in these three courses and an overall college G.P.A. of C (2.0) or higher. Majors from other departments are eligible for selection by meeting the above requirements. Students interested in the health and human performance minor at Canisius College must complete an application in Department of Kinesiology. Application for the minor must be completed following enrollment in HHP 235.

### Health and Human Performance Minor Courses

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>BIO 114</td>
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<td>Musculoskeletal Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>HHP 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>HHP 336</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>HHP 337</td>
<td>Research in Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>ATH 373</td>
<td>Nutritional Issues For Athletic Trainers</td>
<td>3</td>
</tr>
<tr>
<td>HHP 420</td>
<td>Exercise Testing and Prescription</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** Mr. Peter Koehneke serves as the Director of the Athletic Training major program, and Dr. Dennis Koch serves as the Coordinator for the Health and Human Performance minor program in the Department of Kinesiology.

**ATHLETIC TRAINING COURSES 2011 - 2013**

**ATH 132 Practicum in Athletic Training**  
Didactic and psychomotor skill instruction with practical examinations. Examinations are an integral portion of the acceptance criteria for the program. Prerequisites: BIO 114 and ATH 170 with a grade of C or above and an overall G.P.A. of 2.0. **Fall**

**ATH 170 Emergency Care and Introduction to Athletic Training**  
Recognition and immediate care of common illnesses and injuries. Content meets National Safety Council requirements for Standard First Aid and CPR. **Fall, Spring**

**ATH 231-232 Practicum in Athletic Training**  
Clinical experiences in athletic training. Instruction provided by professionals from various academic institutions, e.g., secondary schools and colleges. Experiences and course material provide acquisition of clinical competency of previously instructed psychomotor skills. Prerequisite: Acceptance into the Athletic Training Education Program. **Fall, Spring**

**ATH 261 Diagnosis of Injuries/Illnesses I**  
Assessment of lower extremity, abdominal and lumbar spine injuries and illness. Prerequisites: ATH 170 and BIO 114 with grades of C or above. Registration concurrent with ATH 231. Lab required. **Fall**

**ATH 262 Diagnosis of Injuries/Illnesses II**  
Theoretical, practical, empirical study of upper extremity, thorax, head and cervical spine assessment. Includes lab. Prerequisites: ATH 261 and ATH 231 with grades of C or above. Lab required. **Spring**

**ATH 309 Pathophysiology and Pharmacology for Athletic Trainers**  
Discussion of the physiologic changes that occur following injuries and illness. Discussion of indications, contraindications and legal issues regarding medications used in the management of athletic injuries. Registration concurrent with ATH 231 or ATH 331. **Fall**

**ATH 331-332 Practicum in Athletic Training**  
See ATH 231-232 for description. **1-1**

**ATH 342 Therapeutic Modalities**  
Therapeutic modality use in treatment of athletic injuries. Physics, physiological effects, rationale and application of modalities in health care of patients. Practical examinations. Includes lab. Prerequisites: BIO 114-115 with grades of C or above. Registration concurrent with ATH 231. Lab required. **Fall**

**ATH 343 Therapeutic Exercise**  
Contemporary exercise and clinical intervention techniques used in the management of orthopedic injuries. Biomechanics, physiological effects, rationale and application of exercise techniques and devices. Practical examination. Includes lab. Prerequisite: HHP 235 with a grade of C or above. **Registration concurrent with ATH 232. Lab required. Spring**

**ATH 361 Sports Psychology**  
Review of psychological and sociological processes, principles and problems influencing behavior in sport. Other approved psychology courses may be substituted. **Fall, Spring**

**ATH 372 Health Issues for Athletic Trainers**  
Current content and practices related to personal, school and community health as it relates to the management of injury and illness. **Fall**

**ATH 373 Nutritional Issues for Athletic Trainers**  
Fundamental theories and practices of nutrition, diet construction and research findings applicable to athletic performance. **Spring**

**ATH 398 Statistics and Research Design for Athletic Trainers**  
Application and interpretation of descriptive and inferential statistics. Library search techniques and research design as related to evidence-based practice. Includes the use of statistical software, data collection, and creation and presentation of a research poster. Prerequisite: HHP 235 with a grade of C or above. **Spring**

**ATH 431 Practicum in Athletic Training**  
See ATH 231-232 for description. **Fall**

**ATH 482 Administration of Athletic Training**  
Theoretical, practical and empirical study of administrative requirements of the athletic trainer relative to facility design, duties, liability, drug testing, nomenclature and injury epidemiology. Prerequisites: ATH 262 and ATH 331 with grades of C or above. **Spring**
ATH 498 Internship in Athletic Training
Field-based experience in athletic training or related health care field. Requires 150 clock hours over twelve weeks. Prerequisites: ATH 342 and ATH 343 with grades of C or above. Permission of instructor, application. Summer, Fall, Spring

HHP 235 Kinesiology
Scientific study of human movement, emphasizing the basic principles of musculoskeletal anatomy, neuromuscular physiology and biomechanics. Prerequisite: BIO 114 with a grade of C or above. Fall, Spring, Summer

HHP 336 Physiology of Exercise
Effects of physical activity on the functioning human body. Restrictions on levels of physical activity by normal metabolic limitations. Lab required (HHP 336L) for Athletic Training and Health and Wellness majors. Prerequisite: BIO 108 with a minimum grade of C. Summer, Fall

HHP 336L Physiology of Exercise Lab
Laboratory experiences in physiology of exercise. Lab required (HHP 336L) for Athletic Training and Health and Wellness majors. Prerequisite: Concurrent registration in HHP 336. Summer, Fall

HHP 337 Research in Physiology of Exercise
Required for HHP Minors. This course may be substituted for HHP 336L. Laboratory experiences in physiology of exercise culminating in a scientifically based research report. Prerequisite: Concurrent registration in HHP 336. Permission of instructor. Summer, Fall

HHP 420 Exercise Testing and Prescription
Required for HHP minors. Instruction in the guidelines for exercise testing and prescription. Didactic instruction and practical training will be used to educate students in the various methodologies and competencies required to safely assess adult health and fitness. Practical experiences include the assessment of cardiovascular risk, coronary artery disease risk stratification, body composition assessment, functional capacity assessment and muscular fitness assessment. Prerequisite: HHP 337 with a grade of C or above or HHP 336 and HHP 336L with a grade of C or above. Summer, Fall
Urban Studies

Director: Kevin R. Hardwick

Introduction:
The urban studies major at Canisius provides students with a variety of approaches and tools that enable them to effectively analyze the 21st century urban center. The course work examines the social, legal, economic, ethnic and political forces that affect cities and towns, from the challenges of the public education system to housing and real estate development, crime, health issues, human services and transportation. The specialized program helps students understand economic growth and decline, racial and ethnic issues, community development, and other factors that influence the growth and prosperity of a city.

The program offers a solid preparation for graduate programs in public administration, community development and planning, social work, public policy, criminal justice and urban affairs. It is also a recommended choice for pre-law students and for those aspiring to careers in journalism, communications, teaching, government service, social work, law enforcement, community organization and land-use planning, as well as in those industries that are increasingly conscious of the influence of urban society upon them and their impact on urban society. Extensive internship and professional research experiences are an integral component of the urban studies program. Such activities are a vital aspect of preparation for graduate school and/or a professional career. Because the program is designed to be one half of a dual major, students who choose urban studies must also select a second major in another discipline such as criminal justice, economics, political science, history, sociology or anthropology.

Goals:
Please refer to http://www.canisius.edu/assessment/wsb_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a degree in Urban Studies. Students must also have a second major. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should have an advisor in the major and should contact the department directly to have an advisor assigned if they do not already have one. All majors should work closely with their advisor in discussing career expectations, choosing their major electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

Free Electives:
Free electives are courses in addition to the Core Curriculum and major requirements sufficient to reach a minimum of 120 credit hours for graduation. Students may graduate with more but not less than 120 credit hours.

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<tr>
<th>Course</th>
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<th>Credits</th>
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<tr>
<td>PSC 104</td>
<td>American Political Process</td>
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<td>ECO 102</td>
<td>Principles of Microeconomics</td>
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<td>PSC 237</td>
<td>State and Local Politics</td>
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<td>PSC 334</td>
<td>Public Administration</td>
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<td>PSC 336</td>
<td>Urban Government and Politics</td>
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<td>HIS 373</td>
<td>Urban Portraits: Topics in Urban History</td>
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<td>History of Buffalo</td>
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<td>HIS 382</td>
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<td>ECO 311</td>
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<td>3</td>
</tr>
<tr>
<td>URS 400</td>
<td>The Urban Challenge</td>
<td>1</td>
</tr>
</tbody>
</table>
Dual Majors:
Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

Minors:
Students who wish to expand their educational opportunities may decide to declare a minor in addition to their major. The decision may be based on career goals or planned graduate studies. Minors generally range from six to eight required courses. A listing of the minors can be found under the Academic Curricula section of the catalog. Some majors and minors can be completed within the minimum 120 credit hour degree requirement, but in some cases additional course work may be required. Students must complete the appropriate minor request form.

**URBAN STUDIES COURSES 2011 – 2013**

**URS 201 Planning for Urban Revitalization**
Dynamics, concepts and strategies of urban revitalization. Introduction to planning and policy-making with emphasis on neighborhoods, housing and economic development. *Spring*

**URS 498 Urban Internship**
1-9
Participant observation and evaluation of an urban program or agency. Students devote 10 hours per week to significant activities related to their skills and interests. Prerequisite: Placement by Urban Studies Director. *Spring & Fall*

**URS 499 Independent Study**
1-9
Research and/or directed reading under direction of faculty members associated with Urban Studies Program. Prerequisite: Permission of Urban Studies Director. *Spring & Fall*

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**Major Electives**

Urban Studies Electives: three courses to be chosen from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 227</td>
<td>Introduction to Criminal Justice I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 311</td>
<td>Regional Economics and GIS</td>
<td>3</td>
</tr>
<tr>
<td>ECO 312</td>
<td>Spatial Economics and GIS</td>
<td>3</td>
</tr>
<tr>
<td>ECO 411</td>
<td>State and Local Finance</td>
<td>3</td>
</tr>
<tr>
<td>FAH 109</td>
<td>History of Architecture</td>
<td>3</td>
</tr>
<tr>
<td>HIS 373</td>
<td>Urban Portraits: Topics in Urban History</td>
<td>3</td>
</tr>
<tr>
<td>HIS 381</td>
<td>History of Buffalo</td>
<td>3</td>
</tr>
<tr>
<td>HIS 382</td>
<td>New York State History</td>
<td>3</td>
</tr>
<tr>
<td>HIS 396</td>
<td>Politics and Society in American Film</td>
<td>3</td>
</tr>
<tr>
<td>PSC 103</td>
<td>Constitutional Foundations of American Government</td>
<td>3</td>
</tr>
<tr>
<td>PSC 215</td>
<td>National Issues and Public Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSC 217</td>
<td>Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>RST 225</td>
<td>Religion and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 111</td>
<td>Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 340</td>
<td>Sociology of the City</td>
<td>3</td>
</tr>
<tr>
<td>URS 201</td>
<td>Planning for Urban Revitalization</td>
<td>3</td>
</tr>
<tr>
<td>URS 498</td>
<td>Urban Internship</td>
<td>1-9</td>
</tr>
<tr>
<td>URS 499</td>
<td>Independent Study</td>
<td>1-9</td>
</tr>
</tbody>
</table>

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**Recommended Semester Schedule for Major Course Requirements**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>PSC 104</td>
<td>ECO 102</td>
</tr>
<tr>
<td>Sophomore</td>
<td>PSC 237</td>
<td>PSC 336</td>
</tr>
<tr>
<td>Junior</td>
<td>HIS 337 or HIS 381</td>
<td>PSC 334 or URS Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>URS 400</td>
<td>URS Elective</td>
</tr>
<tr>
<td></td>
<td>ECO 311 or ECO 312 or ECO 411</td>
<td></td>
</tr>
</tbody>
</table>
Free Electives:
Free electives are courses in addition to the requirements of the certificate. Usually certificate students are either not matriculated and hence do not need free electives, or are taking it as part of another major.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIF 101</td>
<td>Introduction to Bioinformatics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
<td>4</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 108</td>
<td>Introduction to Web Computing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 109</td>
<td>Robotics Introduction to Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 127</td>
<td>Introduction to Game Programming</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 111</td>
<td>Introduction to Programming</td>
<td>4</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 111L</td>
<td>Introduction to Programming Lab</td>
<td></td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 212</td>
<td>Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 212L</td>
<td>Data Structures Lab</td>
<td></td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 213</td>
<td>Large Scale Programming</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 213L</td>
<td>Large Scale Programming Lab</td>
<td></td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 253</td>
<td>Computer Hardware</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 281</td>
<td>Automata and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
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</tr>
</tbody>
</table>

Computer Science electives:
Two CSC courses at the 300 or 400 level
Major Electives:
The two Computer Science electives can be any course offered by
the department at the 300 or 400 level. Note that most of these
courses have an extra lab course which must be taken in conjunc-
tion with the course:

- CSC 310 Information Organization and Processing (4)
- CSC 330 Distributed Computing (4)
- CSC 351 Comparative Programming Languages (4)
- CSC 360 Intelligent Systems (4)
- CSC 395 Software Engineering (4)

or

Any of the regularly offered CSC electives: CSC 313 (4),
CSC 380 (4), CSC 320 (3), CSC 325 (4), BIF 400 (3)

### Recommended Semester Schedule for Major Course Requirements

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>One of BIF 101 (3), CSC 107 (4), CSC 108 (3), CSC 109 (3), CSC 110 (3), CSC 127 (3)</td>
<td>CSC 111 and lab (4)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>CSC 212 and lab (4)</td>
<td>CSC 213 and lab (4)</td>
</tr>
<tr>
<td>Senior</td>
<td>CSC elective</td>
<td>CSC elective</td>
</tr>
</tbody>
</table>

### Note

It is possible to complete the Computer Science Certificate in less
than six semesters since a student could take two electives in the
fifth semester. However, due to the nature of the prerequisites, it is
unlikely that a student could complete the certificate in less than
five semesters. Consult with a departmental advisor for more details
and careful planning.

### COMPUTER SCIENCE COURSES: 2011-2013

**CSC 107 Computer Programming for Science**
4
Introduction to the computer and programming using C with special
emphasis on scientific and mathematical applications. Fall

**CSC 108 Introduction to Web Computing**
3
Introduction to computer science through web sites, web pages, web page
programming, HTML, XML, XHTML, CSS and JavaScript. The history
and social impact of computers, networks and the World Wide Web are
included in the course. Field 7. Fall and Spring

**CSC 109 Robotics Introduction to Computer Science**
3
Introduction to computer science through robotics, the basics of artificial
intelligence and the fundamental ideas of logic, algorithms, computer
systems and programming. Focus on ethical issues in robotics. Field 7,
Ethics Attribute. Spring

**CSC 110 Introduction to Computing**
3
Overview of computing science. Major issues in computer technology,
systems software, theoretical foundations, artificial intelligence and social
implications. Field 7.

**CSC 111 Introduction to Programming**
4
Algorithms, programming, computers, languages and language structure.
Prerequisite: One of: BIF 101, CSC 107, CSC 108, CSC 109, CSC 110,
or CSC 127. Spring

**CSC 127 Introduction to Game Programming**
3
Computer game development and underlying computer concepts necessary
for game programming. Game components related to the player, game
component, stories, characters, game play, graphics, the interface and
audio. Core: Field 7. Fall and Spring

**CSC 212 Data Structures**
4
Basic concepts of data structures, including lists, stacks and queues.
User-defined structures and abstract data types. Prerequisites: B- or
higher in CSC 111 and CSC 111L. Fall

**CSC 213 Large Scale Programming**
4
Introductory concepts of software engineering applied to the design and
implementation of larger software systems. Advanced data structures.
Prerequisites: CSC 212 and CSC 212L. Spring

**CSC 253 Computer Hardware**
3
Introduction to digital logic, Boolean algebra, hardware and computer
organization. Overview of current and future architectures. Prerequisites:
CSC 111 and CSC 111L. Fall

**CSC 253L Computer Hardware Lab**
1
Self-contained laboratory experience to augment hardware and electronics
concepts introduced in CSC 253. Optional but open to any Computer
Science major or minor. Prerequisite: previous or current enrollment in
CSC 253
CSC 281 Automata and Algorithms
Formal language theory including finite and pushdown automata, grammars, Turing Machines and the Halting Problem. Introduction to the design and analysis of algorithms, classes of problems and methods for developing an analysis. Prerequisite: CSC 212 and CSC 212L. Spring

CSC 299 Computer Practicum
Additional practice in computer programming to enhance algorithm development, coding and debugging skills, with a view towards being a part of a team in a regional or national programming contest. May be taken 8 times total, once per semester. Prerequisite: Permission of instructor.

CSC 310 Information Organization and Processing
Databases, high-level organization and processing of information, access to and ethical use of information. Prerequisites: CSC 213 and CSC 213L. Spring 2012

CSC 313 Advanced Programming Topics
Focuses on the practice of computer science by investigating emerging development techniques from industry. Topics include design patterns, application profiling, code optimization and testing techniques. Prerequisites: CSC 213 and CSC 213L. Spring 2012

CSC 320 - iOS app Development
Examines the issues involved in developing apps for the iOS platform (iPod, iPhone, and iPad) including interaction and interface design, objective-C, accessibility, ethical issues, and social justice and impact. Spring 2012

CSC 325 Computer Graphics
Techniques involved in realistic image production including illumination models, object modeling, shadowing, texturing, ray tracing, radiosity, animation and advanced modeling techniques for natural phenomenon and characters. Prerequisites: CSC 212 and CSC 212L.

CSC 326 Advanced Programming Languages
Systematic study of programming languages and their implementations. Programming in logical and functional programming languages is included. Prerequisites: CSC 212 and CSC 212L. Spring 2013

CSC 330 Distributed Computing
System software and distributed applications. Modern distributed operating systems, client/server and other models, security and ethical issues. Prerequisites: CSC 212, CSC 212L and CSC 253. Fall 2011

CSC 331 Intelligent Systems
An introduction to intelligent systems including expert systems, reasoning systems, neural networks, language understanding and basic robotics. Ethical, legal and social issues will be discussed. Prerequisites: CSC 213 and CSC 213L. Spring 2013

CSC 380 Web Development
Web history, design principles, programming and scripting (both client-side and server-side), database access, client/server mechanisms, search engines, copyright and ethical issues, security. Prerequisites: CSC 111 and CSC 111L and junior/senior standing. Spring 2013
Womens Studies

Director: Jane E. Fisher, Co-director: Johanna M. Fisher

Introduction:
http://www.canisius.edu/wst

Goals:
http://www.canisius.edu/assessment/cas_goals.asp

Qualifications:
Students must maintain a 2.0 GPA in their major and a 2.0 overall average to graduate with a Certificate in Women's Studies. All students must complete a minimum of 120 credit hours to graduate.

Advisement:
All students should meet with the Women's Studies Director as well as Women's Studies faculty in discussing career expectations, choosing their electives, developing their entire academic program and planning their co-curricular or supplemental academic experiences.

Curricular Requirements for the Major:
Core: All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/core_curriculum/default.asp

The Women's Studies Minor or Certificate can usually be combined with other majors in order for students to pursue their goals. Please check with your advisors, especially the Women's Studies' Director, to see how either the Minor or the Certificate works with your desired academic status.

Minors:
Canisius College offers both a Women's Studies’ Minor and a Women's Studies' Certificate. Women's Studies courses emphasize how gender roles are created and how they impact what we know and how we act in the world. Both the Women's Studies Minor and Certificate encourage students to explore the complexities of our gendered world in a structured series of courses. Learning objectives for the Women Studies' Program focus on gender, social justice, and cultural diversity. The Women's Studies Minor consists of four Women's Studies' courses plus WST 201, Introduction to Women's Studies. The Women Studies' Certificate consists of seven Women's Studies’ courses plus WST 201, Introduction to Women's Studies. Many WST courses count both towards Women's Studies and Field/Attribute requirements, thus making it possible for students to complete a Women's Studies minor and certificate without taking additional courses.

Students who complete the Women's Studies curriculum often go into fields where the knowledge of human diversity is valuable. Canisius Women Studies' students have applied their knowledge in a range of careers such as law, social work, education, counseling, educational administration, human resources, program development, community organization, health and medicine, and journalism.

<table>
<thead>
<tr>
<th>New Women's Studies Courses:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>Title</td>
</tr>
<tr>
<td>ANT 365</td>
<td>Gender Issues in Language</td>
</tr>
<tr>
<td>CLAS 207</td>
<td>Myth and Literature</td>
</tr>
<tr>
<td>COM 204</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>ENG 211</td>
<td>Science Fiction</td>
</tr>
<tr>
<td>ENG 222</td>
<td>Vampires in Literature and Culture</td>
</tr>
<tr>
<td>ENG 224</td>
<td>The Journey in World Literature</td>
</tr>
<tr>
<td>ENG 325</td>
<td>British Women Writers</td>
</tr>
<tr>
<td>ENG 308</td>
<td>Nineteenth-Century British Literature</td>
</tr>
<tr>
<td>PHI 240</td>
<td>Justice</td>
</tr>
<tr>
<td>PHI 273</td>
<td>Race and Philosophy</td>
</tr>
<tr>
<td>PSY 203</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>PSY 334</td>
<td>Children, Family and Community Psychology</td>
</tr>
<tr>
<td>RST 322</td>
<td>Women Reading the Bible: Feminist Approaches to Scripture</td>
</tr>
<tr>
<td>RST 399</td>
<td>Christian Marriage</td>
</tr>
<tr>
<td>SOC 273</td>
<td>Social Movements and Social Change</td>
</tr>
</tbody>
</table>
Pre-Law
The Frank G. Raichle Pre-Law Center
Faculty: Robert Klump, Director, Department of Political Science; Patricia E. Erickson, Criminal Justice/Sociology; Peter J. Galie, Department of Political Science; James V. Jones, Director, Career Center; Walter G. Sharrow, History.

Students wishing to choose law as a career may major, as undergraduates, in any field or fields. They should bear in mind, however, that their aim must be the attainment of a broad liberal education. Specifically, they should attain considerable skill in language, knowledge of human institutions and values and an ability to reason critically. The committee therefore recommends that students wishing to choose law as a career include in their undergraduate programs of study the following:

1. Courses which develop skills of accurate comprehension and precise expression in language.
2. Courses in which knowledge of human institutions can be attained, with special reference to American constitutional law and history.
3. Courses which develop abilities in logic and appreciation of ethical and political values.

Recommended Electives
- Philosophy: Ethics, Logic
- Economics: ECO 101 & 102: Micro and Macro Economics
- English: CMP 302: The Art of Successful Writing
- Political Science: PSC 103: Constitutional Foundations of American Government; PSC 320 & 321: American Constitutional Law I & II
- Accounting: ACC 201 & 202: Financial and Managerial Accounting

The Frank G. Raichle Pre-Law Center assists students who wish to enter the legal profession by offering counseling and advisement regarding law schools and the Law School Admissions Test and by providing scholar incentive awards.

The center also sponsors an annual lecture series on problems of law and American society.

Students interested in law are encouraged to contact a member of the pre-law committee at their earliest opportunity and are encouraged to join the pre-law fraternity, Phi Alpha Delta.

The Program
Freshman Year:
**Introduction to the Raichle Pre-law Center:** Attend New Student Orientation Program Session

**Raichle Pre-Law Center:** Attend Comprehensive Presentations by Raichle Center Director Robert Klump and former Director Peter Galie at which the following aspects of the law school application process and the legal profession will be addressed. Raichle Pre-Law Center presentations are open to all Pre-Law students:
- What is the legal profession all about?
- Varieties of practice, e.g. law firm, in-house, government
- What opportunities does the practice of law provide?
- The legal job market
- The cost of attending law school and financing law school education
- Building a resume that will help get you into law school
- Choosing a curriculum that will be attractive to law school admissions committees
- Internship opportunities
- The LSAT (Law School Aptitude Test)

Sophomore Year
**CMP 302 Basics of Writing for pre-Professionals.** (3 credits)
This course serves pre-law students, among others, who need to sharpen their writing skills. Students will draft prose and develop effective strategies for revising editing and proofreading.

Junior Year: Spring Semester
**Getting into Law School: A Strategy for Success (Non-credit)**
A service provided by the Raichle Pre-Law Center consisting of one-on-one counseling on the following topics:
- Selecting the right law school
- Applying to law school
- Preparing for the LSAT
- Writing the personal statement
- Updating resumes
- Obtaining letters of recommendation
- LSAT preparation
- Prep courses offered by Kaplan and Princeton on campus

Senior Year: Fall
Advisement sessions: Applying to Law school
Introduction:
The Dr. George E. Schreiner Pre-Medical Center has been established to enhance the quality of the undergraduate experience for students who wish to enter the many fields of medicine. The Pre-Medical Center supports students through one-on-one advising, hosting seminars to assist students learning about various health careers and professional schools, connecting students with shadowing and volunteer activities and assisting students with the application process to gain entry into professional schools. It is important to understand that Pre-Med/Health Sciences is a support program and not an academic major. Students interested in careers in medicine, dentistry, podiatry, optometry, physician assistant, pharmacy, veterinary medicine and the many other areas of healthcare frequently major in biology, chemistry or biochemistry, however, students may major in any academic area. Pre-Med/Health students have recently majored in psychology, mathematics, English and philosophy among others. Further information can be found in the catalog sections for each major. Along with the academic major requirements, students complete specific course requirements for the health professional schools of choice. Requirements vary somewhat from one professional school to another so it is in the best interest of students to utilize the advising services of Pre-Medical Center beginning in their first college year. Some common Pre-Medical and Pre-Dental requirements include the following courses. For a more detailed description of the program go to http://www.canisius.edu/premed/courses.asp

Biology:
At least one year of general biology with laboratory (BIO 111-112)

Chemistry:
One year of general chemistry and one year of organic chemistry with laboratories (CHM 111-112, CHM 227-228). Some professional schools also require one semester of biochemistry (BCH 301).

Physics:
One year of introductory physics with laboratory (PHY 201- PHY 202 or PHY 223 - PHY 224)

Mathematics:
Many of the more competitive medical schools require one year of college level math. Students must take one semester of Calculus (MAT 111) and either a second semester of Calculus (MAT 112) or a semester of Statistics. Most students take (MAT 141 or PSY 201). Chemistry majors must take MAT 141.

Behavioral Science:
One semester each of psychology and sociology.

Qualifications:
To meet minimal requirements for most health professions, students must maintain a minimum GPA of 3.0. Students with a GPA lower than 2.99 must contact the Pre-Med Advisor. Higher GPAs are needed to be competitive applicants for most health professions with many programs looking for a GPA of 3.6. Competitive scores on professional exams (MCAT, DAT, GRE, PCAT, OAT, etc.), demonstrated commitment to serving others and thorough exploration and understanding of the desired profession are also critical. Full understanding of the profession includes multiple shadowing experiences with different professionals over time. The Pre-Medical Center will help students plan appropriately for each of these qualifications.

Advisement:
All students should have an advisor in their major and should contact their department directly to have an advisor assigned if they do not already have one. Students enrolled in the pre-med/health program also need to contact the Pre-Med Advisor. All students should work closely with the advisor in their major and the Pre-Med Advisor in discussing career expectations, choosing major electives, developing their entire academic program and planning co-curricular or supplemental academic experiences. This process should start in the first college year.

Early Assurance and Joint Degree Programs:
Canisius College maintains relationships with health professional programs allowing students to gain early acceptance into medical, dental, pharmacy and veterinary programs among others. Relationships with professional schools also allow for students to be admitted into 3+4 programs upon enrolling at Canisius as Freshmen. These programs are competitive and appropriate for the highly motivated student who has thoroughly explored the health professions to develop an understanding and commitment to their chosen profession. Depending on the program, an outstanding high school record or early record in college is required. Please visit the Pre-Medical Center website for the most up-to-date details on the various programs at: http://www.canisius.edu/pre-medical/assurance.asp
Early Assurance Program: The Pre-Medical and Pre-Dental Early Assurance programs at Canisius are offered in conjunction with the State University of New York at Buffalo Medical School and Dental School and the Lake Erie College of Osteopathic Medicine, School of Pharmacy and School of Dentistry. Students are also able to enter the State University of New York Upstate Medical School in Syracuse, New York through the Early Assurance Program. For more information on these programs go to: www.canisius.edu/premed/assurance.asp

Joint Degree Programs: Canisius College has seven-year joint-degree programs with the following professional schools; State University of New York at Buffalo Dental School, Lake Erie College of Osteopathic Medicine and the SUNY State College of Optometry, University of Guelph Ontario Veterinary College among others. The first three years are spent at Canisius and the last four years at the professional school. A bachelor's degree (B.A.) will be awarded from Canisius College after completion of the first year of dental, osteopathic, or optometric school. The DDS, DO, OD or other appropriate professional degree will be awarded at the end of seven years. To remain in good standing, students must fulfill all requirements established by the professional school. For more information about these programs go to: www.canisius.edu/premed/jointdegree.asp

Courses Offered:

HRP 101: Introduction to Health Professions
This course is designed for students who are considering careers in the health-related professions: medical, dental, and allied health fields. The health professions are one of the largest growing industries in the country, and many options exist for students to consider. In this course students will gain a greater understanding of the various health-related professions and hear from practitioners and clinicians who are currently working in the field. This is a 1-credit hour course and will meet once per week.

Pre-Pharmacy

Program Director: Allyson D. Backstrom, Ph.D.
Program Coordinator: Cynthia M. Travers

Introduction:
Students interested in a career in Pharmacy have the option of completing a four-year degree in any major along with completing specific prerequisites or completing only two or three years of study before starting pharmacy school, as long as the required courses are taken. Pre-Pharmacy is a set of courses and not a specific major that allow a student to enter a Doctor of Pharmacy program. Most students at Canisius College choose the 4-year option majoring in either Chemistry (Health Professions Track), Biochemistry, or Biology. Majoring in other academic areas is also possible. Further information can be found in the catalog sections for each of those departments. Academic admission requirements vary substantially by pharmacy school, but usually require the following courses.

Biology:
At least one year of general biology with laboratory (BIO 111-BIO 112). Many schools also require one year of Human Biology; Introduction to Human Anatomy and Physiology and Musculoskeletal Anatomy and Physiology with laboratory (BIO 114-BIO 115). Other programs require Microbiology with laboratory (BIO 307).

Chemistry:
One year of general chemistry and one year of organic chemistry with laboratories (CHM 111-CHM 112, CHM 227-228). Some schools also require Biochemistry (BCH 301)

Physics:
One semester or one year of introductory physics with laboratory (PHY 201-PHY 202 or PHY 223-PHY224)

Mathematics:
One to two semesters of Calculus (MAT 111 and MAT 112) and one (1) semester of statistics (MAT 141 or PHY 201). Some of the more competitive schools require one year of college level calculus. Chemistry majors only MUST take MAT 141.

Humanities and/or Social/Behavioral Science:
One to four semesters of psychology, sociology, anthropology, speech communications, US history, theology and/or philosophy.

Economics:
One semester of Macro (ECO 101) or Micro (ECO 102)

For a more detailed description of the program go to http://www.canisius.edu/premed/pharmacy.asp. Students should stay in contact with the Pre-Medical Center from their first college year for assistance in planning appropriately for entry into pharmacy schools.

Qualifications:
To be a serious candidate for any pre-pharmacy profession, students must maintain a minimum GPA of 3.0. Students with a GPA lower than 2.99 must contact the Pre-Med Advisor. Competitive students generally have a GPA of at least 3.3-3.5. Students must also earn competitive scores on the PCAT (Pharmacy College Admissions Test.)

Advisement:
All students should have an advisor in their major and should contact their department directly to have an advisor assigned if they do not already have one. Students enrolled in the pre-pharmacy program also need to contact the Pre-Med Advisor. Pre-Pharmacy students should work closely with both of their advisors (the advisor for their major and the Pre-Med Advisor) especially when discussing career expectations, choosing major electives, developing their academic program and planning their co-curricular experiences.

Joint Degree Programs: Canisius College has a seven-year joint-degree program with State University of New York at Buffalo, School of Pharmacy and Pharmaceutical Sciences and Lake Erie College of Osteopathic Medicine School of Pharmacy. For more information regarding these programs contact the Pre-Med Advisor and go to: www.canisius.edu/premed/assurance.asp
Catholic Studies Minor

Director: Nancy M. Rourke

The Catholic Studies minor at Canisius College examines the doctrinal, historical, legal, spiritual and cultural traditions of Catholicism. In addition, it includes dialog with people of other faiths and the examination of intellectual disciplines that have been influenced by Catholicism, such as art, history, law, literature, politics, philosophy and the sciences. As a result, this program requires study in several departments of the college and highlights the Catholic tradition upon which the college was founded.

Any person who wishes to know more about the Catholic heritage, to further one’s personal development, or to pursue a principle-based career in public service, medicine or law would find this minor relevant. Those pursuing church-related careers or academic objectives would also want to complete this program. Future seminarians, lay ministers, and teachers interested in the Catholic educational system, those preparing for graduate work in theology or religious studies and anyone planning to pursue an administrative, marketing, accounting, or IT career in a Catholic organization such as a social work agency or health care system would benefit from this program. The program director will help the student choose appropriate courses or appoint an advisor to do so.

All courses in the Catholic Studies minor except CTH 400 are offered in traditional academic departments and usually meet the criteria established by these departments for field studies or major credit. Most courses in the minor are part of the college’s core curriculum and therefore can be taken as a way to fulfill and focus core requirements.

Please see the website for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities: http://www.canisius.edu/catholic/

Internships

May be done with special readings and reflection as an extra course for 3 credits or included within a project for CTH 400. Prerequisite: Consent of director.

Courses in specialty areas follow. Course descriptions and their years of offering will be found in the appropriate departmental listing.

### I. Catholic Theology and Life

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>RST 230</td>
<td>Catholic Belief Today (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 350 or HON 327</td>
<td>Christian Concept of God (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 351</td>
<td>Freedom, Sin, and Grace (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 352</td>
<td>The Church in the Modern World (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 353</td>
<td>Sacramental Theology (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 354</td>
<td>Jesus Christ and Modern Culture (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 359</td>
<td>Revelation and Faith (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 365</td>
<td>Christian Spirituality (Field 1)</td>
<td>3</td>
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### II. Catholic Culture: Literature, Art, Music, and Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 233</td>
<td>Medieval Literature (for non-majors) (Field 3)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 303</td>
<td>Medieval Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 320</td>
<td>Contemporary American Catholic Fiction (Field 3)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 330</td>
<td>The Bible as Literature (Field 3)</td>
<td>3</td>
</tr>
<tr>
<td>FAH 224</td>
<td>Medieval Art (Global, Writing)</td>
<td>3</td>
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<tr>
<td>FAH 245</td>
<td>Renaissance Art (Global)</td>
<td>3</td>
</tr>
<tr>
<td>FAH 248</td>
<td>Baroque and Rococo Art (Global, Writing)</td>
<td>3</td>
</tr>
<tr>
<td>FAM 216</td>
<td>Medieval and Renaissance Music (Global)</td>
<td>3</td>
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<tr>
<td>HON 328</td>
<td>Age of Michelangelo</td>
<td>3</td>
</tr>
<tr>
<td>RST 314</td>
<td>New Testament in Literature and Art (Field 1, Global)</td>
<td>3</td>
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<tr>
<td>RST 343</td>
<td>Religion and the Challenge of Science (Field 1)</td>
<td>3</td>
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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>RST 231</td>
<td>Introduction to Catholic Studies (Field 1)</td>
<td>3</td>
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<tr>
<td>CTH 400</td>
<td>Research in Catholic Studies</td>
<td>3</td>
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</tbody>
</table>

One course in each of four areas (but no more than two courses from any one department in these areas):

- Catholic Theology and Life;
- Catholic Culture: Literature, Art, Music, and Science;
- Catholic History and Politics; and
- Catholic Social Thought and Philosophy

**TOTAL (6 courses)** 18
### III. Catholic History and Politics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLS 308</td>
<td>Pagans and Christians (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>HIS 106</td>
<td>The Medieval World (Field 4, Global)</td>
<td>3</td>
</tr>
<tr>
<td>HIS 131</td>
<td>History of Latin America to 1830 (Field 4, Global)</td>
<td>3</td>
</tr>
<tr>
<td>HIS 306</td>
<td>History of Religion in America (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>HIS 316</td>
<td>Reformation Europe</td>
<td>3</td>
</tr>
<tr>
<td>HON 356</td>
<td>Jesuit Spirituality and History</td>
<td>3</td>
</tr>
<tr>
<td>RST 235</td>
<td>Religion and Politics (Field 1, Justice, Oral)</td>
<td>3</td>
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<tr>
<td>RST 325</td>
<td>Early Christianity (Field 1)</td>
<td>3</td>
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<tr>
<td>RST 328</td>
<td>The Jesuits: History, Spirituality, and Culture (Field 1, Oral)</td>
<td>3</td>
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<tr>
<td>RST 329</td>
<td>Religions in North America to 1865 (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 330</td>
<td>Religions in North America 1865-present (Field 1)</td>
<td>3</td>
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</table>

### IV. Catholic Social Thought and Philosophy

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>HON 355</td>
<td>Religion’s Public Role: A Catholic Perspective</td>
<td>3</td>
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<tr>
<td>PHI 267</td>
<td>Catholic Social Thought (Field 2, Justice)</td>
<td>3</td>
</tr>
<tr>
<td>PHI 268</td>
<td>Catholic and Jewish Bioethics (Field 2, Ethics)</td>
<td>3</td>
</tr>
<tr>
<td>PHI 302</td>
<td>Medieval Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 367</td>
<td>Advanced Topics in Catholic Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 401</td>
<td>Augustine: Images and Transcendence</td>
<td>3</td>
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<tr>
<td>RST 340</td>
<td>Moral Issues Today (Field 1, Ethics)</td>
<td>3</td>
</tr>
<tr>
<td>RST 341</td>
<td>Catholic Social Ethics: Theological Perspectives (Field 1, Justice, Writing)</td>
<td>3</td>
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<tr>
<td>RST 342</td>
<td>Theological Ethics and Environmental Justice (Field 1, Ethics, Oral)</td>
<td>3</td>
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<tr>
<td>RST 345</td>
<td>Bio-Moral Problems (Field 1, Ethics)</td>
<td>3</td>
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<tr>
<td>RST 399A</td>
<td>Christian Marriage (Core Capstone)</td>
<td>3</td>
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</table>

### COURSES: 2011 - 2013

- **RST 231 Introduction to Catholic Studies**
  - 3 Credits
  - Major movements and personalities in Catholic theology, history, culture, and spirituality. The Catholic worldview and its relation to society. (Field 1).
  - Prerequisite: RST 101. Spring 2012, Fall and Spring 2013

- **CTH 400 Research in Catholic Studies**
  - 3 Credits
  - Capstone course in which a student does independent research and a project on a person or topic of interest within the Catholic Studies minor under the supervision of a faculty advisor. Prerequisite: Director's approval. Fall, Spring
All-College Honors Program

**Introduction:**
The All-College Honors Program is a learning community of excellent and motivated students who take interdisciplinary courses and enjoy abundant opportunities for social interaction and cultural enrichment. Because the Honors Program replaces the entire core curriculum, Honors students need not take any regular core courses. All majors can complete Honors, and even triple majors have done so. Please see the Honors website for a more detailed description of the Honors Program and its faculty, facilities, and academic and co-curricular opportunities: http://www.canisius.edu/honors

**Goals:**
Student Learning Goals and Objectives for the All-College Honors Program relate closely to the Honors thesis, which can be attempted in the junior or senior year. http://www.canisius.edu/honors/requirements.asp

**Qualifications:**
Admission to the All-College Honors Program is open to entering freshmen with strong academic records and to well-qualified transfer students who seek permission.

**Advisement:**
All-College Honors students should see the Honors director regarding advisement questions.

**Program Courses:**
Curriculum (12 Honors courses)

Freshmen (100s):
- English and Western Tradition I & II

Sophomores (200s):
- History, Philosophy, Religious Studies, Social Science

Juniors/Seniors (300s):
- Fine Arts, Literature, Religious Studies, Science/Math/Tech

Juniors/Seniors (400s):
- Thesis

One of these Honors courses must focus on the American experience, and another must address diversity or global understanding.

Honors students must also complete two regular courses in another language (ancient, modern, or sign), unless they receive AP credit or have completed college-level foreign language coursework. International students whose native language is not English are exempt from this requirement.

**Program Experiences:**
The All-College Honors Program sponsors many different events, including a Meet & Greet reception, an off-campus retreat, a luncheon series with community leaders, a book club, a film series, bowling, snow tubing and skating, lectures by nationally-known professors, jazz and orchestral concerts, visits to museums and sports arenas, ice cream socials, a 60-second talks program, a game show, a Christmas party, an annual banquet, and trips to major cities. The Honors Post-Journal publicizes and promotes these events.

**Additional Course Considerations:**
Honors students may receive Honors credit for some qualifying Advanced Placement or International Baccalaureate scores.

Honors students are encouraged to study abroad and receive up to six hours of Honors credit.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td>Freshman</td>
<td>HON 101 English (3)</td>
<td>HON 111 Western Tradition II (3)</td>
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<tr>
<td></td>
<td>HON 110 Western Tradition I (3)</td>
<td>Foreign Language</td>
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<tr>
<td></td>
<td>Foreign Language</td>
<td></td>
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<tr>
<td>Sophomore</td>
<td>Honors History</td>
<td>Honors Philosophy</td>
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<td></td>
<td>Honors Religious Studies</td>
<td>Honors Social Science</td>
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<tr>
<td>Junior</td>
<td>Honors Fine Arts</td>
<td>Honors Literature</td>
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<td></td>
<td>Honors Science/Math/Tech</td>
<td>Honors Religious Studies</td>
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<tr>
<td>Senior</td>
<td>HON 451 (Thesis) (3)</td>
<td></td>
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</tbody>
</table>

**Note:** To graduate with All-College Honors distinction, students must receive credit for all twelve Honors courses taken and two courses in the same foreign language, and have an overall GPA of 3.25 in all Canisius courses.
**ALL-COLLEGE HONORS COURSES (2011-2013)**

**HON 101 English**  
Various literary genres. Works by writers representing a wide variety of places, times, nationalities, and philosophies. Student’s writing refined through these readings and composition assignments.

**HON 110 Western Tradition I**  
Introduces students to significant intellectual and material elements of Western Civilization from the Ancient World through the Middle Ages. Through an interdisciplinary approach, this course investigates the presumptions, motivations, and expectations of westerners in order to ascertain what is peculiarly “western” about the world in which we live and think. HON 110 is not a prerequisite.

**HON 111 Western Tradition II**  
Introduces students to significant intellectual and material elements of Western Civilization since the Renaissance. Through an interdisciplinary approach, this course investigates the presumptions, motivations, and expectations of westerners in order to ascertain what is peculiarly “western” about the world in which we live and think. HON 110 is not a prerequisite.

**HON 211 Masters of the Modern Mind: Marx, Nietzsche, Weber and Freud**  
Careful study of major works by these seminal thinkers and an analysis of their influence on modern thought.

**HON 216 Philosophy**  
Selected topics in philosophical inquiry, such as rationalism, empiricism, epistemology or metaphysics.

**HON 219 African Ethics & Christianity**  
This interdisciplinary, cross-cultural course examines African ethics and Christianity, set against the background of Augustine’s *Confessions* and the African encounter with Western culture. The contrast in settings enables students to develop an awareness of the presuppositions of Western and African cultures, and to subject contemporary African ethical problems, such as female circumcision, HIV/AIDS, poverty, and human rights to scrutiny within the context of African categories of thought.

**HON 220 War and Society in Modern Europe**  
Examines how social and political changes transformed the phenomenon of warfare in the 19th and 20th centuries, and how, in turn, the changing nature of war altered assumptions about citizenship, class, and gender.

**HON 221 Violence in America**  
Considers the prevalence and persistence of violence in American society from the colonial period to the present. The topics range from murder, rioting, kidnapping, wartime atrocities, sexual assault, bank robbery, ethnic violence, blood sports, media coverage, labor unrest, terrorism, school shootings, and the death penalty.

**HON 223 Revolutions in Latin America**  
Considers the Mexican and Cuban revolutions and addresses the question of why real revolutions have been rare in Latin America.

**HON 224 Disease, Health, and Medicine in America**  
Treats life and death issues—literally—from the deadly smallpox brought by Columbus to the bio-terrorism of today. The theory of this course is that the way Americans define and treat disease reflects contemporary historical events and our social and cultural values, as well as the existing science, education, and technology.

**HON 225 Empires and Their Aftermath**  
Looks at the rise and fall of selected empires in world history.

**HON 226 America’s First Families**  
Focuses on five of America’s “First Families”—John and Abigail Adams, Thomas Jefferson, Theodore and Edith Kermit Roosevelt, Franklin and Eleanor Roosevelt, and John and Jackie Kennedy. It explores the political and public roles of these families, and examines how their internal dynamics helped shaped the ideals of the larger society to which each belonged.

**HON 227 Vices and Addictions in American History**  
Explains and analyzes the impact of vices and addictions on American daily life and leisure, disease and treatment, the economy, government policies, and reform crusades. Some of the bad habits and addictions to be considered include tobacco, alcohol, marijuana and cocaine, prescribed drugs, coffee, chocolate, and sports betting.

**HON 228 Democracy in America**  
A look at Alexis de Tocqueville’s famed study, *Democracy in America* (1835), and how Americans have responded since then to challenging social & political realities, e.g., slavery, industrial capitalism, economic depression, and our own time.

**HON 229 10 Days that Changed America**  
Examines ten dramatic days that profoundly changed the direction of American society. Pivotal events are drawn from business, law, politics, popular culture, technology, disease, war, natural disaster, religion, and sport.

**HON 230 Economics of Public Issues**  
Seeks to develop rudimentary economic principles and to use them to analyze an array of public policy issues, such as income inequality, environmental pollution, health care, education, and international trade.

**HON 231 War and Peace after 9/11**  
In exploring the nature of world politics and U.S. foreign policy after 9/11, this course focuses on what the United States must do to maintain its traditional reserves of “hard” and “soft” power in an age of globalization and terrorism.

**HON 232 Great Trials of the Millennium**  
Examines some of the great trials of the West to assess the degree to which the quest for justice was achieved.

**HON 233 Left, Right and Center: The Political Spectrum in America**  
After examining the signal events in U.S. history, the course considers the range of political thought in America today.
HON 234 Economics of Sport
Tools used by the economist will be examined and then applied to topics that include player salaries, the effect teams have on a region, the value of team franchises, the need for competitive balance and the role of sports on college campuses.

HON 235 American Schools—A Nation Still at Risk
Investigates American school reform movements, beginning with the Reagan administration’s report, A Nation Still at Risk.

HON 236 Education and Culture: Russia
The premise of this course is that there is an interlocking relationship between the culture in which education is conducted and the influence of education on that culture. Students will be exposed to the works of great Russian artists, writers, philosophers, scientists, and religious thinkers.

HON 237 Introduction to Latinos in the U.S.
Focuses on race, ethnicity, and cultural variables in Latino literature from the mid-20th century to contemporary writers.

HON 238 The American Presidency
A careful examination of the American presidency and how it has been shaped over time, especially the administration of Barack Obama.

HON 239 Problems in American Modernism
A multidisciplinary investigation of the problems and possibilities of American culture from 1900 to September 11, 2001. Employs a rich variety of texts from literature, architecture, art, history, sociology and film to analyze American responses to urbanism, war, economic depression, suburban development and contemporary terrorism.

HON 240 Old Testament: Cultures, Contexts, and Criticism
Explores the texts of the Hebrew Bible and the people who wrote them in light of the cultural and historical setting. To understand these texts, archeological findings and parallel materials from other cultures will be examined.

HON 242 Portraits of Jesus
Examines the various presentations of Jesus of Nazareth that have occurred in varying historical and cultural contexts, including canonical and non-canonical scripture, literature, art, and film.

HON 243 Capitalism in American History
Looks at the capitalist system of the United States that spawned a “market revolution,” which transformed American society from a loose collection of households into an integrated industrial nation.

HON 244 Issues in Comparative Education Policy
Exposes students to historical and current comparative education policy topics such as globalization and the expansion of mass education, political socialization, immigration and schooling, international educational achievement levels, and politics and governance.

HON 245 Educating under the Influence
This course looks at societal issues that have been influenced by the media and impact the American educational system, including how the media affect the development of gender roles, standards of beauty, courtship and relationship norms. Among other topics, we will consider the uses of social networking in education, cyber-bullying, gangs and violence in the schools, and teaching for tolerance.

HON 247 Islam: Religion, History, and Culture
A study of Islamic scriptures, Muslim cultures, social institutions, religious practices, and Muslim and Western writings to better understand Islam and Muslims in the U.S. and throughout the world.

HON 248 Religions of the East
In this class, we will survey some of the major religious traditions of East and South Asia, including Hinduism, Buddhism, Confucianism, and Daoism. Particular attention is placed on historical and contemporary beliefs, practices, texts and cultures, as well as their changes over time.

HON 249 Magic, Science, and Religion
Introduces students to the ways that diverse peoples around the world tap into the realm of the extra-human and why we fail to perform these operations well.

HON 307 New Perspectives on the Civil Rights Movement
An interdisciplinary seminar on the Civil Rights Movement, addressing the forgotten movement in the North, the role of the media, rock & roll music, the Cold War, white southern supporters and klansmen, competing approaches to nonviolence, little-known heroes, women activists, religion, and reinterpretations of Martin Luther King.

HON 320 The Nude in Modern Art: Sex, Spectatorship and Difference
The subject of the nude provides a guide into the history of modernist art, from the mid-19th century in France to post-WWII New York.

HON 321 Through a Lens Darkly: Critical Issues in the History of Photography
Considers the long-standing critical issues surrounding the many discursive spaces that photography occupies in our shared culture.

HON 322 Critical Mess: 20th Century Art and Philosophy
This interdisciplinary course introduces major movements and controversies in the European and American art world of the 20th century and relates them to the theoretical and philosophical underpinnings that motivated and affected artistic production.

HON 323 Opera
Introduces students to opera. Students will develop an understanding of the aesthetics of opera by studying its elements, aspects of the operatic voice, the genre's history and examples of the art form in live and recorded performance. No previous musical knowledge or experience is required.
HON 324 The Symphony 3
Introduces students to the symphony. Students will develop an understanding of the symphonic form from the classical period to the present through a study of major composers and their works. No previous musical knowledge or experience is required.

HON 325 The Art of Change 3
The goal of this interdisciplinary seminar is to interact with contemporary culture on the cutting-edge, to intuit the effect of change occurring around us, and then actively create our own “symbolic interventions” that catalyze change in a specific context. By surveying conventional and unconventional theories of change, and more importantly, “actively” trying to create change through aesthetic expression, students will discover the value of contemporary art in society, and coordinately, their own power to influence change occurring around them.

HON 345 Explorations in the Development of Mathematics 3
Explores famous problems in mathematics to consider the role of culture in changing motivation, concept, and technique of influential mathematicians.

HON 346 Mathematical Literature and Literary Mathematics 3
This course addresses writers who use constraints in self-conscious and creative ways to generate experimental literature and explore applications of mathematics to literature. Among other writers, we will investigate the Oulipo, a group founded to join the mathematician’s delirium to the poet’s logic.

HON 350 The Theory of Almost Everything 3
The goal of this course is to develop an understanding of the state of modern, fundamental physics and to gain a conceptual idea about the unification of all physical laws, including gravity, electromagnetism, and nuclear forces. The course is set at a level of the general public, with the bulk of the readings being science popularization.

HON 351 Biotechnology and Society 3
An examination of recent developments in biotechnology and how they have shaped contemporary society.

HON 353 Age of Robotics 3
Introduces students to important and innovative robot creations and explores the future of robotics through fact and fiction. Asks questions about the nature of cognition, and examines non-human intelligence through readings in psychology, computer science, and philosophy of mind. Hands-on experience with robots.

HON 354 Religion and Politics: U.S. Roman Catholic Perspectives 3
Contemporary approaches to Roman Catholic understanding of religion and politics in the United States, with an eye toward evaluating political and legal issues of importance.

HON 355 Religion’s Public Role: A Catholic Perspective 3
Important contemporary social issues, such as poverty, a living wage, globalization, access to health care, and war and peace, will be presented from a Roman Catholic perspective. Materials from papal encyclicals and contemporary Catholic theologians, especially from the United States, will be used to learn about and evaluate these issues.

HON 356 Jesuit Spirituality and History 3
Introduction to the life and work of Ignatius of Loyola and the history of the order he founded—the Society of Jesus (the Jesuits).

HON 357 Global Pentecostalism 3
Through the interdisciplinary lenses of history, theology, anthropology and sociology, this course examines the nature, history and global manifestations of Pentecostalism—“The Third Force in Christianity.”

HON 358 Women, Gender, and Religion 3
A cross-cultural look at the roles that women play and the ways that women have been depicted in various religions.

HON 359 Spiritual Autobiography 3
Considers the characteristics and patterns of spiritual autobiographies, analyzes these texts within the historical, cultural and religious developments of each author’s time period, and evaluates modern spiritual autobiographies for their connections to the students’ own experiences.

HON 372 Contemporary Poetry 3
A study of American poetry from the end of World War II to the present.

HON 375 American Authors and Storytellers 3
Examines the challenges, anxieties, responsibilities, and hopes of American storytellers, authors, and writers. Race, class, and gender will be discussed regularly, since issues of identity are integral to understanding authorship and the dynamics of authority.

HON 376 Literature, Illness, and Disease 3
Surveys the many ways in which health and disease have been defined in Western culture, considering the different power positions occupied by patient, caretaker, and doctor.

HON 377 Plantation Psychosis: The Plantation in World Literature 3
A study of 20th century novels, films, and essays which depict the experience of the plantation. We will discuss the socio-political questions of identity in a (post) colonial world in terms of social role, religious practice, labor relations, and sexuality. We will also discuss how the individual (male/female, white/black) redefines the self in the process of coming to terms with the radically new and different realities that follow the cultural upheaval of the abolition of slavery, and the transformation of the plantation.

HON 378 Magic Realism 3
This course explores the “fantastic” narratives of a recent literary genre called magic realism, which blends magical elements with the real world in order to “render our reality believable.” It will look at its origins in the Caribbean, with its multi-ethnic society and postcolonial, even revolutionary, mentality, to its subsequent worldwide development as a means of communication and protest for oppressed or underrepresented groups, including women, homosexuals, and the poor.
HON 379 Fiction to Film 3
This course studies the relationships between 19th & 20th century literature-in-translation and their subsequent realization in film. It emphasizes the fictional search for faith, love, dignity, and fulfillment of human beings as they confront the vicissitudes of life mostly, but not exclusively, in a Western cultural setting.

HON 451 Thesis 3
Independent research on topic selected by student, culminating in a research paper. Students work closely with their faculty advisors.
The Urban Leadership Learning Community (ULLC) (formerly the William McGowan Learning Community)
Co-Directors: E. Roger Stephenson and Christian Blum

The Urban Leadership Learning Community (ULLC) enables the best and brightest students from Greater Buffalo to enroll in a unique educational opportunity at Canisius. The ULLC offers students a four-year program to help create the next generation of leaders in Buffalo and Western New York from a population that historically has been denied positions of influence or power in Buffalo. The program provides its students with partial and full scholarships to cover tuition, room and board and fees. Moreover, through its many activities throughout a student’s undergraduate career, the program fosters academic excellence, extra-curricular involvement and service to others, all through collaboration. ULLC students consider each other “family” who cooperate rather than compete with each other.

The ULLC enrolled its first class in Fall 2000 and experiences an impressive 79 percent four-year graduation rate. 105 ULLC students have graduated since 2004, and currently there are 41 ULLC students pursuing undergraduate degrees in a wide-range of majors. Graduates have gone on to graduate programs and professions in education, medicine, business and social work or are employed in a variety of occupations.

ULLC students take a number of “Team Learning” courses, non-lecture courses in a range of disciplines. The TL courses are writing intensive and emphasize a number of “levels of engagement” with course materials to promote “mastery” through teamwork. The leadership activities that ULLC students participate in are many and varied and include: a Leadership Workshop Series, four workshops that investigate and apply leadership concepts to the demands of careers and good citizenship; a Summer Leadership Training Program for incoming freshmen, two weeks of intensive preparation for the demands of college life; the ULLC Council, class representatives to plan and promote program activities, such as the Annual Banquet, the Senior Reception, the Parent Reception and the Program Newsletter. All ULLC students participate in one or more internships either related or ancillary to their career plans. In addition, ULLC students travel to the Shakespeare Festival in Stratford, Ontario, annually; they hold offices in a wide range of campus activities; many of them study a semester abroad; and many participate in the Winter Service Week and Alternate Spring Break opportunities offered by the Office of Campus Ministry.

For further information, please contact:
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Center for Professional Development

Steffanie Cattarin, Executive Director; Amy Diati, Conference Manager.

The Center for Professional Development at Canisius College is dedicated to providing lifelong professional education, developing workforce talent and promoting education in our community. As a part of Canisius College’s ongoing commitment to excellence and service to others, the Center for Professional Development provides a transformative experience which helps clients strengthen their abilities that result in a higher level of personal performance, a competitive edge, and increased career opportunities and choices—ultimately improving the landscape of our community.

What we do:
We offer customized answers that address whatever the specific opportunity or challenge requires. Our solutions vary and have included the facilitation of strategic plans, implementation of cost saving process improvements, tailored leadership development and personalized executive and leadership coaching.

How we do it:
Our experts will work with each client to:
• Determine the most impactful solution.
• Align on the desired goals and objectives.
• Collaborate on the process and required actions.
• Execute the plan.
• Follow up to ensure we are meeting our desired outcomes.
Our success is your success – we are full partners in your progress.

What to expect:
• Performance improvements - that make a difference with your people, process, and overall company results.
• Commitment – we ensure that our mutual goals are achieved.
• Flexibility – we tailor our solutions to your needs.
• Integrity – our standards and values are our first priority. We act with complete respect and confidentiality.
• Long-term relationship – once a project is completed, it does not end there. Our goal is to create and maintain a long term, trusted relationship with our clients.

To discuss how our custom solutions can benefit your organization, contact the Center for Professional at 716-888-8490 or email cpdinfo@canisius.edu
Women’s Business Center

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Melinda Rath Sanderson, Executive Director; Blake M. Carbone, Project Coordinator; Amy Rath, WIN Coordinator

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The Women’s Business Center, located in Demerly Hall at the corner of Main and Leroy, was established to support the success of entrepreneurs and small business owners with a focus on, but not limited to, women in Erie County and surrounding areas including Buffalo, Rochester, Jamestown and Niagara Falls. The WBC provides services in five areas of small business development: training, counseling, coaching, networking and The Forum Series. Networking serves as a major component of all programs to ensure that every participant has made appropriate connections with business and community resources.

Training includes academic and non-academic programs. Some topics include New Venture Creation, Going Global and Sales & Marketing Essentials. Additional business workshops include Access to Capital, Certification and Finance and Operations for Small Business.

Small Business Counseling is available every Wednesday from 12 – 1 pm for both start-up and existing businesses. Counseling is provided by SBDC advisors, SCORE representatives and WBC Staff. The center also has computers available to participants with access to all college-subscribed databases.

The Business Coaching program is designed to help existing business owners take their businesses to the next level. The program participants are matched with a coach based on knowledge, skills and abilities and receive one-on-one mentoring, along with bi-monthly small business training. Selection for the program is based on the candidate’s application and interview.

Women in Networking (WIN) is designed for women business owners to network, pass leads, support, motivate and inspire each other. There are 3 WIN groups in the Western New York region, and they meet once a month but have the option to attend other group meetings other than their own. Additional WIN member benefits include creative problem-solving, brainstorming, strategic planning, presentation opportunities and a chance to attend up to 41 events throughout the year. Aside from the monthly group meetings these events include Speed Networking, Open Networking, “Sister Mixers” and an educational/networking component called “Women with Solutions.”

The Forum Series is a confidential peer group program which specifically serves women entrepreneurs and partners who own or have an equity position in an existing business, a professional practice or family business. Forum meetings take place monthly, and each forum will be guided by an experienced facilitator who is specially trained to bring out the most creative thinking and strategic problem solving within each session. Scholarships may be available for those who qualify.

The WBC at Canisius College acts as a bridge between academia and the entrepreneurial business community. All programs are available to undergraduate entrepreneurship majors at a reduced fee or at no charge. Other annual events include a fall conference or forum and networking events.

The Women’s Business Center is funded in part through a Cooperative Agreement with the U.S. Small Business Administration.
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* Bene Merenti – awarded for 20 years of service to Canisius College.  
** Special Bene Merenti – awarded for 40 years of service to Canisius College.
Visitors are cordially welcome at Canisius College. The administrative offices are open Monday through Friday, 8:30 a.m. until 5:00 p.m., 4:30 p.m. in summer (except on legal holidays). Members of the college staff are available for interviews at other times by appointments arranged in advance.

The main switchboard number of the college is (716) 883-7000.